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Malay Secondary School Students' Social Support Preferences: Implications for Support Network Interventions

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Keywords: Social support, secondary school students

ABSTRAK

Kajian ini bertujuan mengenalpasti persepsi pelajar Melayu sekolah menengah bandar mengenai kepentingan 12 jenis sokongan sosial (SS) dan kepentingan 6 sumber SS yang signifikan dalam membantu mereka menghadapi masalah akademik. Usaha juga telah dibuat untuk meneliti perbezaan jantina mengenai persepsi tersebut. 164 orang responden (71 lelaki dan 93 perempuan) telah melibatkan diri secara sukarela. Data diperolehi melalui soal selidik. Kategori SS yang digunakan dalam kajian adalah berdasarkan instrumen Personal Support System Survey (Pearson, R.E., 1986). Keputusan kajian menunjukkan para responden inginkan pelbagai jenis SS sekiranya menghadapi masalah akademik. Mereka inginkan satu kombinasi sokongan berbentuk maklumat, emosi dan maklumbalas daripada orang lain. Bimbingan dikenalpasti sebagai SS yang terpenting. Persepsi pelajar mengenai tahap kepentingan setiap jenis SS turut berbeza mengikut jantina. Ibubapa dianggap sumber SS paling penting dalam menghadapi masalah akademik. Ibu pula didapati lebih penting daripada bapa. Dapatan kajian memberi implikasi berikut untuk membantu pelajar Melayu remaja menghadapi masalah akademik: intervensi berfokuskan SS perlu dipelbagaikan; para guru dan kaunselor perlu dilatih berunding dengan ibubapa mengenai masalah pelajaran anak mereka; sokongan daripada ibubapa lebih diinginkan oleh remaja Melayu berbanding sokongan dari individu lain; komunikasi di antara guru dan pelajar perlu dipertingkatkan; kajian lanjut perlu dijalankan untuk meneliti perbezaan keutamaan SS mengikut jantina.

ABSTRACT

This exploratory study seeks to identify urban-Malay secondary school students' perceptions regarding the degrees of importance of twelve common social support (SS) types and six salient individual SS sources, in relation to an academic problem. The levels of importance/preference ascribed to the SS types and sources of SS were also examined for gender differences. 164 respondents (71 males and 93 females) voluntarily participated in the study. Data were collected using a survey questionnaire. The twelve categories of SS were derived from Richard E. Pearson's (1986) Personal Support System Survey. Results showed that subjects' preferences with respect to SS for academic problems are multifaceted. They desire a combination of informational, emotional and appraisal supports from others. Subjects rated 'guidance' as the most important supportive response should they experience academic problems. Perceptions regarding the levels of importance attached to each SS type also differed between gender. Students perceived their parents as the most important source of SS. Of their parents, mothers were regarded as more important. The findings suggest that to help Malay students with academic problems, SS-focused interventions need to be multifaceted, teachers and counselors need training in collaborating with parents regarding their children's academic difficulties, parental support is more preferred than support from others, student-teacher communication needs improvement. Gender differences in SS type preferences need further examination.

INTRODUCTION

Studies focusing on upper secondary school students' (USS) concerns have revealed that the concerns or problems most commonly experienced by students are related to their school work and academic performance. For

example, Mustapa (1985) found that the four most frequently reported concerns in her study were: worrying about exams; not knowing effective study techniques; not spending enough time studying; and experiencing difficulty with mathematics. An earlier study by Zubir (1974)

also reported that most students are worried about exams and failure in school work. Both findings are supported by a more recent preliminary study conducted by Baba (1989).

Several other studies have been conducted to identify USS concerns (e.g. Mashur, 1987; Yuen, 1985; Leong, 1982). However, most of these studies were repetitious in that they stopped short at identifying problems. A few examined secondary school students' preferred sources of help in times of difficulties. Identification of areas of students' concerns does not generate much information regarding how school guidance personnel and concerned individuals can be more responsive to students' needs. It is logical that the next step forward is to identify the kinds of support students want and from whom they prefer to receive it.

An area of theory and research that can lead to a greater understanding of USS preferences regarding "support and help from others" is social support (SS) which can guide school personnel to develop psychoeducational programmes to support preferences and needs of students.

Social or interpersonal support is a multifaceted construct which refers to those resources or socially supportive behaviors that a person, usually one who is in distress or facing difficulties, can obtain from others (Pearson, 1990). Alternatively, SS can be viewed as the ways by which others can express, verbally or in action, their support for those in distress.

Pearson (1986) has developed a comprehensive typology of socially supportive behaviours. The typology consists of 12 SS categories described as follows: Love (the care and attention from others); Encouragement (the positive expressions of confidence, positive reinforcement, and affirmation of your ability by others); Example (the model or example of how to handle situations set by others); Doing tasks (assistance in carrying out your responsibilities, for example, child care and doing errands); Companionship (the sharing of activities and sense of belongingness/togetherness); Acceptance (sense of being respected and understood); Guidance (advice, direction, spiritual guidance from others); Comfort (the reassurance, comfort, soothing of your concerns from those upon whom you can lean); Giving or loaning something that you need; Knowledge (the information, expertise or instruction on

how to do things or overcome a problem); Honesty (honest feedback from others as they see and feel about you); Advocacy (defend or speak out for you or stand up for your interest/s). Research by Braunlich, Boeshaar, and Esperon (1985), and Baba (1989) have established the discreteness and comprehensiveness of these SS categories.

SOCIAL SUPPORT AND STRESS COPING

Research has also shown that SS reduces or buffers the adverse psychological impact of exposure to stressful life events and ongoing life strains (Cohen and Wills 1985; Matheny *et al.* 1987; Thoits, 1986); enhances wellbeing and reduces hardship during stressful life transitions (Burke and Weir, 1978; Gottlieb, 1983); and enhances coping with major life changes and stressful conditions (Lakey and Heller, 1988). Aware of this impact on the stress-wellbeing relationship, experts in the helping professions have recognised SS as an important coping resource and a goal of formal and informal helping/supportive relationships.

SS theorists (e.g. Cohen and Wills, 1985; Pearson, 1990; Shumaker and Brownell, 1984) postulate that there are two ways in which SS operates as an interpersonal coping resource. Firstly, SS sustains an individual's health by gratifying basic affiliative needs, maintaining self-identity and enhancing self esteem. These health sustaining factors immunize and protect the individual from the ill effects of stress by influencing the individual's perception of confidence and personal control over stressful situations. Since the individual is already enmeshed in a network of supportive relationships s/he will be able to enlist network support to help overcome stressful situations. This overall beneficial effect of SS has been termed its "main effects". Even if individuals are not already enmeshed in supportive relationships, network members can be alerted, trained and mobilised to help "moderate" negative stress effects – hence the term "moderating" effects. These effects make SS network intervention strategies even more promising as an alternative to individual/group counseling with a professional helper – which may not be prevalent or considered opprobrious in our culture.

However, SS theorists consider that findings generated by the research to date are inconclusive and do not warrant the specific application of SS network intervention. They

claim that a crucial first step toward alliancing with and/or training network members to provide support is to identify those actions perceived as supportive in respect to specific stressful situations. They further recommend that SS be studied among subjects experiencing similar life concerns or problems. They suggest this approach because different situations call for different kinds of support from different persons.

The implication derived from SS theories is that by focusing on a homogeneous sample of persons with a similar life situation/s, more specific information regarding SS network intervention strategies could be generated. The decision to apply SS theory and research on USS problems is also in tandem with the emerging role of school counselors. The literature on secondary school students' problems using a situation-specific strategy as recommended by SS theorists is virtually nonexistent. Therefore, this study takes off from this premise. It begins by identifying a problem situation most commonly faced by the majority of USS and examines SS preferences within that stressful situation. Focus on academic problems is consistent with previous findings which have revealed that most USS are worried about performance in exams and have difficulties with school work.

Statement of the Problem

This study was designed to answer the following questions: (i) What is the perceived relative importance that urban Malay USS attach to the twelve common social support types when they are faced with an academic concern? (ii) Are male and female students different with respect to the degree of importance that they attach to each SS type? (iii) What is the perceived relative importance of salient persons such as father, mother, siblings, friends, guidance teachers and other teachers as sources of support? and (iv) Do male and female students differ regarding the degree of importance that they attach to each supporter? These perceptions of importance levels will indicate USS preferences for such SS types and supporters.

The decision to focus on one ethnic group within a locality conforms with the suggestion of theorists that SS studies should be conducted in a homogeneous sample as norms considered supportive in one culture may not be so in another.

The examination of gender differences is warranted as the exploration of the relationship may have important implications for the delivery of support services. Presently, the findings by Frank (1985) and Stokes and Wilson (1984) regarding gender and social support are inconclusive.

Significance of the Study

The findings of the study are intended to help counselor educators, guidance teachers, and others in the helping professions to identify the forms of support that need to be emphasized in support network oriented interventions.

It is also hoped that the findings will enable counselor educators to develop more culturally-relevant training materials for their counselor-trainees, particularly with respect to what is considered as supportive by Malay adolescent students. As of now, they are heavily reliant on theories and practices of guidance and counseling from non-Malaysian settings.

The study is also aimed at benefitting the students themselves since the possibility remains that the guidance teacher to pupil ratio will be extremely low despite efforts to train more school counselors. With such realities, it is important to maximize the usefulness of readily available, accessible and preferred support sources.

METHODOLOGY

Population and Sample

The study focused on urban Malay upper secondary school students who attend regular government funded schools within Petaling district.

The sample consisted of 164 Form Four Malay students from two secondary schools in a mostly-Malay populated town within the Petaling district. This cluster sampling method is in keeping with recommendations made by SS theorists. There were 71 (43.3%) males and 93 (56.7%) female students. 55 students (34%) were from the Arts, 60 (36.6%) from the Science and 48 (29.3%) from Commerce streams. Most of the students (80.5%) lived in nuclear family households consisting of parents and siblings. Only 6% lived in households that included grandparents. A small percentage of students (7.9%), reported living with either an older sibling or a relative while the remaining 5.4%

lived in single parent households. Participation in this study was strictly voluntary.

Instrumentation

A survey questionnaire was constructed to gather information from subjects. The questionnaire consisted of the following sections: demographic information; a problem situation; a list of 12 common SS types (developed by Pearson, 1986) with its corresponding Likert scale of importance levels; a list of six salient supporters along with a Likert scale of their importance.

The problem situation presented to the subjects in the questionnaire read as follows: Suppose that you are experiencing difficulty in one or several important school subject/s (e.g., Math, English, Chemistry, etc.). A great deal of your difficulty resulted from your lack of knowledge regarding how to study for the subject effectively. You find that you cannot take good notes. You feel that your teacher is going much too fast. In short, you do not know effective study methods for this/these subjects.

There was substantiating evidence that this problem represented a prevalent concern at this educational level. In the questionnaire pretest, students interviewed were in general agreement that the problem is very typical for students like them. Also, results of this study showed that 99.4% of the subjects reported they had experienced a situation similar to the one presented. This result lends further support that the problem selected for the present study is typical for the population.

Procedure

The study was done in two phases. Actual data collection was preceded by a pilot study. The questionnaire was administered to respondents in their classrooms. Subjects were asked to rate how important the twelve categories of SS would be if they were to experience the stated problem. The scale to indicate the level of importance attached to each SS category (SS-Importance) ranges from a value of 1 (Very Important) to 5 (Of no importance). Guidelines for translation and backtranslation procedures provided by Brislin *et al.* (1973) were stringently followed in translating the SS categories into Bahasa Malaysia.

An internal consistency coefficient of .67 (Cronbach's coefficient alpha) obtained for the SS-Importance scale used in this study indicates

that the categories were homogeneously measuring SS as a single construct.

Subjects were also requested to rate the importance of the following individuals as sources of support: father; mother; siblings; friends; guidance teachers; and other teachers. These categories of salient supporters were based on previous research.

Data Analysis

The Statistical Analysis System (SAS) computer program was used to analyze the data collected. For Questions (i) and (iii), the means, standard deviations, and range (i.e., minimum and maximum ratings) for each SS type and supporter were determined to obtain a general picture of the relative importance students attached to each SS type and supporter, irrespective of gender.

To examine Questions (ii) and (iv) that is, if gender differences existed regarding the level of importance attached to each SS type, and supporter, Hotelling's T^2 , a multivariate analog of the t -test, was conducted. The SAS computer software does not produce a Hotelling's T^2 statistic but automatically transforms it into an F statistic. The F statistic reported in this study is Wilks's Criterion.

Hotelling's T^2 represents a preliminary step in this multivariate procedure. Following any significant F value, univariate t -tests were conducted to determine which SS type and supporter category contributed to the overall significance.

RESULTS

Relative Importance of the 12 SS Types

Table 1 shows the mean ratings, ranks and standard deviations for each SS category. Generally, students' perception of most of the SS categories averaged from important to very important, thus reflecting a preference for multiple forms of support when students face an academic problem.

Supplementary analyses using correlated t -tests were conducted to determine if top-ranking "Guidance" was significantly more important than "Knowledge" and "Acceptance". The choice of comparing the three most important SS kinds was arbitrary. The difference in means between "Guidance" and "Knowledge" approached significance, that is, $t(163) = -1.87, p = .06$ but the difference in means between "Guidance" and

TABLE 1
Degree of importance attached to 12 SS categories:

SS category	M	(R)	SD
Love	1.79	(5)	.98
Encouragement	1.83	(6)	.86
Example	1.87	(8)	.96
Doing tasks for you	2.56	(12)	1.31
Companionship	1.68	(4)	.93
Acceptance	1.56	(3)	.71
Guidance	1.29	(1)	.63
Comfort	2.10	(9)	1.17
Giving/loaning	2.18	(11)	1.18
Knowledge	1.40	(2)	.76
Honesty	1.86	(7)	1.05
Advocacy	2.14	(10)	1.12

Note. (R) = rank
Lower numbers indicate greater importance.

"Acceptance" (third in rank of importance) was significant, $t(163) = -3.84, p = .0002$.

Gender Differences in SS Preference

Results show that overall the responses between males and females are significantly different in the importance levels they attached to the SS types, $F(12,151) = 3.00, p = .0009$. Specifically, females attached significantly greater preference for all SS types except for "companionship support."

Importance of SS from Different Supporters

Table 2 shows the respondents' mean importance ratings for each type of supporter. The supporters listed included father, mother, siblings, friends, guidance teachers and regular teachers.

Supplementary Analyses

A correlated t-test was conducted to determine if the first-ranked supporter was significantly more important than the next. Results showed that "mother" was significantly more important than "father", $t(161) = -2.83, p = .005$. "Father" was also found to be significantly more important

TABLE 2
Importance of SS from six different supporters

Supporter Category	N	Mean	SD
Father	162	1.42	.76
Mother	162	1.26	.60
Siblings	163	2.32	1.16
Friends	164	1.96	.93
Guidance Teachers	164	2.00	1.07
Other Teachers	164	2.28	1.20

than "Friends", $t(161) = -5.57, p = .0001$. But "Friends" were not significantly more important than "guidance teachers". Again, the choice of comparing the three most important supporters was arbitrary.

Perception of Importance Attached to Each Supporter: Gender Comparison

Table 3 displays the mean level of importance that males and females attached to each supporter.

Mean ratings for "mother" and "father" ranked first and second, respectively, for both genders. The mean importance levels attached to the six supporters fell within the range of important to very important.

TABLE 3
Importance attached to each supporter

Supporter	Mean	
	Females	Males
Father	1.32	1.56
Mother	1.22	1.33
Siblings	2.24	2.43
Friends	1.85	2.11
Guidance teachers	2.11	1.86
Other teachers	2.32	2.22

Results of the Hotelling's T^2 showed that overall responses of males and females were not significantly different with respect to the importance attached to each supporter, $F(6,152) = 1.68, p = .13$.

In summary, several, rather than one particular SS type, were perceived as important by respondents. Females attached greater importance to all the SS types except for the

category "companionship". Parents were regarded as the most important sources of preferred SS types. However, "mothers" were perceived as more important than "fathers" as a source of support.

DISCUSSION

Students' Preference for Multifaceted Support

The results indicate that when experiencing difficulties with their studies, urban Malay USS perceive it is important that they receive several SS types from others, leading us to conclude that their preference for support is multifaceted. This finding is consistent with the preliminary study conducted by Baba, (1989) in which it was found that most students facing particular problem/s reported receiving multiple rather than just one SS type, that is, students reported receiving varying combinations of emotional, appraisal, informational and material support types from others.

The above finding regarding a multifaceted support preference is also consistent with Pearlin's (1985) postulation that the type of SS or help needed may shift between the onset of a problem and its final resolution. Hence, a single problem could evoke the need for different kinds of support. In addition, study problems may be multifaceted or even intertwined with other problems such that students need various kinds of support from several persons.

The results also show that some SS types are more preferred than others. Specifically, students rated guidance and knowledge most important of all. In a broader sense, guidance and knowledge are forms of cognitive or informational support. The greater preference for these two SS types is consistent with the task required of individuals who are experiencing difficulties with their studies due to lack of knowledge regarding effective study techniques.

Gender Comparisons of SS Preferences

Malay female USS are generally found to attach greater importance than males to all the SS types except "companionship". This finding seems to reflect a general societal pattern, found across many cultures, in which males are socialized to be more self reliant than females. The significant gender difference in regard to importance ascribed to each SS type in this study reflects the pattern of male and female socialization among

many Malays. Female children tend to be more restricted in terms of their freedom outside the house compared to males. Males generally have more freedom and use that freedom to be with male peers, engaging in informal play and recreation. Perhaps this is why companionship support is less preferred by females compared to males – it is a supportive exchange that requires some degree of social activities outside the house.

Parents as Most Preferred Supporter

Students view their parents as the most important source of SS in handling an academic problem that would logically require specific technical information. And of their parents, mothers are preferred. Given that Guidance was described as "advice, direction, and spiritual guidance" in the present study, then, this supporter preference may reflect important elements specific to the Malay culture. Generally, "advice" or "nasihat" is an important and common form of support among Malays. Related to this, parents are important sources of advice, opinions, suggestions, and spiritual guidance in the Malay family. This cultural factor may explain this finding, and needs consideration in SS intervention programmes.

Nevertheless, the preference for mothers as supporters could also be explained by additional data gathered from the sample which indicate that less than thirty percent of subjects' mothers worked outside the home. Their apparent availability to children may explain the above pattern of supporter preference.

Importance of Other Supporters

Friends

The literature on adolescence mostly states that this stage is marked by the importance of same age peers. Perhaps friends or peers are not rated as most important because the problem presented had important consequences for the students' future.

Adolescents usually prefer adults over peers when the problems experienced are more serious because they perceive adult helpers as more competent and helpful (O'Neil, 1980).

The results also show that a very high percentage of the respondents were either experiencing or had experienced the problem. Students may have perceived that since their peers are "in the same boat", none is more experienced than the other in handling the

situation, and thus, could not be of much assistance.

Guidance Teachers

Unlike Frank's (1985) finding that formal helpers are least preferred, this study showed that guidance teachers are as important as friends for support with academic problems. Guidance teachers are also perceived as a more important source of support than other teachers and siblings. Although guidance and counselling as a helping modality is still very new in Malaysia, guidance teachers apparently are viewed as a relatively desirable source of advice, suggestions and opinions – perhaps by virtue of their job title.

Other Teachers

Students in the sample perceived their teachers as a relatively unimportant source of SS for the problem situation examined. Logically, one would expect that teachers would be more preferred sources of guidance and knowledge with respect to academic problems. Perhaps, the low preference for support with academic problems from teachers is because in urban areas, parents usually send their child to private tutorial centres after school hours. Hence, there are alternatives to sources of knowledge apart from school teachers. This low level of importance ascribed to teachers could also be related to problems in the current education system such as inadequate numbers of trained teachers, resulting in a high students'-teacher ratio. Determination of the specific basis for the relatively low preference attached to teachers' assistance regarding academic problems awaits future study.

Siblings

Siblings were the least preferred of the supporters listed. A closer examination of the data showed that many of the students sampled were either first born (52.4%) or few had an older brother (25%) or older sister (26.8%). Since most siblings were younger than the subjects in the study, they had not gone through the educational ladder, and thus were perceived as not being able to help, particularly with respect to academic concerns.

Implications

The finding that urban Malay students' SS type preference is multifaceted even with respect to a

single problem suggests that focussing solely on providing informational support will leave some of their preferences unmet. Casual observations and informal discussions held with guidance teachers from the subjects' schools reveal that usually students are given more homework and practice, special tutorial classes, extra classes on weekends, and seminars on methods of answering examination questions for certain school subjects to help them with exams. Although these responses are viewed as consistent with the major need of students facing academic difficulties, the importance of other kinds of support have not been simultaneously emphasized. Hence, school personnel, parents and other members of students' support network need to booster students' self confidence in overcoming academic stress by also providing emotional and appraisal support.

That female Malay USS preference for SS types is much greater than males' implies that school personnel and other network members (e.g., parents) should recognize the greater need of females, compared to males, for supportive interactions when they face difficulties with their studies. School personnel, in coeducational schools particularly, need to be sensitive to this difference so that the SS preferences of Malay female students are not regarded as equal, or similar, to those of their male counter parts.

Students' greater preference for parents as their source of important SS types suggests that school personnel need to collaborate with and, perhaps, train parents to help students overcome academic-related problems. This suggestion harmonises with Melnick and Fiene's (1990) finding that increased parental involvement in the education of their children directly improves their academic performance. Hence, instead of viewing parents as barriers in the educational and guidance process, school personnel can increase the quality of support available to students by enlisting parental help. Parental encouragement, advice, spiritual guidance and advocacy are much needed.

The teachers' role with regard to SS provision is also important since they are an appropriate source of knowledge. In this respect, teachers need to communicate to students that their support is available if students need help with academic problems. Perhaps teacher-student communication could be boosted by having one-

to-one teacher-student conferences frequently. Essential feedback, guidance, encouragement and other kinds of support from teachers can be given to students at such meetings. The success of such an effort, however, depends upon whether teachers know how to be supportive of their students. Given the kinds of support that students want for the academic problems examined in this study, efforts must be made to increase students' confidence in their teachers as being accessible, and competent sources of knowledge. Guidance teachers or counselors could play a major role as facilitators of student-teacher communication due to their training in human relations skills.

Related to the greater preference for parental support and the need to increase the teachers' role in helping students with academic problems, teacher and counselor training curricula should include developing teachers' and counselors' knowledge and skills in collaborating with parents. Guidance teachers/counselors especially need to be given such skills so that the school and parents can form a working alliance in helping students, particularly with regard to problems identified in this study.

Additionally, there need to be greater collaboration between school and family counselling departments so that counselors who work in schools can be versatile and competent in handling their clientele and vice versa. Helping professionals such as school and family counselors need such skills since research findings have indicated that increased parental involvement directly increases their child/rens' academic achievement.

RECOMMENDATIONS FOR FURTHER RESEARCH

The study can be replicated to examine SS type and supporter preferences for other problems experienced by USS. It is probable that with more contrasting problems, greater differences due to gender would be observed concerning SS type and supporter preferences. Also, since Malaysia is a multiethnic society, the study needs to be replicated for other ethnic groups so that their needs are not overlooked by school personnel, parents, and other concerned individuals.

An effort should also be made to connect desired SS types to USS' most preferred sources of support for different problem situations. For

example, the same categories of SS could be presented to USS but in reference to what the respondents would like to receive from each parent. This information will enable parents to be more responsive to the SS needs of their children.

There are many ways to help students with academic difficulties. The main object of this study is to provide the basis for exploring how significant others can be more responsive to the SS needs of secondary school students in general, and Malay secondary school students in particular.

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Participative Villager Empowerment for Socio-Economic Development

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ABSTRAK

Pendekatan-pendekatan pembangunan yang membolehkan penyertaan masyarakat miskin luar bandar telah lama diteliti, diuji dan diselidiki. Di Malaysia, pendekatan ini telah diuji di dalam empat buah kampung dalam mana penekanan adalah dibuat ke atas pemberian kuasa kepada komuniti-komuniti kampung itu dengan kemahiran-kemahiran sosial dan teknikal. Suatu kaedah berdamping telah digunakan oleh agen-agen pembangunan serta menggalakkan masyarakat kampung untuk membuat keputusan sendiri akan arah-aliran pembangunan mereka. Di dalam kampung-kampung tersebut, aktiviti-aktiviti sosio-ekonomi yang berjaya termasuklah aktiviti pendidikan, pertanian dan penternakan. Keputusan-keputusan positif menunjukkan bahawa masyarakat miskin boleh diberikan kuasa untuk membangunkan idea-idea mereka melalui pembangunan sumber tenaga manusia dan pendekatan penyertaan. Dengan kaedah yang sama, aktiviti projek telah menjadi lebih mampan.

