ACCOUNTING INFORMATION ON FLEXIBILITY

by

CAROLINA KOORNHOF

submitted in fulfilment of the requirements for the degree

DOCTOR COMMERCII (ACCOUNTING SCIENCES)

in the

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

at the

UNIVERSITY OF PRETORIA

PRETORIA OCTOBER 1998

ii

University of Pretoria.etd

Acknowledgements

I would like to thank and acknowledge the contribution of each of the following

persons in the completion of this thesis:

Prof. Daan Gouws who acted as my promoter for his guidance, enthusiasm, creative

input, constructive criticism and above all, his positive attitude.

Prof. Jacobus van Zyl-Smit who acted as my co-promoter for his valuable input and

ideas in approaching an elusive concept.

Ms Louise Oberholster who dedicated many hours to typing and correction.

Ms Marielienne Janeke for the linguistic editing.

My parents for a life time of motivation, understanding and support and for her proof

reading of the final product, a special thanks to my mother.

My husband and two daughters for their patience, moral support and love.

Carolina Koornhof

October 1998

Abstract

Recent research has shown that flexibility is an essential characteristic of successful enterprises in a highly competitive and rapidly changing business environment. Management and accountants should not only understand flexibility but also be able to create flexible organisations and measure the flexibility levels and mixes. Flexibility is however a nebulous, elusive and multidimensional concept which is poorly understood and seldom measured and monitored in organisations.

The aim of this research is to define the construct flexibility, to demarcate its borders and to propose a framework which explains its multiple attributes in organisations. The framework is then used as a basis to develop flexibility measures and indicators for management and accountants to identify current levels of flexibility, determine flexibility targets, monitor progress in meeting targets and signal direction. It is suggested that the accounting information system can be used as the means of recognising, measuring and communicating information on flexibility to stakeholders of organisations. The introduction of information on flexibility into Accounting may also serve to address some of the criticism levelled at accounting discipline. This may result in Accounting becoming more flexible and able to adapt to the changing demands of a competitive business environment.

Opsomming

Onlangse navorsing dui daarop dat buigsaamheid 'n noodsaaklike eienskap van suksesvolle ondernemings in 'n hoogs mededingende en vinnig veranderende sakewêreld is. Bestuur en rekenmeesters moet derhalwe nie net buigsaamheid verstaan nie, maar ook buigsame ondernemings kan skep en buigsaamheidsvlakke en -kombinasies kan meet. Buigsaamheid is egter 'n vae, moeilike omskryfbare en veeldimensionele konsep wat swak verstaan word en selde in ondernemings gemeet word.

Die doel van hierdie navorsing is om die konstruk buigsaamheid te definieer, die grense daarvan te identifiseer, en 'n raamwerk daar te stel wat die veelvuldige eienskappe van buigsaamheid in ondernemings verklaar. Die raamwerk word dan gebruik as 'n basis vir die ontwikkeling van buigsaamheidsmaatstawwe en aanduiders wat bestuur en rekenmeesters kan gebruik om huidige vlakke van buigsaamheid te identifiseer, buigsaamheidsdoelwitte daar te stel, vordering in die bereiking van hierdie doelwitte te monitor en rigting aan te dui. Daar word voorgestel dat die rekeningkundige inligtingstelsel gebruik kan word as die middel vir die erkenning, meting en kommunikasie van inligting oor buigsaamheid aan belangegroepe in ondernemings. Die bekendstelling van inligting oor buigsaamheid in Rekeningkunde mag ook bydra om sommige van die kritiek teenoor die rekeningkundige dissipline aan te spreek. Dit kan daartoe lei dat Rekeningkunde meer buigsaam word en dus beter in staat is om by die veranderde eise van 'n mededingende sakewêreld aan te pas.

Contents

		Page
Ack	nowledgements	ii
Abstract		iii
Ops	somming	iii
List	of figures	Х
List	of abbreviations	xii
List	of definitions	xiii
Cha	pter 1	
Intro	oduction	1
1.1	Overview of research area	1
1.2	Problem area and purpose of research	5
1.3	Scope and structure of research	9
1.4	Methodology and research method	14
Cha	pter 2	
Acc	ounting and accounting information	24
2.1	Introduction	24
2.2	The nature of Accounting	24
2.3	Financial Accounting and Management Accounting	30
2.4	The purpose of accounting information	33
2.5	Characteristics of decision-useful information	39
2.6	The needs of users	43
2.7	Summary	48
Cha	pter 3	
A ch	nanging environment	49
3.1	Introduction	49
3.2	The nature of change	50
3.3	Phases in handling change	56
3.4	Resistance to change	60

