University of Pretoria etd – Meyer J A 2003

Information management and technology in public policy making and implementation in South Africa

By

J. A. MEYER

Submitted in partial fulfilment of the requirements
for the degree

Doctor Philosophiae

In the Faculty of Economic and Management Sciences
in the subject

Public Administration

at the

University of Pretoria

PROMOTER:
Prof. Dr. P.A. Brynard

CO-PROMOTER:
Prof. Dr. N.L. Roux

February 2003

University of Pretoria etd – Meyer J A 2003

This thesis is dedicated to my wife, Carin, who not only believed in me, but unfailingly supported and motivated me, throughout the difficult periods and completion of this thesis.

A special word of thanks to my promoter, Prof. Petrus Brynard and co-promoter, Prof. Nico Roux, for the support and belief put, not only in the support of this thesis, but also in the compilation and content thereof.

Heartfelt thanks to the director and staff at the School for Public Management and Administration for their support throughout my study period.

Also a sincere thanks to my friend Peter Goddard, for co-sponsoring the reproduction and binding of this thesis.

Lastly, and definitely not the least, **thanks to my Maker,** for the insight to complete, not only the thesis, but also my studies.

University of Pretoria etd – Meyer J A 2003

SUMMARY

The aim of this thesis is to ascertain what the requirements for the successful implementation of information management and technology, as an integrated solution for policy formulation and implementation in the Republic of South Africa would be. Shortcomings exist in the field of policy formulation in the area of information management. It is also stated that various requirements for the improvement thereof exist. The essence of the thesis is that an improved information management and technology solution is required for all public service departments.

The value of the study is twofold. It addresses the aspect of information management (and the aspect of the required technology) in order to sustain both the transactional and executive needs of an organisation or department in the public sector. The study highlights the aspects of factors influencing management and the decision to implement information management and technology.

In terms of the differentiation between transactional and executive information management needs, the public sector specifically lacks the resources to execute statistical inferences and obtain executive information. From the thesis the implementation of a system whereby executive decision-making as well as transactional activities are possible through the application of existing and available data and the manipulation thereof, is postulated. The study contributes to the field of the public administration in terms of its contribution of the model and the approach to management within the public sector.

The research question being considered is:

What are the requirements for the application of information for executive management purposes and policy formulation and

University of Pretoria etd – Meyer J A 2003

implementation in the public sector, through the use of information technology.

In order to consider this research question one has to consider two dimensions. The two dimensions are the driving forces that are required for the successful implementation of a management concept and the denominators that influence the postulated research question.

The postulated model furthers the solution in terms of what the considerations of a public service department or organisation should be, to successfully implement an information management and technological solution. This model, formulated to be applied generically, will enhance departments' and organisations' capability to successfully identify needs and implement an information management and technology solution for the successful management at both the transactional and executive level of the organisation or department.

This thesis sets out to prove that information management and technology implemented in the public service does not comply with the requirements of the day. It further sets out to prove that if a model for implementation is followed, this implementation and selected solution may be successful. This thesis also identified and by means of a proposed model substantiated and determined the relevance of the driving forces underlying the basic requirements for the successful implementation of a all level management solution in terms of information management and technology in the public sector.

University of Pretoria etd – Meyer J A 2003

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION AND RESEARCH DESIGN 6

1.1 General Introduction 6

1.2 Frame of reference 8

1.3 Problem formulation 9

1.4 Hypothesis 16

1.5 Constraints 18

1.6 Research design 19

1.7 Research questionnaire 22

1.8 Methodology for data gathering 26

1.9 Critical aspects for research 27

1.10 Implementation of research findings 30

1.11 Definition of key concepts 30

1.12 Structure of thesis 41

1.13 Future studies 42

1.14 Conclusion 43

CHAPTER 2 PRINCIPLES UNDERLYING POLICY FORMULATION AND IMPLEMENTATION 45

2.1 Introduction 45

2.2 Background 46

2.3 Requirements for policy formulation 48

2.4 Information for policy formulation and implementation 66

2.5 Conclusion 67

CHAPTER 3 PRINCIPLES UNDERLYING INFORMATION MANAGEMENT AND TECHNOLOGY POLICY IN SOUTH AFRICA 69

3.1 Introduction 69

3.2 Communication 70

University of Pretoria etd – Meyer J A 2003

3.3 Information application for policy formulation and implementation 71

3.4 Knowledge and policy formulation and implementation 74

3.5 Mobilising for improved policy making and implementation 75

3.6 Public service and information management 76

3.7 Information technology as a solution provider 84

3.8 Applied information technology 85

3.9 Improving policy making and implementation through information management and technology 87

3.10 Information technology, agenda setting and communication 92

3.11 Integration 94

3.12 Electronic information management 95

3.13 Information management and technology in the international environment 96

3.14 Requirements for electronic governance 98

3.15 Information management and technology in the South African environment 99

3.16 Conclusion 105

CHAPTER 4 NATIONAL AND INTERNATIONAL TRENDS ON INFORMATION MANAGEMENT AND TECHNOLOGY 108

4.1 Introduction 108

4.2 Public service and information management: Selected international examples 110

4.3 Public service and management: National trends 118

4.4 Conclusion 142

CHAPTER 5 RESEARCH FINDINGS OF INFORMATION MANAGEMENT AND TECHNOLOGY IN RELATION TO THE DRIVING FORCES AND DENOMINATORS 146

5.1 Introduction 146

5.2 Background to the research findings 146

5.3 Research findings 151

5.4 Conclusion 203

University of Pretoria etd – Meyer J A 2003

CHAPTER 6 THE RESEARCH FINDINGS AND MODEL FOR IMPLEMENTATION. 205

6.1 Introduction 205

6.2 Research synthesis 206

6.3 Research applicability 209

6.4 Proposed information management and technology model 222

6.5 Conclusions 235

CHAPTER 7 INFORMATION MANAGEMENT AND TECHNOLOGY IN THE PUBLIC POLICY MAKING AND IMPLEMENTATION IN SOUTH AFRICA: CONCLUSIONS AND RECOMMENDATIONS 239

7.1 Introduction 239

7.2 Reason for and background to the thesis 240

7.3 Expected outcomes of the thesis 241

7.4 Approach followed to achieve the outcomes 243

7.5 Validation and deductions 247

7.6 Value assessment of information management and technology 252

7.7 Recommendations 255

7.8 Conclusions 256

LIST OF SOURCES 258

Acts 258

Books and articles 258

Dictionaries 267

Unpublished Sources 267

Interviews Conducted 268

Uniform Resource Locator References 271

APPENDIX A QUESTIONNAIRE A-1