

# Data Management

## Issues, Challenges and Opportunities

Mira Kartiwi  
Akram M. Zeki



IIUM PRESS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

# **DATA MANAGEMENT: ISSUES, CHALLENGES AND OPPORTUNITIES**

---

## **Editors**

Mira Kartiwi  
Akram M. Zeki



**IIUM Press**

**DATA MANAGEMENT: ISSUES, CHALLENGES AND  
OPPORTUNITIES**

Published by:  
IIUM Press  
International Islamic University Malaysia

First Edition, 2011  
©IIUM Press, IIUM

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without any prior written permission of the publisher.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Bibliography p.  
Includes Index

ISBN

ISBN: 978-967-418-084-3

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM  
(Malaysian Scholarly Publishing Council)

Printed by:  
**IIUM PRINTING SDN. BHD.**  
No. 1, Jalan Industri Batu Caves 1/3  
Taman Perindustrian Batu Caves  
Batu Caves Centre Point  
68100 Batu Caves  
Selangor Darul Ehsan

## TABLE OF CONTENT

---

|  |    |
|--|----|
| 1. DATA QUALITY ASSESSMENT ON INTERNAL SYSTEM IN XYZ<br>DIVISION OF TELECOMMUNICATION COMPANY: A CASE STUDY IN<br>INDONESIA<br>Muharman and Mira Kartiwi .....   | 1  |
| 2. DATA MANAGEMENT ISSUES: A CASE STUDY OF IIUM DIGITAL<br>LIBRARY<br>Alfi Khairiansyah Machfud, Jawdat Ahmad Khatib, Khodashev<br>Aslanbeck and Mira Kartiwi.....                                     | 15 |
| 3. DATA MANAGEMENT CHALLENGES IN BANKING INDUSTRY:<br>BUSINESS PERSPECTIVE<br>Adebiyi Lookman Ademola and Mira Kartiwi.....  | 29 |
| 4. DATA MANAGEMENT IN HIGHER EDUCATION, THE CHALLENGES<br>AND THE SOLUTIONS: RECOMMENDATION AND TOOLS<br>Johara Ghazali and Mira Kartiwi.....  | 35 |
| 5. DATA QUALITY MATURITY IN INFORMATION TECHNOLOGY<br>DIVISION (ITD): AN EDUCATION ORGANIZATION<br>Muhammad Rabiul Hasan and Mira Kartiwi.....   | 43 |
| 6. DATA STEWARDSHIP: A CASE STUDY OF CENTRE OF LANGUAGE<br>AND PRE-UNIVERSITY ACÀDEMIC DEVELOPMENT (CELPAD)<br>Ismail Mahmud, Kairo, Johara Ghazali, Rifhan bt. Abdul Ghafir and<br>Mira Kartiwi ..... | 57 |
| 7. THE CHALLENGES OF DATA MIGRATION CASE STUDY OF<br>UNIVERSITY PUTRA MALAYSIA (UPM)<br>Hanan Abdullah A. Fatani, Ikhlas Fuad Zanzami, Nuha Abdullah H. Zammarah<br>and Mira Kartiwi.....              | 69 |

|  |     |
|--|-----|
| 16. DATA MANAGEMENT CHALLENGES IN RETAIL INDUSTRY<br>Fauzan Alfariti and Mira Kartiwi .....  | 151 |
| 17. TROPICAL CROPS PLANTING RECOMMENDATION SYSTEM<br>Siti Safura Yasmin Sahibin and Akram M. Zeki .....  | 157 |
| 18. EMPLOYING MACHINE LEARNING ALGORITHMS TO EXTRACT<br>ISLAMIC KNOWLEDGE<br>Kawther A. Aldhlan, Ahmed M. Zeki and Akram M. Zeki .....                                 | 161 |
| 19. A WEB DATA MANAGEMENT APPLICATION FOR EDUCATION<br>SECTOR: A KICT ONLINE REGISTRATION SYSTEMS FOR FINAL YEAR<br>PROJECT<br>Muhamet Abdullahu and Mira Kartiwi..... | 169 |
| 20. LOGISTIC DATABASE SYSTEM<br>Akram M. Zeki and Wan Zarith Nadia bt. Wan Zahari .....  | 177 |
| 21. DATA OWNERSHIP CHALLENGES IN DISASTER MANAGEMENT<br>Mira Kartiwi, Rasheed Muhammed and Muna A. Ali.....  | 185 |

# **1. DATA QUALITY ASSESSMENT ON INTERNAL SYSTEM IN XYZ DIVISION OF TELECOMMUNICATION COMPANY: A CASE STUDY IN INDONESIA**

---

Muharman Lubis and Mira Kartiwi

## **ABSTRACT**

There are many challenges that big company faced. One of the challenges that faced by large enterprises is regard data quality issue. In this study, we will investigate the issues focus on data quality issues through assessment methodology connected to the business process. Our objective to measure the data quality based on accuracy and consistency, then propose the solutions for data improvement. In addition, we narrow down the scope to focus on complementary business process of internal work process of XYZ division from for telecommunication company in Indonesia which manages customer order focused on corporate services involves activation, mutation, delete and customer status as stored in the system.

## **1.1 INTRODUCTION**

The company has several products and services, which offers in the whole Indonesia and also international. The company has many subsidiary companies and also consists of several divisions, center and foundation that spread all over the country. Moreover, it was divided into seven regions; each region serves and provides the products and services in the specific region limited to the authority. One of the local duties from XYZ division is handling issues about IT management by themselves. As a company runs in information technology and telecommunications field, there must be much