



UNIVERSITI PUTRA MALAYSIA

**FACTORS ASSOCIATED WITH COCOA FARMERS' PARTICIPATION
IN THE TRAINING AND VISIT EXTENSION SYSTEM IN THE
DISTRICT OF JERANTUT, STATE OF PAHANG, MALAYSIA**

ABDUL MANAF BIN HAJI SULONG

FBMK 1986 2

FACTORS ASSOCIATED WITH COCOA FARMERS' PARTICIPATION
IN THE TRAINING AND VISIT EXTENSION SYSTEM IN THE DISTRICT
OF JERANTUT, STATE OF PAHANG, MALAYSIA

by

Abdul Manaf bin Haji Sulong

thesis submitted in partial fulfilment
of the requirements for the degree
of Masters of Science in the Centre of
Extension and Continuing Education,
Universiti Pertanian Malaysia

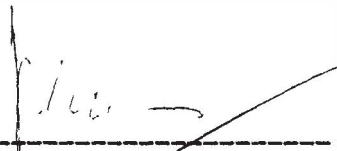
July 1986



It is hereby certified that we have read this thesis entitled 'Factors Associated with Cocoa Farmers' Participation in the Training and Visit Extension System in the District of Jerantut, State of Pahang, Malaysia' by Abdul Manaf Sulong, and in our opinion it is satisfactory in terms of scope, quality and presentation as partial fulfilment of the requirements for the degree of Master of Science



ALANG P. ZAINUDDIN, Ph.D.
Assoc. Professor/Dean of Graduate Studies
Universiti Pertanian Malaysia
(Chairman Board of Examiners)



NIK HASSANI HJ. MOHAMED, Ph.D.
General Manager
Kemubu Agricultural Development Authority
(KADA), Kota Bharu
(External Examiner)



RAHIM M. SAIL, Ph.D.
Assoc. Professor/Director,
Centre for Extension and Continuing Education
Universiti Pertanian Malaysia
(Internal Examiner)



IBRAHIM MAMAT, Ph.D.
Lecturer
Centre for Extension and Continuing Education
Universiti Pertanian Malaysia
(Supervisor)

This thesis was presented to the Senate of Universiti
Pertanian Malaysia and was accepted as partial fulfilment of the
requirements for degree of Master of Science.



ALANG PERANG ZAINUDDIN, Ph. D.
Associate Professor/
Dean of Graduate Studies

Date: 10th July 1986

ACKNOWLEDGEMENTS

The author wishes to express his sincere appreciation to the following individuals for their involvement in the preparation of this thesis:

Dr. Ibrahim Mamat, the author's supervisor for patiently sharing the author's problem and providing tremendous guidance and assistance.

Y.B. Dato' Jaafar Bin Awang, State Secretary, State of Pahang for his sympathy and cooperation that made the author's graduate programme possible.

Dr. Rahim Mohd. Sail, Director of the Center for Extension and Continuing Education (UPM) for being helpful and concerned over the author throughout the graduate programme.

All officers and staff members of the Department of Agriculture, State of Pahang, and staff members of the Department of Agriculture, District of Jerantut for their assistance in providing information and for making arrangements during the data collection.

Ketua Kampungs and cocoa farmers of the Training and Visit System in the District of Jerantut who responded to the study.

Colleagues of the graduate students of extension education (UPM) for sharing their experiences in computer programme.

Officers of the National Institute of Public Administration (INTAN) for the statistical counsel.

Staff members of the State Secretary Office, State of Pahang and staff members of the Center for Extension and Continuing Education (UPM) for their cooperation.

Naemah Mohd. Yunus, the author's wife for her constant patience and personal sacrifices throughout the entire period of the graduate programme and his children for being the source of inspiration.

The author's parents, sisters, brother, families and friends for their constant support and encouragement.

