

The nature and influence of management on the performance of the Ethiopian public agricultural extension service, with special reference to Oromia Region

by

KEDIR BATI JIBBA

Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Agricultural Extension

In the Department of Agricultural Economics, Extension and Rural Development

Faculty of Natural and Agricultural Sciences
University of Pretoria

Pretoria

Promoter: Professor G.H. Düvel

November 2009



DECLARATION OF ORIGINALITY

I, Kedir Bati Jibba, declare that the thesis/ dissertation, which I hereby submit for the degree PhD in Agricultural Extension at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

SIGNATURE:	 • • • •	 	 •••	••	 	 	 	٠.	••
DATE:									



ACKNOWLEDGEMENTS

In the course of completing this extraordinary academic programme, I have received valuable assistance from various persons and organizations. It is therefore appropriate for me to express my deep-seated gratitude to them all. I am indebted to Haramaya University, my employer institution, for funding my PhD study and granting me leave. I am also grateful to the Sasakawa Africa Association and the Sasakawa Global 2000 Ethiopia for their assistance during data collection, in terms of fuel and vehicle support.

In particular, I would like to thank Professor G.H. Düvel, my Director of Studies, for his continued guidance, constructive criticism, critical thinking, support and assistance throughout my research. He probably does not realize how much he has transformed my thinking and writing skills. This experience might never have been possible without his invaluable mentorship and tutelage.

My sincere thanks go to Professor Johann Kirsten, Head, Department of Agricultural Economics, Extension and Rural Development for hosting and supporting me during my stay at University of Pretoria.

I also wish to specially convey my heartfelt appreciation to extension staff in the Oromia Bureau of Agriculture and Rural Development Headquarters office, zone and district.

I am highly indebted to my colleagues: Mr. Ali Mimi Jibba (USA), Mr. Aman Boru Hamado (Norway), Mr. Amano Bulo Dube (USA), Mr. Bulo Bento Qulu (USA), Mr. Guta Alo Gerbicha (South Africa), Dr. Hussien Hamda Komicha (Addis Ababa University) and Mr. Jemal Guto Feto (South Africa) for their support when I was financially stressed as I approached the end of the study.

Finally, I want to acknowledge the love and contributions of my wife and children. My wife, Rahma Johar Ali, was very supportive and has helped me grow emotionally during our time together in Pretoria. She took the thesis write up a step forward with her work on creation of the map of the study area, reshaping of the tables, partly typing of the text and proof reading, which are a significant contribution to the write up process. My sons, Mohammed and Miraj Kedir, and daughter, Hanan Kedir, who somehow managed to make working on this thesis possible while they took the back seat.

Above all, thanks to the Almighty Allah for giving me the health, strength and wisdom to complete this thesis.



DEDICATION

This effort is dedicated to my dad, Bati Jibba Bedhaso, and mom, Subbo Qalu Abdi, who brought me up to this level and who always believed in me in a very proud manner.



TABLE OF CONTENTS

DE	CLARATION OF ORIGINALITY	Page II
AC]	KNOWLEDGEMENTS	III
	DICATION	
	BLE OF CONTENTS	
	ST OF TABLES	
LIS	ST OF FIGURES	xviii
ABS	STRACT	XIX
ABl	BREVIATIONS AND SYMBOLS	XX
CH	APTER 1 INTRODUCTION	1
1.1	BACKGROUND TO THE STUDY	1
1.2	HISTORICAL OVERVIEW OF THE PUBLIC E	EXTENSION
	ORGANIZATION IN ETHIOPIA	2
1.2.1	1 The Imperial Era (Pre 1974)	2
1.2.2	2 Era of the Marxist Regime (1974 – 1991)	7
1.2.3	3 The Post 1991 Era of decentralization	8
1.3	STATEMENT OF THE PROBLEM	10
1.4	RESEARCH OBJECTIVES AND QUESTIONS	13
1.5	SIGNIFICANCE OF THE STUDY	13
1.6	THESIS OVERVIEW	14
CH	APTER 2 LITERATURE REVIEW	15
2.1	INTRODUCTION	15
2.2	THE SCHOOLS APPROACH TO MANAGEMENT THOUGHT	17
2.2.1	1 Scientific Management School (1885 - 1920)	17
2.2.2	2 Administrative Management School (1920 - 1950)	19
2.2.3	3 Human Relations School (1930 – 1950)	22
2.2.4	4 Behavioural Science School (1950 - present)	25
2.2.5	5 Quantitative or Management Science School (1950 - present)	26
2.2.6	6 The Japanese Management School (1970 – present)	27

