



UNIVERSITI PUTRA MALAYSIA

**THE ROLE OF MULTI-MEDIA APPROACH IN NARROWING
THE KAP-GAPS AMONG THE FARMERS OF
THE STRATEGIC EXTENSION CAMPAIGN
IN MUDA IRRIGATION SCHEME IN MALAYSIA**

AGENG SETRA WAN HERIANTO

FEM 1997 8

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**MASTER OF SCIENCE
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BY

AGENG SETIAWAN HERIANTO

**Thesis Submitted in Partial Fulfilment of the Requirement
for the Degree of Master of Science
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**THE ROLE OF MULTI-MEDIA APPROACH IN NARROWING THE KAP-GAPS
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December 1997

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The objectives of this study were : (1) to compare the level of Knowledge Attitude and Practice (KAP) on the Brown Plant Hopper (BPH) control management technology between the farmers with low and high socio-economic status (SES) in the Muda Agricultural Development Authority (MADA) area before and after the Strategic Extension Campaign (SEC); (2) to determine the change in KAP-gaps on the BPH control management technology among those farmers before and after the SEC; (3) to determine the relationship between farmer's characteristics and social activities, and the KAP-level before the SEC; (4) to determine the relationship between farmer's characteristics, social activities and multi-media factors in the SEC and the KAP-level after the SEC; and (5) to predict the KAP-level based on the KAP-equation of low and high-SES farmers in the MADA area, Malaysia.



The MADA had launched the SEC on BPH control management based on a KAP-survey. This study was designed as Pre and Post Campaign study. The KAP-survey results as the secondary data of the study was the benchmark data of the pre-campaign study. The study evaluated effects of the campaign. A sample of 189 farmers were selected by using the stratified sampling procedures. Data were gathered by means of personal interviews using structured questionnaire and analysed using the SPSS for Window version 7.5. The ANOVA-test and Pearson product-moment correlation were used to test the hypotheses. Stepwise multiple regression was employed to determine which of the independent variables of the study are strong predictors of the KAP-level.

The findings revealed that KAP-level of both low and high-SES farmers on the technology of BPH control management had increased after the multi-media campaign. However, the multi-media approach of SEC had narrowed the KAP-gaps of these farmers. It was found that, therefore, the degree of equality with regards to the KAP-level in the Muda Irrigation Scheme area had increased.

Organisational membership and paddy income were found to be positively related to KAP-level of the low-SES farmers before the campaign, while age was found to be negatively related to the KAP-level. Meanwhile, in the high-SES farmers groups before the campaign, the organisational membership was found to be positively related to their KAP-level.

After the campaign, educational attainment, paddy income, organisational membership, contacts with change agent, cosmopolitaness, multi-media exposure, frequency of using, understanding level, usefulness of the multi-media messages, and farmers' perception on the multi-media approach of SEC were found to be positively related to the KAP-level of the low-SES farmers. Age and farmers' preference on the printed media, however, were found to be negatively related to KAP. In the high-SES groups, all the independent variables were found to be positively related except the farmer's preference on the printed media which was found to be negatively related to the KAP-level.

The stepwise multiple regression analysis suggests that organisational membership is strong predictor of the KAP-level of the low and high-SES farmers before the campaign. However, the multi-media exposure, farmers' perception on the multi-media approach of SEC, and organisational memberships are the important predictors of the KAP-level of the farmers with low-SES after the campaign.

The contacts with change agents, multi-media exposure, and organisational memberships were also found to be the important predictors of the KAP-level of the farmers in the high-SES group. It is recommended that, therefore, in order to increase the KAP-level of those two group of farmers, the task-force of SEC should pay attention to the above predictors.