ABSTRACT

Development approaches that allows for greater participation of the rural poor and that are sustainable in nature have long been examined, tested and further researched. In Malaysia, such a project approach has been tested in four villages with a focus on empowering village communities with social and technical skills. A consultative stance is adopted by the development agents who encouraged the villagers to decide on their own courses of action. In the project villages, socio-economic activities ranging from educational to agricultural and livestock components were successful. The positive results indicated that the poor can be empowered to develop their own ideas through human resource development and participatory approach. Project activities initiated in this manner were found to more sustainable.

INTRODUCTION

In recent years, the search for sustainable development efforts to solve the problems of the rural poor has become a national concern. Approaches that could be sustainable in terms of the ecological, social, cultural and economic contexts loom highest in terms of priority considerations in the formulation, identification and selection processes in programme development. Once found, these approaches have to be tested, demonstrated and later adopted on a wider scale.

In Malaysia, a project focussing on model village development has been started by Universiti Pertanian Malaysia with seed money funding of US\$5000.00 from the Centre for Integrated Rural Development in Asia Pacific (CIRDAP), a regional non-governmental organization based in Dhaka, Bangladesh. Four villages were selected:

Kampung Bukit Changgang and Kampung Sungai Buah in Selangor and Kampung Batu 9 and Kampong Jijan in Negeri Sembilan. Similar projects have been started in other CIRBAP Member Countries which have yet to be documented.

The long-term objective of the project is to assist national action in Malaysia through the selected poor communities for the purpose of refining integrated rural development strategies by incorporating the community organizing techniques, community problem-solving with the use of participatory research and planning system, and implementation of projects that will improve the socio-economic conditions of the villages.

Specifically the project aims to investigate participatory development approaches in terms of their usefulness, the factors influencing its

success and to document the learning experiences for others who wish to replicate the project.

This paper presents the participative village development approach and techniques used in the project in the four villages during 1991 and 1992. The preliminary findings of the mechanisms and outcomes of the project are discussed.

THE PROJECT RATIONALE

There is an increasing awareness that pursuit of purely economic goals may not necessarily improve the quality of life in the rural areas. Comprehensive Integrated Rural Development (IRD) policies could be devised for the balanced social and economic development of these areas.

There are certain global trends that must be reflected in any IRD programme relevant to the problems currently experienced. For instance, the contents of IRD should, among other things, include environmental concerns such as pollution in all forms, denudation of forests, degradation of traditional values and over-emphasis on materialism, concentration of power, deteriorating law and other situations, etc. There is a need to pursue a development model that is supportive of the needs of the present and future generations.

The IRD programmes must also provide for education and training of the villagers, organizing work so that the people can learn to work together and resolve local issues and conflicts by themselves, and enable them to solve their basic socio-economic needs. Training and education programmes are needed to develop human resources and promote democratic rights and privileges. Training would improve their capabilities/capacities for problem solving, grasping opportunities, and dealing with threats. Training also facilitates the needed changes in communities through cooperative effort.

Rural women are equal partners in development. The status of women in the Asian-Pacific countries inhibits this partnership. Enhancing the status of women by improving female education and health, and changing their antiquated attitudes would also be the aim of the model villages.

Increase in agricultural and industrial production by harnessing modern technology would sustain all-round development of villages. Institutional arrangements will be made for the con-

struction and maintenance of physical infrastructure, provision of inputs like seed, fertilizer, pesticides/weedicides, implements and machinery, water and credit facilities. The credit-worthiness of villagers would be enhanced by providing community collaterals.

Agricultural development alone would be able to support the increasing population of villages. It is imperative to plan and develop small industries in the model villages to provide employment and offer other profitable opportunities for men and women as well.

A model village is developed when the villagers become aware of their situation and begin to believe in their capacity to change the situation for the better. Since they realize that they cannot solve their problems individually, they have to think and work together. Their problems range from inadequate income, low level of education, health and sanitation support, inadequate infrastructural facilities (roads, water, and electricity), lack of opportunities for their children, low farm production etc. The problems have to be prioritized, linked with other people and resource pools. In due time, villagers will learn from their experiences and be able to gradually solve their problems. The net effect is a "learning-by-doing" community that is continually changing not only physically but more importantly, in their moral, social, cultural and approach to life. They will begin to rely on their collective thinking and strive to solve common problems and share in the benefits derived from various programmes. They will be well-organized and prepared to face the challenges affecting the community. They will make it possible to continue education based on their experiences and educational needs.

These villages will develop in time; and in the project the villages participating may be operating at different stages. One village may still be in the unorganized stage characterized by people who are individualistic; another may already be organized with its own vision and a set of good leaders, who have a clear set of integrated activities aimed at improving the community; while another village may already be at the stage of being a sustainable village where the community can manage its own problems. These stages of the Model Village is illustrated in Figure 1.

The project is concerned with the ways and means of achieving this kind of village. First, it

prescribes a thorough consultative evaluation of the resources and capabilities of the community and the people. Then it initiates the development of the people by introducing the community organizing components, discusses with the community problem assessment planning and project implementation, assists the villages in solving their various other problems by making them realize the need to view the problems

from within and from without. The project constantly evaluates situations and reflects on experiences so that the community can learn on its own. In all these steps the entire community is involved through its own organization and leadership. The lessons and insights from this study are documented systematically so that the experiences can be shared with other villages. Through organizing, training, and seed money or capital

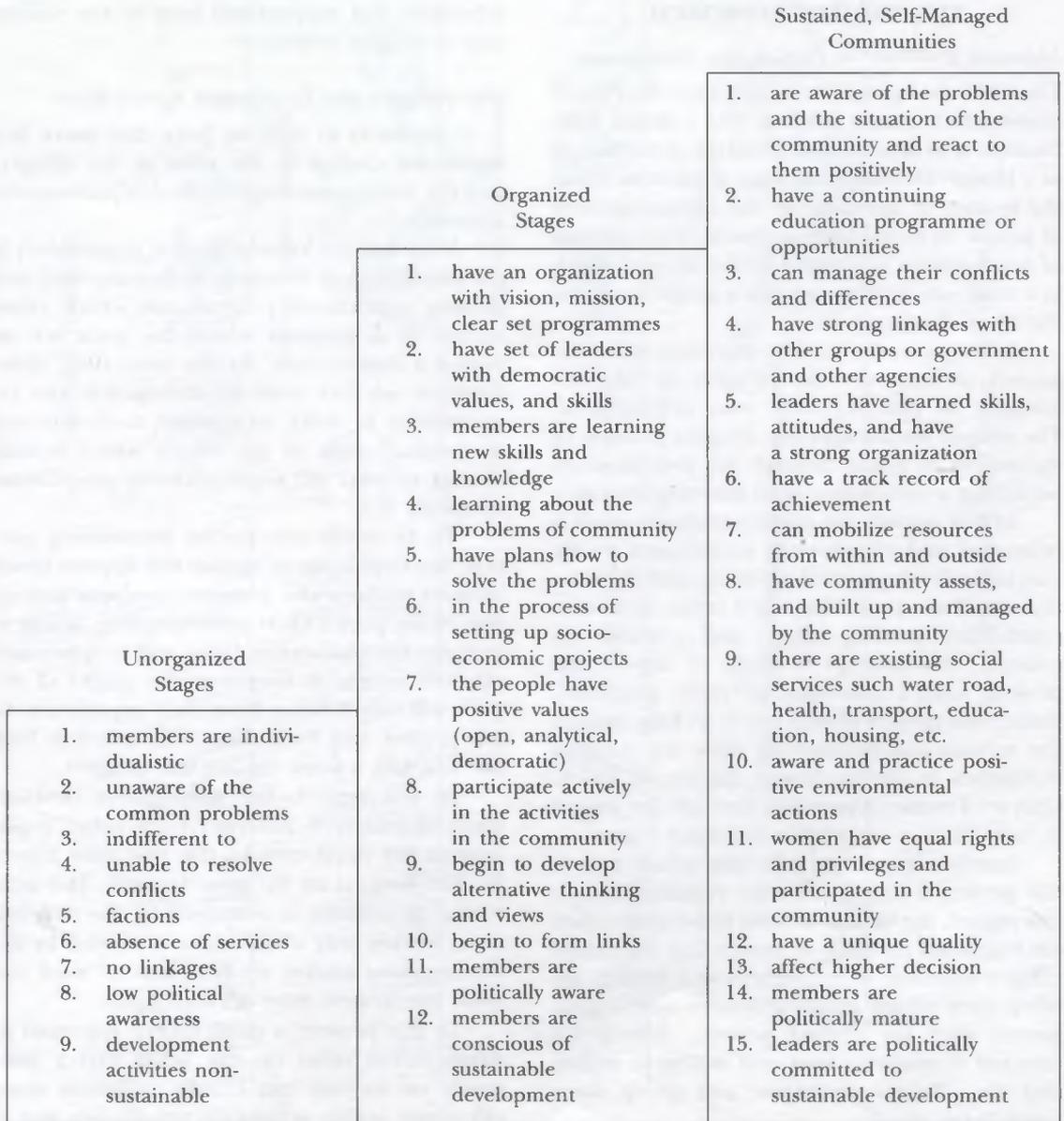


Figure 1: Development stages of the Model Village (adapted from CIRDP, 1991)

provision and other development interventions, this project envisages the development of model villages that are well-organized, educated and able to solve their social, economic, and political problems. Through this process MVRD can be said to have facilitated the formation of villages that are truly exemplary in attaining genuine development with the people earning an increased income in improved socio-economic circumstances through equal participation.

THE PROJECT APPROACH

Important Principles in Participative Development

The word *development* has its root from the French *voleper* which means to wrap, like a flower bud. *Devoleper* is to unwrap and reveal the inner beauty of a flower. Development then is taken to mean the process of unveiling or the encouragement of people to reveal their potential. This concept of development is adopted by the project, which in a small way is coherent with a *growth-from-below* theory of development.

Inherent in the project objectives is for the project to empower the villagers to take the initiative to plan for their own development. The project encourages the villagers to learn by themselves by going through the process of establishing a community level learning system.

In this respect, the participatory approach is promoted and villagers are encouraged to discuss their developmental problems and the solutions to these problems based upon their own capabilities, possible efforts and available resources. No attempt is made to impose the project team's solutions to their problems. Rather the project team's role is to help analyse the various possibilities and allow the villagers themselves to decide on the courses of action. Only seed money is provided through the project to help finance or provide necessary inputs.

Another important principle adhered to in this project is the concern for sustainability. In this regard, the various actions to be undertaken are examined carefully to ensure that the model villages continue to implement and further develop their village learning systems and organizations after the project period. Efforts are directed to examine ways and means to ensure that the villagers participate and group dynamism is sustained.

Another important concern is for the social empowerment to lead to economic growth of the villagers themselves. This means that the

project envisages that the villagers would overcome their own problems and appreciate that they, as a group, can work out viable possibilities using their own ideas and resources. Social empowerment would strengthen their resolve and *esprit de corps* whilst economic empowerment would enhance their belief in their own efforts.

Wherever and whenever possible, the project activities complement those of the other governmental agencies functioning in the villages. Their cooperation is sought and other agencies' contributions and support will help in the realization of project activities.

The Villager's and Development Agent's Roles

It is pertinent to indicate here that there is a significant change in the roles of the villagers and the development agents in this participative approach.

It is common knowledge that dependency is the psychological antithesis to development and poverty eradication programmes which often incline to a situation where the poor are assigned a passive role. At the same time, development workers tend to monopolize the responsibility to think, to sponsor, to decide and to conduct most of the efforts which initiate change to meet the expectations of programme sponsors.

To be really effective in overcoming poverty, the development agency will require development workers who possess a concrete perception of the poor. Their understanding, ability to perceive the human condition and to appreciate effective means to overcome the plight of the poor will only develop from daily experience. In this project, our Field Associates spend at least two full-days a week visiting the villagers.

In this regard, the participative development approach is different from other major approaches developed in the past (see Figure 2). The focus is on the poor farmers. The technocrat or scientist is consulted by the development worker only when advice is needed by the development worker on how best to work out what the farmers have decided upon.

In this project, a participative approach to development relies on the belief that a poor family on its own can handle problems more effectively, is able to help the neighbours, and in return receives help from them. The development worker is expected to hold discussions frequently with the poor families to understand

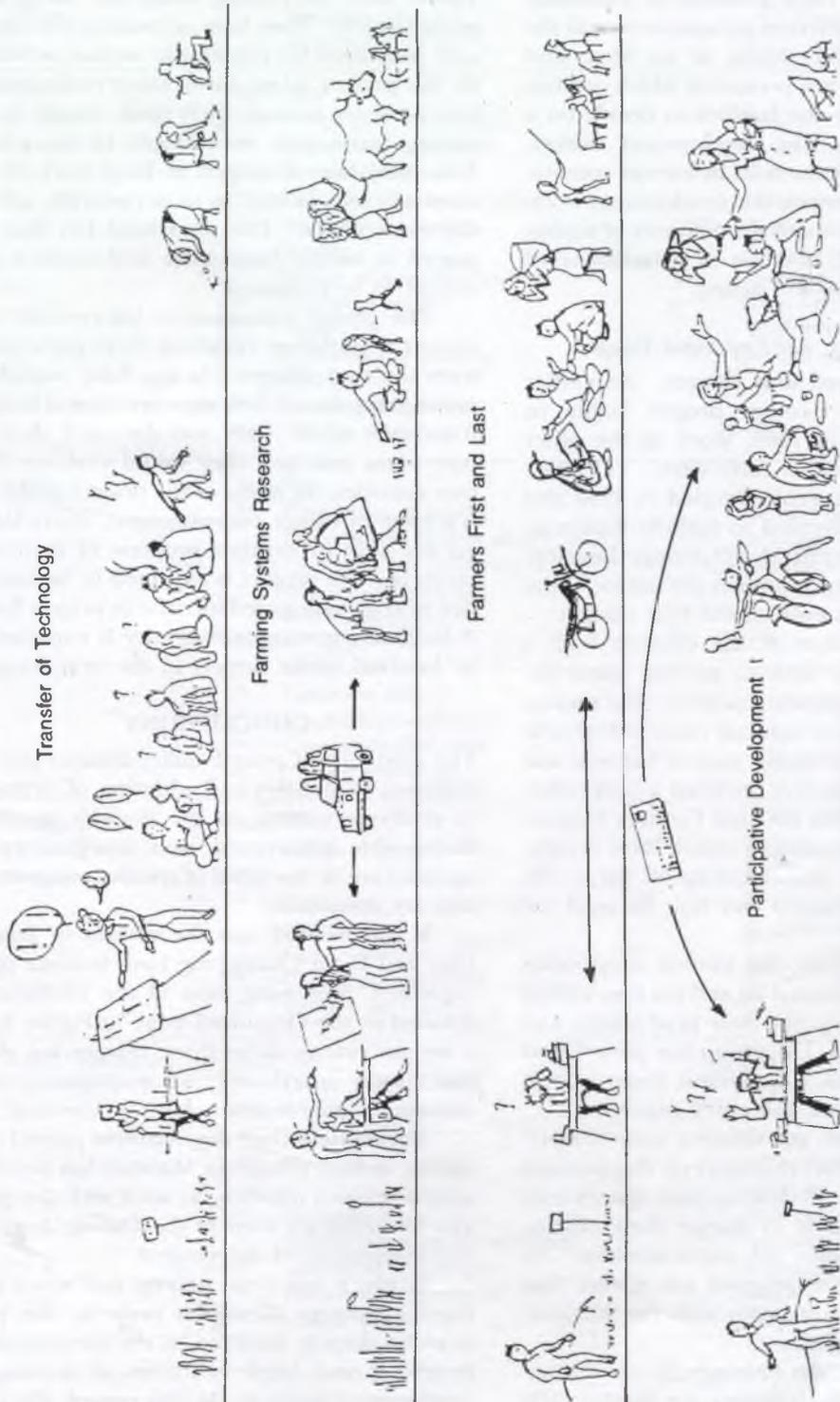


Figure 2. The Basic Differences Between TOT, FST and PD

their problems. Each problem is examined thoroughly from different perspectives until the development worker thinks of an idea; and several hypotheses are presented which are further discussed with the families to decide on a course of action. The development worker, therefore, must possess skills in human communication. In this project, the development worker's attitude is not one of the deliverer of sophisticated technology, but that of a facilitator of community learning and action.

The Project Outcomes: The Empowered Villages

The project involved four villages. An earlier Basic Needs and Ecology project began in Kampung Batu 9 in 1988. Work in the other three villages started in early 1991. The Basic Needs and Ecology project ended in 1990 and the project team decided to include Kampung Batu 9 in the current Model Village Development Project. Figure 3 outlines the nature of the project activities in each of the four villages.

In Kampung Batu 9, the villagers built a ferro-cement water tank to provide water for their group guava planting project. The success of the group project induced other villagers to venture into cash cropping, such as bananas and aquaculture. The project provided a cash collateral of RM3,500.00 to the local Farmers' Organization to enable farmers to obtain farm credits. The farmers have since paid-up all the credit taken and the collateral can now be used for other activities.

In Kampung Jijan, the women cooperative members are a dedicated lot and are ever willing to learn how to enhance their productivity and find better markets. The group has persevered in the face of stiff competition from a local manufacturer of soya and chilly sauces.

In Sungai Buah, the villagers were "forced" to adopt a rabbit rearing project on the assumed promise that the local development agency concerned would be able to market their rabbits. However, this venture did not materialise. In fact, this project strengthened our resolve that project activities must begin with the villagers' interest and capabilities.

In Kampung Bukit Changgang, a youth settlement scheme, the villagers are in the early forties and have young children. The women group won the award for most progressive farm women group for the State of Selangor in 1992.

Twelve men are rearing about 400 sheep as a group activity. They have accumulated a significant trust fund for community welfare activities. In this project, when there was a realization of how to better manage their stock, simple inventorying techniques were taught to the group. Now, they have managed to keep track of the ewes and kids as well as to periodically sell off the extra males. The pre-school kits that are placed in twenty homes are well-received and are yet to be evaluated.

The project management has recently conducted a workshop involving forty participants from the four villages. At the 3-day workshop, participants shared their experiences and learned from each other. They also discussed their future plans and how they would evaluate their own activities. In terms of the project goals, this is a stage of village empowerment, where villagers are able to monitor progress of their own projects. The project is expected to be intensified with an anticipated increase in project funds. A local non-government agency is expected to be involved in the project in the near future.

CONCLUSIONS

The existence of poor families dictates the formulation of policies and adoption of strategies to eradicate poverty in the decades to come. Responsible government and non-government agencies are in dire need of creative programmes that are sustainable.

It can be said that the villages of Batu 9, Jijan and Bukit Changgang have become more organized, possessing most of the attributes as detailed in the Organized stage in Figure 1. To a certain extent, these three villages are showing some attributes of sustained, self-managed communities.

The model village development project conducted in four villages in Malaysia has provided several insights into how to work with the poor. The following are some of the findings from the implementation of the project:

Firstly, it has been proven that when conducting poverty alleviation projects, the poor must be directly involved in the identification, designing and implementation of sustainable development projects. In this regard, the roles of the poor and the development worker have to change to encourage a participative and empowering mechanism in village development.

Village	Activities (A) and Project Inputs (I)	Preliminary outcomes
1. Natu 9 (6 men 4 women)	Activities * Group guava growing * Collective aquaculture * Group rice growing * Individual banana planting * Local village market Inputs: * Village committee meetings * Extension visits * Study trip * Ferro-cement training * Water-pump * Credit guarantee * Villager workshop	* Improved group relations * Personal skills and mitigation * Industriousness * Strong linkages with other government agencies * Improved leadership * Positive concern for environment
2. Jijan (9 women)	Activities * Production of snacks (banana and tapioca chips) * Production of chilly sauce * Women cooperative development inputs: * Study visit * Extension visits * Leadership workshop * Committee meetings * Villager workshop	* Active women group activities * Improved leadership in cooperative * Members learning new knowledge and skills
3. Sungai Buah (8 men, 4 women)	Activities * Rabbit rearing Inputs: * Subsodies from development agency * Extension visits * Committee meetings * Villager workshop	* Learning from project failure * Cautious, but determined group
4. Bukit Changgang (29 men, 20 women)	Activities * Group sheep rearing * Women handicraft * Village library * Pre-school learning Inputs * Extension visits * Simplified stock inventorying * Committee meetings * Pre-school learning kit * Villager workshop	Improved group * Improved group relations * Strong linkages with other development agencies * Can manage conflicts * Improved leadership * Possess community assets * Have a track record of achievements * Improved pre-school vigour * Have unique quality

Figure 3. Project characteristics and outcomes in four villages

Secondly, it has been found that local development approaches that promote sustainable growth-from-below strategies must be "home-grown". They must be situationally relevant, non-threatening and put the beneficiaries in control. Responsible control of their developmental efforts, after all, can lead to a responsible approach to sustainable agriculture.

Thirdly, the project has provided reasonable support for the idea that when the poor are socially empowered, they could be capacitated to examine their own situations and suggest their own ideas of how best to overcome their own conditions.

Fourthly, the foregoing further lends support to an inherent principle in the project that a human-resource development type of inputs is crucial in unleashing individual desires and cementing positive group relations.

Fifthly, the project has exhibited that when poor families are expected to be fully involved, project sustainability is a priority, and when flexibility of resources allocation is crucial, the participative approach used in this project has been successful.

Sixthly, development of the poor is very much a social process. The more the development worker is trained in human communication or adult education, the better prepared is

he or she to strike a helping and respectful relationship with the poor.

Lastly, the project has illustrated that there is virtue and justification for development workers to be socially competent and to possess a willingness to be closely associated with poor families to encourage villager action. This is because sustainable development is dependent on the changes and desires in individuals which are encouraged through open communication; this ultimately enhances individual freedom which culminates in group action to improve themselves.

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Principals' Leadership Style and School Performance: Case of Selangor Secondary Schools

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Keywords: Leadership style, principal, school performance, Selangor Secondary Schools

ABSTRAK

Tujuan kajian ini ialah untuk menerang prestasi sekolah secara keseluruhan dari segi gaya kepimpinan pengetua dan beberapa pembolehubah latar belakang sekolah. Data dikumpul daripada 69 buah sekolah menengah negeri Selangor. Empat pembolehubah bebas digunakan dalam model regresi untuk menerang pencapaian sekolah dalam peperiksaan SPM. Keputusan kajian menunjukkan keempat-empat pembolehubah bebas dalam model regresi tersebut, iaitu gaya kepimpinan pengetua, usia sekolah, sekolah pekan kecil dan luar bandar berkorelasi secara signifikan dengan pencapaian sekolah secara keseluruhan.

ABSTRACT

The purpose of this study was to explain overall school performance in terms of principals' leadership style and some school background factors. Data were collected from 69 schools from the state of Selangor. Four independent variables were used in the regression model to explain overall school performance in the Malaysian Certificate Examination (MCE). The results showed all the four independent variables in the regression model, i.e. principal's leadership style, age of school, small town and rural schools correlate significantly with overall school performance.

INTRODUCTION

It is generally agreed that effective leadership is essential in all organizations, whether business, government, religious or educational. Organizations are established for the achievement of a set of goals and objectives. The success of an organization depends largely on the quality of its *leadership*. It is also considered a slippery concept, as evidenced by the number of definitions on it (Owens, 1991). Successful leaders motivate their subordinates to higher levels of productivity, remedy poor performance and lead the organization towards its objectives. Good leaders should be able to influence their subordinates towards the achievement of organizational objectives.

The concept of *leadership style* has attracted interest in business management for its relevance in organization. It is only recently that this concept has been applied to education as a way of examining the behaviour of principals (Weindling and Earley, 1987). In a highly structured organization such as a school with strong

traditions supporting hierarchical authority leadership is synonymous with official position. The leader in the secondary school, i.e. the principal, is a member of a group who helps to develop ways of interacting which facilitate achieving common goals.

School is one of the more important organizations in society, established to achieve specific educational objectives. One of these objectives is to promote student learning and improve academic performance. According to the *classical academic phase model*, the better the teacher the more will students learn (Jones, 1988). But if students do not learn, it is not because they have not been taught enough.