2.3	THE PROCESSES APPROACH	. 29
2.3.1	Planning	. 32
2.3.2	Organizing	. 32
2.3.3	Human Resource management	. 33
2.3.4	Leading and influencing	. 33
2.3.4	Controlling	. 34
2.4	THE SYSTEMS APPROACH	. 36
2.5	THE CONTINGENCY APPROACH	. 39
2.6	MODELS FOR MEASURING ORGANIZATIONAL OR MANAGERI	AL
	EFFECTIVENESS	. 40
2.6.1	Traditional effectiveness approaches	. 42
2.6.1	.1 Goal Approach	42
2.6.1	.2 System Resource Approach	43
2.6.1	.3 Internal Process Approach	44
2.6.2	Contemporary Effectiveness Approaches	. 45
2.6.2	.1 Stakeholder Approach	46
2.6.2	.2 Competing Values Approach	.47
2.6.3	Düvel's Model for Monitoring and Evaluation of Extension Activities	. 49
2.6.3	.1 Need (1 Fig. 2.4)	.52
2.6.3	.2 Perceptions (2 Fig. 2.4)	. 53
2.6.3	.3 Knowledge (3, Fig. 2.4)	54
2.7	CONCEPTUAL MODEL	. 55
CHA	APTER 3 METHODOLOGY	56
3.1	INTRODUCTION	. 56
3.2	THE STUDY AREA	. 56
3.2.1	Jimma zone	. 58
3.2.2	Arsi Zone	. 59
3.2.3	Borena Zone	. 60
3.2.4	East and South West Shewa Zones	.61
3.3	SAMPLING PROCEDURES	. 62
34	INSTRUMENTATION AND ITS ADMINISTRATION	64

3.4.1	Instrumentation	64
3.4.2	Administration	65
3.5	VARIABLES AND THEIR MEASUREMENT	66
3.6	METHODS OF DATA ANALYSIS	69
CHA	APTER 4 SOCIO-ECONOMIC PROFILE	. 70
4.1	INTRODUCTION	70
4.2	MANAGERIAL POSITIONS	70
4.3	GENDER	71
4.4	AGE	73
4.5	MARITAL STATUS	74
4.6	LOCATION	76
4.7	FORMAL EDUCATION	78
4.8	WORK EXPERIENCE	82
4.9	SALARY	84
CHA	APTER 5 ORGANIZATIONAL EFFECTIVENESS	. 86
5.1 II	NTRODUCTION	86
5.2	CURRENT ORGANIZATIONAL EFFICIENCY	86
5.2.1	Operating efficiency	86
5.2.2	Process efficiency	88
5.2.3	Organizational health efficiency	89
5.3	DETERMINANTS OF ORGANIZATIONAL EFFICIENCY	91
5.3.1	Personal characteristics	91
5.3.2	Organizational (internal) factors	94
5.3.3	Environmental (external) factors	96
CHA	APTER 6 STRATEGIC PLANNING IN EXTENSION	101
6.1	INTRODUCTION	101
6.2	EXTENSION MISSION	102
6.2.1	The focus of extension programmes	102
6.2.2	The concept of extension education	104
6.3	THE OPERATING ENVIRONMENT OF EXTENSION	108
6.3.1	Internal environment: resource strengths and weaknesses	. 108