3.5	The cl	University of Pretoria.etd hanging business environment	63	
3.6	Summ	nary	67	
Cha	oter 4			
Man	aging b	usinesses in a changing environment	68	
4.1	Introd	uction	68	
4.2	A shift in managerial approach			
4.3	Types	72		
4.4	Presc	Prescriptions for business change		
	4.4.1	Quality	77	
	4.4.2	Innovation and technology	79	
	4.4.3	Product design	82	
	4.4.4	Manufacturing	84	
	4.4.5	Employee involvement and empowerment	86	
	4.4.6	Global competition and customer orientation	88	
	4.4.7	Management style and leadership	90	
	4.4.8	Vision and strategy	92	
	4.4.9	Flexible organisational structure	94	
4.5	Summ	nary	95	
Cha	oter 5			
Acc	ounting	in a changing environment	98	
5.1	Introd	uction	98	
5.2	The impact of a changing environment		99	
5.3	The cl	The challenges confronting Accounting		
	5.3.1	Globalisation	106	
	5.3.2	A customer-oriented perspective	107	
	5.3.3	Information Technology	108	
	5.3.4	A shift in business types	109	
	5.3.5	A shift in cost profiles	110	
	5.3.6	A strategic decision-making focus	111	
	5.3.7	Survival as a key objective	113	
	5.3.8	Non-financial indicators	114	

	5.3.9	University of Pretoria.etd Selection of data	115
	5.3.10	Information processing	116
	5.3.11	Dissemination of information	117
	5.3.12	Behavioural impact	118
	5.3.13	Short-term perspective	120
	5.3.14	Accounting as a control mechanism	121
	5.3.15	The role of standardisation	122
	5.3.16	Underlying assumptions of traditional Accounting	123
5.4	Constr	aints	124
5.5	Summa	ary	127
Cha	oter 6		
The	construc	ct of flexibility	128
6.1	Introdu	128	
6.2	Role of flexibility		129
6.3	Definiti	Definition of flexibility	
	6.3.1	Financing structure	132
	6.3.2	Balancing of cash flows	132
	6.3.3	Human perspective	133
	6.3.4	Customer satisfaction	134
	6.3.5	Operating perspective	135
	6.3.6	Other perspectives	135
	6.3.7	Proposed definition	137
6.4	Relatio	141	
	6.4.1	Change	141
	6.4.2	Survival	142
	6.4.3	Management responsibility and choice	143
	6.4.4	Organisational conditions	145
	6.4.5	Competitive advantage	146
	6.4.6	Risk and return	147
	6.4.7	Strategy	148
	6.4.8	Resource allocation	149
	6.4.9	Innovation	151

6.5	University of Pretoria.etd A classification framework for flexibility			151
	6.5.1	Literature	survey	152
	6.5.2	Proposed	classification framework	157
		6.5.2.1	Production flexibility	160
		6.5.2.2	Marketing flexibility	164
		6.5.2.3	Financial flexibility	167
		6.5.2.4	Informational flexibility	172
		6.5.2.5	Geographical flexibility	176
		6.5.2.6	Human, cultural and organisational flexibility	178
6.6	Develo	ping a flexil	ole organisation	182
6.7	The im	pact of flexi	bility on Accounting	190
6.8	Summ	ary		191
Chap	oter 7			
Acco	ounting	information	on flexibility	193
7.1	Introdu	uction		193
7.2	Measu	rement and	communication	196
7.3	Measu	ring and rep	porting information on flexibility	206
	7.3.1	Production	on flexibility	209
	7.3.2	Marketing	g flexibility	215
	7.3.3	Financial	flexibility	221
	7.3.4	Informati	onal flexibility	227
	7.3.5	Geograp	hical flexibility	230
	7.3.6	Human, d	cultural and organisational flexibility	234
7.4	Proced	Procedures for measuring and reporting on flexibility		238
7.5	Illustra	tive example	e	242
7.6	Summ	ary		245
Chap	oter 8			
Cont	ribution	of informa	tion on flexibility to Accounting	247
8.1	Introdu	ıction		247
8.2	The ch	allenges co	nfronting Accounting	248
	8.2.1	Globalisa	ation	249