According to another model, namely the *organizational development phase model* (Jones, 1988) the culture and the organization of a school is influenced by its principal. This belief stems from the work of Rutter in 1979 (cited in Jones, 1988) who showed that among the important factors related to better student achievements such as examination performance, are styles and

rules of the organization. This implies that the leadership style of the principal as an organizational leader in the school, plays an important role in bringing about outstanding scholastic performance.

What are the main factors associated with effective schools? In his study on four schools in the United States, Weber (cited in Clark *et al.* 1989) found eight factors present in successful or effective schools. Among these factors were strong administrative leadership, high expectation for student achievement, positive school atmosphere and regular evaluation of student progress. The literature on *In Search of Excellence* (ISE) has shown the importance of the role of the principal as a key factor in school effectiveness (Clark *et al.* 1989).

Principals' leadership has an effect on the school in many ways, such as on school climate (Alageswari, 1980; Rahimah Hj, Ahmad, 1981), its learning situation and level of professionalism among teachers (Mukherjee, 1970), satisfaction among teachers (Thandi, 1972; Noran and Sharifah, 1990), mediating between school and parents (Cohen and Manion, 1981), and school performance (Ogawa, 1985; Eberts and Stone, 1988). Some empirical studies which found significant relationship between the effect of the principal on school performance include those done by Eberts and Stone (1988) and Heck *et al.* (1992).

Another variable which often interests educators and laymen is the location of the school. This ecological variable is considered important because of the varying student characteristics, the educational attainment of parents, and their expectations of their children's performance. Thus, the location of the school is hypothesised to have an effect on the students' scholastic performance.

A third variable is the age of school which reflects its maturity as an organization. It is hypothesised that older schools, because they have a more established culture, would perform better than younger schools. What is meant by culture here is "a system of shared meaning held by its members" (Robbins, 1991: 274).

The best indicator of academic achievement in Malaysian secondary schooling is performance in the Malaysian Certificate Examination (MCE). In 1988, Selangor ranked eleventh in the overall performance in the nation-wide MCE

examination, with 76.4% passes, regardless of scholastic grades.

In the state of Selangor, performance in the MCE examination declined between 1981 and 1983. There was an improvement in 1984, but declined again in 1985, yet improved again in 1986. Based on data available, it may be shown that, between 1981 and 1987, the overall rate of passes in the MCE examination in the state was 68.8%. In obtaining 76.4% passes in 1989, the State showed marked improvement in academic performance in this crucial public examination.

This discussion on school performance leads to a crucial question: What school factors are associated with the passing rate or overall performance in the MCE? To what extent do principals contribute to school performance? Is there any difference in the quality performance of urban and rural schools? Is academic performance dependent on age of school? These are the questions that will be addressed in the study. The purpose of this paper is to explain overall school performance in relation to principals' leadership, location of school and age of school.

METHODOLOGY

Subjects

The subjects of the study were all non-residential secondary schools belonging to categories A and B (including former C-category) in the state of Selangor Darul Ehsan, Malaysia. This state is the most developed state in the Federation. Nevertheless, some districts in the state may still be classified as rural (e.g. Sabak Bernam), while Petaling district is urbanised. This urban-rural dichotomy is considered relevant for the purpose of the present research.

Data for the study were procured from all non-residential schools through mailed-questionnaires. Questions relating to leadership style were answered by the principals, while other questions on background information of the school were answered by the senior assistants. The unit of analysis in this study was the school.

Dependent Variable

An overall performance index (Y_j) was computed from the data on school performance based on the 1989 results of the MCE examination.

Since schools differ in size according to student population taking the MCE examina-

tion, and in the distribution of grades among the candidates sitting for this examination, a composite index was devised to measure this "scholastic performance" so that it is independent of the school size but dependent on the grade distribution. Therefore, an overall performance index was developed along the lines of cumulative grade point average (CGPA) of university students.

The index was constructed to give weightage to the number of students obtaining the various grades in the MCE. The grades are 1, 2, 3, and 4. Each grade was then assigned a quality point; Grade 1 was assigned 4 points, being the highest quality point; Grade 2 was given 3 points, Grade 3 was given 2 points and Grade 4, zero point. Grade 4 is "Failure".

An index of overall performance was constructed by the following formula:

$$Y_j = \frac{4N_{1j} + 3N_{2j} + 2N_{3j} + 0N_{4j}}{N_{1j} + N_{2j} + N_{3j} + N_{4j}}$$

where,

- Y_j = Performance index of the j-th school
 N_i = Number of candidates receiving Grade i in the MCE (i = 1, 2, 3, 4)
 N_{1j} = Number of students getting grade 1 in the jth school
 N_{2j} = Number of students getting grade 2 in the jth school
 N_{3j} = Number of students getting grade 3 in the jth school
 N_{4j} = Number of students getting grade 4 (failing) in the jth school.

Independent Variables

(a) **Leadership Style.** Twenty items were developed to measure an index of principals' leadership style. The concept of leadership style in this study relates to several dimensions, namely, principals' administrative style, instructional leadership, concern for academic performance and concern for students. Six items relate to the principals' administrative leadership, five items pertain to instructional leadership, five items touch on academic performance and another four items deal with the principals' perception of students. The six items on principals' administrative style were based on Thandi's (1977) instrument on principals' leadership style. The remaining ones were developed by the researchers.

Four possible responses were allowed for every item, namely, "strongly agree", "agree", "disagree" and "strongly disagree". Based on the scoring criterion, principals' leadership score can range from 20 to 80. The scores were arbitrarily categorised into three leadership styles, as follows:

- | | | |
|---------------|---|--------------------------|
| 20 through 40 | - | poor leadership style |
| 41 through 60 | - | average leadership style |
| 61 through 80 | - | good leadership style |

A test of reliability of the principals' leadership style variable by using the Cronbach's Alpha gave a value of 0.60, which is considered acceptable.

(b) **Ecological Factors.** These refer to school setting which was labelled either as urban, small town or rural. The classification of a school into one of these three categories was left entirely to the respective principals responding to the questionnaire who used the Ministry of Education criterion.

(c) **Age of School.** This was measured in years as of the year 1990 from the year the school was established. For example, a school established in 1967 would be 23 years old in 1990.

Hypotheses

The hypotheses for the study are as follows:

- The overall academic school performance is positively related with the age of the school.
- Overall academic school performance is positively related with the principal's leadership style.
- Overall school academic performance differs according to school location.

Analysis

A linear model was used in this study, which took the following general form:

$$Y_j = a + bP + cS + d_2L_2 + d_3L_3 + u$$

where,

- Y_j = the overall performance of the jth school;
 P = Scores of principals' leadership style;
 S = Age of school;
 L = Location ($L_2 = 1$ if small town;
 $= 0$ otherwise);

$$L_3 = 1 \text{ if rural;} \\ = 0 \text{ otherwise)}$$

a, b, c, d = intercept and regression coefficients, respectively.

and u = error term assumed to have zero mean and constant variance.

Multiple regression was used to estimate the parameters of school performance. Thus, four variables were included in the regression model to explain overall MCE performance. These variables are: two dummy variables (TOWN and VILLAGE) representing the location factor (with city schools as the control group), age of school in years (AGESCH), and principal's overall administrative style (ATT).

Prior to the regression analysis, a correlation analysis was carried out on the two continuous independent variables to be used in the model, namely, leadership style score and age of school. The results of the correlation did not show these two variables to be highly correlated, implying no multicollinearity.

The linear form was used in the estimation process. The analysis was done by the SPSS/PC+ package using the "ENTER" method.

RESULTS

Principals' Leadership Style

Results of principals' leadership score ranged from 50 to 73, with a mean score of 60.83 and a standard deviation of 4.36. There was only slight variability in the leadership score (coefficient of variation of 7%). From these results, it was inferred that all principals perceived themselves as having either an average or good leadership style. Based on the categorisation of scores, slightly more than half (52%) of principals came under the category of having average leadership style, with the remaining 48% as having good leadership style.

Results of cross-tabulation of leadership scores with three background variables, namely gender, school location and grade of school, showed that leadership style was not associated with any of these background variables.

Overall School Performance

A total of 11,615 students from the 69 schools in Selangor sat for the MCE in the 1989 academic year. The lowest passing rate was 49 percent, while the highest rate was 98 percent, with a

mean passing rate of 75.4%. The mean of 75.4% was comparable with the state's overall performance of 76.4%. The overall school performance also indicated 30 schools (43%) were below the mean passing rate.

Of this number, 2446 (or 21%) obtained Grade 1, 3073 (or 26.4%) Grade 2, and 3450 (or 30%) Grade 3. The failure rate for this examination (23.8%) for that year.

Breakdown of students by grade obtained and location of schools showed urban schools to have the most number of first graders (28.9%), followed by small town schools (14.5%) and rural schools (12.7%). More students from small town schools (27.8) obtained a second grade, followed by rural schools and urban schools (both 27.2%). As for third graders, the majority (36.2%) were from rural schools, followed by small town schools (34.4%) and urban schools (26.6%). Rate of failure was about equal in rural (23.8%) and small town schools (23.3%) but lower in urban schools (18.2%) (Table 1).

TABLE 1
Overall school performance by location

Performance	School Setting		
	Urban %	Small Town %	Rural %
Grade One	28.9	14.5	12.7
Grade Two	26.3	27.8	27.3
Grade Three	26.6	34.4	36.2
Failures	18.2	23.3	23.8
Total	100.0	100.0	100.0

The overall mean academic performance based on the computation was 2.101 points which was equivalent to about Grade 3, with a minimum score of 1.24 points and a maximum score of 3.21 (slightly above Grade 2).

Results of the ANOVA showed that the overall mean performance differed significantly according to location (Table 2). The overall mean performance of urban schools was 2.36, followed by small town schools (1.98) and rural schools (1.96). The overall performance of urban schools differed significantly from that of small town and rural schools. However, there was no significant difference in the overall performance between small town schools and rural schools.

TABLE 2
ANOVA of school performance by location

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Ratio
Between Groups	2	2.4256	1.2128	8.6150	.0005
Within Groups	66	9.2913	0.1408		
Total	68	11.7169			

Regression Results of Overall School Performance

The overall results of the regression gave an R-Square of 0.035 while the adjusted R-Square was 0.241. Therefore, about 24 percent of the variance in the MCE performance was jointly explained by the four independent variables. ANOVA of the regression gave an F ratio of 6.33 which was significant at $p < .001$ (Table 3).

Principal's Leadership style and School Performance

The composite leadership score was used as an explanatory variable in the regression equation

of school performance. A high leadership score implies a good leadership style, while a low score indicates poor leadership. The results of the regression showed this variable to be significantly related with performance at $p < .05$ (Table 4).

This finding is similar to those of other studies on the effect of the principal on school performance. For example, Eberts and Stone (1988), in their study on 14,000 primary school children in the United States, found principal's instructional leadership and conflict resolution

TABLE 3
Overall results of regression analysis of performance in the MCE examination

R Square	0.286		
Adjusted R Square	0.241		
Standard Error	0.354		
Analysis of Variance			
Source	DF	Sum of Squares	Mean Squares
Regression	4	.66647	1.6662
Residual	63	1.95053	.03096
F = 6.326		Sig. F = 0.0002	

TABLE 4
Regression analysis of overall performance

Variable	B	SE B	Beta	T	Sig. T
ATT	.01986*	.01029	.21280	1.930	.0500
TOWN	-.37340**	.11660	-.41455	-3.202	.0021
VILL	-.29589*	.11342	-.35821	-2.609	.0113
AGESCH	.00595377*	.00254695	.27606	2.337	.0226
(Const.)	.95024	.62816		1.513	.1353

Note: ** Sig. at .01 level; * Sig. at .05 level

to be significantly related with student performance. A similar finding was reported by Heck *et al.* (1990) in their study on 332 teachers and 56 principals.

However, it should be realised that principals' impact on student performance is not the same as that of ordinary teachers who are involved in direct classroom interaction. A principals' impact on performance is felt through school decisions such as formulating school goals, setting and communicating high achievement expectations, support for teachers in acquiring teaching-learning materials, supervising teachers' performance, monitoring student progress, promoting a positive environment for learning and superior instructional leadership.

Age of School and School Performance

Among the schools studied, many were established before 1957, the year Malaya achieved independence from Britain. The regression coefficient for age of school was positive, giving a t-value of 2.337 and significant at $p < .05$. In other words, the older schools performed better.

School Performance by Location

The dummy variable TOWN was used to compare performance of town schools with the control group, i.e. the city schools of Petaling Jaya. The regression coefficient was negative, giving a t-value of -3.202, significant at $p < .01$. Thus, compared to city schools, overall performance of small town schools was lower, other things being equal.

The overall performance of rural schools was also lower than that of city schools, and significant at $p < .05$.

CONCLUSION

The findings of the study indicate that, other things being equal, the older schools performed better in the MCE examination. A few notable "old" schools were two Chinese schools and five "controlled" schools, which at one time were missionary schools, noted for their excellent academic performance. Teachers in these schools have a good reputation for diligence and conscientiousness. Their principals are strong disciplinarians and task-oriented. Parents compete to get their children into these schools. The students, once admitted, study very hard to keep

their places and strive to maintain the good image of their alma mater.

As a school becomes more established its performance improves in linear fashion. The "old" schools in this study have a track record of good academic performance. It is expected that teachers from these "old" schools share common beliefs and values in terms of academic excellence (Deal and Kennedy, 1983) and work as a team to create a more productive learning environment.

It is suggested, therefore, that principals from the "younger" schools adopt a similar approach in the running of the schools and emulate the good practices of these established schools. Younger principals attached to the newer schools have a lot to learn from their senior colleagues from the more established schools. It would seem desirable to appoint school principals from their own alumni, since this would create a greater sense of commitment. This is widely practised by the mission schools, and has been recently adopted by most of the fully-residential schools.

The performance of small town and rural schools was significantly lower than that of urban schools. The better performance in urban schools may be attributed to several factors, such as better school facilities, more parental involvement through PTA (PIBG) activities and teachers trained to teach particular school subjects.

As expected, proportionately more parents from the urban schools are professionals who directly or indirectly exert their influence on their children's schools through PTA activities. These parents normally play very active roles in PTA activities. Also, there is more communication regarding expectations of students and teachers.

Another important factor related to good individual academic performance is private tuition. It is common knowledge that a higher proportion of urban children attend tuition classes compared to children from the rural areas. Apart from small-scale home-based private tuition conducted by individual teachers, there are several commercial tuition centres in urban areas like Petaling Jaya. These centres are patronised not only by affluent parents but also by the less rich. In the smaller towns and villages, private tuition centres are less numerous, although they are on the rise in the smaller towns. Fewer centres exist in the villages perhaps be-

cause the pressure of the "paper chase" may not be felt as strongly as in urban areas or that parental expectations are also lower.

A third significant variable in the explanation of performance was principals' leadership style. The results of this study suggest that the higher the composite score of a principal's leadership style, the better the school performance. As an academic leader, the principal is the most important person in the school. He or she plays a crucial role in bringing about good or poor performance, through instructional leadership and setting high standards for teachers and students. Good academic output may also be realised in an indirect manner, where principals' leadership affects teachers in terms of job satisfaction and commitment to academic excellence. There are also other factors that might be correlated with student performance, such as the teacher variable which would have a more direct influence on students' performance; there is also the student variables (e.g. SES, study habits, etc.).

The results of the present study indicate that the four independent variables used in the research model, namely, leadership style, age of school, town and village school significantly correlated with overall school performance, as hypothesised. However, based on the beta weights of each explanatory variable, the ecological factor had the greatest influence on school performance, followed by age of school, and principals' leadership style. The results also point to the need for preparing principals for leadership roles in school improvement. There is a need to provide in-service training to principals to upgrade their leadership role, which has a positive effect on school academic performance.

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Teachers in Rural Primary Schools: A Study of Their Perceptions on Teacher Preparation, School Environment and Parental Involvement

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Keywords: Teachers, rural primary schools, teacher perceptions, teacher preparation, school environment, parental involvement.

ABSTRAK

This paper discusses the findings of a study which was carried out on 287 primary teachers and 24 principals in a rural Malaysian district. The aim was to construct a profile of the teachers, their perception of school facilities, students, parents, principals and the adequacy of teacher training. Interviews were conducted and questionnaires administered. The data show that generally teachers are satisfied with the basic facilities in their schools; they find their work challenging and they are committed to serve rural communities. However, they are constrained by lack of parental involvement, low motivation among pupils, inadequate residential facilities and teaching aids. They perceive their teacher preparation as generally adequate, but indicate that more need to be done in terms of a longer preservice exposure in rural areas, teaching methods and subjects tailored to rural needs, skills in producing teaching aids and carrying out suitable co-curricular activities. However, they agree that guidance and support given in schools are more important than college preparation. The paper concludes with a discussion on the implications for teacher education (preservice and inservice) and school support for teachers.

ABSTRACT

This paper discusses the findings of a study which was carried out on 287 primary teachers and 24 principals in a rural Malaysian district. The aim was to construct a profile of the teachers, their perception of school facilities, students, parents, principals and the adequacy of teacher training. Interviews were conducted and questionnaires administered. The data show that generally teachers are satisfied with the basic facilities in their schools; they find their work challenging and they are committed to serve rural communities. However, they are constrained by lack of parental involvement, low motivation among pupils, inadequate residential facilities and teaching aids. They perceive their teacher preparation as generally adequate, but indicate that more need to be done in terms of a longer preservice exposure in rural areas, teaching methods and subjects tailored to rural needs, skills in producing teaching aids and carrying out suitable co-curricular activities. However, they agree that guidance and support given in schools are more important than college preparation. The paper concludes with a discussion on the implications for teacher education (preservice and inservice) and school support for teachers.

INTRODUCTION

Democratization of education is a well established concept and throughout the twentieth century many democratic states have expanded their educational institutions to provide access for all. In the effort to achieve the ideal of democratizing education, many structures have been devised (Eide, 1982).

Despite much concerted effort, however, it has been realized that equality of access does not always lead to equality of outcome. This phenomenon is most evident in Malaysia where there exists an obvious inequality of outcome between rural and urban schools.

In 1988, enrolment figures for Peninsular Malaysia show that more Malaysian children are

enrolled in schools which are categorized as rural. Of the total number of primary schools, 83% are rural, with the share of enrolment of pupils at 63% and that of teachers at 69%. At the secondary level, 58% of the schools are rural, the share of the pupils enrolled being 49% while that of teachers was 51%. The participation of rural children in the formal educational process is impressive.

It is often the case that rural schools do not get their fair share of education funding (Sher, 1988; Swiger, 1989). However, Malaysia, unlike most developing countries, has expanded educational provision in the rural areas through programmes incorporated in successive Five Year Plans. These include improvement of physical facilities and the establishment of residential schools especially for poor children from the rural areas who would otherwise have been denied access to quality education. Lately rural hostels were set up for children of the chronically poor (parents whose income is less than RM175 per month). These hostels provide the diet greatly needed by poor rural children and generally provide a more conducive environment for learning (Azizah and Sharifah, 1991).

Other programmes which help rural children greatly are the Textbook Loan Scheme, which ensures that disadvantaged pupils have access to the textbooks prescribed for their class, and the Supplementary Food Programme, which has contributed towards improved percentage of attendance in schools (Sahari, 1988). In addition to the programmes mentioned above, the government also assists rural students financially by giving deserving students small grants in the form of scholarship to cover expenses other than costs of accommodation and textbooks. Obviously, much has been done by the Government of Malaysia to improve the quality of rural education, yet some difficulties remain. In particular, equality of access does not necessarily lead to equality of outcome. This is clearly illustrated by the academic achievement of rural students.

The Dropout Study of the early seventies had indicated that the dropout rate at the lower secondary level was much higher among rural pupils (72%) than urban pupils (53%). This tendency for rural pupils to achieve less than their urban counterparts seems to persist despite the several programmes of assistance designed to solve the problems of rural education. Data

comparing the performance of rural pupils in public examinations in 1983 and 1988 showed improved performance in 1988. However, there exists a difference in the quality of their achievement. For example, in 1988 only 2.8% of rural pupils obtained the maximum five A's in the UPSR (Primary School Achievement Test) compared to 7.3% obtained by urban pupils. At the School Certificate level in the same year, only 9.35% of the pupils in rural schools obtained grade I compared to 27.92% of urban pupils (Azizah and Sharifah, 1991).

The consistently lower achievement of rural students compared to their urban counterparts is a matter for great concern. It has been pointed out that home background factors seem to be relatively more important to pupil achievement in the United States while school and teacher-related factors are more important in the context of developing countries (Dove, 1986). In rural schools, teachers represent almost the only source of knowledge as prescribed in the curriculum. The performance and achievement of rural students, therefore, are very much in their hands. Thus in this paper we take the position that Malaysian rural teachers play an important role in students' success. We seek to clarify that vital role, particularly in regard to the 'extras' they need, based on our findings pertaining to the personal and professional profile of the teachers studied, their working conditions, their perception of their role as rural teachers, and the adequacy of their teacher training.

TEACHER PREPARATION

It is generally assumed that teacher performance is related to the teachers' initial academic qualification and the professional training they receive. In this section, therefore, we examine the curriculum for teacher education.

The preparation of teachers for the primary and lower secondary levels of schooling in Malaysia is the responsibility of the Ministry of Education, specifically, the Teacher Education Division (TED). Currently the minimum academic entry qualification for the basic preservice teacher education programme is the Malaysian Certificate of Education (attainable after eleven years of formal education) with a credit in the National Language and at least four other credits in subjects related to the course applied for. In addition, a pass in Mathematics is also a requirement. Beside the academic

qualification, candidates are also given a scholastic aptitude test (UKELP), followed by an interview for those who are short-listed. These measures have been taken of late to ensure quality intake into the teaching profession.

It was in 1982 that a philosophy of teacher education was first enunciated. The ideal Malaysian teacher is stated as one who

- is noble in character;
- has deep moral and religious convictions;
- is human, yet progressive and scientific in outlook [sic];
- upholds the aspirations of the nation;
- cherishes the national cultural heritage;
- has a positive attitude towards learning, the school and society; and endowed with these attributes,
- promotes the all-round development of the child;
- is loyal to his profession; and
- ensures the preservation of a united, democratic, progressive and disciplined society.

(Ministry of Education, TED, 1982)

In line with the above ideal, the curriculum for pre-service teacher education aims to equip teachers with several 'professional' qualities, namely: dedication, sensitivity, awareness of national needs, positive attitude towards learning and innovativeness (Ministry of Education, TED, 1991).

The introduction of the New Primary School Curriculum (KBSR) in 1983 and the Integrated Secondary School Curriculum (KBSM) in 1989 has necessitated some changes in the teacher education curriculum to better prepare trainees for the new curricula. Beginning in 1991, the duration of the training programme for preservice teacher education is two and a half years (5 semesters). The course structure and components in this programme are shown in Table 1; Table 2 gives a more detailed version of the programme.

Upon graduation, the Ministry of Education assigns the trained teachers to schools in their own home towns where possible. These teachers may request for a transfer to other schools after five years of service, except in the state of

Kelantan where the period of compulsory service is three years for teachers serving in remote rural areas before application for transfer within the state is entertained.

THE RESEARCH

Research was carried out in primary schools in a rural education district comprising three administrative districts in Kelantan - Tanah Merah, Jeli and Machang. Primary schools in these districts are typical of Malaysian rural schools in that some could be considered remote while others are situated close to small towns. Of the 45 national primary schools in this education district, approximately 55% (25 schools) were studied, involving 287 primary teachers (approximately 30% of the population) and 24 principals. The distance between these sample schools and the district office situated in a small town ranges from 14 kilometers (the nearest) to 91 kilometers (the furthest).

The area is mainly agricultural; most of the people are Malays and Muslims, earning their living as rubber tappers and rice farmers, with little education and low income. There are, however, a very small number of government employees who are educated. Some people work as labourers in the private sector. These schools are accessible by cars, land rovers, and motor bikes and are difficult to reach only during rainy seasons. There is, however, no public transport system. The schools are moderate in academic achievement, but some perform so poorly that they are placed under 'intensive care', i.e. under special supervision by the Department of Education.

Questionnaires were administered to the teachers and principals in the schools studied. Of the 300 questionnaires sent, there were 287 (95%) responses. For additional data district education officers, state education officers, some lecturers in a teacher training institution in Kelantan, and officers from the Teacher Training Division, Ministry of Education, were interviewed.