6.3.2	The organization's external environment	111
6.4	PRIORITIES	115
6.4.1	Clients' focus	115
6.4.2	Extension program focus	118
CH	APTER 7 OPERATIONAL PLANNING IN EXTENSI	ON 123
7.1	INTRODUCTION	123
7.2	GOAL SETTING: TOP-DOWN VERSUS BOTTOM-UP	124
7.3	PRIORITY CONSIDERATION: VOLUNTARY VERSUS	PRIORITY
	(OPTIMUM RETURN) EXTENSION	126
7.4	PROGRAM PLANNING: CENTRALIZATION	VERSUS
	DECENTRALIZATION	128
7.5	EXTENSION SERVICE DELIVERY AND KNOWLEDGE	SUPPORT:
	PRO-ACTIVE VERSUS REACTIVE APPROACHES	130
7.5.1	Extension workers	131
7.5.2	Subject Matter Specialists (SMS)	132
7.6	OWNERSHIP OF EXTENSION PROJECTS	134
CH	APTER 8 ORGANIZING IN EXTENSION MANAGE	MENT136
8.1	INTRODUCTION	136
8.2	SPECIALIZATION	136
8.3	DEPARTMENTALIZATION	142
8.4	SPAN OF MANAGEMENT	144
8.5	CHAIN OF COMMAND	145
8.6	COOPERATION AND COORDINATION	148
8.7	ORGANIZATIONAL CHANGE AND DEVELOPMENT	152
8.7.1	The use of feasibility studies	153
8.7.2	Stakeholders' influence in organisational change	155
8.7.3	Frequency of organizational changes/ restructuring	156
CH	APTER 9 STAFFING AND HUMAN RESOURCE	
	MANAGEMENT	158
9 1	INTRODUCTION	158

9.2 SELECTING, AND HIRING EMPLOYEES	158
9.3 TRAINING AND DEVELOPMENT	160
9.4 MANPOWER APPRAISAL	162
9.5 REWARD SYSTEM	164
CHAPTER 10 LEADERSHIP AND INFLUENCE	167
10.1 INTRODUCTION	167
10.2 CURRENT EFFICIENCY	168
10.3 LEADERSHIP BEHAVIOUR	170
10.3.1 Task-Oriented and People-Oriented Leadership style	171
10.3.2 Participative Leadership	174
10.3.3 VISIONARY LEADERSHIP	175
CHAPTER 11 MANAGEMENT CONTROL	179
11.1 INTRODUCTION	179
11.2 INDICATORS OF PERFORMANCE	179
11.2.1 Current application status	180
11.2.2 Influence of the use of indicators of performance	ce on organizational
efficiency	183
11.2.3 Factors influencing the use of performance indicators of	control 184
11.2.3.1 Influence of personal demographic and socio-econo-	mic characteristics
on the use of performance indicators of control	
11.2.3.2 Influence of organizational resources strength	on the use of
performance indicators of control	
11.2.3.3 Influence of the external environmental factors	on the use of
performance indicators of control	187
11.3 PERFORMANCE MEASUREMENT	189
11.3.1 Immediate managers' support and control over subordina	ates190
11.3.2 Monitoring and Evaluation of extension activities/ progr	rams191
11.3.3 Purposes of reporting	192



CHAPTER 12 SUMMARY, CONCLUSIONS AND

	RECOMMENDATIONS	194
12.1	INTRODUCTION	194
12.2	SUMMARY AND CONCLUSIONS	195
12.3	RECOMMENDATIONS	210
REI	FERENCES	213
APF	PENDIX A SURVEY QUESTIONNAIRE	225



LIST OF TABLES

Table	Description Page
2.1	Relevance of managerial functions according to various authors31
2.2	Type of stakeholders and their effectiveness criteria (Daft, 2001)46
3.1	The distribution of respondents according to their work location63
3.2	An overview of the selected independent variables, description of their
	measures and their mean distributions
3.3	An overview of dependent variables: definition and description of their
	measures
4.1	Distribution of respondents according to their job position71
4.2	Distributions of respondents by gender
4.3	Percentage distribution of respondents according to gender and job
	position
4.4	Distribution of respondents by age
4.5	Percentage distribution of respondents according to age and according to
	managerial position and gender74
4.6	Distribution of respondents by marital status
4.7	Percentage distribution of respondents according to their marital status and
	categories of managerial position, gender and age75
4.8	Distribution of respondents according to organizational level of
	employment
4.9	Percentage distribution of respondents in different zones according to
	gender, age, and marital status
4.10	Distribution of respondents by highest level of formal education79
4.11	Distribution of respondents by highest formal qualification in extension 79
4.12	Distribution of respondents according to their level of qualification in
	management80
4.13	The percentage distribution of respondents according to their formal
	education and gender, age, marital status and job position category 81
4.14	Distribution of respondents according to their total years of service in
	extension in the Oromia Bureau of Agriculture and Rural Development. 82