TABLE OF CONTENTS

	Page
AKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	ix
LIST OF FIGURES	xii
ABSTRACT	xiii
ABSTRAK	xvi
 CHAPTER I: INTRODUCTION	 1
Background Statement	1
Overview of Extension Services in Malaysia	 1
The Training and Visit Extension System in Malaysia	 5
Rationale of the Study	7
Statement of the Problem	9
Objectives of the Study	13
Significant of the Study	13
Limitations of the Study	14
Definition of Terms	15
 CHAPTER II: REVIEW OF LITERATURE	 17
Theories Pertaining to Participation and Adoption	 17
Social Change	18
Planned Change	21



	Page
Leadership in Planned Change	23
Diffusion of Innovation.....	24
Behavioural Change	28
Concept of Training and Visit (T&V) Extension System	32
Contact Farmers	32
Unified Extension Service	34
The Gap Between Research and Adoption	35
Relevancy of Recommended Practices	37
Continuous Improvement	38
Factors Influencing Participation and Adoption	40
Demographic and Situational Factors	40
Personality Traits	44
Attitudes	47
Perception	50
A Conceptual Framework	54
Study Hypotheses	55
CHAPTER III: RESEARCH METHODOLOGY	58
Source of Data	58
Location of the Study	58
Population of the Study	61
Selection of Respondents	62

	Page
Development of Instrument	63
Dependent Variable	64
Independent Variable	66
Pre-testing of Instrument	69
Collection of Data	70
Analysis of Data	71
Analysis of Scale	72
CHAPTER IV: A DESCRIPTION OF THE STUDY SAMPLE	75
Factors Affecting Participation	75
Demographic Characteristic of Respondents	75
Situational Factors	79
Personality Traits	84
Attitudes	88
Perceptions	92
Level of Participation in the T&V Programmes	97
CHAPTER V: STATISTICAL ANALYSIS AND FINDINGS	101
Study Hypothesis	101
Hypothesis 1: The Level of participation of cocoa farmers is positively related to age, number of years of education completed, level of cash income and farm size	101

	Page
Hypothesis 2: The level of participation of cocoa farmers increases with the degree of political involvements	104
Hypothesis 3: The level of participation of cocoa farmers is positively related to the number of positions held in non- political organization	106
Hypothesis 4: The level of participation of cocoa farmers increases with the number of contacts made by extension agents and farmers' level of cosmopoliteness	109
Hypothesis 5: The level of participation of cocoa farmers is positively related to measures of achievement orientation, efficacy in public affairs, orientation toward planning and optimism	110
Hypothesis 6: The level of participation of cocoa farmers increases with: (a) favourable attitudes toward the T&V System; (b) attitudes toward change agencies and their agents; (c) attitudes toward modernization; and (d) attitudes toward local institutions	112
Hypothesis 7: The level of participation of cocoa farmers increases with level of preception of relevancy and importance of the T&V Programmes as an extension approach	113
Multiple Regression Analysis of Participation on Groups of Independent Variables	115

	Page
Regression Analysis of Participation by Demographic Variables	116
Regression Analsis of Participation by Situational Variables	116
Regression Analysis of Participation by Attitudinal Variables, Personality Traits, and Perceptions	118
Multiple Regression Analysis of Participation on all Variables Utilized in the Study.....	121
CHAPTER VI: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	123
Summary	123
The Problems	123
The Objectives	124
Methodology	125
Summary of Findings	127
Conclusions	132
Recommendations	134
Recommendations for Policy Makers and Extension Agents	134
Recommendations for Further Research	142
BIBLIOGRAPHY	145
APPENDIX I	
Borang Soal Selidik: Penglibatan Petani Dalam Sistem 2L	149

LIST OF TABLES

Table		Page
1	Selection of Respondents According to Zones, Services Areas, and Farmers' Group	63
2	Summary of Reliability Coefficient of Cocoa Farmers' Responses on Participation in the T&V System Scales; Perception of Importance and Relevancy of the T&V Programme; Personality Factors and Effective Factors Scales	74
3	Distribution of Respondents by Age	76
4	Distribution of Respondents by Level of Education	77
5	Distribution of Respondents by Income	78
6	Distribution of Respondents by Farm Size	79
7	Distribution of Respondents by Their Status in Political Affiliation	80
8	Distribution of Respondents by Their Status in Non-Political Affiliation	81
9	Distribution of Respondents by Position Held in The T&V System	82
10	Distribution of Respondents by Number of Contacts With Extension Agents	83
11	Distribution of Respondents by Number of Farmers' Visits to Towns	84
12	Distribution of Respondents by Scores on Achievement Orientation	85
13	Distribution of Respondents by Scores on Efficacy in Public Affairs	86