The data were then analysed descriptively. Content validity was ensured by building up questions based on earlier interviews with teachers and principals in two rural primary schools in the education district under study. The reliability of the items used in the questionnaire is 0.72.

TABLE 1
Course structure and content for Pre-Service (Five Semester)
Teacher Education Programme (beginning June 1991)

Component	Course	
	Primary Teacher Education	Secondary Teacher Education
A. Core Subjects	860 hrs	860 hrs
B. Specialization	230 hrs	547 hrs
C. School Subjects	693 hrs	252 hrs
D. Self Enrichment	97 hrs	173 hrs
E. Practicum (for both courses 9 weeks in Semester I and 10 weeks in Semester II)	19 weeks	19 weeks
F. Co-curriculum (2 sessions x 1 1/2 hrs x 4 semesters)	210 hrs	210 hrs
TOTAL	2090 hrs	2042 hrs
G. Tutorials (Academic/Guidance)	430 hrs	418 hrs
H. Resilience Programme (Semester I)	1 week	1 week
GRAND TOTAL	2520 hrs	2520 hrs

Actual time will differ according to area of specialization when course adjustment is taken into account.

** Service Orientation Programme : 1 week in the Fifth Semester

Source: Ministry of Education, Teacher Education Division (1991)

TABLE 2
Component and time allocation for five semester Teacher Education
Programme - Primary Education (beginning June 1991)

	COMPONENT	HOURS
CORE SUBJECTS FOR ALL COURSES	1. Foundation of Education: Psychology	34
	Pedagogy	219
	Education in Malaysia	53
	2. Guidance and Counselling	14
	3. Bahasa Malaysia (Proficiency)	154
	4. English Language (Proficiency)	154
	5. Resource Management	77
	6. Islamic Religious Knowledge (Muslims only)	7
	7. Islamic Civilization	39
	8. History of Nations Development	39
	TOTAL FOR CORE SUBJECTS	860
PRIMARY SCHOOL TEACHER EDUCATION	9. Specialization/Majoring Subject	260
	10. Mathematics	147
	11. Moral Education	77
	12. Man and Environment	168
	13. Physical Education	147
	14. Art Education	77
	15. Music	77
	16. Home Economics (self enrichment)	39
	17. Computer Education	58
	TOTAL FOR SCHOOL AND ENRICHMENT SUBJECTS	1020
PROGRAMME	18. Tutorials (Academic/Guidance)	430
	19. Co-curriculum	210
	20. Resilience Programme (in Semester I)	1 week
	21. Service Orientation Programme (in Semester V)	1 week
	GRAND TOTAL	2520

** Further adjustment is made according to area of specialization.

Source: Ministry of Education, Teacher Education Division (1991)

FINDINGS AND DISCUSSION

Teacher Profile

Whereas in most developing countries rural teachers are predominantly female, our data show that our respondents are mostly male (70%). This can be explained by the fact that more males have been sent to rural schools because, according to district education officers, they can cope better with the transport and accommodation problems in rural areas.

The majority of the teachers are Malays (93%). Most of them are from the area itself or come from the neighbouring states of Kedah and Perak. Eighty three percent are below 35 years old and 74% are married. Only 17% of these teachers come from towns, the rest are from suburban (56%) and remote rural areas (27%). At the time of the study, they lived in school quarters (31%), rented houses (33%) and or in their own homes (34%). As accommodation in school quarters is limited, a greater number had to find accommodation elsewhere, resulting in some of them living a far distance away from school. The school records show that 55% of these teachers live outside the district. This has implications on their involvement in school and community activities. Principals complain of teachers arriving late at school and being reluctant to carry out co-curricular activities.

Of the respondents, 60% obtained a second grade at the School Certificate Examination, 23% had third grades and only 13% were first graders. About 22% obtained the full certificate in the Higher School Certificate Examination while 47% had never sat for the examination. In terms of professional training, 91% were trained to teach in primary schools while 4.5% had secondary teaching as their option.

The majority of the respondents (87%) have less than 5 years teaching experience, 9% between 6-10 years, and 4 teachers have taught more than 10 years. Their teaching experience ranges from 2 months to 38 years. Approximately 30% of the teachers have taught in town schools. As regards rural teaching experience, a majority of the respondents (64%) have less than six years experience but there are some who have taught in rural schools throughout most of their teaching careers. The length of time teachers spend in rural schools affects their performance. Principals note that performances deteriorate after teachers have spent 3-4 years in the school.

Obviously much needs to be done to sustain performance and maintain quality teachers in the rural schools.

In terms of inservice courses, 54% of the respondents reported having attended at least one course. The range of attendance is 1-7 times with some having attended 1-4 times (51%). It is disturbing to note that almost half of the respondents have never attended inservice courses. Of those who attended, only 36% of the respondents report that the latest inservice course they attended was held in the previous year. Among those who have never attended any inservice course, the majority are young (20-30 yrs old - 87%), though some (12%) are between 31-40 yrs old. Indeed much needs to be done, considering the number of changes that have been introduced in the primary school curriculum in the recent past.

From the open-ended questions, reasons given by the teachers for the lack of opportunity to attend these courses are:

- a. priority given to teachers in town schools;
- b. difficulty in obtaining information and application forms;
- c. failure to receive replies to their applications;
- d. candidates selected based on principals' recommendations;
- e. perception that the chances to be accepted were slim and limited to one teacher per subject.

With regard to opportunity for promotion, almost half of the respondents (49%) feel dissatisfied with their prospects for promotion. Clearly, teaching in rural schools is seen as an unattractive venture in terms of promotion and professional development. Consequently some form of reward structure needs to be introduced to encourage and retain teachers in rural areas.

Conditions at Work

Teacher perception of their working conditions contribute much to their satisfaction at work. Our data show that generally the respondents are satisfied with their school building, classroom size, resource centre, library, restrooms, playing fields, canteen and facilities for co-curricular activities. However, the open-ended questions reveal various opinions that reflect a certain amount of dissatisfaction, both from teachers and principals. For example, teachers complain of:

insufficient classrooms; absence of resource centres, or if present, they are inadequately equipped; libraries with outdated materials; lack of playing fields, and if available, they are in poor condition; underutilization of materials available, and old buildings which need to be replaced. If the schools are new, they are inadequate in terms of basic facilities. It is conceivable that the term 'satisfactory' in the questionnaire is taken to mean 'just okay' by the respondents.

The majority of respondents regard their principals as satisfactory in terms of administration, instructional leadership and relationship with teachers, pupils and parents. On problems they face related to teaching, 88% of the respondents say that they seek the advice of their headmasters. The same is also true in the case of student disciplinary problems: 87% state that they refer the matter to their headmasters.

Generally, the respondents are not satisfied with their students' academic ability (53%), student attitude towards study (50%), and student participation in the classroom (45%). Quite a number are not satisfied with student attendance (34%) and health conditions (34%). Teachers attribute the low achievement to

- a. lack of parental involvement and co-operation;
- b. attitude of parents and pupils;
- c. unstimulating environment; and
- d. the socioeconomic background which affects parental guidance and children's attendance in school.

This lack of parental involvement has increased the burden of rural teachers. They feel that, unlike their urban counterparts, they have to bear the sole responsibility of their pupils' performance. However, this does not mean that they are unhappy with their relationship with parents as only less than half of the respondents express dissatisfaction in the matter.

Workload and Responsibilities

There are eight subjects in the primary school curriculum. The majority of the respondents (33%) teach 3 subjects, only 12% specialize in teaching just one subject. The number of subjects taught by the teachers ranges from 1-7.

Our data show that the rural teachers are entrusted with various administrative duties. The

average number of responsibilities a teacher holds is 2 and the majority (76%) are responsible for 1-3 administrative duties in school, such as being key personnel for various subjects, discipline teacher, teacher in charge of Textbook Loan Scheme, and secretary of the Parent Teacher Association. In addition, on the average they are involved in at least three co-curricular activities, encompassing sports, uniform bodies, and clubs and societies. The rural teachers also participate in community organizations. About 40% of them are involved in various community activities, including participation in youth organizations, religious organizations, member of committees set up to tackle flood problems and various other problems faced by the village. The responsibilities entrusted to them in these organizations include being chairmen, secretaries, auditors and committee members. These posts demand leadership qualities and skills, knowledge in religious affairs, communication skills, interpersonal relationship and the like. Thus respondents perceive that they have to play the role of community leaders, whereas in towns, community leaders come from other professions as well.

Co-curricular activities in schools also have unique characteristics in that some games and societies are unique to rural areas. Traditional games such as top spinning, 'congkak' and the Malay art of self defence (silat) are offered in some schools. These activities need special skills on the part of the teachers, and imply an extra need in teacher preparation for rural schools.

To sum up, it can be said that the primary rural teachers studied have responsibilities such as teaching, administrative work, co-curricular activities and community services. They work with children whom they perceive to be of low ability, with an unstimulating home environment and parents who leave the education of their children solely to the school. School facilities, although perceived as 'satisfactory' by the majority, are still lacking. They also perceive that they have a more difficult role to play compared to their urban counterparts. What then is their commitment to work under these conditions?

Commitment to Work

Generally, respondents are committed to their work. Only 38% indicated that they would leave the profession if given the chance. Among the reasons given for this was that it would give them

a chance to improve themselves academically and professionally (in urban areas), and that they could not cope with the pressure from their principals, the education officers and from parents. The respondents who indicated that they would remain in the teaching profession (62%) stated that the teaching profession was the most suitable profession for them, that teaching was their chosen profession, and that it is challenging. When responding to the question on whether they would choose to teach in a town school if given the choice, 74% replied affirmatively. The reasons given include: that the change would add to their teaching experience, and would allow them to evaluate their teaching ability (i.e. to practice what they have learnt) in the light of the more conducive teaching-learning environment which they perceive to exist in town schools. Those who responded negatively (26%) gave reasons such as their wish to upgrade the standard of performance of the rural schools, and that they have adjusted well to the school and community and were happy where they were.

It can be concluded that the majority of the respondents are committed to teaching. However, the chance to teach in town is also welcome, as indicated by the large number wanting to transfer to town schools if given the choice. Our data also show that the respondents choose teaching because of interest (85%). Only a few choose teaching because of 'no other choice' (17%), 'good pay' (30%), 'work half a day' (21%), and 'lots of holidays' (20%). This interest in teaching and commitment towards their profession is indeed laudable; steps should be taken to improve their teaching conditions in school.

Perception of their Ability

On the whole the respondents feel satisfied with their teaching ability. Areas in which more than 20% of the respondents are not satisfied are: preparing teaching aids (23%), carrying out group activities (22%), remedial teaching (29%), and community activities (26%). These areas of dissatisfaction reflect their concern for teaching children of 'low ability' and the importance of preparing teaching aids in the light of the inadequate facilities in rural schools. Also of concern is their ability to carry out community activities. Our data also show that teachers living far from schools (in town) feel that they do not have the energy for community involvement. Respondents also state that they wish they were

prepared with more skills to perform these activities well.

Despite the general satisfaction with their ability to carry out their duties as teachers, 56% of the respondents express some inadequacy. Many teachers feel the need to obtain help as well as to attend inservice courses to overcome these inadequacies. Teachers cite various strategies they take to overcome their teaching inadequacies. 'Always' discussing with other teachers is cited by most respondents (61%), 'sometimes' and 'always' seeking advice from their headmasters (82%), reading educational magazines and attending seminars (77%), going to Teachers' Resource Centres (59%), and seeking advice and guidance from district education officers (44%). It is clear that these rural teachers do need help in carrying out their work and that inservice training as well as 'in school' guidance is needed.

Perception towards Teacher Training

The data show that generally teachers are positive about their teacher preparation at college. In terms of personal development they agree with the statement that their teacher training has made them more creative (81%), more productive (83%), more self confident (86%), more mature (89%), better at adapting to different environments (89%), and prepare them for a more balanced personality (67%). Nevertheless, as the data show, a number of teachers also disagree with the above statements, especially in regard to 'balanced' personality. It is interesting to note that despite the positive reaction to their training, more than half of the respondents (56%) agree with the statement that college lecturers regard and treat student teachers as school children. They comment that lecturers should treat them as adults or would-be teachers, and that they should conduct more discussion and less lectures. Respondents indicate that the general atmosphere at college is determined mainly by the principals and lecturers of the college. Some observe that college is too examination-oriented, and 35% admit that their main aim in college was to pass examinations with honours. They opine that college should provide student teachers with the groundwork to mature later as dedicated teachers, well-equipped with methodologies and determination to meet pupils in the classroom.

General questions pertaining to the role of preservice teacher education in preparing teachers for rural schools have the following responses: 33% agree with the statement that teacher training did not prepare them to teach in rural areas, 42% agree with the statement that teacher training prepared them better to teach in town. We see that although the majority of respondents disagree with the above statements, quite a large number feel that teacher training did not prepare them for rural teaching and that the training was more geared towards teaching in urban schools.

In terms of teaching methods, 41% disagree that their methodology course (options) and the core 'Education' component helped them to teach effectively in rural areas, while more than half agree. With regard to practical teaching, 36% of the respondents disagree with the statement that their training provided them the exposure to teaching in rural schools. According to our data, only 18% of the respondents had their practical teaching in rural schools, 32% had it in schools in towns and 41% had it in suburban schools. In the rural states such as Kelantan and Kedah, suburban schools, do have many characteristics of rural schools, hence the large number of respondents agree with the statement, the majority being those whose practical teaching experience was in suburban schools.

On the whole, respondents feel that apart from preservice teacher education, the role of the school and inservice courses are important in helping them cope with teaching in rural schools. Sixty one percent of the respondents agree with the statement that guidance in school is more important than the teacher training course to enable teachers to teach in rural areas, while 39% disagree. On the question of whether a special inservice course is needed to enable teachers to teach in rural areas, 54% of respondents agree. However, 61% felt that the inservice courses they had attended did not help them much in teaching in rural areas. Thus although generally respondents feel that teacher training can not prepare teachers for all eventualities (70%); on-the-job help together with inservice is needed. These findings also have implications on preservice teacher education.

Respondents gave several suggestions for improvement specifically for teachers who will be

teaching in rural areas. Methodology courses, according to respondents, should be practical rather than theoretical; group teaching based on student abilities and skills in individualized instruction should be emphasized; various methods of remedial teaching should be taught; teaching methods that are consistent with the ability, interest and environment of rural children should be emphasized. Lecturers need to have some experience in rural teaching to be more effective lecturers. In terms of other courses, subjects which lead to a greater understanding of rural culture and children would be useful in helping teachers prepare themselves for rural teaching. Respondents also stress the need for college to provide trainees with the skills of devising and making audio-visual aids which are simple, durable and inexpensive.

Teaching practice was emphasized by respondents as an important aspect of teacher education. There is consensus among respondents that part of teaching practice should be carried out in rural schools so that trainees can experience the actual conditions in these schools. Respondents cite the principal and other teachers in rural schools as the main resource personnel. Most respondents feel that the quality of supervision (in terms of its frequency and quality) should be improved.

Respondents were generally satisfied with co-curricular activities in college, but some improvement were suggested to meet the needs of rural teaching. These include: traditional games and activities relevant to rural society; activities that can be carried out despite inadequacies such as the lack of playing fields and equipment; exposure and experience in co-curricular activities which enhance their leadership qualities and raise their problem-solving capabilities; practical rituals of the Islamic religion because of the various involvement of rural teachers in religious activities; visits to rural schools and 'adoption' of rural schools.

It was suggested that programmes aimed at improving teacher confidence, adaptability, and resilience (character building) should have the following features: emphasis on the spiritual aspects for Muslim participants to reduce emotional and psychological stress; inculcation of love and loyalty for the religion, country and countrymen; inspire hard work and care for

pupil achievement; build participants' confidence and resilience so that they will be able to cope with all kinds of situations, emphasize motivating factors for prospective rural teachers and inculcate positive attitude towards rural teaching especially for those without any rural experience or exposure.

With reference to the Resilience Programme recently introduced by the Teacher Education Division, our data show that only 43% agree that it helped prepare trainees to handle rural teaching while 29% disagree. Twenty-one percent of the respondents never attended the course, presumably because it had not been introduced then.

IMPLICATIONS

The findings of this research point to some 'extras' needed by rural primary teachers. To recapitulate, the subjects studied generally have the following characteristics: they are young married males with moderate academic qualification; they are trained teachers but have not had much opportunity to attend inservice courses; the schools in which they teach lack facilities, with students not sufficiently motivated to learn and poor parental involvement, but these are not conditions foreign to the teachers as they have had some rural experience themselves; they feel some inadequacy in group teaching and remedial work and do seek advice from their principals and fellow teachers when faced with problems; they carry out a number of co-curricular activities and perceive their role as teachers to include being guardians for their students; being involved in community activities is part of their role too. With regard to their professional qualification, they perceive their initial teacher training as adequate but recognize that there are areas for improvement, particularly the need for inservice courses and on-the-job training.

What then can the authorities do to improve rural education via the teachers? The government has already adopted a 'benevolent' attitude with regard to posting teachers to rural areas, and facilities in rural schools continue to be improved. But other measures need to be taken.

Rural teaching needs to be seen as having its own advantages. It needs to be presented as intrinsically worthwhile: it provides a challenge for 'good' teachers to try out their own teaching

methods, be innovative and resourceful; teachers do not have to face as many disciplinary problems as in urban areas; the rewards for successful teaching come in sincere parental gratitude.

The authorities need to remove the barriers to promotion among rural teachers and in their place create incentives: recognition of dedicated rural teaching in the form of salary increment or other rewards and priority for selection to attend inservice courses, to name a few.

The need for on-the-job advice and guidance has to be given serious consideration. This means that the headmasters themselves have to be exemplary in terms of leadership, providing professional guidance and encouragement. There is also a need for collegial support, which implies that a place for teachers to meet should be provided, for social as well as professional purposes. The geographical isolation of rural teachers need to be minimised, and this can be done by providing them with up-to-date reading materials and occasional invitations to meet together in town.

In terms of teacher preparation, there is need to recognize that rural teaching has its own peculiarities. Thus it has to be highlighted across the curriculum and every subject lecturer must ensure relevance of his/her teaching materials to rural schools, in addition to discussing methods of effectively teaching it. In this respect, theories of teaching should be balanced by practical implications. Teacher trainees need to understand relevant theories and to develop for themselves teaching strategies suitable for their particular classrooms. While the respondents did mention inadequacy in group and remedial teaching, the solution does not lie in emphasizing 'how-to-do-it' courses. Rather, the objective of teacher training should be geared more towards producing creative, innovative, resourceful and reflective teachers.

In line with the above, resilience as a teacher quality, which the Ministry seeks to inculcate through a course (Bina Semangat) emphasizing physical endurance, indeed has a place in the curriculum but the course should be revised to emphasize spiritual endurance. This is one of the suggestions put forward by the respondents.

Finally, an exposure to rural teaching is necessary for all teacher trainees. This means that colleges must ensure that the students' practicum cover a period of teaching in rural schools.

TABLE 3
 Perception distribution of responses based on condition of schools and
 perception of students, teachers, headmasters and parents

Items	Responses				
	VS	S	NS	VU	NA
<i>Physical Facilities</i>					
Building	39 (14)	199 (69)	36 (13)	10 (4)	-
Number of pupils in a classroom	30 (11)	159 (56)	71 (25)	15 (5)	-
Total number of classroom	23 (8)	175 (61)	73 (25)	11 (4)	-
Teaching aids	11 (4)	179 (62)	85 (30)	8 (3)	-
Resource Centre	22 (8)	200 (70)	46 (16)	6 (2)	3 (1)
Library	23 (8)	214 (75)	28 (10)	4 (1)	2 (1)
Teachers' common room	21 (7)	201 (70)	47 (16)	12 (4)	3 (1)
Canteen	13 (5)	201 (70)	51 (18)	17 (6)	1 (.3)
Rest room	13 (5)	147 (51)	87 (30)	34 (12)	-
Playing field	13 (5)	171 (60)	72 (25)	19 (7)	6 (2)
Subsidiary Food Programme	9 (3)	215 (75)	37 (13)	3 (1)	5 (2)
Textbook Loan Scheme	29 (10)	212 (74)	36 (13)	6 (2)	-
Facilities for co-curricular activities	10 (4)	160 (56)	93 (32)	13 (5)	-
<i>Academic Needs</i>					
School syllabus	29 (10)	209 (73)	40 (14)	4 (1)	-
Textbooks	24 (8)	206 (72)	49 (17)	4 (1)	-
Evaluation system/examination	18 (6)	212 (74)	48 (17)	2 (1)	-
<i>Perception Toward Students</i>					
Students' academic achievement	1 (.3)	132 (46)	133 (46)	19 (7)	-
Students' participation in the classroom	6 (2)	149 (52)	123 (43)	6 (2)	1 (.3)
Students' attendance	7 (2)	183 (64)	84 (30)	10 (4)	-
Students' attitude toward studies/education	2 (1)	137 (48)	123 (43)	19 (7)	1 (.3)
Students' discipline	13 (5)	195 (68)	71 (25)	7 (2)	-
Students' involvement in co-curricular activities	27 (9)	196 (68)	59 (21)	2 (.7)	-
Health	5 (2)	180 (63)	93 (32)	4 (1)	-
<i>Perception Toward Parents</i>					
Contributions in terms of money/ kind from parents	3 (1)	107 (37)	145 (51)	25 (9)	5 (2)
Guidance from parents	2 (1)	40 (14)	179 (62)	59 (21)	4 (1)
Parental attitude toward their children's education	2 (1)	67 (23)	164 (57)	51 (18)	2 (1)
Attendance in PTA activities	6 (2)	127 (44)	126 (44)	22 (8)	3 (1)
Parent-teacher relationship	12 (4)	161 (56)	101 (35)	10 (4)	-

Items	Responses					
	VS	S	NS	VU	NA	
<i>Perception Toward Headmaster</i>						
Quality of headmaster's leadership	64 (22)	183 (64)	28 (10)	2 (1)	-	
Ability to administer	56 (20)	188 (66)	31 (11)	2 (1)	-	
Ability to guide	52 (18)	191 (67)	26 (9)	3 (1)	2 (1)	
Ability to put forward ideas to improve school performance	54 (19)	195 (68)	23 (8)	1 (.3)	1 (.3)	
Ability to handle discipline problems	46 (16)	195 (68)	34 (12)	2 (1)	-	
Supervision by headmaster	39 (14)	208 (72)	20 (7)	2 (1)	-	
Headmaster's treatment of teachers	92 (32)	154 (54)	24 (8)	4 (1)	-	
Headmaster's treatment of pupils	71 (25)	192 (70)	12 (4)	-	-	
Headmaster's treatment of parents	71 (25)	196 (68)	9 (3)	-	-	
Headmaster's relationship with the district education officers	93 (32)	168 (59)	8 (3)	2 (1)	-	
<i>Perception Toward Teachers' Ability</i>						
To teach effectively	20 (7)	240 (84)	14 (5)	-	-	
To motivate student interest	23 (8)	224 (78)	24 (8)	2 (1)	-	
To prepare teaching aids	12 (4)	198 (69)	60 (21)	6 (2)	-	
To carry out group activities	11 (4)	199 (69)	62 (22)	2 (1)	2 (1)	
To carry out remedial teaching	11 (4)	168 (59)	76 (27)	8 (3)	8 (3)	
To carry out enrichment activities	15 (5)	200 (70)	55 (19)	1 (.3)	2 (1)	
To handle discipline problems	28 (10)	222 (77)	23 (8)	-	2 (1)	
To handle students according to ability	23 (8)	213 (74)	37 (13)	1 (.3)	2 (1)	
To carry out administrative duties	18 (6)	210 (73)	29 (7)	2 (1)	2 (1)	
To carry out co-curricular activities	27 (9)	222 (77)	21 (7)	2 (1)	2 (1)	
To carry out community activities	9 (3)	169 (59)	69 (24)	7 (2)	15 (5)	
To adjust yourself to the rural society	34 (12)	215 (75)	25 (9)	1 (.3)	1 (.3)	
To understand the local dialect	91 (32)	159 (55)	18 (6)	2 (1)	2 (1)	
To put forward ideas to improve the school's performance	28 (10)	214 (75)	31 (11)	-	2 (1)	
<i>Teacher's Relationship with Headmasters, Parents and Teachers</i>						
Teacher's relationship with the headmaster	92 (32)	174 (61)	12 (4)	-	-	
Teacher's relationship with other teachers	114 (40)	163 (57)	4 (1)	1 (.3)	-	
Teacher's relationship with parents	50 (17)	192 (70)	33 (12)	4 (1)	1 (.3)	
<i>Opportunities for Growth and Supervision from Education Officers</i>						
Opportunity to attend inservice courses	8 (3)	134 (47)	97 (34)	22 (8)	14 (4.9)	
Opportunity for promotion	4 (1)	95 (33)	106 (40)	36 (13)	24 (8)	
Opportunity to implement your own ideas	15 (5)	184 (64)	63 (22)	7 (2)	5 (1)	
Supervision by education officers	8 (3)	171 (60)	70 (24)	12 (4)	8 (3)	
Supervision by school inspectorate	4 (1)	182 (63)	65 (23)	8 (3)	7 (2)	
Coordination of supervision between school, district education officers and inspectorate	3 (1)	167 (58)	79 (28)	12 (4)	7 (2)	

