

**This page intentionally left blank**

# **Audit Program for Enterprise Resource Planning Systems & Applications**

**(SAP, Oracle People Soft, JD Edwards, Microsoft Dynamics)**

By

Nwabueze Ohia

Editor: Nwabueze Ohia  
Designer: Nwabueze Ohia

Copyright © 2020 Oxley Technologies Inc. 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 the prior written permission of the copyright owner.

Permissions may be sought directly from Oxley Technologies Inc.  
Phone number: +234(0)803 757 4700; email: [info@oxleyconsults.com.ng](mailto:info@oxleyconsults.com.ng).  
Alternatively, you can submit your request online by visiting the Oxley Technologies Inc. website at <http://oxleyconsults.com.ng/contact-us/>, and we will get back to you.

## **Notices**

Knowledge and best practices in the field of information and technology security are constantly evolving. As new risk and vulnerabilities emerge, changes in research methods and broader experiences are required to contain the threats to system and human security. It is therefore expedient for professional practices to rise to the challenges and threats pose by information security risk and vulnerabilities.

Practitioners and researchers in this industry must always rely on strong personal judgment and experience in evaluating and applying information and methods being acquired from this book while also exercising professional due care and caution to ensure their safety and those of others, as well as parties for whom their own professional responsibility.

To the fullest extent of the law, neither the Publisher nor the author(s), contributors, or editors, assume any responsibility for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, procedures, products, instructions, or ideas contained in the material herein.

**Your feedback is invaluable to us**

If you recently bought this book, we would love to hear from you! You can write a review on the online store where you purchased this book) about your last order! If you bought this book from our website at <http://oxleyconsults.com.ng/>, we will appreciate if you leave a review on our website! We will love to hear real client experiences and feedback as part of our continual service improvement process.

Once you have submitted your review, send us an email at [info@oxleyconsults.com.ng](mailto:info@oxleyconsults.com.ng) with the link to your review so we can properly thank you/appreciate your feedback.

## **Booking**

For trainings and capacity building sessions, conferences/seminars and public speaking opportunities as well as consulting engagements on subjects/topics/areas covered in this book or others books by the author, you can contact Nwabueze Ohia directly on phone number +234-8037574700 or email address [nwabueze.ohia@oxleyconsults.com.ng](mailto:nwabueze.ohia@oxleyconsults.com.ng) for further discussions.

For full list of trainings offered by the author, visiting <http://oxleyconsults.com.ng/training/>

## Table of Content

About the Author

Preface by Nwabueze Ohia

**Main Section** Audit program/checklist for Enterprise Resource Planning Systems & Applications (SAP, SAGE, Oracle People Soft, JD Edwards, Microsoft Dynamics ERP)

## About the Author

A Certified Information Systems Auditor (CISA), PECB certified Lead Auditor in ISO 27001 (Information Security Management System), ISO 22301 (Business Continuity Management System), ISO 20000 (IT Service Management System) and Lead Cyber Security Manager (ISO 27032), Nwabueze Ohia is a seasoned Information Assurance and Cyber Security professional/expert with over 14 years working experience in consulting and full-time employment. He has worked in the banking sector in Nigeria as IT Security Auditor and information security practitioner with experience spanning information systems audit and assurance, information/cyber security, technical infrastructure security/assurance, system controls analyst, IT risk analyst, data analyst and consultant. He is an expert in the development of audit work programs, checklists and risk assessment template that conform to Institute of Internal Auditors (IIA) standard, which practitioners has found useful in the discharge of their assurance functions. With his rich knowledge of the financial services sector and underlining security/controls required of systems and IT infrastructure in the sector, his eBooks, educational and professional materials, which are result oriented and tailored towards addressing information security issues have assisted practitioners within Nigeria, Sub-Sahara Africa and beyond in addressing risk in the ever changing and dynamic control environment. Beyond the financial services sector, practitioners in other industries such as insurance, telecommunication, web hosting, Internet service providers, SaaS, cloud service provider, distribution & supply chain management, shipping, oil & gas, etc., have leveraged on materials produced by Nwabueze to excel in their endeavors.