Table		Page
14	Distribution of Respondents by Scores on Planning Orientation	87
15	Distribution of Respondents by Scores on Optimism	88
16	Distribution of Respondents by Scores on Attitudes Toward The T&V System	89
17	Distribution of Respondents by Scores on Attitudes Toward Change Agencies and Change Agents	90
18	Distribution of Respondents by Scores on Attitudes Toward Modernization	91
19	Distribution of Respondents by Scores on Attitudes Toward Local Institutions	92
20	Distribution of Respondents by Scores on Perceptions of Relevancy of the T&V Programmes	94
21	Distribution of Respondents by Overall Scores on Perception of Relevancy of the T&V Programmes	96
22	Distribution of Respondents by Overall Scores on Perception of Importance of the T&V Programmes	96
23	Distribution of Respondents by Scores on Participation in the T&V Programmes	98
24	Distribution of Respondents by Overall Scores on Participation	100
25	Correlations Between Cocoa Farmers' Level of Participations in the T&V Programmes and Age; Number of Years of Education Completed, Level of Cash income and Farm Size	102

Table		Page
26	Analysis of Variance of Mean Scores on Participation by Strength of Political Affiliation	105
27	Correlation Between Participation and Number of Positions Held in Non-Political Organizations	107
28	Analysis of Variance of Mean Scores on Participation by Level of Membership in the Farmers' Group of the T&V System	108
29	Correlations Between Participation and Variables Agents Contacts and Level of Cosmopolitaness	110
30	Correlation Between Participation and Personality Traits	112
31	Correlations Between Participation on Types of Attitudes	113
32	Correlations Between Participation and Perceived Relevant and Perceived Important of the T&V Programmes as an Extension Approach	115
33	Regression Analysis of Participation by Demographic Variables	117
34	Regression Analysis of Participation by Situational Variables	117
35	Regression Analysis of Participation by Variables, Personality Traits, Attitudes and Perception	120
36	Regression Analysis of Independent Variables of Participation	122

LIST OF FIGURES

	Page
Figure 1: Systems of Agriculture Innovation	30
Figure 2: A Conceptual Framework of Farmers' Participation	57
Figure 3: District of Jerantut, Pahang, West Malaysia	59

An abstract of the thesis presented to the Senate of Universiti Pertanian Malaysia in partial fulfilment of the requirements for the degree of Master of Science.

FACTORS ASSOCIATED WITH COCOA FARMERS' PARTICIPATION
IN THE TRAINING AND VISIT EXTENSION SYSTEM IN THE
DISTRICT JERANTUT, STATE OF PAHANG, MALAYSIA

by

Abdul Manaf bin Haji Sulong

July 1986

Supervisor: Dr Ibrahim bin Mamat

Faculty : Center for Extension and Continuing
Education

The main purpose of this study was to determine factors affecting participation of the cocoa farmers in the programmes of the Training and Visit System (T&V) in the District of Jerantut. The specific objective was to determine the relationship between the level of participation in the T&V Programmes with factors such as demographic, situational, personal and attitudes as well as perception of the importance and relevance of the T&V Programmes.

The respondents of the study were cocoa farmers registered under the T&V System in the District of Jerantut and 113 of them were selected as samples for the study. The data



collected were analysed using the Statistical Package For Social Science subprogrammes including frequencies, reliability, correlation, anova and regression.

The study revealed that the level of participation, the level of perception of importance and relevancy of the T&V were generally high.

Several factors were found to be positively related to the level of participation of cocoa farmers in the T&V Programmes, namely: 1) demographic factors (number of years of education completed, level of cash income and farm size); 2) situational factors (level of cosmopoliteness, initiative of extension agents, political affiliations and number of positions held in non-political organizations); 3) personality traits (achievement orientation, efficacy in public affairs orientation toward planning and optimism); 4) attitudes (attitude towards the T&V System, change agents and change agencies, modernization, and voluntary organisations); and 5) perception (perception of importance and relevance of the T&V Programmes).

Based on the regression analysis involving all variables utilized in the study, the variable achievement orientation was found to have the highest explanatory power in explaining the variance in participation, followed by perception of relevance

and importance of the T&V Programmes, efficacy in public affairs, political affiliations, positions held in the farmers' group of the T&V System, and initiative of extension agents.