Items	Responses		
	<i>Never</i>	<i>Sometimes</i>	<i>Always</i>
<i>Strategy to Overcome Teaching Problems</i>			
Try to solve the problem on my own	4 (1)	86 (30)	196 (68)
Get help from the headmaster	31 (11)	208 (73)	44 (15)
Discuss with the other teachers in the school	5 (2)	104 (36)	176 (61)
Discuss with the district education officers	173 (60)	102 (36)	5 (2)
Discuss with other teachers at the Teachers' Resource Centre	128 (45)	128 (45)	24 (8)
<i>Strategy to Overcome Student Discipline Problems</i>			
Try to solve it on my own	15 (5)	125 (44)	134 (47)
Refer it to the teacher in charge of discipline	9 (3)	150 (52)	119 (42)
Refer it to the headmaster	29 (10)	201 (70)	50 (17)
Inform the parents	63 (22)	185 (65)	30 (11)
<i>Strategy to Overcome Teaching Inadequacies</i>			
Obtaining help from the headmaster	36 (13)	170 (59)	66 (23)
Obtaining guidance from the district education officers	139 (48)	118 (41)	13 (5)
Discussing with the other teachers	16 (6)	86 (30)	175 (61)
Reading educational magazines/journals	20 (7)	142 (50)	113 (39)
Applying to attend courses/workshops/seminars	50 (17)	145 (51)	79 (28)
Going to the Teachers' Resource Centre	103 (40)	137 (48)	33 (12)

Items	Responses				
	<i>VS</i>	<i>S</i>	<i>NS</i>	<i>VU</i>	<i>NA</i>
<i>Perception Towards Teacher Training</i>					
The teacher training college prepared me to teach any where.	59 (21)	152 (53)	56 (20)	5 (2)	5 (12)
The teacher training prepared me better to teach in the town.	28 (10)	88 (31)	130 (45)	18 (6)	12 (4)
The teacher training did not prepare me to teach in the rural areas.	19 (7)	17 (27)	149 (60)	17 (6)	14 (5)
The courses on basic education helped me to teach effectively in the rural areas	16 (6)	136 (47)	110 (38)	7 (2)	6 (2)
The methodology courses (options) prepared me to teach effectively in the rural areas.	13 (5)	133 (46)	114 (40)	7 (2)	8 (3)
The practical teaching provided me the exposure to teaching in the rural areas.	19 (7)	145 (51)	92 (32)	11 (4)	9 (3)
The co-curricular activities prepared me with the ability to lead in the rural areas.	32 (11)	145 (51)	85 (30)	6 (2)	8 (3)
Kursus Bina Semangat did not help to prepare trainees to handle the duties in the rural areas.	16 (6)	67 (23)	112 (39)	12 (4)	59 (21)

Teachers in Rural Primary Schools

Items	Responses				
	VS	S	NS	VU	NA
Kursus Bina Insan is useful in building leadership qualities.	39 (14)	130 (45)	31 (11)	7 (2)	57 (20)
Some college lecturers regard and treat student teachers as school children.	38 (13)	124 (43)	91 (32)	9 (3)	12 (4)
The duration of the teacher training that I had gone through was adequate.	38 (13)	184 (64)	45 (16)	6 (2)	2 (1)
The duration of the teaching practice that I had gone through was adequate.	27 (9)	186 (65)	57 (20)	4 (1)	1 (.3)
The teaching practice destroyed my interest to be a teacher.	12 (4)	47 (16)	161 (56)	46 (16)	9 (3)
When I was in the teacher training college, my main purpose was to pass the examination with honours.	26 (9)	102 (36)	122 (43)	19 (6)	5 (1)
The supervision during the teaching practice did not provide me with the guidance I needed.	14 (5)	71 (25)	161 (56)	24 (9)	4 (1)
The guidance in school was more important than the teacher training course to be able to teach in the rural areas.	62 (22)	114 (34)	84 (30)	13 (5)	2 (.7)
The teacher training cannot prepare the teacher for all eventualities.	68 (24)	135 (47)	58 (20)	12 (4)	4 (1)
On the whole, the inservice courses that I have attended did not help me to teach in the rural areas.	32 (11)	144 (50)	63 (22)	2 (1)	30 (11)
To be able to teach in the rural areas require a special inservice course.	50 (17)	107 (37)	92 (32)	11 (4)	12 (5)

Items	Responses			
	SA	A	D	SD
<i>Conditions of Teacher Training College</i>				
To be more creative	58 (20)	176 (61)	35 (12)	3 (1)
To be more productive	47 (16)	193 (67)	30 (11)	2 (1)
To be more self-confident	60 (21)	186 (65)	25 (9)	2 (1)
To be more mature	64 (22)	191 (67)	17 (6)	2 (1)
To be better at adapting myself	69 (24)	186 (65)	18 (6)	1 (.3)
To widen my knowledge through reading	55 (19)	191 (67)	26 (9)	2 (1)
On the whole the atmosphere in the college did not help me build a balanced personality.	12 (4)	68 (24)	157 (55)	34 (12)

Legend:

SA - Strongly Agree
A - Agree
SD - Strongly Disagree
D - Disagree
NA - Not Available

VS - Very Satisfactory
S - Satisfactory
NS - Not Satisfactory
VU - Very Unsatisfactory

Notes : 1. Figures in parentheses are percentages.
2. Percentages are rounded off to the nearest whole number.

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Faktor-Faktor Keluarga dan Tingkah Laku Penyalahgunaan Dadah: Satu Kajian Perbandingan antara Penyalahguna Dadah dengan Bukan Penyalahguna Dadah

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Perkataan kunci: Komunikasi, kasih sayang, ahli keluarga menyalahgunakan dadah, penyalahguna dadah, dan bukan penyalahguna dadah.

ABSTRAK

Kajian ini meneliti perbandingan aspek komunikasi ibu bapa-anak, hubungan kasih sayang ibu bapa-anak, dan penglibatan ahli keluarga dalam penyalahgunaan dadah antara penyalahguna dadah dengan bukan penyalahguna dadah. Sampel kajian terdiri daripada 191 penyalahguna dadah yang sedang menerima rawatan pemulihan di empat buah Pusat Serenti Kerajaan, dan 191 orang bukan penyalahguna dadah yang tinggal di Kuala Lumpur. Dua instrumen khas iaitu Komunikasi dan "Parent-Child Interaction Rating Scale" digunakan dalam kajian ini. Kajian mendapati terdapatnya perbezaan yang signifikan berhubung dengan kasih sayang ibu bapa-anak, komunikasi ibu bapa-anak, dan penglibatan ahli keluarga dalam penyalahgunaan dadah antara penyalahguna dadah dengan bukan penyalahguna dadah. Keputusan kajian mempunyai implikasi ke atas program-program pencegahan penyalahgunaan dadah di negara ini khususnya berkait dengan kasih sayang dan hubungan komunikasi ibu bapa-anak, dan model tingkah laku ibu bapa di kalangan anak-anak.

ABSTRACT

The present study compares aspects of parent-child communication, parent-child nurturance, and family members involvement in drug abuse between drug abusers and non-drug abusers. Sample for the study were 191 drug abusers who were undergoing rehabilitation treatment at four Government Serenti Centres, and 191 non-drug abusers living in Kuala Lumpur. Two special instruments namely Communication and Parent-Child Interaction Rating Scales were used in this study. The study found significant differences between drug abusers and non-drug abusers in parent-child nurturance, parent-child communication, and family members involvement in drug abuse. Findings from this study have implications for drug abuse programmes in this country, specifically those related to nurturance and parent-child communication, and parent behaviour model for children.

PENGENALAN

Faktor-faktor keluarga telah dihubungkan dengan tingkah laku penyalahgunaan dadah di kalangan anak-anak. Antara faktor-faktor tersebut ialah struktur keluarga, hubungan kasih sayang ibu bapa-anak, tahap komunikasi ibu bapa-anak, cara gaya keibubapaan, dan penglibatan ahli keluarga dalam penyalahgunaan dadah. Dari sudut struktur keluarga umpamanya, kajian Tec (1970), Wiener dan Egen (1973) dan Friedman dan Beschner (1982) melaporkan majoriti penagih dadah berasal daripada keluarga yang berpecah-belah akibat daripada perceraian,

perpisahan atau kematian ketua keluarga. Kajian berdasarkan pemerhatian yang dijalankan oleh Lewis dan Osberg (1958) juga mendapati kebanyakan ibu bapa penagih samaada bercerai ataupun berpisah.

Aspek kasih sayang ibu bapa-anak juga telah dihubungkan dengan tingkah laku penyalahgunaan dadah (contohnya: Russell, 1974; Woodward dan Bahr, 1978; Mohd Reduan, 1990; dan Maimun, 1991). Kajian Russell (1974) mendapati anak-anak yang kurang mendapat kasih sayang daripada ibu bapa besar kemungkinan akan terlibat dengan tingkah laku

devian terutamanya tingkah laku penyalahgunaan dadah. Streit *et al.* (1974), dan Eldred dan Brown (1974) turut mendapati sebilangan besar penagih dadah membuat persepsi bahawa ibu bapa mereka kurang memberi kasih sayang terhadap mereka.

Kajian juga telah menghubungkan faktor komunikasi ibu bapa-anak dengan tingkah laku penyalahgunaan dadah (contohnya: Gecas *et al.* 1974; Russell, 1974; Offer dan Offer, 1975; Jurich *et al.* 1985). Menurut Gecas *et al.* (1974), tanpa hubungan komunikasi yang berkesan, anak-anak akan merasa diri mereka tidak diberi perhatian dan disayangi. Akibat daripada keadaan ini, anak-anak tersebut akan cuba memenuhi keperluan ini daripada sumber-sumber lain termasuk dadah. Kajian Russell (1974), dan Jurich *et al.* (1985) mendapati anak-anak remaja yang terlibat dengan penyalahgunaan dadah mempunyai corak hubungan komunikasi yang renggang dengan ibu bapa. Corak hubungan yang sedemikian menyebabkan perhatian anak-anak beralih kepada rakan-rakan sebaya.

Faktor cara gaya keibubapaan turut dihubungkan dengan tingkah laku penyalahgunaan dadah di kalangan anak-anak (contohnya: Baer dan Corrado, 1974; Hunt, 1974; Barnes, 1984; Poole dan Regoli, 1979). Baer dan Corrado (1974) telah menjalankan kajian untuk mengetahui cara gaya keibubapaan yang telah dilalui oleh penagih-penagih dadah di zaman kanak-kanak. Hasil kajian mendapati sebahagian besar subjek kajian melalui cara gaya keibubapaan yang bersifat penolakan daripada ibu bapa mereka. Kajian Kuehn (1970), Hunt (1974) dan Berzonsky (1981) melaporkan ibu bapa penagih-penagih dadah telah mengamalkan cara gaya permisif yang berlebihan ke atas anak-anak mereka. Amalan cara gaya keibubapaan yang sedemikian menyebabkan anak-anak ini terdedah kepada persekitaran prodadah. Sementara itu, kajian-kajian Ausubel (1961) dan Laskowitz (1961) mendapati cara gaya lindunglampau mempunyai kaitan dengan tingkah laku penyalahgunaan dadah di kalangan anak-anak. Menurut kajian Barnes (1984), cara gaya keibubapaan bersifat autokratik berkait rapat dengan tingkah laku anti-sosial di kalangan remaja. Remaja yang diasuh dengan cara sedemikian memiliki ciri-ciri personaliti berkurangan seperti paras kebimbangan yang tinggi, kurang keyakinan terhadap diri sendiri, perasaan tertekan dan sentiasa inginkan

perhatian. Ciri-ciri personaliti berkurangan ini sering dimiliki oleh penagih-penagih dadah (contohnya: Braucht *et al.* 1973; Craig, 1979). Kajian Poole dan Regoli (1979) melaporkan anak-anak yang melalui corak pemeliharaan bersifat penerimaan dan kasih sayang tidak mudah terlibat dengan tingkah laku devian. Anak-anak ini tidak mahu status mereka di dalam keluarga terancam disebabkan mereka bertingkah laku devian.

Faktor penglibatan ahli keluarga dalam penyalahgunaan dadah juga telah dihubungkan dengan tingkah laku penyalahgunaan dadah (contohnya: Tec, 1970; Smart dan Fejer, 1972; Kandel, 1973). Ahli-ahli keluarga terutamanya ibu bapa merupakan model tingkah laku yang amat berpengaruh ke atas diri anak-anak. Sehubungan dengan masalah dadah, tingkah laku penyalahgunaan dadah yang diperlihatkan oleh ibu bapa kepada anak-anak akan menentukan sikap anak-anak tersebut terhadap dadah. Anak-anak akan beranggapan bahawa tingkah laku berkenaan adalah normal dalam kehidupan seharian. Kajian Tec (1970) turut melaporkan bahawa kanak-kanak mencontohi tingkah laku ibu bapa mereka berhubung dengan penyalahgunaan dadah. Hasil kajian ini mendapati kanak-kanak yang terlibat dengan penyalahgunaan dadah adalah kanak-kanak yang membuat laporan mempunyai ibu bapa mengamalkan penyalahgunaan alkohol, pil-pil tidur dan tranqulizer.

Penelitian hasil-hasil kajian berkaitan jelas menunjukkan berbagai faktor keluarga telah dihubungkan dengan tingkah laku penyalahgunaan dadah. Bagaimanapun kebanyakan kajian ini merupakan kajian-kajian luar negara. Persoalannya, apakah faktor-faktor ini turut mempunyai kaitan dengan tingkah laku penyalahgunaan dadah di negara ini? Sehubungan dengan ini, satu kajian terperinci tentang masalah dadah telah dijalankan di peringkat tempatan. Objektif kajian ialah meneliti perbandingan aspek-aspek tertentu berhubung dengan keluarga antara penyalahguna dadah (PD) dengan bukan penyalahguna dadah (BPD).

PERALATAN DAN METODE

Kajian ini memberikan tumpuan terhadap aspek komunikasi ibu bapa-anak, hubungan kasih sayang ibubapa-anak, dan penglibatan ahli keluarga dalam penyalahgunaan dadah. Dua

kumpulan sampel terlibat dalam kajian ini iaitu penyalahguna dadah (PD) dan bukan penyalahguna dadah (BPD).

Kawasan Kajian

Lokasi kajian bagi PD ialah Pusat Serenti Tampoi (Johor), Pusat Serenti Tampin (Melaka), Pusat Serenti Bukit Mertajam (Pulau Pinang), dan Pusat Serenti Besut (Terengganu). Sementara itu, lokasi kajian bagi BPD ialah bandaraya Kuala Lumpur.

Pemilihan lokasi kajian dilakukan berasaskan kepada kedudukan zon-zon pusat serenti di Semenanjung Malaysia. Pusat-pusat serenti di Semenanjung Malaysia terletak dalam empat zon iaitu Zon Utara Barat, Zon Utara Timur, Zon Tengah, dan Zon Selatan. Bagi setiap zon, sebuah pusat serenti dipilih secara rawak (sekiranya terdapat lebih daripada sebuah pusat serenti) bagi mewakili zon berkenaan. Pusat Serenti Tampoi (Johor) terpilih bagi mewakili zon selatan, Pusat Serenti Tampin (Negeri Sembilan) mewakili zon tengah, Pusat Serenti Bukit Mertajam (Pulau Pinang) mewakili zon utara barat dan Pusat Serenti Besut (Terengganu) mewakili zon utara timur.

Bandaraya Kuala Lumpur dipilih sebagai lokasi kajian untuk kumpulan kawalan. Pemilihan ini berdasarkan kesesuaian lokasi, masa, tenaga, kewangan dan juga kemudahan pengkaji untuk mendapatkan sampel kajian yang memenuhi kriteria sampel yang ditetapkan.

Sampel Kajian

Sampel kajian ditentukan melalui pemilihan secara percontohan bertujuan (*purposive sampling*) dengan berdasarkan kriteria sampel yang ditetapkan terlebih dahulu. Kedua-dua kumpulan sampel kajian (eksperimen dan kawalan) mestilah lelaki, etnik Melayu, berumur tidak melebihi 30 tahun, dan belum berkahwin. Di samping itu, subjek kajian bagi kumpulan kawalan mestilah tidak pernah menyalahgunakan dadah.

Satu kriteria tambahan ditetapkan bagi kumpulan eksperimen iaitu pelatih yang dipilih mestilah terdiri daripada pelatih yang berada dalam Fasa I Pemulihan. Terdapat empat fasa pemulihan di Pusat-Pusat Serenti. Setiap fasa ini mengandungi beberapa susunan tindakan dan jangka masa pemulihan yang tertentu. Tempoh masa pemulihan di setiap fasa ini adalah antara

empat hingga enam bulan bergantung kepada prestasi pelatih berhubung dengan proses pemulihan yang dijalankan.

Pemilihan pelatih daripada Fasa I adalah berdasarkan andaian bahawa pelatih-pelatih ini baru beberapa bulan berada di Pusat Serenti. Oleh itu, mereka lebih mudah mengingat kembali perkara-perkara yang berkait dengan penglibatan mereka dengan dadah. Berbeza dengan pelatih-pelatih dalam fasa lain yang telah lama berada di Pusat Serenti dan kemungkinan besar menghadapi kesukaran untuk berbuat demikian.

Kaum lelaki sahaja dipilih sebagai sampel kajian disebabkan kesemua pusat serenti yang terdapat di Semenanjung Malaysia, kecuali Pusat Serenti Kemumin (Terengganu), menempatkan penagih-penagih lelaki. Sebab yang kedua ialah majoriti penagih dadah yang dikesan di negara ini adalah lelaki. Daripada jumlah keseluruhan 156,046 penagih yang dikesan pertama kali (1970 hingga Jun 1991), lebih 90.0% adalah lelaki (Majlis Keselamatan Negara, 1992).

Pemilihan kumpulan etnik Melayu sebagai sampel kajian juga mempunyai kaitan dengan bilangan penagih Melayu yang dikesan di negara ini. Berdasarkan data yang diperolehi sejak tahun 1970 hingga 1987, kecuali tahun 1979 dan 1980, kumpulan etnik Melayu merupakan kaum yang terbesar terlibat dengan penyalahgunaan dadah (Majlis Keselamatan Negara, 1992). Kumpulan etnik Melayu yang berterusan menjadi golongan terbesar yang terlibat dengan dadah di negara ini menyebabkan perlunya suatu kajian yang khusus tentang penglibatan kumpulan etnik ini dengan dadah.

Peringkat umur 30 tahun ke bawah ditetapkan sebagai kriteria sampel kerana majoriti penagih dadah di negara ini adalah di dalam lingkungan umur ini. Dalam tahun 1990 umpamanya, daripada sejumlah 7,372 penagih dadah yang dikesan pertama kali pada tahun tersebut, terdapat 76.9% yang berumur 29 tahun ke bawah (Majlis Keselamatan Negara, 1992).

Status belum berkahwin dijadikan kriteria sampel kajian kerana ia membuat penelitian tentang corak hubungan komunikasi dan kasih sayang antara ibu bapa dengan anak. Dengan demikian, sewajarnya sampel kajian terdiri daripada mereka yang belum berumah tangga. Mereka yang sudah berkahwin biasanya tinggal di

rumah sendiri ataupun rumah sewa berbanding dengan mereka yang belum berumah tangga yang biasanya tinggal dengan ibu bapa.

Kesemua pelatih daripada empat lokasi kajian (Pusat Serenti Tampoi, Pusat Serenti Tampin, Pusat Serenti Bukit Mertajam, dan Pusat Serenti Besut) yang memenuhi kriteria sampel yang ditetapkan dipilih sebagai sampel kajian. Keseluruhannya, 191 pelatih terpilih mewakili kumpulan eksperimen. Jumlah pelatih mengikut Pusat-Pusat Serenti adalah seperti dalam Jadual 1.

Bilangan yang sama (191 orang) telah dipilih daripada kalangan BPD untuk mewakili kumpulan kawalan. Sepertimana kumpulan eksperimen, pemilihan mereka ini dilakukan melalui pemilihan secara percontohan bertujuan (purposive sampling). Dengan erti kata lain, warga kota yang ditemu bual dan memenuhi kriteria sampel yang ditetapkan (lelaki, etnik Melayu, berumur tidak melebihi 30 tahun, belum berkahwin, dan tidak pernah menyalahgunakan dadah) diambil sebagai sampel kajian.

Prosedur

Kajian ini menggunakan soal selidik berstruktur yang ditadbirkan ke atas semua sampel kajian. Subjek kajian menjawab sendiri soalan-soalan dalam soal selidik. Nama mereka dirahsiakan dan tidak dicatat di atas kertas soal selidik. Oleh kerana kajian ini melibatkan dua kumpulan subjek kajian (PD dan BPD), maka diperlukan dua set soal selidik. Set pertama, ditadbirkan ke atas subjek kajian yang terdiri daripada pelatih-pelatih yang berada di pusat-pusat serenti (Tampin, Tampoi, Besut dan Bukit Mertajam).

Set kedua pula digunakan ke atas subjek kajian yang tidak pernah menyalahgunakan dadah dan tinggal di Kuala Lumpur.

JADUAL 1
Taburan populasi sampel bagi penyalahguna dadah

Bil	Kumpulan	Bilangan	
		n	%
1.	Pusat Serenti, Bukit Mertajam	50	26.2
2.	Pusat Serenti, Tampoi	49	25.7
3.	Pusat Serenti, Tampin	47	24.6
4.	Pusat Serenti, Besut	45	23.6
		N = 191	100.0

Secara terperinci, soal selidik kajian mengandungi dua bahagian:

Bahagian I mengandungi soalan-soalan berhubung dengan latar belakang subjek kajian dan keluarga. Maklumat-maklumat yang ingin diperolehi melalui bahagian ini meliputi umur, aturan kelahiran, bilangan adik-beradik, tempat tinggal, dan tahap pendidikan/pekerjaan/pendapatan responden dan ibu bapa.

Bahagian II pula mengandungi soalan-soalan berkaitan dengan persekitaran keluarga. Antara aspek-aspek yang ditanya dalam bahagian ini ialah penglibatan ahli-ahli keluarga dengan dadah, tahap komunikasi dan kasih sayang responden dengan ibu bapa.

Soal selidik yang disediakan diprauji terlebih dahulu sebelum kajian sebenar dijalankan. Set pertama diprauji di Pusat Serenti Tampin. Set kedua pula diprauji di kalangan beberapa orang belia yang tinggal di bandaraya Kuala Lumpur dan tidak pernah menyalahgunakan dadah.

Proses pengutipan data di pusat-pusat serenti (Tampin, Tampoi, Besut dan Bukit Mertajam) telah dijalankan pada bulan November hingga Disember, 1991. Sementara itu, pengumpulan data bagi kumpulan bukan penyalahguna dadah di Kuala Lumpur dijalankan pada bulan Januari hingga Februari, 1992.

