

**THE IMPACT OF IT INFRASTRUCTURE
ON
BUSINESS PERFORMANCE
IN TRADE AND SERVICES ENTERPRISES**

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**MASTER OF BUSINESS ADMINISTRATION
IN
INFORMATION TECHNOLOGY**

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**THE IMPACT OF IT INFRASTRUCTURE
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By

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The Dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Business Administration.

Department of Computer Science & Engineering
University of Moratuwa
December 2007

DECLARATION

“I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university to the best of my knowledge and belief and it does not contain any material previously published, written or orally communicated by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations”

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Supervisor

ABSTRACT

This study attempts to present current utilization of IT infrastructure in the Trade and Services sector enterprises to achieve business objectives and to observe the relationship between IT infrastructure and business performance with the same services sector. After a comprehensive review of relevant literature to find definitions and the characteristics of IT infrastructure available, a sample comprising fifty one-companies was selected in a way to cover four major service sector categories representing Wholesale, retail trade and hotels, Transport and communication, Financial and business services and Education, health, cultural and recreational services. Data from these organizations was collected on the basis of a questionnaire developed for the purpose. Data collected for each of the research constructs was then statistically analyzed through linear regression and Pearson correlation techniques.

The findings strongly indicate a significant impact of IT infrastructure practices in the business performances of these organizations. This outcome confirms the results of earlier findings related to work on IT infrastructure. In instances where the service sector organizations heavily utilize IT infrastructure related practices, such as IT component related practices, Shared IT services related practices, and IT personnel related practices and Shared IT application related practices, it was found that these organizations are able to achieve higher business performance.

It was also observed that above listed sector categories have shown different levels of IT infrastructure practices. The financial services sector and communicational services sector organizations are currently adopting their IT infrastructure practices significantly whereas the Wholesale, retail and hotels sector and Educational, health and recreational services sector are currently utilizing practices at a level below. Hence, a utilization model could be developed to represent the level of IT deployment services sectorially.

Keywords—IT Infrastructure, Business Performance, Practices, IT Utilization

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ABBREVIATIONS

IT	-	Information Technology
GDP	-	Gross Domestic Product
ISIC	-	International Standard Industrial Classifications
ERP	-	Enterprise Resource Planning
CIO	-	Chief Information officer
USA	-	United States of America
WLAN	-	Wireless Local Area Networks
ITIL	-	Information Technology Infrastructure Library
CCTA	-	Central Computer and Telecommunications Agency
UK	-	United Kingdom
OGC	-	Office of Government Commerce, UK
ICT	-	Information and Communication Technology
SLA	-	Service Level Agreement
ISO	-	International Standards Organization
IEC	-	International Electrotechnical Commission
V3	-	Version 3
MOF	-	Microsoft Operations Framework
IOM	-	Infrastructure Optimization Model
BECTA	-	British Educational Communications and Technology Agency
FITS	-	Framework for ICT Technical Support
ROI	-	Return on Investment
EVA	-	Earning Value Analysis
MD	-	Managing Director
SPSS	-	Statistical Package for Social Scientists
WAN	-	Wide Area Network
VOIP	-	Voice over IP
INIFR	-	Main IT Infrastructure practices
STRATPLAN	-	Strategic Planning