4.15	Mean years of experience in extension of respondents in different zones 83
4.16	Distribution of respondents according to service years in management
	position83
4.17	Distribution of respondents according to experience in management (years
	of service in management position) and zones
4.18	Distribution of respondents according to the categories of monthly salary85
4.19	Respondents' mean monthly salary expressed in Birr by various zones 85
5.1	Respondents' mean assessment of organizational operating efficiency
	before and after the decentralization in 2002
5.2	Respondents' mean assessment of organizational process efficiency before
	and after the organizational restructuring in 2002
5.3	Respondents' mean assessment of organizational health efficiency before
	and after the organizational restructuring in 200290
5.4	Correlations between respondents' personal characteristics and aspects of
	organizational efficiency92
5.5	Correlation between salary, education and the management positions of
	the respondents
5.6	Total influences of respondents' personal characteristics variables93
5.7	Correlation between variables of organizational resources factors and
	various aspects of organizational efficiency95
5.8	Influences of organizational variables96
5.9	Correlation between variables of environmental factors and various aspects
	of organizational efficiency98
5.10	Influence of organizational environmental variables99
6.1	The importance rank order (expressed as weighted mean percentages) of
	different priority or focus alternatives
6.2	Acceptability (expressed as mean percentage rank order) of different
	priority alternatives by respondents in different categories
6.3	Respondents' perception of the current and recommended understanding
	of the concept of extension and its potential contribution, expressed as

	(complete pro-active)
6.4	The current and recommended understanding of the concept of extension
	expressed as mean scale point in a continuum ranging from 0 (complete
	reactive) to 10 (complete pro-active) as perceived by different categories
	of respondents107
6.5	The perceived adequacy of organizational resources (based on mean scale-
	point percentage) by respondents
6.6	The perceived adequacy level of various organizational resources by
	respondents in management and location categories110
6.7	Respondents' perceived favourableness of external environment factors,
	expressed by mean percentage scale points
6.8	Perceived favourableness of external environmental factors expressed as
	mean percentage scale point by respondents in managerial and locality
	categories113
6.9	The perceived (a) current and (b) recommended client focus and
	contribution of the latter to improvement of (c) extension delivery and (d)
	job satisfaction (expressed in mean percentage ratio) by respondents .116
6.10	The perceived (a) current and (b) recommended clients' focus (expressed
	in mean percentage) by respondents of various groups117
6.11	The perceived current and recommended focus of extension programs
	and the percentage of the recommended achievable without additional
	resources
6.12	The perceived problem scope expressed by the mean percentage
	differences of the current and the recommended focus of the extension
	services according to respondents of various categories
7.1	The appropriateness of different alternatives for setting regional
	production goals, as perceived by respondents and expressed as mean
	scale point percentage
7.2	The appropriateness of different alternatives for setting regional
	agricultural production goals, as perceived by respondents in different

	categories of locality and management, and expressed as mean
	percentage rank order
7.3	The perceived current and recommended level of priority considerations,
	expressed as mean scale point percentage in OBARD by respondents from
	various zones and managerial positions
7.4	The perceived current and recommended level of decentralization in
	extension program planning, as reflected in mean scale point in OBARD
	by various categories of respondents
7.5	The perceived current and recommended days per week spent on pro-
	active extension delivery, expressed in mean percentages
	(0%=completely reactive; 100%=completely pro-active) by various
	categories of respondents
7.6	The perceived current and recommended days per week spent on pro-
	active SMS knowledge support, as expressed in mean percentages (0% =
	completely reactive; 100 % = completely pro-active) by various
	categories of respondents
7.7	The (a) current and (b) recommended ownership of extension projects,
	expressed in mean scale points by respondents in categories of
	management and locality
8.1	Respondents' perception of the current and recommended level of
	specialization, expressed as mean scale point in a continuum ranging from
	0 (no specialisation) to 10 (highly specialised)
8.2	Current and recommended level of specialization expressed as mean scale
	point on a continuum ranging from 0 (no specialisation) to 10 (high
	specialisation in one commodity) as perceived by different categories of
	respondents
8.3	Importance assessment by respondents of the different functions to be
	performed by SMS, expressed in mean percentage scale points
8.4	The importance assessments of SMS functions as reflected in mean scale
	point expressed in percentage by respondents in different categories 141