Instrumen

Kajian ini melibatkan penggunaan beberapa instrumen khas bagi mengukur tahap komunikasi dan kasih sayang ibu bapa ke atas anak. Instrumen-instrumen tersebut ialah:

1. Instrumen Komunikasi
2. Instrumen "Parent-Child Interaction Rating Scale"

Instrumen Komunikasi

Instrumen ini dibentuk oleh O'Donnell dan Clayton (1979) untuk mengukur tahap komunikasi ibu bapa dengan anak. Ianya telah digunakan dengan meluas di peringkat tempatan iaitu oleh Zaida (1990), Zakila (1991), Che Radziah (1992) dan Maimun (1992). Zaida (1990) telah menterjemahkan instrumen ini ke dalam Bahasa Malaysia dan menambahkan item hal-hal keagamaan. Hasil ujian reliabiliti yang dijalankan oleh Zaida (1990) ke atas instrumen untuk bahagian hubungan komunikasi ibu-anak ialah 0.9190, dan untuk komunikasi bapa-anak pula ialah 0.9313. Sementara itu, Zakila (1991)

melaporkan hasil ujian reliabiliti ke atas instrumen yang digunakan untuk mengukur tahap hubungan komunikasi ibu- anak ialah 0.7315, sementara untuk komunikasi bapa-anak memberikan nilai 0.7071. Che Radziah (1992) yang menggunakan instrumen ini untuk mengukur tahap komunikasi ibu-anak mendapati nilai reliabilitinya bersamaan 0.7562. Kerlinger (1973) menegaskan instrumen yang mempunyai indeks reliabiliti yang melebihi 0.6 boleh dianggap mempunyai kekuatan reliabiliti yang mencukupi. Dengan demikian, jelas sekali instrumen ini mempunyai nilai reliabiliti yang memuaskan di peringkat tempatan.

Komunikasi merujuk kepada kekerapan responden berbincang dengan ibu bapa mengenai beberapa aspek tertentu. Aspek-aspek yang disoal dalam instrumen komunikasi ini merangkumi:

- i. Persekolahan
- ii. Rakan-rakan
- iii. Rancangan pendidikan dan kerjaya
- iv. Penggunaan masa lapang
- v. Perbelanjaan wang saku
- vi. Isu-isu semasa
- vii. Masalah peribadi
- viii. Rakan-rakan berlainan jantina
- ix. Hal-hal keagamaan
- x. Kebolehan diri
- xi. Peraturan dan tanggungjawab di rumah

Setiap item di atas memerlukan responden menjawab samaada SELALU, KADANG-KADANG atau TIDAK PERNAH. Markah 1 hingga 3 diberikan kepada setiap item bergantung kepada pilihan jawapan. Contoh soalan yang dikemukakan dalam instrumen ini adalah seperti berikut:-

Bil. Perkara	Kekerapan Berbincang		
	Dengan Bapa	Tidak Kadang-Kadang	Selalu
	Pernah		
1. Perkara-perkara berkaitan dengan sekolah

Jumlah skor tertinggi yang boleh diperolehi oleh responden ialah 33, dan skor terendah ialah 11. Skor minimum keseluruhan digunakan untuk menentukan tahap komunikasi yang rendah ataupun tinggi. Responden yang mendapat

jumlah markah yang kurang daripada skor min digolongkan kepada tahap komunikasi yang rendah, dan responden yang mendapat jumlah markah melebihi skor min dikategorikan sebagai tahap komunikasi yang tinggi.

Instrumen "Parent-Child Interaction Rating Scales

Instrumen ini dicipta khas oleh Heilbrun (1964) untuk mengukur tahap kasih sayang ibu bapa ke atas anak. Instrumen khas ini telah digunakan di peringkat luar negara (Heilbrun, 1964; 1966; 1973) dan tempatan (Zaida, 1990; Che Radziah, 1992). Ujian reliabiliti yang dijalankan oleh Heilbrun (1973) ke atas instrumen ini menghasilkan nilai 0.7400. Sementara itu, di peringkat tempatan, Zaida (1990) melaporkan nilai reliabiliti bagi instrumen ini ialah 0.8983. Hasil ujian reliabiliti Che Radziah (1992) pula ialah 0.7653. Berdasarkan ketetapan Kerlinger (1973), jelas sekali instrumen ini mempunyai kekuatan reliabiliti yang mencukupi di peringkat tempatan.

Instrumen ini telah diterjemahkan ke dalam Bahasa Malaysia dan diubah suai di peringkat tempatan. Bilangan sekil yang digunakan untuk mengukur tahap kasih sayang adalah sama dengan jumlah sekil dalam instrumen asalnya (lapan sekil). Bagaimanapun ayat-ayat keterangan yang terdapat dalam tiap-tiap sekil telah dipermudahkan dengan tidak mengubah maksud asalnya (Zaida, 1990). Lapan sekil yang terdapat dalam instrumen ini ialah:

- a. Kadar curahan kasih sayang ibu bapa ke atas anak.
- b. Kadar kasih sayang yang dilahirkan secara fizikal ke atas anak.
- c. Kadar persetujuan ibu bapa ke atas anak dan tingkah laku anak.
- d. Kadar pemberian konkrit (hadiah dan wang) kepada anak.
- e. Kadar berkongsi bersama perasaan dan pengalaman.
- f. Kadar memberikan galakan ke atas anak berhubung dengan pelaksanaan tanggungjawab dan minat peribadi anak.
- g. Kadar kepercayaan ke atas diri anak.
- h. Kadar perasaan selamat dalam diri anak berhubung dengan hubungan mereka dengan ibu bapa.

Instrumen ini mengandungi lapan soalan untuk ibu dan bapa yang meliputi aspek-aspek di

atas. Setiap soalan diberikan markah satu hingga lima bergantung kepada pilihan jawapan. Contoh soalan dalam instrumen ini adalah seperti berikut:-

1. *Persetujuan*
Tandakan "X" bagi salah satu daripada lima pernyataan berikut yang dapat menggambarkan kadar persetujuan ibu dan ayah ke atas diri anda.
- | | Bagi Ibu | Bagi bapa |
|--|----------|-----------|
| a. <i>Jarang-jarang</i> memberikan persetujuan ke atas diri saya berhubung dengan perkara-perkara yang saya lakukan. | | |
| b. <i>Sekali-sekala</i> memberikan persetujuan ke atas diri saya berhubung dengan perkara-perkara yang saya lakukan. | | |
| c. <i>Hampir selalu</i> memberikan persetujuan ke atas diri saya berhubung dengan perkara-perkara yang saya lakukan. | | |
| d. <i>Kerap</i> (selalu) memberikan persetujuan ke atas diri saya berhubung dengan perkara-perkara yang saya lakukan. | | |
| e. <i>Amat kerap</i> memberikan persetujuan ke atas diri saya berhubung dengan perkara-perkara yang saya lakukan. | | |

Skor tertinggi yang boleh diperolehi oleh responden ialah 40, dan skor terendah ialah lapan. Skor min keseluruhan digunakan untuk

menentukan tahap kasih sayang tinggi ataupun rendah. Bagi responden yang mem-perolehi skor yang lebih rendah daripada skor min dikategorikan sebagai tahap kasih sayang rendah. Sementara itu, responden yang memperoleh skor yang lebih tinggi daripada skor min dianggap sebagai tahap kasih sayang tinggi.

ANALISIS DATA

Semua maklumat yang terkumpul dianalisis dengan menggunakan program "SPSS-X". Prosedur statistik minimum dan peratusan digunakan untuk mendapatkan kedudukan taburan data. Sementara itu, untuk tujuan pengujian hipotesis, teknik ujian "t" digunakan.

HASIL KAJIAN DAN PERBINCANGAN

Perbincangan hasil kajian terbahagi kepada dua. Bahagian pertama menyentuh ciri-ciri latar belakang sampel. Manakala, bahagian kedua pula menyentuh pengujian hipotesis kajian.

Ciri-Ciri Latar belakang

Sejumlah 191 orang pelatih di empat buah Pusat Serenti (Tampoi, Tampin, Bukit Mertajam, dan Besut) memenuhi kriteria yang ditetapkan. Kesemua mereka ini dipilih untuk mewakili PD. Daripada jumlah ini, 50 orang daripada Pusat Serenti Bukit Mertajam (26.2%), 49 orang daripada Pusat Serenti Tampoi (25.7%), 47 orang daripada Pusat Serenti Tampin (24.6%), dan 45 orang daripada Pusat Serenti Besut (23.6%) (Jadual 1). Di samping itu, berdasarkan kriteria yang ditetapkan, jumlah yang sama (191 orang) dipilih melalui percontohan bertujuan (purposive sampling) daripada warga kota Kuala Lumpur yang tidak menyalahgunakan dadah untuk mewakili BPD.

Umur yang telah ditetapkan bagi kedua-dua kumpulan responden ialah dalam lingkungan 30 tahun ke bawah. Berdasarkan data yang telah dikumpul, taburan umur untuk PD ialah 48.2% berumur antara 26 hingga 30 tahun, 38.7% antara 21 hingga 25 tahun, dan 13.1% antara 16 hingga 20 tahun. Bagi BPD pula, terdapat 68.1% dalam peringkat umur antara 21 hingga 25 tahun, 20.4% antara 16 hingga 20 tahun, dan 11.5% antara 26 hingga 30 tahun (Jadual 2). Perbandingan skor min antara dua kumpulan ini jelas menunjukkan perbezaan umur yang sangat kecil antara PD dengan BPD. Skor min

JADUAL 2
Taburan umur responden

Umur	Klasifikasi Responden			
	Penyalahguna Dadah		Bukan Penyalahguna Dadah	
	n	%	n	%
16-20 tahun	25	13.1	39	20.4
21-25 tahun	74	38.7	130	68.1
26-30 tahun	92	48.2	22	11.5
Jumlah	191	100.0	191	100.0

PD ialah 24.85 %, sementara skor min BPD ialah 22.34 %.

Kajian ini telah menjalankan ujian tambahan berhubung dengan ciri-ciri demografi sampel kajian untuk mengetahui samaada kumpulan kawalan (BPD) sesuai sebagai bandingan dengan kumpulan eksperimen (PD). Keputusan kajian mendapati tidak terdapat perbezaan yang signifikan berhubung dengan ciri-ciri demografi kedudukan aturan kelahiran responden ($t = 0.58$; $p \leq 0.061$), tahap pendidikan responden ($t = -2.35$; $p \leq 0.062$), jenis pekerjaan responden ($t = 2.46$; $p \leq 0.071$), pendapatan responden ($t = 1.47$; $p \leq 0.056$), jenis pekerjaan bapa ($t = 3.35$; $p \leq 0.057$), dan pendapatan bulanan keluarga ($t = -4.23$; $p \leq 0.058$) antara PD dengan BPD. Hanya dua ciri demografi yang menunjukkan perbezaan yang signifikan antara dua kumpulan ini iaitu tahap pendidikan ibu ($t = -12.95$; $p \leq 0.05$) dan tahap pendidikan bapa ($t = -11.64$; $p \leq 0.05$) (Jadual 3).

Keputusan ujian dengan jelas menunjukkan tidak banyak perbezaan ciri-ciri demografi antara PD dengan BPD. Ciri-ciri demografi kumpulan kawalan secara amnya sesuai sebagai bandingan (comparable) dengan kumpulan eksperimen. Keputusan kajian yang menunjukkan perbezaan dari segi tahap pendidikan ibu bapa antara dua kumpulan ini tidak menjejaskan kesahan (validity) sampel kajian ini. Kajian-kajian terdahulu (contohnya: Hemalatha, 1984; Abdullah Al-Hadi dan Mohd Nasir, 1991) membuktikan tahap pendidikan ibu bapa tidak mempunyai perkaitan yang signifikan dengan tingkah laku penyalahgunaan dadah. Perbezaan tahap pendidikan ibu bapa ini juga terbukti dalam kajian tempatan tidak mempengaruhi tahap komunikasi dan kasih

JADUAL 3
Keputusan ujian perbandingan angkuh-
angkuh demografi antara penyalahguna dadah
dengan bukan penyalahguna dadah

Angkuh	Nilai "t"	Paras Signifikan
1. Aturan Kelahiran	0.58	0.061
2. Tahap Pendidikan	2.35	0.062
3. Jenis Pekerjaan	2.46	0.071
4. Pendapatan	1.47	0.056
5. Tahap Pendidikan Bapa	11.65	0.05*
6. Tahap Pendidikan Ibu	12.95	0.05*
7. Pekerjaan Bapa	3.35	0.057
8. Pendapatan Bulanan Keluarga	4.23	0.058

* Paras Signifikan $p < 0.05$

sayang ibu bapa-anak (contohnya: Che' Radziah, 1992; Roslin, 1992).

Pengujian Hipotesis

Terdapat lima hipotesis dalam kajian ini. Hipotesis ini diuji dengan menggunakan ujian "t". Paras signifikan yang digunakan dalam ujian hipotesis ini ialah $p \leq 0.05$. Hasil ujian hipotesis akan dibandingkan dengan kajian-kajian lain yang berkaitan, *jika ada*.

Hipotesis 1: Tidak terdapat perbezaan yang signifikan antara kumpulan penyalahguna dadah dengan kumpulan bukan penyalahguna dadah berhubung dengan tahap kasih sayang ibu-anak.

Instrumen "Parent-Child Interaction Rating Scales" (PACIRS) yang dibentuk oleh Heilbrun (1964) telah digunakan untuk mengukur tahap kasih sayang ibu dengan anak bagi kedua-dua kumpulan sampel. Ujian reliabiliti ke atas instrumen yang digunakan bagi kumpulan PD menghasilkan nilai 0.7721. Sementara itu, untuk kumpulan BPD pula, hasil ujian reliabilitinya ialah 0.7885. Kerlinger (1973) menjelaskan, sesuatu instrumen itu boleh dianggap mempunyai kekuatan reliabiliti yang memadai jika indeks reliabilitinya melebihi 0.60. Dengan demikian, jelas sekali instrumen yang digunakan dalam kajian ini mempunyai kekuatan reliabiliti yang mencukupi.

Instrumen ini menggunakan nilai min untuk menentukan kedudukan tinggi atau rendah tahap kasih sayang ibu dengan anak. Bagi

kumpulan PD, skor min ialah 21.60, sementara bagi kumpulan BPD, skor minnya ialah 27.61. Berdasarkan skor min ini, didapati kedudukan tahap kasih sayang dengan ibu bagi kumpulan PD ialah 50.8% di tahap tinggi, dan 49.2% di tahap rendah. Sementara itu, bagi kumpulan BPD, terdapat 53.9% di tahap kasih sayang tinggi, dan 46.1% di tahap kasih sayang rendah (Jadual 4).

Ujian "t" yang dijalankan ke atas data kajian yang berkait dengan hipotesis sifar yang dibentuk menunjukkan hipotesis sifar ini perlu ditolak ($t = -11.94$; $p \leq 0.05$). Dengan erti kata lain, hasil ujian ini membuktikan terdapatnya perbezaan yang signifikan untuk skor min bagi tahap kasih sayang ibu-anak antara kumpulan PD dengan kumpulan BPD. Perbandingan skor min antara dua kumpulan ini menunjukkan perbezaan yang terdapat antara kumpulan PD (21.60) dengan kumpulan BPD (27.61) ialah tahap kasih sayang dengan ibu bagi kumpulan PD adalah lebih rendah daripada kumpulan BPD. Kedudukan tahap kasih sayang yang rendah dengan ibu ini mungkin mempunyai kaitan dengan penglibatan kumpulan PD dalam tingkah laku penyalahgunaan dadah.

Hasil kajian di atas selaras dengan kajian Russell (1974), Streit *et al.* (1974), Mohd Reduan (1990) dan Maimun (1991). Eldred dan Brown (1974) umpamanya melaporkan majoriti penagih dadah adalah terdiri daripada mereka yang mempunyai kedudukan tahap kasih sayang yang rendah dengan ibu. Dalam konteks kajian tempatan, kajian Mohd Reduan (1990) dan Maimun (1991) juga mendapati majoriti penagih dadah bercirikan tahap kasih sayang yang rendah dengan ibu.

JADUAL 4

Tahap kasih sayang ibu-anak bagi kumpulan penyalahguna dadah dan kumpulan bukan penyalahguna dadah

Tahap Kasih Sayang Ibu-Anak	Kumpulan			
	Penyalahguna Dadah		Bukan Penyalahguna Dadah	
	n	%	n	%
Tahap rendah	94	49.2	88	46.1
Tahap tinggi	97	50.8	103	53.9
Jumlah Besar	191	100.0	191	100.0

Hipotesis 2: Tidak terdapat perbezaan yang signifikan antara kumpulan penyalahguna dadah dengan kumpulan bukan penyalahguna dadah berhubung dengan tahap kasih sayang bapa-anak.

Instrumen PACIRS turut digunakan untuk mengukur tahap kasih sayang bapa dengan anak. Ujian reliabiliti ke atas instrumen ini bagi kumpulan PD menghasilkan nilai 0.7279. Sementara itu, hasil ujian reliabiliti ke atas instrumen yang digunakan untuk kumpulan BPD pula ialah 0.7911. Jelas di sini, berdasarkan Kerlinger (1973), instrumen yang digunakan mempunyai kekuatan reliabiliti yang mencukupi di peringkat tempatan.

Skor min turut digunakan untuk menentukan kedudukan tinggi atau rendah tahap kasih sayang responden dengan bapa. Hasil kajian menunjukkan skor min bagi kumpulan PD ialah 18.51. Sementara itu, skor min bagi kumpulan BPD ialah 25.71. Berdasarkan skor min ini, didapati kedudukan tahap kasih sayang dengan bapa bagi kumpulan PD ialah 42.4% di tahap kasih sayang yang tinggi, dan 57.6% di tahap kasih sayang yang rendah. Untuk kumpulan BPD pula, terdapat 54.5% di tahap kasih sayang tinggi dan 45.5% di tahap kasih sayang rendah (Jadual 5).

Hasil ujian "t" ke atas data yang berkaitan membuktikan terdapatnya perbezaan yang signifikan untuk skor min bagi tahap kasih sayang bapa-anak antara kumpulan PD dengan kumpulan BPD ($t = -14.10$; $p \leq 0.05$). Dengan erti kata lain, hipotesis sifar di atas adalah ditolak. Perbandingan skor min antara dua kumpulan ini menunjukkan perbezaan yang terdapat antara kumpulan PD (18.51) dengan kumpulan BPD (25.71) ialah tahap kasih sayang dengan bapa

JADUAL 5

Tahap kasih sayang bapa-anak bagi kumpulan penyalahguna dadah dan kumpulan bukan penyalahguna dadah

Tahap Kasih Sayang Bapa-Anak	Kumpulan			
	Penyalahguna Dadah		Bukan Penyalahguna Dadah	
	n	%	n	%
Tahap rendah	110	57.6	87	45.5
Tahap tinggi	81	42.4	104	54.5
Jumlah Besar	191	100.0	191	100.0

bagi kumpulan PD adalah lebih rendah daripada kumpulan BPD. Kedudukan tahap kasih sayang yang rendah dengan bapa ini mungkin mempunyai kaitan dengan penglibatan kumpulan ini dalam tingkah laku penyalahgunaan dadah.

Keputusan kajian ini selaras dengan kajian Streit *et al.* (1974) yang turut mendapati sebilangan besar penagih dadah mempunyai tahap kasih sayang yang rendah dengan ibu bapa. Hasil kajian Chiam (1985) juga melaporkan keputusan kajian yang selaras dengan kajian ini iaitu kumpulan PD mempunyai tahap kasih sayang yang rendah dengan bapa. Kajian perbandingan yang dijalankan oleh Eldred dan Brown (1974) turut mendapati kumpulan PD membuat persepsi yang lebih rendah berhubung dengan kasih sayang dengan bapa berbanding dengan kumpulan BPD.

Hipotesis 3: Tidak terdapat perbezaan yang signifikan antara kumpulan penyalahguna dadah dengan kumpulan bukan penyalahguna dadah berhubung dengan tahap komunikasi ibu-anak.

Kajian ini telah menggunakan instrumen komunikasi yang dibentuk oleh O'Donnell dan Clayton (1979) untuk mengukur tahap komunikasi ibu dengan anak. Ujian reliabiliti ke atas instrumen ini bagi kumpulan PD menghasilkan nilai 0.7902. Sementara itu, hasil ujian reliabiliti untuk kumpulan BPD ialah 0.6289. Jelas di sini, instrumen ini mempunyai kekuatan reliabiliti yang mencukupi di peringkat tempatan.

Skor min digunakan untuk menentukan kedudukan tinggi atau rendah tahap komunikasi responden dengan ibu. Hasil kajian menunjukkan skor min bagi kumpulan PD ialah 22.52. Sementara itu, skor min bagi kumpulan BPD ialah 25.08. Berdasarkan skor min ini, didapati kedudukan tahap komunikasi dengan ibu bagi kumpulan PD ialah 52.4% di tahap tinggi, dan 47.6% di tahap yang rendah. Sementara itu, bagi kumpulan BPD pula, terdapat 61.3% di tahap tinggi, dan 38.7% di tahap rendah (Jadual 6).

Berdasarkan ujian "t" yang ditadbirkan ke atas data kajian yang berkaitan dengan hipotesis di atas, didapati nilai "t" bersamaan 6.53 pada paras $p = \leq 0.05$. Dengan demikian, hipotesis sifar ini adalah ditolak. Hasil ujian membuktikan terdapatnya perbezaan yang signifikan untuk skor min bagi tahap komunikasi ibu-anak antara kumpulan PD dengan kumpulan BPD.

JADUAL 6
Tahap komunikasi ibu-anak bagi kumpulan penyalahguna dadah dan kumpulan bukan penyalahguna dadah

Tahap Komunikasi Ibu-Anak	Kumpulan			
	Penyalahguna Dadah		Bukan Penyalahguna Dadah	
	n	%	n	%
Tahap rendah	91	47.6	74	38.7
Tahap tinggi	100	52.4	117	61.3
Jumlah Besar	191	100.0	191	100.0

Perbandingan skor min ini jelas menunjukkan perbezaan antara kumpulan PD (22.52) dengan kumpulan BPD (25.08) iaitu tahap komunikasi ibu-anak kumpulan PD adalah lebih rendah daripada kumpulan BPD. Penglibatan ahli-ahli kumpulan PD dalam penyalahgunaan dadah mungkin mempunyai kaitan dengan kedudukan tahap komunikasi yang rendah dengan ibu.

Offer dan Offer (1975) turut mendapati majoriti PD mempunyai tahap komunikasi yang rendah dengan ibu. Kedudukan tahap komunikasi ini menyebabkan anak-anak tidak suka berada di rumah dan menghabiskan masa dengan rakan-rakan. Keadaan ini mendedahkan anak-anak ini kepada gejala tingkah laku devian seperti penyalahgunaan dadah. Kajian Jurich *et al.* (1985) juga membuktikan terdapatnya jurang komunikasi antara PD dengan ibu. Semakin luas jurang komunikasi ini, semakin besar kemungkinan penglibatan penagih berkenaan dengan dadah. Begitu juga dengan kajian Gecas *et al.* (1974) yang melaporkan hubungan komunikasi yang renggang antara ibu dengan anak menyebabkan anak-anak tersebut merasakan diri mereka tidak diberi perhatian dan disayangi. Akibat daripada keadaan ini, anak-anak berkenaan akan cuba memenuhi keperluan ini daripada sumber-sumber lain termasuk dadah.

Hipotesis 4: Tidak terdapat perbezaan yang signifikan antara kumpulan penyalahguna dadah dengan kumpulan bukan penyalahguna dadah berhubung dengan tahap komunikasi bapa-anak.

Instrumen komunikasi yang sama digunakan untuk mengukur tahap komunikasi bapa dengan

anak. Hasil ujian reliabiliti ke atas instrumen ini bagi kumpulan PD ialah 0.7645. Bagi kumpulan BPD pula, keputusan ujian reliabilitinya ialah 0.6685. Jelas sekali, instrumen ini mempunyai kekuatan reliabiliti yang mencukupi di peringkat tempatan.

Data yang diperolehi menunjukkan skor min berhubung dengan tahap komunikasi bapa-anak bagi kumpulan PD ialah 20.10, dan bagi kumpulan BPD ialah 24.50. Butiran skor min ini digunakan untuk menentukan kedudukan tahap komunikasi responden dengan bapa. Bagi kumpulan PD, didapati 55.5% berada di tahap komunikasi yang tinggi dan 44.5% berada di tahap komunikasi yang rendah. Berbanding dengan kumpulan BPD, terdapat 64.9% berada di tahap komunikasi yang tinggi, dan 35.1% berada di tahap komunikasi yang rendah (Jadual 7).

Prosedur statistik yang sama digunakan untuk menguji data yang berkaitan dengan hipotesis di atas. Hasil ujian membuktikan terdapatnya perbezaan yang signifikan untuk skor min bagi tahap komunikasi bapa-anak antara kumpulan PD dengan kumpulan BPD ($t = -9.09$; $p \leq 0.05$). Dengan erti kata lain, hipotesis sifar di atas adalah ditolak. Perbandingan skor min menunjukkan perbezaan yang terdapat antara dua kumpulan ini ialah tahap komunikasi dengan bapa kumpulan PD (20.10) adalah lebih rendah daripada kumpulan BPD (24.50). Perbezaan ini menunjukkan kemungkinan penglibatan kumpulan PD ini dalam penyalahgunaan dadah mempunyai kaitan dengan kedudukan tahap komunikasi yang rendah dengan bapa.