Nwabueze Ohia has written several educational and professional materials in the field of information assurance, information/cyber security and technical infrastructures, which are published on his website (<http://oxleyconsults.com.ng>). In addition, he has four books to his credit, which he self-published on Amazon Kindle Book store as well as other ebook platforms across the globe. His wealth of experience in information assurance and cyber security consulting as well as working in financial service sector are brought to bear on all his published materials/eBooks as an experience professional with practical/hands-on perspective. He holds a Higher National Diploma (HND) in Electrical/Electronics Engineering (Telecommunications) from Federal Polytechnic Nekede Owerri, a Bachelor of Technology (B. Tech) degree in

Information Management Technology (IMT) and recently completed Master of Science Degree (MSc) in Information Management Technology (IMT) from Federal University of Technology Owerri, Imo State. This is in addition to series of professional/technical training courses he has attended in the course of his career, which endorsing him as a subject matter expert in his chosen profession.

Nwabueze Ohia is passionate about giving back to the internet and the knowledgebase of his chosen profession, having greatly been enriched by same, which he has demonstrated through several writeups, articles and professional papers published on his website for other to read and be enriched including guest posting on other professional web platforms. He finds joy and fulfillment in extending helping hands to the needy and the downtrodden of our society. His hobbies are traveling round the world, soccer, lawn tennis and above all, web application development/programming. Born in 1983 to Nigerian parents from the Eastern part of the country, he is happily married with a daughter.



**This page intentionally left blank**

## **Preface**

### **By Nwabueze Ohia**

Enterprise resource planning (ERP) system is fundamentally an integrated business management system used to manage multiple front-office and back-office functions such as inventory, supply chain, purchases, finance & accounts (payables & receivable), human resources, risk management, customer relationship management, production management, sale & marketing, among other functions. Newer ERP have inbuilt enterprise performance management module which can be used to plan, budget, predict and report on the organization's financial and business performance, thereby serving as a single source of truth for the organization. The ERP system integrates multiple business processes and enable the flow of organizational data across the different business process (categorized in modules) such that will enable easy processing of transactions and decision-making process. ERP runs a single database while organizational data are accessed through workflows built into the system.

Given the critically of the enterprise resource planning application as the single source of truth in an organization, the confidentiality, integrity and availability of business data in the system cannot be overemphasized as such, it behooves on IT audit and other assurance practitioners to ensure the security, integrity and availability of the system for business processing at all time. For effective audit of the ERP application, it is important for Information Systems Auditors and other IT Assurance professionals to develop a robust and comprehensive audit program that can be used to validate operational, regulatory and business controls to protect the system from the risk of confidentiality, integrity and availability.

This eBook was put together to close identified knowledge/skill gaps in the auditing and security review of enterprise resource planning (ERP) application by IT Auditors and other Assurance professionals. As an audit program/checklist, the book provides a step by step do-it-yourself guide on how to review the various aspects of the ERP system while outlining test procedures to be performed to assure the adequacy and effectiveness of technical, operational controls in and around the ERP system and the various business/back office functions. This book serves for use in auditing some of the popular ERP applications such as SAP, SAGE, Oracle People Soft, JD Edwards, Microsoft

Dynamics ERP, etc., given similarities in their architecture. The following areas of the ERP system and operational processes were covered.

- Logical access management (user access management)
- Separation of duties (workflow management and maker/checker controls)
- Policies, procedures and guidelines on ERP systems
- Risk and controls issues around ERP applications
- Vendor/third party services and service level agreements.
- Logical access controls.
- Application security.
- Database security.
- Operating system security
- Business continuity & Disaster recovery
- Change and release management
- Backup and restore controls

Intended for organizations desirous of building requirement for the acquisition of its enterprise resource planning applications from ground up. IS/IT auditors, System control & IT risk analyst will find this book very useful for continuous review of their ERP system and ensuring that the system remain secure and relevant for the business function. Below is a sample page of the ERP system audit checklist/program. For full access to the document, you can subscribe to our membership plan or purchase the book by click the Buy Now or Add to Cart button below.

**This page intentionally left blank**