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INDIVIDUAL FACTORS AS PREDICTORS OF EXTENSION AGENTS' PERFORMANCE IN THE

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INDIVIDUAL FACTORS AS PREDICTORS OF EXTENSION AGENTS' PERFORMANCE IN THE MEKONG DELTA, VIETNAM

By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

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INDIVIDUAL FACTORS AS PREDICTORS OF EXTENSION AGENTS' PERFORMANCE IN THE MEKONG DELTA, VIETNAM

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April 2008

Chairperson: Professor Maimunah bt Ismail, PhD

Faculty: Educational Studies

Extension agents are important human resources in community development. They link agencies and community in the process of knowledge and technology transfer particularly to rural communities. In a developing country such as Vietnam, research on performance and factors that affect extension agents' performance in extension service system are lacking. However, these researches are important, considering the fact that the country is fast moving into agro-based industries.

The purpose of this study is to explore the individual factors that influence extension agents' performance. The study is guided by the following research questions: (1) What is the level of performance in extension as perceived by the extension agents? (2) What is the level of predicting variables of extension agents? (3) Are there differences in extension skills and performance between the provincial and district extension agents? (4) What is the relationship between the individual factors and

extension agents' performance? (5) What factors most influence extension agents' performance?

The individual factors are motivation, skill as instructional designer and communicator, skill as facilitator, teaching skill, program planning skill, program implementation skill, program evaluation skill, social skill ability, external contact ability, and professional profile of the extension agents. These factors are the independent variables for this research. Work performance consists of variables such as quality of work, dependability, work schedule, work habit, work allocation, poise and composer, work organization, and customer satisfaction all of which are treated as the dependent variables.

A sample of 369 agriculture extension agents from seven provincial/city extension centers were selected randomly from a total population of 649 extension agents who came from the 13 provinces/city of the Mekong Delta. Data collection was conducted from December 2006 and to February 2007. Multiple Linear Regression and Independent-Samples t-test were used to analyze the data from a sample of 312 respondents.

The extension agents rated their performance at a high level. The study exposes four individual factors that significantly contributed to performance of extension agents, namely, social skills, program implementation skills, motivation, and program planning skills. The study also reveals four types of skills that are significantly different between the two groups of agriculture extension professionals. These skills

are skill as instructional designer and communicator, skill as facilitator, program planning skill, and external contact ability.

The knowledge generated from this study is useful for extension agencies in developing training program for their extension agents. It is suggested that future research should replicate this study to extension agents in the other areas such as forestry, environmental and natural resources as well as agro-tourism. The influence of technical skills on the job performance of extension agents is another possible research worth researching.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi sebahagian keperluan untuk ijazah Doktor Falsafah

FAKTOR INDIVIDU SEBAGAI PERAMAL PRESTASI AGEN PENGEMBANGAN DI DELTA MEKONG, VIETNAM

Oleh

LE NGOC THACH

April 2008

Pengerusi: **Profesor Maimunah Ismail, PhD**

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Agen pengembangan adalah sumber manusia yang penting dalam pembangunan masyarakat. Mereka merupakan penghubung antara agensi dan masyarakat dalam proses pemindahan pengetahuan dan teknologi kepada masyrakat di kawasan luar bandar. Dalam negara sedang membangun seperti Vietnam, kajian ke atas prestasi agen pengembangan dan faktor-faktor mempengaruhi prestasi dalam sistem pengembangan kurang dilaksanakan. Walau bagaimanapun perkara ini penting memandangkan negara tersebut sedang pesat membangun dalam industri yang berasaskan pertanian.

Kajian ini bertujuan meneroka faktor individu yang mempengaruhi prestasi kerja pengembangan daripada persepsi agen pengembangan. Kajian ini berpandukan kepada persoalan kajian seperti berikut: (1) Apakah tahap prestasi pengembangan pada persepsi agen pengembangan? (2) Apakah tahap pemboleubah peramal dalam kalangan agen pengembangan? (3) Adakah perbezaan kemahiran pengembangan dan prestasi antara agen pengembangan wilayah dan daerah? (4) Apakah hubungan

antara faktor individu dan prestasi kerja pengembangan? (5) Apakah faktor yang paling mempengaruhi prestasi kerja pengembangan di kalangan agen pengembangan?