JADUAL 7

Tahap komunikasi bapa-anak bagi kumpulan penyalahguna dadah dan kumpulan bukan penyalahguna dadah

Tahap Komunikasi Bapa-Anak	Kumpulan			
	Penyalahguna Dadah		Bukan Penyalahguna Dadah	
	n	%	n	%
Tahap rendah	85	44.5	67	35.1
Tahap tinggi	106	55.5	124	64.9
Jumlah Besar	191	100.0	191	100.0

Penemuan di atas adalah selaras dengan kajian Gecas *et al.* (1974), Offer dan Offer (1975), dan Jurich *et al.* (1985) berhubung dengan perkara yang sama. Kajian Offer dan Offer (1975) umpamanya melaporkan jurang komunikasi antara bapa dengan anak menyebabkan anak-anak tersebut merasakan diri mereka tidak selesa dan perasaan tidak selamat. Keadaan ini menyebabkan anak-anak ini berpaling kepada rakan-rakan sebaya bagi mendapatkan perasaan selamat dan rasa diterima dalam jiwa mereka. Hubungan yang rapat dengan rakan-rakan ini terutama dengan rakan-rakan yang menyalahgunakan dadah mendedahkan anak-anak kepada berbagai tingkah laku anti-sosial.

Hipotesis 5: Tidak terdapat perbezaan yang signifikan antara kumpulan penyalahguna dadah dengan kumpulan bukan penyalahguna dadah berhubung dengan penglibatan ahli-ahli keluarga dalam penyalahgunaan dadah.

Data yang diperolehi menunjukkan bagi kumpulan PD, terdapat 13.6% yang mempunyai ahli-ahli keluarga yang menyalahgunakan dadah, dan 86.4% tidak mempunyai sebarang ahli keluarga yang terlibat dengan dadah. Untuk kumpulan PD pula, terdapat 5.8% yang mempunyai ahli-ahli keluarga yang terlibat dengan dadah, dan 94.2% yang tidak mempunyai ahli-ahli keluarga yang sedemikian (Jadual 8).

Ujian "t" ke atas data kajian yang berkait dengan hipotesis di atas menunjukkan terdapatnya perbezaan yang signifikan untuk skor min bagi ahli-ahli keluarga yang menyalahgunakan dadah antara kumpulan PD

JADUAL 8

Ahli-ahli keluarga yang menyalahguna dadah bagi kumpulan penyalahguna dadah dan kumpulan bukan penyalahguna dadah

Ahli Keluarga Menyalahgunakan Dadah	Kumpulan			
	Penyalahguna Dadah		Bukan Penyalahguna Dadah	
	n	%	n	%
Ada	26	13.6	11	5.8
Tidak ada	165	86.4	180	94.2
Jumlah Besar	191	100.0	191	100.0

dengan kumpulan BPD ($t = 2.61$; $p \leq 0.05$). Dengan ini hipotesis sifar di atas adalah ditolak. Perbandingan skor min antara dua kumpulan ini jelas menunjukkan skor min kumpulan PD (1.14) adalah lebih besar daripada skor min kumpulan BPD (1.06). Perbezaan ini menunjukkan kemungkinan penglibatan kumpulan PD ini dalam penyalahgunaan dadah mempunyai kaitan dengan faktor pendedahan kumpulan ini kepada tingkah laku penyalahgunaan dadah di dalam lingkungan keluarga.

Hasil kajian di atas selaras dengan kajian Kandel (1973). Kajian tersebut mendapati PD mencontohi tingkah laku ibu bapa berhubung dengan penyalahgunaan dadah. Oleh kerana ibu bapa mengamalkan tingkah laku tersebut, maka anak-anak ini beranggapan tingkah laku tersebut adalah normal dalam kehidupan seharian. Blum *et al.* (1972) turut melaporkan majoriti PD yang ditemu bual menyatakan ahli-ahli keluarga mereka terlibat dengan penyalahgunaan dadah.

KESIMPULAN

Keputusan kajian memberikan implikasi terhadap program-program pencegahan penyalahgunaan dadah di negara ini. Implikasi hasil kajian diteliti dari sudut kasih sayang dan hubungan komunikasi ibu bapa-anak, dan model tingkah laku di dalam keluarga.

Kasih Sayang dan Kawalan Ibu bapa ke atas Anak-anak

Keputusan kajian telah membuktikan terdapat perbezaan yang signifikan berhubung dengan tahap kasih sayang ibu bapa ke atas anak-anak antara kumpulan PD dengan kumpulan BPD. Kumpulan PD mempunyai tahap kasih sayang yang lebih rendah dengan ibu bapa berbanding dengan kumpulan BPD. Hasil kajian ini memberikan implikasi tentang perlunya ibu bapa memberikan tumpuan dan mempertingkatkan hubungan kasih sayang dengan anak-anak.

Kasih sayang merupakan satu keperluan bagi diri anak-anak. Memperolehi kasih sayang daripada ibu bapa bererti anak-anak tersebut telah mendapat perhatian yang sewajarnya daripada ibu bapa mereka. Lantaran itu tidak timbul keperluan ke atas diri mereka untuk mencari sumber-sumber lain bagi memenuhi kehendak asas tersebut. Bagaimanapun terlalu banyak kasih sayang yang diberikan oleh ibu bapa kepada anak-anak juga boleh menimbulkan

kesan negatif ke atas diri anak-anak. Anak-anak akan menjadi manja dan boleh bersikap tidak bimbang untuk melakukan sesuatu yang bertentangan dengan kehendak ibu bapa ataupun individu-individu lain kerana mereka tahu bahawa ibu bapa tetap menyayangi dan berpihak kepada mereka.

Di samping kasih sayang, kawalan juga penting bagi kebaikan diri anak-anak. Kawalan penting kerana ianya menimbulkan perasaan selamat dalam diri anak-anak. Pelaksanaan kawalan memberikan panduan tentang corak tingkah laku yang dikehendaki atau dipersetujui oleh ibu bapa. Kawalan juga berfungsi sebagai petunjuk bahawa ibu bapa memberikan perhatian dan menyayangi mereka. Bagaimanapun kongkongan, ketidakadilan dan kawalan yang ketat boleh menyebabkan anak-anak menjadi pasif dan bergantung kepada orang lain ataupun mungkin menjadi agresif. Berada dalam keadaan boleh melakukan apa sahaja juga boleh menimbulkan masalah ke atas anak-anak. Mereka akan hilang pedoman. Apa yang sebenar diperlukan oleh anak-anak ialah "dinding" yang kukuh di sekeliling mereka yang menyediakan kawasan tetapi pada masa yang sama menunjukkan sejauhmana mereka boleh bergerak. Dengan ertikata lain, kanak-kanak ingin mengetahui tingkah laku yang bagaimana yang dijangkakan daripada mereka, dan apa yang akan berlaku jika mereka bertingkah laku di sebaliknya. Keadaan sebegini akan menghasilkan perasaan yakin ke atas diri kanak-kanak kerana mereka dapat mengagak kesan sesuatu tingkah laku dan pilihan-pilihan yang ada pada mereka.

Kesimpulannya, pemberian kasih sayang perlu seimbang dengan kawalan. Terlalu banyak kasih sayang tanpa kawalan mengurangkan keupayaan anak-anak untuk berdikari dan memikul tanggungjawab apabila dewasa. Kawalan yang terlalu rapi tanpa diiringi kasih sayang juga boleh menimbulkan kesan negatif ke atas anak-anak hingga menyebabkan mereka menjadi individu dewasa yang dingin dan tidak boleh bertolak ansur.

Hubungan Komunikasi Ibu bapa dengan Anak

Hasil kajian menunjukkan terdapat perbezaan yang signifikan antara kumpulan PD dengan kumpulan BPD berhubung dengan hubungan komunikasi ibu bapa dengan anak. Tahap komunikasi ibu bapa dengan anak adalah lebih

tinggi di kalangan kumpulan bukan penyalahguna dadah berbanding dengan kumpulan penyalahguna dadah.

Komunikasi yang berkesan antara ibu bapa dengan anak menyumbang ke arah pembentukan keluarga bahagia. Tanpa hubungan seperti ini, anak-anak akan merasa diri mereka tidak diberi perhatian, tidak diperlukan dan tidak disayangi. Justeru itu, anak-anak ini kemungkinan akan cuba memenuhi keperluan tersebut daripada sumber-sumber lain (orang atau bahan) yang terdapat di sekeliling mereka.

Kanak-kanak remaja perlu melahirkan perasaan, rasa kegelisahan, dan masalah-masalah yang mereka hadapi tanpa perasaan bimbang. Suasana tanpa perasaan bimbang ini akan hanya wujud sekiranya terdapat hubungan komunikasi yang terbuka antara ibu bapa dengan anak-anak. Hubungan komunikasi yang terbuka ini dicirikan oleh kesediaan ibu bapa mendengar masalah dan menghormati pendapat anak-anak. Keadaan ini tidak bererti bahawa ibu bapa perlu menyetujui setiap pandangan anak-anak.

Model Tingkah laku Positif

Keputusan kajian membuktikan terdapat perbezaan yang signifikan antara kumpulan PD dengan kumpulan BPD berhubung dengan penglibatan ahli-ahli keluarga yang terlibat dengan dadah. Hasil kajian jelas menunjukkan kumpulan PD mempunyai lebih ramai ahli keluarga yang terlibat dengan dadah berbanding dengan kumpulan BPD. Keputusan kajian ini secara langsung menunjukkan anak-anak terpengaruh dengan model-model tingkah laku negatif yang terdapat di sekeliling mereka. Dengan demikian, pendekatan model tingkah laku positif jelas sekali diperlukan dalam program-program pencegahan awalan. Penggunaan pendekatan ini bukan sahaja bertujuan mengubah model-model tingkah laku negatif tersebut tetapi juga menonjol atau menyediakan sebanyak mungkin model-model tingkah laku positif.

Model tingkah laku positif yang harus ditunjukkan oleh ibu bapa tidak sahaja meliputi tingkah laku-tingkah laku yang mempunyai hubungan langsung dengan penyalahgunaan dadah tetapi juga merangkumi tingkah laku-tingkah laku positif yang lain. Umpamanya, ibu bapa perlulah mengamalkan tingkah laku-tingkah laku yang menggambarkan sikap menghormati dan bertanggungjawab. Sekalipun sikap-sikap positif ini tidak mempunyai kaitan

langsung dengan penyalahgunaan dadah, namun amalan sikap tersebut boleh membantu ibu bapa dalam melaksanakan langkah-langkah pencegahan penyalahgunaan dadah di kalangan anak-anak. Sikap jujur dan bertanggungjawab tersebut menimbulkan reaksi hormat dan taat anak-anak terhadap ibu bapa. Perasaan hormat dan taat ini membantu ibu bapa menguatkuasakan peraturan-peraturan anti-dadah ke atas anak-anak.

Model tingkah laku positif juga boleh merangkumi tingkah laku atau amalan ibu bapa berhubung dengan penggunaan ubat-ubatan. Ibu bapa perlu mengamalkan pengambilan ubat mengikut sukatan dan arahan yang telah ditentukan oleh doktor perubatan. Ubat-ubat yang tidak diketahui aturannya ataupun dikhaskan kepada orang lain hendaklah di jauhi oleh ibu bapa daripada menggunakannya. Di samping itu, penjelasan juga perlu diberikan kepada anak-anak tentang kepentingan ubat-ubatan dalam kehidupan manusia terutama sekali apabila seseorang itu jatuh sakit. Bagaimanapun peringatan harus diberikan kepada anak-anak bahawa kebaikan ubat-ubatan ini tidak bererti ianya boleh digunakan dengan sewenang-wenangnya.

SARANAN KAJIAN AKAN DATANG

Kajian-kajian lanjutan perlu dilaksanakan bagi mengambil kira limitasi-limitasi yang terdapat di dalamnya dan juga untuk mendapatkan maklumat yang lebih terperinci tentang masalah penyalahgunaan dadah. Maklumat-maklumat ini boleh menjadi panduan pihak-pihak berkaitan untuk mewujudkan program-program pencegahan yang lebih berkesan di negara ini.

1. Kajian bersifat jangka panjang (longitudinal studies) dicadang dijalankan pada masa akan datang bagi mendapatkan maklumat yang lebih terperinci tentang permasalahan dadah. Ia melibatkan pengukuran angkubah-angkubah tertentu sebelum dan setelah responden mencuba dadah. Dengan terlaksananya kajian bersifat jangka panjang ini, pengkaji-pengkaji tidak lagi terikat dengan sampel yang bersifat *captive population* yang dipilih daripada penagih-penagih yang sedang menjalani proses pemulihan di pusat-pusat Serenti.
2. Kajian ini menetapkan sampel kajian bagi PD (kumpulan eksperimen) dan BPD

RUJUKAN

(kumpulan kawalan) mestilah lelaki, etnik Melayu, belum berkahwin, dan berumur 30 tahun ke bawah. Sementara itu, subjek kajian bagi kumpulan kawalan pula mestilah terdiri daripada individu-individu yang tidak pernah menyalahgunakan dadah. Disarankan kajian-kajian akan datang mencakup kriteria yang lebih luas merangkumi subjek lelaki dan perempuan, serta berbagai kumpulan etnik dan peringkat umur. Saranan ini selaras dengan kedudukan masalah dadah masa kini di mana penyalahguna dadah adalah terdiri daripada pelbagai kumpulan etnik, jantina dan peringkat umur.

3. Kajian ini banyak menggunakan maklumat yang diperolehi daripada anak-anak untuk mengetahui kedudukan keluarga. Contohnya, maklumat tentang tahap kasih sayang dan komunikasi ibu bapa dengan anak diperolehi daripada anak-anak sendiri. Dengan erti kata lain, maklumat ini adalah berdasarkan persepsi anak sendiri terhadap aspek-aspek yang disoal. Pandangan ibu bapa terhadap perkara yang sama mungkin berbeza daripada persepsi anak-anak tersebut. Oleh yang demikian, disarankan pengkaji-pengkaji akan datang menemu bual kedua-dua pihak dan membuat perbandingan terhadap maklumat yang diperolehi.

PENUTUP

Secara keseluruhannya, hasil kajian telah membuktikan terdapat perbezaan yang signifikan berhubung dengan kasih sayang ibu bapa-anak, komunikasi ibu bapa-anak, dan penglibatan ahli-ahli keluarga dalam penyalahgunaan dadah antara kumpulan PD dengan kumpulan BPD. Keputusan kajian menunjukkan berbagai faktor terbabit dalam masalah penyalahgunaan dadah. Ia memberikan implikasi tentang perlunya dijalankan berbagai aktiviti pencegahan untuk membentasi masalah dadah di negara ini.

PENGHARGAAN

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Weak-Form Efficiency of The Kuala Lumpur Stock Exchange: An Application of Unit Root Analysis

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ABSTRAK

Penemuan dari kajian-kajian lepas mengenai kecekapan telahan Bursa Saham Kuala Lumpur (BSKL) adalah tidak muktamad. Kebanyakan kajian-kajian ini tidak mengambilkira faktor-faktor ketipisan dagangan, hanyutan dan arahaliran masa, yang sememangnya menjadi ciri-ciri pasaran saham di negara-negara membangun. Tujuan kajian ini adalah untuk menilai kecekapan telahan BSKL dengan menggunakan analisis unit root yang mengambilkira faktor hanyutan dan arahaliran masa. Masalah ketipisan dagangan dikawal dengan mengelaskan indeks-indeks berdasarkan volum pusingganti saham bagi setiap unit saham diterbitkan. Penemuan kajian menunjukkan bahawa koefisien purata unit root adalah 0.9 yang bermakna peluang indeks-indeks tidak cekap dalam bentuk lemah adalah kurang dari 10 peratus bagi tempoh kajian ini. Penemuan kolerasi bersiri purata bertekalan dengan penemuan analisis unit root. Implikasi penemuan ini menunjukkan bahawa BSKL adalah cekap dalam bentuk lemah secara keseluruhannya walaupun bukti ketidakcekan wujud bagi sebahagian dari indeks-indeks.

ABSTRACT

Previous studies on the predictability efficiency of Kuala Lumpur Stock Exchange (KLSE) provide mixed evidence. Most of these studies did not attempt to control thinness of trading, drift and time-trend in the price series, which are peculiar characteristics of a developing securities market. This study investigates the predictability efficiency of KLSE using unit root analysis which incorporates the drift and time-trend factors. The thinness of trading was controlled by grouping the indices based on the volume of stock turnover per unit of outstanding shares. The findings suggest that the average unit root coefficient is 0.9 which implies that there is less than 10 percent chance that the indices are inefficiently priced over the period of study. The findings from the average serial correlation tests were consistent with unit root analysis. This implies that KLSE is weak-form efficient though there are pockets of inefficiencies for some indices.

INTRODUCTION

In a well functioning share market, prices of shares reflect all relevant and available information. Weak-form efficiency or currently known as predictability efficiency (Fama, 1992) implies that current prices fully reflect all past market information. This means that any trading rules using past prices or changes in past prices or any past market information to predict future prices or price changes should have little economic value.

Studies from developed countries, for example, by Fama (1970), Dryden (1970), Ball and Brown (1978), and Hawawini (1984)

support market efficiency both in the weak and semi-strong sense. There have been some attempts to evaluate the weak form efficiency of KLSE: Lim (1980), Dawson (1981), Lawrence (1981), Nassir (1983), Barnes (1986), Yong (1989). The results are mixed; most studies did not control the possible effects of trend and drift in the price series.

A recent study (Annuar and Ariff (1990)) of 82 individual stocks continuously traded over the period 1975 to 1989, using unit-root analysis to account for cyclicalities in price series and controlling thin trading effect, concluded that KLSE is generally weak-form efficient, though

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pockets of inefficiency are observed for shares that suffer liquidity problem.

Objective

This study investigates further the return predictability or weak-form efficiency of KLSE, using industrial, composite, property, finance, plantation, hotels and tin indices of the KLSE by applying unit root analysis. For comparative purposes, the Straits Times Index (STI) of the Stock Exchange of Singapore is also analysed.

Data and Methodology

(i) Data

Monthly and weekly closing prices of all KLSE indices over the period January 1977 to May 1989 were extracted from the security clearing automated network services files. The indices were ranked by taking the average volume (units) transacted per unit of outstanding shares over the period under study.

(ii) Test models

Traditional tests of weak-form efficiency using serial correlations and spectral analysis on price changes or rates of return are of limited use in thinly traded exchanges such as KLSE. These tests are suitable for developed securities market, which assume that the security prices in these markets are not subjected to substantial upward trend, and are more liquid. The unit-root analysis is an appropriate method of ascertaining the weak-form efficiency of developing securities markets.

The following unit root regression models are estimated:

$$(1) Y_t = b_1 (Y_{t-1}) + e_t$$

$$(2) Y_t = a_2 + b_2 (Y_{t-1}) + u_t$$

$$(3) Y_t = a_3 + b_3 (Y_{t-1}) + c [(t-1) - T/2] + v_t$$

where,

Y_t : monthly index prices at time $t = 1 \dots T$

a, b, c : regression coefficient respec-

tively of the drift, unit root, and time trend.

$t - 1$: lagged specification operator, and

e_t, u_t, v_t : i.i.d. residual term.

Equation (1) represents the random walk with one lag but specified as prices without drift and trend. Equation (2) incorporates the drift but not the trend. Equation (3) incorporates the drift and the time-trend in the price series of indices on the Kuala Lumpur Stock Exchange.

Unit root tests use the augmented t-statistics test of Dickey-Fuller critical values, which are robust tests of the coefficients from a data set containing drift and time trend. After isolating the drift and time-trend effects in the coefficient b , the following weak-form efficient test is conducted:

H_0 : $b = 1$ if unit root is present

H_a : $b \neq 1$ if unit root is not present

If the KLSE is weak-form efficient, then the null hypothesis of unit root is accepted. For comparative purposes, the serial correlation test is conducted on all the indices.

RESULTS

Only results from model (3) are presented in Tables 1 and 2 for the monthly and weekly data respectively*.

Table 1 shows that the average coefficient of the unit roots, b , is 0.95 for the most active index and 0.94 for the least active index. If price series possess unit roots, then b should be close to one. A statistical test of significance using Dickey-Fuller critical values indicate that none of the coefficients are significantly different from one at 5 percent level. The average coefficient of determination, R^2 , varies from 0.89 to 0.96. This reflects a good-fit for the unit root model and implies that current prices are the best estimates of future prices after adjustments for trend and cycle.

Table 2 shows that the average coefficients of unit root, b , taking into consideration the drift and time-trend of weekly data. The value of

* Similar but not identical results are observed for models (1) and (2).

TABLE 1
Summary of unit root regressions on 8 indices using model 3: 1977 to 1989
(monthly data)

Indices	b	R ²	t-calculated	t-Dickey-Fuller	Durbin-Watson Statistic
Most Active					
Composite	0.95	0.93	-1.98	3.14	1.95
Straits Time Index	0.89	0.94	-2.92	3.14	1.67
Finance	0.93	0.95	-2.24	3.14	1.89
Properties	0.97	0.95	-1.50	3.14	2.02
Industrial	0.94	0.92	-2.05	3.14	1.69
Hotels	0.97	0.96	-1.51	3.14	2.94
Plantations	0.93	0.94	-2.40	3.14	2.38
Tin	0.94	0.89	-2.28	3.14	1.89
Least Active					

The DF Critical Value for two-tailed test is ± 3.14

the coefficients range from 0.75 to 0.99. Statistical tests of significance using Dickey-Fuller critical values indicate that the coefficient for the Hotel index is significantly different from one at 5 percent level, and other coefficients are not significant.

Traditional tests of serial correlation and Box-Pierce Q-Statistic are also applied on all the price series in the indices. The serial correlation should be absent in each lagged period (12 lags for monthly data and 33 lags for weekly data)

and the average serial correlation should not be significant in the Q-Statistics test for an efficient pricing of the indices. These tests are conducted on rates of return data of each index.

The null hypothesis of no correlation for (a) serial correlation coefficients and (b) Q-Statistics should be accepted if weak-form efficiency is a valid description of the price series in the various indices on KLSE. The summary of serial correlation coefficients in rates of return for the monthly data for each index, from most active to

TABLE 2
Summary of unit root regressions on 8 indices using model 3: 1977 to 1989
(weekly data)

Indices	b	R ²	t-calculated	t-Dickey-Fuller	Durbin-Watson
Most Active					
Composite	0.98	0.98	-1.904	3.14	1.94
Straits Time Index	0.98	0.99	-2.486	3.14	1.65
Finance	0.98	0.99	-1.938	3.14	1.87
Properties	0.98	0.97	-1.869	3.14	2.01
Industrial	0.99	0.98	-1.660	3.14	1.68
Hotels	0.75	0.69	-9.584*	3.14	2.62
Plantations	0.97	0.98	-2.914	3.14	2.36
Tin	0.99	0.98	-1.739	3.14	1.88
Least Active					

* Significant at 5 percent level

least active, is shown in Table 3. Table 4 summarises the findings for weekly data.

The results in Table 3 show that for the active indices, KLSE Composite has significant serial coefficients in lags 1 and 11, Properties in

lag 2 and STI in lag 11, at 5 percent level. For the moderately active index, KLSE Industrial, the serial coefficient in lag 2 is significant at 5 percent level. For the less active index, Plantations has a significant coefficient in lag 10

TABLE 3
Serial correlation coefficients of 7 indices on KLSE and Straits Times Index on SES, by relative activeness: 1977 to 1989

Indices	Coefficients of Lags = 12												Q-Statistic
	1	2	3	4	5	6	7	8	9	10	11	12	
Most Active Composite	0.19*	0.06	-0.03	0.01	0.06	-0.05	-0.05	0.08	-0.03	0.08	0.17*	0.00	13.72
Straits Time Index	0.06	0.02	-0.14	0.03	0.02	-0.07	-0.04	-0.05	0.00	-0.04	0.17*	0.06	9.81
Finance	0.10	-0.08	-0.07	0.07	0.03	-0.01	-0.03	-0.11	-0.02	0.10	0.08	0.05	8.98
Properties	0.08	0.19*	0.05	-0.06	0.02	-0.09	0.01	-0.03	0.06	0.12	0.04	0.02	17.78
Industrial	0.18*	0.03	-0.01	0.02	-0.02	-0.01	-0.05	-0.13	-0.14	0.04	0.10	0.03	12.91
Hotels	-0.13	0.04	0.08	0.09	-0.07	0.03	0.05	0.02	-0.07	0.06	-0.01	0.02	7.87
Plantations	0.07	0.04	-0.02	-0.07	0.08	-0.08	0.07	-0.11	-0.05	0.17*	0.06	0.01	11.19
Tin	-0.18*	0.17*	0.03	0.08	-0.03	-0.02	-0.08	-0.03	-0.04	0.15	-0.15	-0.01	18.56
Least Active													

* Significant at 5 percent level

The Q-Statistic Critical Value is 21.03 at 5 percent level and 12 degrees of freedom.