Based on the findings of the study, seven recommendations to improve farmers' participation in the T&V extension programmes were presented. In addition, eight problem areas that need further research were also forwarded.

Abstrak tesis yang dikemukakan kepada Senat Universiti Pertanian Malaysia sebagai memenuhi sebahagian daripada keperluan untuk ijazah Master Sains.

"FACTORS ASSOCIATED WITH COCOA FARMERS' PARTICIPATION
IN THE TRAINING AND VISIT EXTENSION SYSTEM IN THE
DISTRICT OF JERANTUT, STATE OF PAHANG, MALAYSIA"

oleh

Abdul Manaf bin Haji Sulong

Julai 1986

Penyelia: Dr. Ibrahim bin Mamat

Fakulti : Pusat Pengembangan dan Pendidikan Lanjutan

Tujuan utama kajian ini ialah untuk menentukan faktor-faktor yang ada hubungan dengan penglibatan penanam-penanam koko di dalam beberapa program di bawah Sistem Lawatan dan Latihan (2L). Sementara objektif khususnya ialah untuk menentukan hubungan di antara tahap penglibatan di dalam program 2L dengan faktor-faktor seperti demografi, situasi, peribadi dan sikap serta faktor tanggapan kepentingan dan kesesuaian program-program 2L.

Sebanyak 113 penanam-penanam koko di Daerah Jerantut yang berdaftar dengan Sistem 2L telah dipilih sebagai sampel kajian ini. Data-data yang dikumpul telah dianalisis dengan menggunakan subprogram "Statistical Package For Social Science" seperti

kekerapan, kebolehppercayaan, korelasi, analisis varians dan regresi.

Kajian ini mendapati bahawa tahap penglibatan dan tahap tanggapan mengenai kesesuaian dan mustahaknya program 2L secara umumnya adalah tinggi.

Beberapa faktor didapati mempunyai perhubungan yang ketara dengan tahap penglibatan petani-petani dalam program 2L seperti: 1) faktor-faktor demografi (jumlah tahun persekolahan yang tamat, jumlah pendapatan dan keluasan kebun tanaman); 2) faktor-faktor situasi (tahap kosmopolitan, inisiatif agen pengembangan, penglibatan dalam politik dan jawatan yang dipegang dalam organisasi bukan politik); 3) faktor-faktor peribadi (orientasi pencapaian, keyakinan dalam hal-hal awam dan orientasi terhadap perancangan, dan optimis); 4) faktor-faktor sikap (sikap terhadap sistem 2L, sikap terhadap agen perubahan dan agensi perubahan, sikap terhadap permodenan, dan sikap terhadap organisasi sukarela); dan 5) tanggapan (tanggapan mengenai mustahak dan kesesuaian program-program 2L).

Berdasarkan kepada analisis regresi yang melibatkan semua angkubah yang digunakan dalam kajian ini, angkubah "orientasi pencapaian" didapati mempunyai kuasa penjelasan yang tinggi dalam menerangkan varians penglibatan, diikuti oleh tanggapan mengenai kesesuaian dan mustahak program 2L, keyakinan dalam

hal-hal awam, penglibatan dalam politik, jawatan yang dipegang dalam kumpulan tani sistem 2L dan inisiatif agen pengembangan.

Berdasarkan kepada keputusan kajian ini, sebanyak tujuh saranan telah dikemukakan untuk mempertingkatkan penglibatan petani dalam program 2L. Sebagai tambahan, sebanyak lapan bidang masalah yang memerlukan kajian lanjut telah juga diketengahkan.

CHAPTER I

INTRODUCTION

BACKGROUND STATEMENT

Overview of Extension Services in Malaysia

The importance of extension programme in all aspects of National development has long been recognized by planners, researchers and policy makers in this country. Extension has been regarded as the most effective machinery for disseminating modern technology generated by scientific research works, for the benefit of rural consumers and consequently to ensure that modern technology is applied permanently.

The evolution of extension work in Malaysia began in the fifties with the agricultural extension and research activities carried out mainly by the Department of Agriculture. Extension work was later carried out by several departments and agencies, namely: The Department of Agriculture, The Department of Veterinary Services. The Department of Fisheries, The Farmers' Organization Authority, Farmers' Association, Rubber Industry Smallholders Development Authority (RISDA), Federal Land Development Authority (FELDA), Muda Agriculture Development Authority (MADA) among others.