Faktor-faktor individu terdiri daripada motivasi, kemahiran kaedah pengembangan, kemahiran pembentukan program, kemahiran sosial, hubungan luaran, dan profil profesional dalam kalangan agen pengembangan. Faktor-faktor ini adalah pemboleh ubah tidak bersandar bagi kajian ini. Prestasi kerja merangkumi komponen seperti kualiti kerja, tahap kebergantungan, jadual kerja, tabiat kerja, pengagihan kerja, keseimbangan dan penggubahan, organisasi kerja, kepuasan pelanggan yang semuanya merupakan pemboleh ubah bersandar.

Seramai 369 agen pengembangan pertanian dari tujuh pusat pengembangan wilayah/bandar telah dipilih secara rawak daripada 649 jumlah populasi yang mewakili 13 wilayah/bandar di Delta Mekong. Pengumpulan data telah dijalankan dari Disember 2006 hingga Februari 2007. Regresi pelbagai linear dan Ujian-t sampel bebas telah digunakan untuk menganalisis data daripada sampel 312 responden.

Agen pengembangan mengatakan bahawa prestasi mereka tinggi. Kajian ini telah menghasilkan empat faktor signifikan yang menyumbang kepada prestasi agen pengembangan, iaitu, kemahiran sosial, kemahiran mengimplimentasi program, motivasi, dan kemahiran merancang program. Kajian ini juga menghasilkan empat jenis kemahiran yang mempunyai perbezaan signifikan antara dua kumpulan profesional pengembangan. Kemahiran tersebut adalah kemahiran   sebagai

perekabentuk pengajaran dan pengamal komunikasi, fasilitator, perancang program, dan kemahiran menjalankan hubungan luar.

Pengetahuan yang dapat dijana dari kajian ini berguna kepada agensi pengembangan dalam usaha membangunkan program latihan untuk agen pengembangan. Adalah dicadangkan supaya kajian ini direplikasikan dalam bidang lain seperti perhutanan, persekitaran dan sumber semulajadi serta agro-pelancongan. Kajian lain yang dicadangkan ialah tentang pengaruh kemahiran teknikal terhadap prestasi kerja agen pengembangan.

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I certify that an Examination Committee has met on 3 April 2008 to conduct the final examination of Le Ngoc Thach on his Doctor of Philosophy thesis entitled "Individual Factors as Predictors of Extension Agents' Performance in Mekong Delta, Vietnam" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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Date: 10 July 2008

DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

LE NGOC THACH

Date:

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LIST OF ABBREVIATIONS

CPS	Critical Performance Subsystem
CTTA	Communication for Technology Transfer
DV	Dependent Variable
EAP	Extension Agents' Performance
EDA	Exploratory Data Analysis
FAO	Food and Agriculture Organization
GOs	Governmental Organizations
HRD	Human Resource Development
ICT	Information Communication Technology
IVs	Independent Variables
KPA	Identification of Key Performance Areas
NGOs	Non-Governmental Organizations
OD	Organization Development
SMCR	Source/Sender, Message, Channel, And Receiver
SPSS	Statistical Package for Social Science
T and D	Training and Development
TOT	Transfer of Technology

CHAPTER I

INTRODUCTION

Background and Context of the Study

The population in Vietnam is currently estimated at 85.1 millions with a density of 257 people per km^2 and is growing by 1.17 percent annually. More than 70 percent of population lives in the rural areas and on agriculture. Agriculture is the main sector in the economy of Vietnam as it employs 60 percent of the labour force, contributing 23 to 24% to GDP. In spite of a significant growth in the gross national product (GNP) of 7.8 percent per year in recent years and with a per capita income of around $750 in 2006, Vietnam remains one of the poor countries in the world.

The Mekong Delta of Vietnam covers 3.9 million hectares, where rice is the main crop, followed by fish and fruit. The main agriculture product accounts for more than 50 percent of the national product though it covers only 12 percent of the total area of the whole country. In 2007, the population was about 17 millions with a density of 435 people per km^2, of which 80 percent live in the rural area. Nowadays some parts of the delta are on industrial development but on the whole, especially in the more rural areas, people still depend on agriculture for subsistence.