8.5	Percentage distribution of respondents according to the current and
	recommended type of extension organization's departmentalization in
	OBARD
8.6	Percentage distribution of respondents according to the current and
	recommended number of Development Agents (DAs) subordinate to one
	supervisor in OBARD
8.7	The recommended role of the zone structure of the department of
	agricultural and rural development offices, as expressed in rank order
	nominations by respondents
8.8	Perceived appropriateness of accountability alternatives at district level,
	expressed in mean rank order percentages
8.9	Perceived appropriateness of accountability alternatives at district level,
	expressed in mean rank order percentages by various groups of
	respondents
8.10	Percentage distribution of respondents according to their priority
	regarding collaboration and coordination choice between different
	alternative types of coordination practices
8.11	The perceived current and recommended level of coordination expressed
	as mean scale points by various categories of respondents
8.12	The perceived seriousness of coordination as a problem, assessed on a
	10-point scale* by respondents in different categories
8.13	Rank order coordination problem in comparison with other
	organizational problems
8.14	Respondents' assessments of the degree to which politicians, top
	managers and feasibility studies (a) were and (b) should be the main
	source of motivation for organisational change
8.15	The current and recommended level of influence of various stakeholders
	on organizational change and development, as perceived by respondents
	of various categories

8.16	Perceived current and recommended frequency of organizational			
	structural changes, expressed in mean scale point (0-10) by various			
	categories of respondents (N=346)			
9.1	Respondents' perceptions of the current and recommended entry			
	qualification requirement for extension staff in OBARD (N=339), as			
	reflected in mean assessments on a 6-point scale			
9.2	Respondents' perceptions of the current and the recommended training			
	expressed in terms of the number of weeks per year160			
9.3	The current and the recommended in-service training per year, expre			
	in terms of the number of weeks per year by respondents in various			
	managerial positions and zones			
9.4	The current efficiency level of the manpower appraisal system (expressed			
	as mean scale point percentage) as perceived by respondents in different			
	managerial positions and from different zones			
9.5	Respondents' assessment (expressed as mean percentage scale point) of			
	the current and recommended importance of different criteria for			
	appointment and promotion purposes in OBARD164			
9.6	Perceived mean percentage use of various promotion criteria by			
	respondents in different zones and managerial positions in OBARD 165			
9.7	Relationship between the current application of promotion criteria and			
	different aspects of organizational efficiency			
10.1	Extension managers' leading and influencing effectiveness, as perceived			
	by respondents in categories of management and locality, and expressed			
	in mean scale percentages)			
10.2	The perceived level of extension managers' task and people orientation,			
	as reflected in mean scale points by various categories of respondents 173			
10.3	Perceived extension managers' level of participatory focus (mean scale			
	points expressed in percentage) by various categories of respondents 175			
10.4	Perceived vision awareness level of OBARD and its potential influence			
	on extension delivery and job satisfaction by respondents of various			
	categories			

11.1	Degree to which the different indicators of performance are applied		
	OBARD, expressed as mean percentage and respondents' distributions181		
11.2	Mean percentage application of control indicators in OBARD by		
	respondents in the different locations and managerial positions 182		
11.3	Relationship between perceived application of control indicators and		
	organizational efficiency		
11.4	Relationship between respondents' personal characteristics and		
	perceived application of control indicators		
11.5	Relationship between perceived organizational resources adequacy and		
	the use of control indicators		
11.6	Relationship between perceived favourableness of external		
	environmental factors and application of indicators of control		
11.7	The perceived mean percentage efficiency level of immediate managers'		
	support and control over subordinates in OBARD by respondents 190		
11.8	The perceived efficiency level of current monitoring and evaluation		
	systems of extension programmes mean scale point expressed in		
	percentage by respondents		
11.9	Respondents' perceptions of the current and recommended purposes of		
	reporting in OBARD as reflected by rank order nominations		