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**PERANAN PENDEKATAN PELBAGAI MEDIA BAGI MENGURANGKAN
JURANG PENGETAHUAN, SIKAP DAN AMALAN PETANI
KEPADA KEMPEN STRATEGIK PENGEMBANGAN DI KAWASAN MADA**

OLEH

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Fakulti : Ekologi Manusia

Kajian ini mempunyai objektif untuk (1) membandingkan tahap pengetahuan, sikap and amalan (PSA) pengendalian bersepadu perosak bena perang antara petani yang mempunyai tarap sosio-ekonomi yang rendah dan tinggi; (2) menentukan perbezaan jurang pengetahuan, sikap, dan amalan (PSA) di antara petani-petani tersebut selepas kempen; (3) menentukan perkaitan antara ciri-ciri demografi dan faktor-faktor aktiviti sosial petani dan tahap PSA petani sebelum kempen; dan (4) menentukan perkaitan antara ciri-ciri demografi, faktor-faktor aktiviti sosial petani dan pendedahan kepada pelbagai media kempen dengan tingkat PSA petani selepas kempen, serta (5) melakukan peramalan terhadap tahap PSA petani-petani tersebut berdasar kepada angkubah-angkubah yang mempengaruhinya.



MADA telah melancarkan kempen strategik pengembangan pengurusan bena perang bersepadu berasas kepada maklumat daripada survei PSA. Kajian ini dirancang sebagai kajian sebelum dan selepas kempen. Seramai 189 orang responden mewakili petani-petani di kawasan MADA telah diambil secara rawak berstruktur selepas kempen. Data bagi tujuan kajian ini telah dikumpul dengan menggunakan borang soalselidik melalui temubual perseorangan. Ujian *ANOVA* dan korelasi "Pearson-product moment" diguna bagi menguji hipotesis kajian ini. Bagi menentukan angkubah-angkubah yang dikenalpasti berkaitan dengan tahap PSA petani, kajian ini menggunakan kaedah "Stepwise- Multiple regression".

Hasil kajian ini mendapati bahawa tingkat PSA petani-petani samada petani dari golongan sosio-ekonomi rendah maupun tinggi meningkat selepas kempen. Walaupun demikian, pengurangan jurang PSA di antara petani-petani tersebut dibuktikan dalam kajian ini. Kajian ini menyokong kenyataan bahawa pendekatan pelbagai media dalam kempen strategik pengembangan ialah pendekatan yang jitu untuk mengurangkan jurang PSA petani.

Penyertaan di dalam pertumbuhan dan pendapatan petani mempunyai hubungan yang positif dengan tahap PSA petani dari golongan sosio-ekonomi rendah. Walau bagaimanapun, umur petani menunjukkan hubungan negatif dengan tingkat PSAny sebelum pelancaran kempen. Penyertaan di dalam pertumbuhan ialah angkubah yang mempunyai hubungan positif dengan tahap PSA petani sebelum pelancaran kempen samada petani golongan sosio-ekonomi rendah atau tinggi.

Selepas pelancaran kempen, wujud hubungan positif antara tahap PSA petani sosio-ekonomi rendah dengan taraf pendidikan, pendapatan, penyertaan di dalam pertubuhan, kontak dengan pegawai pengembangan, kosmopolitan, pendedahan kepada pelbagai media, kekerapan penggunaan multi-media, kefahaman maklumat, dan pengesahan kekuatan pendekatan pelbagai media. Walau bagaimanapun, umur petani dan pemilihan keatas media bercetak mempunyai hubungan yang negatif dengan tahap PSA petani.

Tingkat PSA petani sosio-ekonomi tinggi mempunyai hubungan positif dengan keseluruhan angkubah-angkubah yang disenaraikan, kecuali angkubah pemilihan keatas media bercetak wujud hubungan negatif dengan tahap PSA petani.

Berdasar kepada hasil analisis “multiple regression”, pendedahan pelbagai media, pengesahan kekuatan pendekatan pelbagai media dan penyertaan di dalam pertubuhan ialah angkubah-angkubah yang secara jitu mempengaruhi tingkat PSA petani sosio-ekonomi rendah.

Kontak dengan pegawai pengembangan, pendedahan kepada pelbagai media dan penyertaan di dalam pertubuhan ialah angkubah-angkubah kajian yang jitu mempengaruhi tingkat PSA petani sosio-ekonomi tinggi. Oleh itu, dalam penerapan pendekatan pelbagai media, angkubah-angkubah tersebut harus diambil kira bagi meningkatkan pengetahuan, sikap dan amalan petani.