In Vietnam, the agricultural extension plays an important role in the rural development of the nation and so does it in other countries as governments and

international agencies are putting structural, finance and managerial reforms in place to improve it. Extension has normally promoted blanket recommendations for most agricultural technology. However, the extension system of the country is newly developed and is far from being able to meet such requirements. Transfers of blueprints do not help in managing environmental and social complexity, but farmer-to-farmer advice and learning by doing can be successful in enhancing their capacity of adoptive management (FAO and World Bank, 2000).

In many lowland communities, especially in the Mekong Delta, the poor tends to have limited social capital and may experience difficulties in having their voices heard, accessing official credit and getting invited to participate in extension activities. The focus of extension services in the developing countries is the transfer of technology (Van den Ban and Hawkins, 1988; Roling, 1988; Rahim, Azahari and Azizan, 2004). It has been observed that researches are conducted in research institutes while the transfer of new technology is in the hand of the extension agency. And then, the farmers' role is to implement the recommendations made by the extension agents and to receive the technology. Very limited emphasis was placed on the human resource development (HRD) (Rahim et al., 2004).

In recent years, one of the most important developments in the field of organization has been the increasing importance given to human resources. Extension organizations in the developing countries have faced with the major problems of professional incompetence and lack of motivation among their employees (FAO, 1997).

The previous reports show that extension is an urgent need for the agricultural and rural development in Vietnam (MARD, 2004; Be, 2005). According to the MARD (2004), three components are essential for Vietnam agriculture extension sector to function effectively for the country: (1) transferring technology for farmers; (2) training professional skills for farmers; and (3) supplying information on technology, management and market for farmers. This system has been organized from the central to localities. In Vietnam, Farmer Field School is one of the extension approaches enhancing farmers' agro-ecological knowledge, critical skills and collective actions to support sustainable agricultural development. The activities of the Farmer Field School are done by extension workers (Van de Fliert, Dung, Henriksen and Dalsgaard, 2007).

Agriculture is one of the key sectors in the economy of many developing countries. Agricultural extension has a long history and plays an important role in agricultural and rural development in many developing countries, of which Vietnam is one. The concept has originated from the fields of adult education, development communication, rural development and community development. According to Karbasioun, Mulder and Biemans (2007) the old conception of extension is the knowledge transfer; while current perspectives emphasize the multiple stakeholder processes of cooperative knowledge construction and participatory approaches in integrated rural development.

Presently, Vietnam has improved her agricultural extension system by introducing innovations in rural development. The national agricultural extension centers have been established to help the growth of extension system. Following the step, in 1998,

every province and city had its own centers, making a total of 800 staff. In average, each province had 12-15 staff of which 70% were graduates from technical sciences, including crop sciences, plant protection, animal sciences, fisheries, agriculture economics and so forth. 80% of the districts of the country had agricultural extension stations with about 2000 staff. In average, each district had 3-5 staff by the end of 2002. At village level, there were extension workers, farmer clubs, and farmer groups. In 2002, there were 5179 extension workers working in 55% of villages and 8,000 contact-persons doing extension work at hamlet level in the whole country (10% hamlets). In the same year, the number of extension clubs came up to 3,676. (De, 2005; Be, 2004; MARD, 2004).

In the Mekong Delta, 85% agricultural districts (93/109) or 84.5% of total 110 districts and towns have agriculture extension stations. However, the ratio of extension workers for farming households is only 1 for every 1,500-2,000 (approximately, 6,000 extension workers per 10 millions farming households) (De, 2005). There is a great need for human resources development initiatives in order to improve the extension work, and maintain the extension system in the region.

Extension agents in the Mekong Delta have diversified responsibilities. At provincial level, extension agents are responsible to design and monitor many agricultural extension projects to speed up agricultural developments. Most of the projects are initiated by agriculture departments; some of them collaborated with the research institutes, universities, agricultural supply companies, and other government organizations or non-government organizations. At district and village level, extension agents belong to district stations. They often implement common tasks and

projects handed down by the provincial extension centers or/and collaborate with other district agencies or other organizations.