With the establishment of the various departments, each carrying out its own extension activities independently in line with the nature and policy of each department had given rise to problems of coordination among activities of the extension services. The matter was further aggravated as these agencies were under the different ministries.

Abu Bakar (1985:2) found that the emphasis of extension service before the independent was more toward commodity developments such as in rubber industry. During the period the effects of socio-economic and humanities were rather neglected. However, with the introduction of the Red Book in the sixties, Abu Bakar found the social aspect, especially with regard to attitude change had been emphasized in various extension activities.

In the sixties, the emphasis of farmers' participation on agricultural extension and development activities became an integral part of various departments and agencies under the Ministry of Agriculture. The effort was made possible when Farmers' Association became an effective channel for implementing extension programme. As documented by Mohamad Jamil (1974:88), many projects were carried out by Farmers' Association throughout the country. Among these projects were the establishment of fruit nurseries, cattle rearing, goat and poultry keeping, growing of home vegetables, fruit rehabilitation, fish culture, development of new paddy, distribution of insecticides and fungicides, participation in

the paddy seed, multiplication and distribution and small-holders mechanization.

In the seventies, the farmers in this country were somewhat more receptive to new ideas especially after the formation of the Farmers' Association in 1973. Farmers' participation was seen as being strategic not only for the implementation stage but also at the planning stage. On this, Mohamad Jamil (1974:89) notes:

"....It was half the battle won in agriculture extension if the farmers could be convinced to get together to discuss their own problems and learn new techniques. But then, the extension system that they had those days was not able to achieve those objectives..."

With the extensiveness of the implementation of rural development projects during the seventies, the Department of Agriculture faced with some difficulties in its effort to increase extension services for the rural farmers. A number of problems with regard to organization and facilities were noted. These problems include shortage of trained extension workers, lack of infrastructure, and ineffectiveness of communication and technical supports (Abu Bakar, 1985:3).

In line with the new approach of extension programmes, the Extension Service of the Department of Agriculture took positive steps to strengthen the extension network at both the Federal and State levels. The services provided by this branch were directed towards socio-economic development of the farming

clientele through the extension of newly tested technology and through establishment and maintenance of good communication between extension personnel and the clientele. In support of the State Department of Agriculture, the Federal Agricultural Extension Services Branch was organized into six specialised sections, namely, Development of Farm Families, Farm Management Extension, Communication, Farmers and Youth Development, Projects and Development (Department of Agriculture, 1981:18).

In the early eighties, a census was carried out by the Department of Agriculture with the intention of strengthening the extension services in the country. It was also to identify the profile of farmers so that the extension programmes could reach the specific target groups of farmers. The extension strategy in the country was further revised and realigned in conjunction with the National Agricultural Policy which was declared by the Government in 1984. The new strategy was to encourage farmers to involve in group farming on a commercial basis. Within the context of this strategy, farmers were also advised to be more independent and self-reliant as opposed to the earlier concept of relying totally on subsidies by the Government. They were encouraged to help each other and to utilize suitable techniques of managing their farms (Abu Bakar, 1985:5).

The Training and visit Extension System in Malaysia

The integrated approach of extension known as the Training and Visit System (T&V) was introduced in Malaysia by the Department of Agriculture. It was first introduced in the North Kelantan Project in July, 1976. The T&V System was selected to channel technologies to farmers on group basis through contact farmers with the aim of overcoming the problems of training which was noted as lacking in the old system of agriculture extension.

The T&V System is an integrated approach which comprises all aspects of agricultural activities and programmes. All extension services which were normally served by the agencies under the Ministry of Agriculture were channelled through the Department of Agriculture. Under the new approach, a number of other Government agencies pertaining to agricultural development such as the Rubber Industry Smallholders Development Authority (RISDA), Palm Oil Research Institute Malaysia (PORIM), Rubber Research Institute Malaysia (RRIM), Universiti Pertanian Malaysia (UPM) and Malaysian Agricultural Research Development Institute (MARDI) were communicated through operational linkages. The approach involved two-way communication between research agencies and the farmers and vice-versa. Various technical committees had been created by the Department of Agriculture and MARDI. The committees were based on commodities at the Federal and State level (Abu Bakar, 1985:3).