

**FACTORS INFLUENCING ENVIRONMENTAL  
MANAGEMENT ACCOUNTING ADOPTION  
IN OIL AND MANUFACTURING FIRMS  
IN LIBYA**

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ACCOUNTING ADOPTION IN OIL AND MANUFACTURING  
FIRMS IN LIBYA**

**By**

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**Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
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## ABSTRACT

This study was conducted to examine the factors that influenced Environmental Management Accounting (EMA) adoption. Specifically, it investigated the influence of the dominant factors in the organizational, environmental and technological contexts on firms' intentions to adopt EMA. To achieve this objective, eight hypotheses were formulated, with information from previous research and the TOE framework, the TAM model, the contingency theory, the institutional theory, the legitimacy theory, the stakeholder theory and diffusion of the innovation theory. In order to examine these hypotheses, data were collected from financial directors and environmental managers in the oil and the manufacturing firms in Libya, who constituted the sample of this research, by using a researcher-administered questionnaire. A total of 202 usable questionnaires were collected and the data were subjected to tests of variances, factor analysis, correlations and multiple regression. The results revealed that age, education level and tenure in position were among the influential factors on firms' intention to adopt EMA. The results also showed that Libyan firms in the selected industries were dominated by defender strategy and hierarchy culture, which favoured a centralized management style. However, these practices had a negative influence on firms' intention to adopt EMA. Furthermore, the results also revealed that organizational, environmental and technological variables significantly influenced firms' intention to adopt EMA. This study has made useful contributions to current knowledge by providing more explanations on EMA adoption in an unexplored context, and providing further insights into factors that facilitate and impede the adoption of EMA practices. The present study has also filled the gap in the EMA literature by developing a theoretical framework to assess the relationships between the factors within the organizational, environmental, and technological contexts and the intention to adopt EMA. To conclude, this study has provided important insights into the factors that influence the acceptance and adoption of EMA in general, and specifically in Libya. More importantly, this study has opened up possibilities for further research into EMA adoption in Libya and other developing countries, and worldwide.

**Keywords:** Environmental Management Accounting, Adoption, Environmental costs, Environmental impacts, Libya, Oil and Manufacturing Sectors.

## ABSTRAK

Kajian ini dijalankan untuk mengkaji faktor-faktor yang mempengaruhi penggunaan Perakaunan Pengurusan Alam Sekitar atau *Environmental Management Accounting* (EMA). Secara khususnya, ia mengkaji pengaruh faktor-faktor dominan dalam konteks organisasi, alam sekitar dan teknologi ke atas hasrat firma-firma untuk menggunakan EMA. Bagi mencapai objektif ini, lapan hipotesis telah dirumuskan dengan mengguna pakai maklumat daripada penyelidikan sebelumnya dan kerangka kerja TOE, model TAM, teori kontingensi, teori institusi, teori kesahihan, teori pihak berkepentingan dan teori penyebaran inovasi. Untuk mengkaji semua hipotesis ini, data telah dikumpulkan daripada pengarah-pengarah kewangan dan pengurus-pengurus alam sekitar di firma-firma minyak dan pengilangan di Libya dengan menggunakan kaedah soal-selidik yang dikendalikan oleh pengkaji. Sebanyak 202 soal-selidik telah dikumpulkan dan data diambil daripada ujian-ujian varian, analisis faktor, korelasi dan regresi pelbagai. Hasilnya telah menunjukkan bahawa faktor umur, tahap pendidikan dan tempoh dalam jawatan menjadi antara faktor-faktor penting ke atas hasrat firma menggunakan EMA. Keputusan menunjukkan bahawa firma-firma di Libya dalam industri-industri terpilih didominasi oleh strategi pertahanan dan budaya hierarki yang memihak kepada stail atau gaya pentadbiran berpusat. Namun demikian, amalan-amalan ini meninggalkan pengaruh yang negatif terhadap hasrat firma untuk menggunakan EMA. Tambahan pula, keputusan juga menunjukkan bahawa pembolehubah-pembolehubah organisasi, alam sekitar dan teknologi mempengaruhi hasrat firma menggunakan EMA dengan ketara sekali. Kajian ini telah membuat sumbangan yang berguna kepada pengetahuan semasa dengan memberikan lebih banyak penjelasan tentang penggunaan EMA dalam satu konteks yang belum diterokai. Serta memberikan satu perspektif yang lebih terperinci ke atas faktor-faktor yang membantu dan menghalang penggunaan amalan-amalan EMA. Kajian semasa juga telah merapatkan jurang dalam literatur EMA dengan membangunkan satu kerangka kerja teoretikal untuk menilai hubungan di antara faktor-faktor dalam konteks organisasi, alam sekitar dan teknologi serta hasrat untuk menggunakan EMA. Kesimpulannya, kajian ini telah memberikan dapatan penting tentang faktor-faktor yang mempengaruhi penerimaan dan penggunaan EMA secara umum, dan penggunaannya di Libya khasnya. Kajian ini telah membuka ruang yang lebih luas untuk kajian lebih lanjut tentang penggunaan EMA di Libya dan negara-negara membangun yang lain di seluruh dunia.

Kata Kunci: Penggunaan Perakaunan Pengurusan Alam Sekitar, Kos alam sekitar, Impak alam sekitar, Libya, Sektor Minyak dan Pengilangan.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This chapter provides the outline of this study. It describes the research background, states the problem, presents the research questions, lists the research objectives, highlights the significance of the study, defines the scope of the study, and shows the research structure of this study.

### **1.2 Background of the Study**

Firms nowadays are striving to make more effective and efficient, and utilizing as many resources as they can to ensure sustainability and growth in the modern market environment. This requires from the firms to extend their efforts and interests to include environmental aspects for the purpose of reducing environmental impacts and improving environmental performance.

There are several environmental practices that include technical and organizational activities such as Environmental Management Accounting (EMA) which can provide to firms the needed information for the purpose of reducing their environmental impacts, improving their both economic and environmental performance, and achieving the sustainability (IFAC, 2005; Jasch, 2006a, 2006b; Sendroiu, *et al.*, 2006).

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