CHAPTER I

INTRODUCTION

Changing of Development Paradigm

Three decades ago, there was much optimism and high hopes for the role of mass communication in the development. Influential books on communication and development, like Daniel Lerner's (1958) *The Passing of Traditional Society* and Wilbur Schramm's (1964) *Mass Media and National Development*, were widely read in the early 1960s. But, little real development has occurred by just about any standard (Melkote, 1991). This disappointing performance in the dominant paradigm decade led to consideration of various alternative conceptions.

An implicit assumption in the literature which supports the dominant paradigm was that mass media in developing nations carried a strong pro-development content. The argument went that increased exposure to mass media messages would obviously create the climate for modernisation in villages in the Third World (Lerner, 1958 and Schramm, 1964). This view of the pro-development content of media messages was not entirely correct. The architect of that approach



had argued that they did not examine the relationship between the institutional structures of the media and their impact on the media content and community.

One of the criticisms of the role of the mass media in development has been the knowledge gap effects. In developing nations, the mass media can reinforce or increase existing inequities between the advantaged and disadvantaged sectors of the population. The existence of this gap does not mean that the lower status population remain totally uninformed or even absolutely worse off in knowledge but rather that they become relatively lower in knowledge (Tichenor et al, 1970).

The old concept of the dominant development paradigm changed quite drastically in the seventies and beyond. There was a move away from the earlier technologically deterministic and GNP-centred definitions to alternative conceptions that were more qualitative. Rogers (1976) summarised the newer concept of development which emphasises on participatory approach:

.... a widely participatory process of social change in a society, intended to bring about both social and material advancement (including greater equality, freedom, and other valued qualities) for the majority of the people through their gaining greater control over their environment (Rogers, 1976: pp. 9)

Meanwhile Wang and Dissanayake (1984) emphasised the protection of nature and culture. They defined development as (quoted from Melkote, 1991):

A process of social change which has as its goal the improvement in the quality of life of all or the majority of people without doing violence to the natural and cultural environment in which they exist, and which seeks to involve the majority of the people as closely as possible in this enterprise, making them the masters of their own destiny (Melkote, 1991: pp. 193)

The alternative definitions of development were pluralistic and indicated several new goals for meaningful and real development in the Third World (Rogers, 1976 and Hedebrø, 1982). Some goals of real development in the Third World are:

1. Equity in distribution of information and other benefits of development. The emphasis was placed on the poorest of the poor, those living in urban slums and backward rural areas. The widening hiatus between the advantaged groups and the disadvantaged had to be closed. Growth with equity was the clarion call of the seventies.
2. Active participation of people at the grassroots: The objective was to involve the people in activities that were set up for their benefit. This not only liberated the people from a spiral of silence but also ensured that development plans and decisions were relevant and meaningful to the recipients.

The decade of the eighties witnessed a shift from modernisation paradigm toward a model that is a less quantitative, but more qualitative and normative. The new paradigm is sometimes termed as *Another Development*. The new approach is a comprehensive analysis of the international development effort. This approach must be viewed in a holistic conceptual framework containing five central elements, which, though they can be individually specified, must be taken together:

1. development must be geared to the satisfaction of needs, beginning with the eradication of poverty;
2. development must be endogenous and self-reliant;
3. development must be in harmony with the environment;
4. another development requires structural transformations; and
5. immediate action is necessary and possible (Servaes, 1985 and Reid, 1995).

Meeting human needs in full requires a new development approach that respected people and the distinctiveness of their traditions and culture. This paradigm was primarily about people who have to live in harmony with the environment. It means that the people become the centre for future development and goes on trace the relationship between environment and development. Therefore, the concept of sustainable development has to answer the future challenge of development process. But, in the sustainable development, the agricultural sector as the green capital still remains as the problem. It means that one of the real future challenges is the Sustainable Agricultural Development.

Sustainable Agricultural Development and Integrated Pest Management (IPM) Concepts

For thousands of years humans have been quite happy to use natural resources without any thought on the effect they will have upon their world (Vieira, 1985). Only recently have humans shown much concern for the quality of their environment. This consciousness is geared to the talk of sustainable development which is defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987 quoted in Reid, 1995). The term has attracted scholars with very different interests such as the scholars from the agriculture sector who introduce and talk of the sustainable agriculture development.

In practical aspects, according to Connell (1991) sustainable agriculture will vary from farm to farm but commonly include pest control management that are not