LIST OF FIGURES

Figure	Description	Page
2.1	Traditional approaches to the measurement of effectiveness	C
2.2	Four models of effectiveness values	48
2.3	Relationship between behaviour determining and behaviour	viour dependent
	variables in agricultural development	50
2.4	Model for behaviour analysis and intervention	51
3.1	Location of the study areas	58



The nature and influence of management on the performance of the Ethiopian public agricultural extension service, with special reference to Oromia Region

By

Kedir Bati Jibba

Degree: PhD

Department: Agricultural Economics, Extension and Rural Development

Promoter: Professor G.H. Düvel

ABSTRACT

Against the background of frequent organizational changes and restructuring, often based on impulsive decisions rather than structured feasibility studies or evaluations, this study examines the nature and influence of management on the performance of the Ethiopian public extension service. Based on a survey of 353 respondents from Oromia region, one of the nine regions in Ethiopia, representing various agro-ecological zones and managerial positions, the study examines the current level of organizational performance, the influence of the 2002 restructuring on organizational performance and the factors influencing the organizational effectiveness. The knowledge of these influences is important for improving the current and future design of organizational change and development practices.

The study was guided by the following research questions: (1) how efficiently is the Oromia Bureau of Agriculture and Rural Development currently functioning? (2) what is the current situation of Oromia Bureau of Agriculture and Rural Development regarding managerial efficiency level and the application of improved management practices? (3) are there any differences between before and after 2002 organizational restructuring in terms of improvements in organizational performance? (4) what are the factors that currently influence, (enhance or restrain) the organizational and managerial functioning of OBARD? (5) are there any variations regarding assessed organizational and managerial performance between various categories of respondents?

The findings show that the current organizational efficiency is low. The effect of the 2002 restructuring on organizational performance was negligible and mixed. The organizational performance was influenced by various factors. The most critical factors found to influence organizational performance were skilled manpower, availability of accommodation/offices, extension teaching aids; farmers' willingness, collaborations between institutions, government policy and regulations and political forces. These findings can be useful in assisting managers in their endeavours to correct the weaknesses and to focus on the most critical issues for the improvement of organizational performance.

Finally, this study raises issues that need policy and managerial interventions and have implications for further research.



ABBREVIATIONS AND SYMBOLS

ADLI Agricultural and Development Led Industrialization

AFM 25-1 Air Force Manual 25-1, 1954

ANOVA Analysis of variances

ARDU Arsi Rural Development Unit

OBARD Oromia Bureau of Agriculture and Rural Development

CADU Chilalo Agricultural Development Unit CPP Comprehensive Package Program

CSA Central Statistical Agency
DA Development Agent

EEA Ethiopian Economic Association
EEC European Economic Commission
EMTP Extension Management Training Plot

EPID Extension and Project Implementation Development

FTC Farmers' Training Centre
MMP Minimum Package Program
MoA Ministry of Agriculture

MoARD Ministry of Agriculture and Rural Development MoFED Ministry of Finance and Economic Development

MoIPAD Ministry of Information Press and Audiovisual Department

FAO Food and Agricultural Organization
NEIPEM National Extension Intervention Program

NGO Non-Governmental Organization

HYV High Yielding Varieties

IDA International Development Assistance

IFAD International Fund for Agricultural Development IFPRI International Food Policy Research Institute

PA Peasant Association

PADEP Peasant Agriculture Development and Extension Program
PADETES Participatory Demonstration and Training Extension System
PASDEP Plan for Accelerated and Sustained Development to End Poverty

REAC Research Extension Advisory Council
RELC Research-Extension Liaison Committee

SG-2000 Sasakawa Global 2000

SNNP Southern Nations, Nationalities and Peoples SPSS Statistical Package for Social Sciences

T&V Training and Visit

USAID United States Agency for International Development

WADU Wolayita Agricultural development Unit

 $\begin{array}{ccc} n & & Number \\ N & & Total \ number \\ \chi 2 & & Chi-square \end{array}$

r Pearson's correlation

p Probability

df Degree of freedom R² Regression coefficient