Not only is the number of extension workers insufficient, but their qualification is more often than not of poor quality as well. Most of the extension agents graduated from agricultural technical sciences schools where they likely learnt crop sciences, plant protection, animal husbandry and fisheries which were not specialized much in extension work on social aspect, in particular. This is because extension, as a subject, has been introduced only recently into some of the agriculture-related universities in Vietnam. Van den Ban and Hawkins (1988, pg.15) emphasize the competencies needed for the extension agents to change farmers as follows:

> Although agricultural extension agents have been trained in how to change farms and in plant varieties, fertilizers, animal nutrition, it is their task to teach farmers who, in turn, may change their own farms. Those agents who have not been trained in the process of changing farmers – training the adults and communication - must be taught what but not how to tell farmers so that they would become more able farm managers. These changes are the important goal of extension education.

Linkage and Role of Extension Agents

The Linkage between Extension Organization and Clients' System

The interdependency model of extension encompassing the transfer of technology (TOT) and human resource development (HRD) has been identified as a key factor in

ensuring effectiveness of extension services (Rahim et al., 2004; Roling, 1988). The TOT collaborates with research institutes and represents the research agenda whereas the HRD focuses on the development of client potentials and capabilities that represent the extension agenda (Rahim et al., 2004).

According to Rahim et al. (2004) HRD focuses on the educational activities to nurture a self-motivated individual farmer who can act voluntarily and rationally based on his/her own judgment and decision, and who has a sense of self and social responsibilities. As presented, the extension staff/agricultural extension workers in Malaysia and probably in other Asian regions are in varied social science aspects to carry out their work under new policy reform for rural development. Those who are still weak should be strengthened and facilitated in order to play the important responsibilities in agriculture extension and rural development in this region. To ensure effectiveness of extension, the TOT and HRD should be embraced together in the implementation of extension services (see Figure 1).
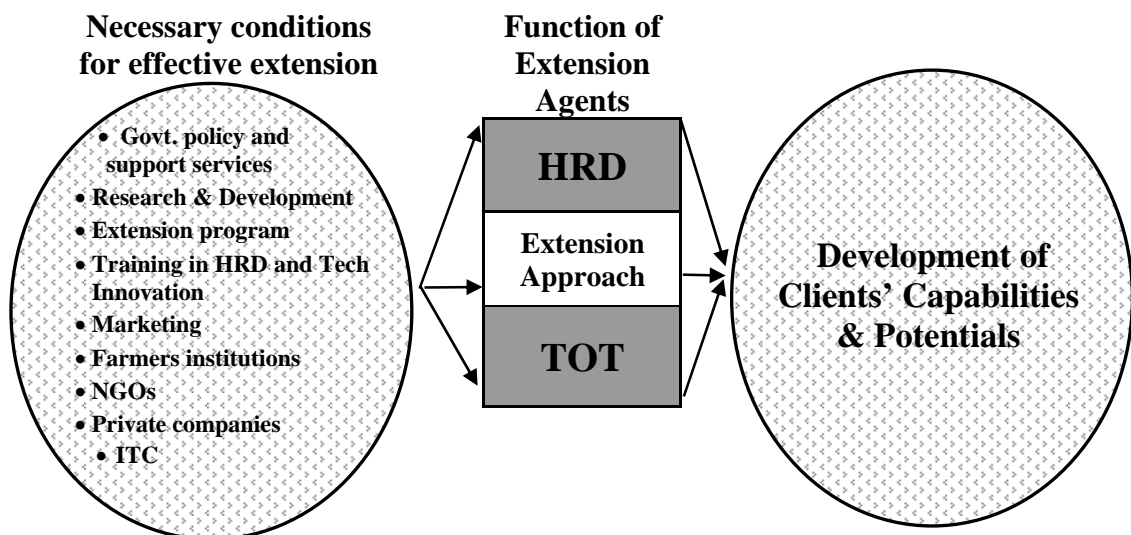
Necessary conditions for effective extension

- **Govt. policy and support services**
- **Research & Development**
- **Extension program**
- **Training in HRD and Tech Innovation**
- **Marketing**
- **Farmers institutions**
- **NGOs**
- **Private companies**
- **ITC**

Function of Extension Agents

HRD

Extension Approach

TOT

Development of Clients' Capabilities & Potentials

Figure 1: Extension Model – TOT and HRD
Source: Rahim et al. (2004)