	8.2.2	University of Pretoria.etd A customer-oriented perspective	251
	8.2.3	Information Technology	252
	8.2.4	A shift in business types	253
	8.2.5	A shift in cost profiles	254
	8.2.6	A strategic decision-making focus	255
	8.2.7	Survival as a key objective	256
	8.2.8	Non-financial indicators	257
	8.2.9	Selection of data	258
	8.2.10	Information processing	259
	8.2.11	Dissemination of information	260
	8.2.12	Behavioural impact	260
	8.2.13	Short-term perspective	261
	8.2.14	Accounting as a control mechanism	262
	8.2.15	The role of standardisation	263
	8.2.16	Underlying assumptions of traditional Accounting	264
8.3	Interim	conclusion	265
Cha _l	oter 9		
Con	clusions		268
9.1	Introduc	ction	268
9.2	Overvie	ew	270
9.3	Conclusions		276
9.4	Contributions of research		279
9.5	Further research		282
9.6	The fut	ure	285
Refe	rences		287

List of figures

		Page
1.1	Development of information on flexibility	6
1.2	A system view of problem solving	10
1.3	The four sociological paradigms	16
1.4	Model of an open system	19
2.1	A hierarchy of accounting qualities	40
3.1	Types of organisational change	52
3.2	Model of perpetual transition management	56
3.3	Model for dealing with open-ended issues	58
3.4	Model for planning/monitoring control in closed/contained situations	59
4.1	Four stages of Management Theory and practice	70
4.2	Assumptions underlying Management Theory	71
4.3	Earthquakes, tremors and aftershocks	75
5.1	Criticisms levelled at Accounting	103
5.2	Challenges confronting Accounting	105
6.1	Distinction between internal and external flexibility	136
6.2	The flexibility chain	139
6.3	Hierarchy of the flexibility objective	153
6.4	Options of flexibility	154
6.5	A strategic framework of flexibility	156
6.6	Illustration of approaches to increasing flexibility	156
6.7	A classification framework for flexibility	159
6.8	Production flexibility	162
6.9	Marketing flexibility	166
6.10	Sources of financial flexibility	170
6.11	Financial flexibility	172
6.12	Informational flexibility	175
6.13	Managerial requirements of dynamic capabilities	179
6.14	Types of flexibility	183
6.15	A typology of alternative flexible forms for coping with	
	hypercompetition	185

6.16	University of Pretoria.etd The implementation process	188
7.1	Development of flexibility indicators	207
7.2	Procedures for developing flexibility measures	240
8.1	Challenges confronting Accounting	249

List of abbreviations

AC Accounting Standard

APB Accounting Principles Board

AICPA American Institute of Certified Public Accountants

AIMR Association for Investment Management and Research

CAD Computer aided design

CAM Computer aided manufacturing

CICA Canadian Institute of Chartered Accountants

CIMA Chartered Institute of Management Accountants

DCF Discounted cash flow

DM Discussion Memorandum

DP Discussion Paper
ED Exposure Draft

EEC European Economic Community
FAR Flexibility Audit and Redesign

FASB Financial Accounting Standards Board

FMS Flexible manufacturing systems

GAAP Generally Accepted Accounting Practice

IAS International Accounting Standard

IASC International Accounting Standards Committee

IFAC International Federation of Accountants

ICAEW Institute of Chartered Accountants of England and Wales

ICAS Institute of Chartered Accountants of Scotland

JIT Just in Time

MNE Multinational Enterprises

MIS Management information systems

R&D Research and Development

ROI Return on Investment

SAICA South African Institute of Chartered Accountants

SBU Strategic Business Unit

SEC Securities and Exchange Commission

SFAC Statement of Financial Accounting Concepts
SFAS Statement of Financial Accounting Standards

List of definitions

Accounting refers to the accounting discipline, theory and practice, the accounting information system and the profession. It includes both Financial Accounting and Management Accounting.

Corporate reports refer to financial reports drafted for external and internal users within the organisation.

Financial reports refer to the financial statements and other reports such as the directors' report, the chairman's report, the employee report, social report and value added statement, drafted for external users.

Financial statements refer to the balance sheet, income statement, cash flow statement and notes to the financial statements.

Flexibility is the process of being aware, responsive, willing and able to take action to reposition the resources and functions of the organisation in a manner consistent with the evolving vision, strategies and goals of management as they respond proactively or reactively to new information on foreseen and unforeseen change in the organisation and its environment.

Indicators refer to financial and non-financial measures which are measured in figures. It thus excludes qualitative information.

Measurement refers to the allocation of figures or values to attributes used in an accounting context. It includes both financial and non-financial measurements.

Measures are used in a broad context to include ratios, indicators, targets and qualitative descriptions.