TABLE 4
Serial correlation coefficients of 7 indices on KLSE and Straits Time Industrial Index on SES, by relative activeness: 1977 to 1989

Indices	Coefficients of Lags = 33											
	1	2	3	4	5	6	7	8	9	10	11	12
Most Active Composite	-0.01	0.04	0.05	0.02	0.05	0.01	0.05	0.01	-0.05	0.06	-0.02	-0.01
Straits Time Index	0.18*	-0.02	0.03	0.01	0.10*	0.04	0.01	-0.02	0.03	0.04	-0.09	-0.06
Finance	0.05	0.01	-0.03	0.07	0.02	0.03	0.07	0.03	-0.00	-0.00	-0.05	0.06
Properties	0.03	0.09*	0.03	0.03	0.01	0.01	0.03	0.00	0.05	0.03	-0.01	0.04
Industrial	0.13*	0.13*	0.07	0.04	0.01	0.03	0.03	0.03	-0.01	0.02	-0.03	-0.01
Hotel	-0.09*	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Plantation	-0.07*	0.02	0.04	-0.00	0.01	-0.00	0.00	0.04	-0.01	0.01	0.04	-0.02
Tin	0.09*	0.04	0.03	-0.05	0.02	0.04	0.05	0.04	0.09	0.03	-0.02	-0.01
Least Active												
Accept Null	5 of 8	2 of 8 Nil	Nil	Nil	1 of 8 Nil	Nil	Nil	Nil	1 of 8 Nil	1 of 8 Nil		

TABLE 4 (Continued)

Indices	Coefficient of Lags = 33											
	13	14	15	16	17	18	19	20	21	22	23	24
Most Active												
Composite	0.02	-0.03	-0.01	-0.01	-0.01	-0.03	0.02	-0.02	0.00	0.01	-0.01	-0.01
Straits Time												
Index	-0.04	-0.03	0.02	-0.04	-0.02	-0.03	0.02	0.01	-0.04	0.06	0.01	0.02
Finance	-0.00	-0.04	0.01	-0.03	-0.01	-0.03	0.04	0.03	0.00	0.02	0.00	-0.02
Properties	0.01	0.02	0.01	0.00	-0.00	-0.01	-0.00	-0.01	-0.03	-0.03	0.04	-0.02
Industrial	0.00	-0.01	0.01	-0.04	-0.05	-0.02	0.00	-0.03	0.00	0.06	0.00	-0.04
Hotel	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Plantation	-0.01	0.07	-0.01	-0.02	-0.00	-0.02	-0.04	0.00	0.03	-0.00	-0.00	-0.00
Tin	0.08*	0.04	-0.07	-0.01	0.02	-0.03	0.09*	-0.00	0.05	0.04	-0.02	-0.05
Least Active												
Accept Null	1 of 8	Nil	Nil	Nil	Nil	Nil	1 of 8	Nil	Nil	Nil	Nil	Nil

Indices	Coefficient of Lags = 33									
	25	26	27	28	29	30	31	32	33	Q-statistics
Most Active										
Composite	-0.01	-0.02	-0.00	-0.01	-0.01	0.01	-0.02	-0.02	0.02	13.99
Straits Time										
Index	0.03	-0.03	-0.09*	-0.02	0.01	-0.01	-0.07	-0.00	0.01	58.83*
Finance	0.02	-0.04	0.04	0.04	-0.01	0.01	0.02	0.00	-0.04	23.73
Properties	0.00	-0.03	-0.04	0.00	-0.00	0.03	-0.02	0.02	0.02	22.12
Industrial	-0.01	-0.05	-0.02	-0.05	0.01	-0.06	-0.02	0.03	0.04	43.60
Hotel	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	5.97
Plantation	-0.03	-0.00	-0.02	0.01	-0.01	-0.04	0.00	0.02	-0.00	18.07
Tin	0.02	-0.03	0.01	0.02	-0.00	-0.01	-0.04	-0.04	-0.00	42.21
Least Active										
Accept Null	Nil	Nil	Nil	1 of 8	Nil	Nil	Nil	Nil	Nil	Nil

* Significant at 5 percent level.

The Q-Statistic Critical Value is 47.40 at 5 percent level and 33 degrees of

and Tin in lags 1 and 2. These results imply that though in general the findings for individual serial correlations are consistent with weak-form efficiency, there are pockets of inefficiencies, even for active indices.

The results of Q-statistics indicate that none of the eight indices have significant average serial correlations at 5 percent level. Thus the indices are, on average, efficiently priced. These results are generally consistent with the unit root results. In general, the prices series of firms listed on the

KLSE do possess unit root, which means that current prices are the best estimates of future prices. Even, the least active index conforms with weak-form efficiency. On average, 92 percent of the current price behaviour may be explained by the immediate price lag variable. These findings are consistent with the findings of Annuar and Ariff (1990) on 82 individual stocks over a 15 year period.

The summary of serial correlation coefficients on rates of return over 33 lags of

weekly data for each index from most active to least active, is shown in Table 4. The results show that none of the active indices on KLSE have significant serial correlations, implying they are efficiently priced. For the intermediate active group, Industrial Index has significant serial correlations in lags one and two and the Q-statistic is not significant at 5 percent level.

Even the least active index such as Tin Index, shows a non-significant Q-statistic at 5 percent level, implying that on average over 33 lags, the index is also efficiently priced.

CONCLUSION

For the monthly data, the findings on eight indices on the KLSE using both unit root analysis and traditional test of serial correlation and Q-Statistics, strongly suggest that KLSE is weak-form efficient, though there are pockets of inefficiencies for some indices. The findings indicate that the average unit root coefficient is 0.92 which implies that there is only an 8 percent chance that the indices are inefficiently priced over the period January 1977 to May 1989.

Results for the weekly data with drift and time-trend adjustments in the price series of indices on the KLSE, indicate that the indices are efficiently priced. Except for the Hotel index, none of the coefficients of the indices is significantly different from one using the Dickey-Fuller critical values at 5 percent level. The average unit root coefficient is 0.95 which implies that there is only a 5 percent chance that the indices are inefficiently priced over the period January 1977 to May 1989.

Results of Q-statistics over 33 lags indicate that except for STI index, all other indices are generally efficiently priced. In developing securities markets such as KLSE, where cyclical and time trend effects on the price series are pronounced, the unit-root analysis with Dickey-Fuller significance tests is robust in addressing the weak-form efficiency of the market.

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Export-Led Growth in Malaysian Agriculture: A VAR Approach

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ABSTRAK

Kertas ini mengkaji hubungan diantara eksport-pertumbuhan bagi sektor pertanian dengan menggunakan model tiga-angkubah vektor autoregressi (VAR). Model ini telah diuji dengan tiga prosedur penyebab yang berbeza : penyebab Granger, teknik Hsiao dan varians dekomposisi. Hasil kajian menunjukkan pertumbuhan keluaran dalam negeri kasar menyebabkan eksport dalam dua daripada tiga ujian yang digunakan.

ABSTRACT

This paper investigates the export-growth relationship for the Malaysian agricultural sector using a three-variable vector autoregressive (VAR) model. The model was subjected to three different causality tests procedure: Granger causality, Hsiao's technique and variance decomposition. The results indicate that growth of gross domestic product (GDP) causes exports in two of the three test procedures employed.

INTRODUCTION

The causal relationship between agricultural exports and growth in Malaysia is investigated in this paper. Over the years, the contribution of agriculture has been declining and was eventually surpassed by the manufacturing sector in 1987. Despite the decline, agriculture is likely to remain important. The formulation of the national agriculture policy, and its subsequent revision, clearly underscores the importance of this sector. The present approach emphasises more on capital-intensive operations which would at least maintain agriculture's contribution to the Malaysian GDP. It is known that agriculture in Malaysia is a labour intensive industry.

Initially Malaysia allowed an import-substitution strategy to realize a high growth rate. Subsequently it followed the recommendations of the OECD and NBER studies of the 1960's and 1970's which suggested that an import substitution policy would show significantly less growth than would a policy based on export promotion.¹ The country then embarked on a strategy based on export promotion with confidence.

Previous studies on the export-growth relationship were based on cross-country studies, and on time series studies which produced mixed results. In the case of Malaysia, a study by Habibullah and Yusoff (1990) concluded that the agricultural sector causes growth. However, this result and other studies based on the causality method have to be interpreted with great care before any general causal ordering can be made. Most of the previous studies based their results on contemporaneous correlations and regressions. A high correlation between two variables does not necessarily imply the existence of a causal relationship between them. In fact, an observed high correlation between exports and growth is not surprising, as exports are a component of aggregate demand in a Keynesian identity. Exports contribute to economic growth only through capital formation (Kavoussi, 1984). Therefore, the direction of causation is difficult to judge. The establishment of causal ordering is very important for less developed countries (LDCs). If export (X) expansion is found to cause growth (Y), then export led growth is favourable.

¹ See Little, Scitovsky and Scott (1970) for OECD study. Bhagwati (1978) and Krueger (1978) are synthesis of the NBER study.

On the other hand, if reverse causality is found, the less developed countries have to achieve a threshold development before expanding their export sector (Michaely, 1977). Bidirectional causality indicates that exports and growth reinforce each other. Results based on a specific country study are very important as the adoption of a wrong policy can prove costly to a developing country. In fact, Sharma *et al* (1991) found that there were no two identical results among the five industrialized countries they studied.

To date a number of studies have investigated the direction of causality in a bivariate context (Jung and Marshall 1985, Chow 1987, Kwan and Cotsomitis 1990, Habibullah and Yusoff 1990), with very few using multivariate framework (Kunst and Marin, 1989, Sharma *et al* 1991). This study employs a vector autoregressive (VAR) technique to investigate the nature of the causal relationship between exports (X) and growth (Y). To remove spurious correlation, the direction of causation between export and growth is investigated with the presence of a third variable Z.

The paper is organized as follows: Section II describes the causal relationship among the variables included in the study; Section III presents the methodology. Section IV describes the data and discusses the results, which is followed by a brief summary and conclusion in Section V.

CAUSALITY : THEORETICAL ANALYSIS

There are two approaches to empirical investigation of the relationship between export expansion and economic growth. The first is based on Ram's (1985) claim that exports can have a positive impact on economic growth due to a better allocation of resources and that exports also can cause economies of scale and externalities and stimulate growth². The other approach is based on a "two-gap" model of growth where increase in exports causes an increase in imported capital goods which in turn raises the growth rate of capital formation and thus stimulates growth (Voivodas 1973;

Williamson 1978; Fajana 1979). While export expansion can lead to growth, it is also plausible that economic growth causes export expansion³. Recently, Helpman and Krugman (1985) have suggested a bidirectional causality between export and growth. According to this theory, rapid growth leads to efficient allocation of resources due to comparative advantage and allows for the exploitation of economies of scale. Once economies of scale are realized, the costs of exportable goods will decline and hence exports will be more competitive in the world market. Therefore the causal relationship may run in both directions and often tends to be self reinforcing⁴. This suggests that factors other than exports can also cause growth.

In this study, capital is included as a third variable that could explain growth. Traditionally, on the basis of neoclassical growth theories, it is believed that capital stocks lead to output growth, which in turn leads to further capital formation via the acceleration process. In the case of Malaysia, we may consider capital as endogenous to the growth process and the labour input as exogenous as there is a surplus of labour in the economy.

METHODOLOGY AND VAR SPECIFICATION

A wide range of studies in economics have used Granger-causality (1969) tests⁵. The central theme of this test is that a variable X is said to cause Y if Y is better predicted by using past values of X (which are contained in the information set that includes both X and Y) than by not using them. In order to draw a meaningful causal link between X and Y, one must consider as many factors as possible in the information set. These may include such internal factors as composition and direction of exports, investment activities and external factors such as the economic growth of developed countries and so on. Most of the studies mentioned above use Granger tests in a bivariate context. Extending the test to a multivariate framework involves the inclusion of the new variables and lag associated with them,

² Views shared by Tyler (1981); Feder (1983).

³ See Jung and Marshall (1985).

⁴ Kunst and Marin, (1989), and Jung and Marshall, (1985) did not support this hypothesis.

⁵ See Sims (1972) money and income, public expenditures and national income, Singh and Sahni (1984), and Islam and Rafiqzaman (1991) who investigate property tax and intermunicipal migration relationship in Canada.

which exhausts the degrees of freedom rather quickly. But as noted by Hsiao (1982) and Luthkepohl (1982), the exclusion of a third variable may lead to spurious correlations. Hence in this paper, a multivariate framework is used to investigate the causal relationship between exports and growth in Malaysia. As noted by Sharma *et al.* (1991), a VAR method has an advantage over other techniques because it considers all possible causal influences of the variables included in the system.

A specification of a three variable VAR model is expressed as:

$$\begin{bmatrix} X_t \\ Y_t \\ Z_t \end{bmatrix} = \begin{bmatrix} \phi_{10} \\ \phi_{20} \\ \phi_{30} \end{bmatrix} + \begin{bmatrix} \phi_{11}^l & \phi_{12}^l & \phi_{13}^l \\ \phi_{21}^l & \phi_{22}^l & \phi_{23}^l \\ \phi_{31}^l & \phi_{32}^l & \phi_{33}^l \end{bmatrix} \begin{bmatrix} X_t \\ Y_t \\ Z_t \end{bmatrix} + \begin{bmatrix} \mu_{1t} \\ \mu_{2t} \\ \mu_{3t} \end{bmatrix} \quad (1)$$

The entry $\phi_{ij}^l(L)$ has the following interpretation. The superscript l indicates the optimal lag of variable j in equation i and L is a lag operator. ϕ_{ii} ($i = 1, 2, 3$) and μ_{it} ($i = 1, 2, 3$) are constant and white noise error terms respectively. To test for *prima-facie* causation between i^{th} and j^{th} variables, zero restrictions on parameters are tested. For example, j^{th} variable *prima-facie* cause i^{th} variable if and only if $\phi_{ji} \neq 0$, and the i^{th} variable is said to *prima-facie* cause j^{th} variable if $\phi_{ij} \neq 0$. Hsiao (1982) has noted that if the j^{th} variable *prima-facie* causes the k^{th} variable and k^{th} variable *prima-facie* causes the i^{th} variable, then the j^{th} variable *prima-facie* causes the i^{th} variable indirectly. Thus, the model accounts for both direct and indirect causal relationship in the variable of interest. The model is derived from a covariance stationary process which has a constant mean and autocovariances.

One of the main requirements in applying a Granger-causality test is the stationarity of the data. For the model to be covariance stationary, the time series considered must be constant in both mean and autocovariances. To achieve stationarity, the data are filtered by using suitable methods (e.g. Sims' filter, Hsiao's technique, first differencing, etc.). Otherwise, drawing causal influences will present potential problems (Granger and Newbold 1974). Although several VAR studies have used non-stationary data directly, Ohanian (1988) has shown that the use

of non-stationary series may lead to spurious inferences. In this study, a standard tool in time series analysis is used to convert the data into stationary time series. However, the issue of determining the optimal lag length in Model (1) is still elusive⁶. The sequential method suggested by Hsiao (1979, 1981) which combines Granger causality and Akaike's minimum final prediction error(FPE) is used to determine the optimal lag. Hsiao (1981) has noted that use of the FPE balances the risk of bias when a lower lag is chosen against the risk of increased variance when a higher order is chosen. Furthermore, this technique does not constrain the lag from being the same and it is also equivalent to applying an F-test with varying significance levels. The procedure to determine the optimal lag length for each variable is outlined below :

- i) Regress Y on its own lagged values up to the order m where m is fixed a priori, that is,

$$Y_t = \phi_{10} + \sum_{l=1}^m \phi_{11,l} Y_{t-l} + \mu_{1t} \quad t = 1, \dots, n \quad (1)$$

- ii) For each m , Final Prediction Error is given by $FPE(l) = [(n + l + 1)/(n - l - 1)] SSR(l)/n$

where n is the sample size, and SSR is the residual sum of square. The $FPE(l)$ which gives the minimum value is chosen to be the optimal lag length for Y . Let l in this case be q .

- iii) Next, the optimal lag length for the other variables is determined. This is done by estimating

$$Y_t = \phi_{10} + \sum_{j=1}^q \phi_{1j} Y_{t-j} + \sum_{l=1}^v \phi_{12,l} X_{t-l} + \mu_{1t} \quad t = 1, \dots, n \quad (3)$$

and

$$Y_t = \phi_{10} + \sum_{j=1}^q \phi_{1j} Y_{t-j} + \sum_{l=1}^v \phi_{13,l} Z_{t-l} + \mu_{1t} \quad t = 1, \dots, n \quad (4)$$

For each (3) and (4), $FPE(q, l)$ is calculated by

$$FPE(l) = [(n + q + l + 1)/(n - q - l - 1)] SSR(q, l)/n$$

⁶ Sims (1980) has noted that increasing the lag length will increase the number of parameters to be estimated by the square of the number of parameters to be estimated by the square of the number of the variables and this will exhaust degree of freedom rather quickly.

The hypothesis of unidirectional causality between Y and X (or Z), X (or Z) and Y, and test of independence is done using a standard likelihood ratio (LR) test⁷.

- iv) Having established the bivariate causality results, and following the Caines *et al* (1981) specific gravity criteria, the order of each variable in equation (2) is determined. The one with the lowest FPE is added first to the equation (2). Let the optimal lag for variable (X) that yielded the lowest FPE be r. Hsiao (1979, 1981) has recommended a comparison between FPE(q) and FPE(q, r). If FPE(q) < FPE(q, r) then X does not *prima-facie* cause Y. Variable X is dropped from equation (2). On the other hand if FPE (q) > FPE (q, r) then X *prima-facie* causes Y and thus variable X is added to the equation (2). Similar steps are taken for variable Z in equation 2. Sharma *et al.* (1991) have noted that VAR analysis is sensitive to the order of the variables. Hence the above procedure is appropriate for reducing any bias arising from misordering of the variables.
- v) After the analysis from step (i) to (iv) is performed, all the equations are estimated using Zellner's (1962) iterative seemingly unrelated regressions technique.

Most of the data analyses using the VAR technique are centered on variance decomposition and impulse response functions which are generated from the moving average representation of an autoregressive process. The moving-average representation of a VAR model involves a linear combination of past and current innovations of the variables in the system. If the innovations are contemporaneously correlated, the model's variance can be decomposed. A standard way of doing this is to orthogonalize the μ_{it} in (1). Sims (1980, 1982) has noted that variance decomposition is useful in checking the causal influences in the system, and in fact the strength of Granger-causality can be measured through this decomposition. It decomposes the variance due to the innovations in own variables as well as other variables. A variable is strictly

exogenous if it is 100% due to its own innovation. On the other hand, if its variation is partly due to innovations of another variable, there is evidence of weak causation. For example, if growth is explained by only a small portion of another variable's forecast error variance, then it is a case of weak *prima-facie* cause. If the result of a VAR variance decomposition is sensitive to the order of the variables, the specific gravity criterion described in step (iv) is used to guide the ordering of the variables. Hence there are three different orderings for the variance decomposition.

DATA REQUIREMENTS AND ESTIMATION RESULTS

Annual data for GDP, agriculture export and gross capital formation for the 1960-1989 period used in this study are taken from the International Financial Statistics Yearbook (1990) and World Tables (various issues). The shares of export and gross capital formation are then used to investigate the relationship between the variables. As causality testing requires stationary data, the Box-Jenkins technique was used. To determine the optimal lag for each series, we then employed Akaike's FPE. For example, for agricultural exports, we found the optimal lags for each series are 1 for Y, 1 for X and 1 for Z. Following Hsiao's technique, these are then treated as controlled variables while variables X and Z, Y and Z and X and Y are manipulated variables in equations Y, X and Z respectively. Based on this optimal lag we investigated Granger's causality in both bivariate and trivariate contexts, Hsiao's causality and Sim's variance decomposition. As the forecast error variance is sensitive to the order of the variables, the above procedure is used to order the variables in each equation. The final specified model for agricultural primary exports is

$$\begin{bmatrix} X_t \\ Y_t \\ Z_t \end{bmatrix} = \begin{bmatrix} \phi_{10} \\ \phi_{20} \\ \phi_{30} \end{bmatrix} + \begin{bmatrix} \phi'_{11}(L) & \phi^4_{12}(L) & \phi^1_{13}(L) \\ 0 & \phi^1_{22}(L) & 0 \\ 0 & 0 & \phi^1_{33}(L) \end{bmatrix} \begin{bmatrix} X_t \\ Y_t \\ Z_t \end{bmatrix} + \begin{bmatrix} \mu_{1t} \\ \mu_{2t} \\ \mu_{3t} \end{bmatrix} \quad (5)$$

⁷ The likelihood ratio test is $-2 \ln \lambda = -2\{LR - LU\}$ where LR is the loglikelihood function for the restricted model and LU is the loglikelihood function for the unrestricted model. It has a χ^2 distribution with degrees of freedom equal to the number of restrictions under the null hypothesis. This is a large sample result.

The models were then estimated using Zellner's (1962) SURE. Results for the causality tests in both bivariate and trivariate cases are reported in Table 1. In the bivariate case we found that growth causes exports. However, this unidirectional causality seems to be quite weak as the level of significance for the LR test is only at 10% level. When we extend the model to include capital formation we found there is discrepancy in the

results. By using Hsiao's technique we found that both growth and capital cause exports. However, in the case of Granger's multivariate, it does not indicate any direction of causation. We report the decomposition of the FEV in Table 2. The extent of causation is checked by using the following procedure (see Sharma *et al.* 1991). *Prima-facie* causality is conventionally defined as weak if forecast error variance (FEV) of one variable is between 1% and 5% in another variable and moderate if it lies between 6% and 14%. On the other hand, *prima-facie* causality is strong if FEV is between 15% and 24% and is considered very strong if FEV accounts for more than 25%. Our results are similar to those derived by Hsiao's technique. It shows 14.37% of the forecast error variance of exports can be explained by innovations in growth and 4.33% in capital. Thus the causal relation is rather moderate and weak respectively. It appears that both growth and capital are exogenous as they are not explained by innovations in other variables.

TABLE 1
Agricultural export

Bivariate Causality Results			
Hypothesis	Likelihood ratio	Degrees of freedom	Conclusion
$\phi_{12}^1(L) = 0$	8.89*	4	Y \rightarrow X
$\phi_{21}^2(L) = 0$	0.92	1	X \rightarrow Y
Trivariate Causality Results			
$\phi_{12}^1(L) = 0$	7.42	4	Y \rightarrow X
$\phi_{15}^1(L) = 0$	0.61	1	Z \rightarrow X
$\phi_{21}^2(L) = 0$	0.96	1	X \rightarrow Y
$\phi_{23}^2(L) = 0$	0.43	1	Z \rightarrow Y
$\phi_{31}^1(L) = 0$	0.24	1	X \rightarrow Z
$\phi_{32}^2(L) = 0$	0.96	1	Y \rightarrow Z

* Significant at 10% level

Hsiao's Sequential Technique

FPE Comparison	Conclusion
$FPE_{xy}(q, r) < FPE_x(q)$	Y causes X
$FPE_{xz}(q, r) < FPE_x(q)$	Z causes X
$FPE_{yx}(q, r) < FPE_y(q)$	Y does not cause X
$FPE_{yz}(q, r) < FPE_y(q)$	Z does not cause Y
$FPE_{zx}(q, r) < FPE_z(q)$	X does not cause Z
$FPE_{yx}(q, r) < FPE_y(q)$	Y does not cause Z

TABLE 2
FEV decomposition for agricultural export

Variables Explained	Steps Ahead	Explained by innovations in		
		Y	X	Z
Y	8	100.00	0.00	0.00
X	8	14.37	81.30	4.33
Z	8	0.00	0.00	100.00

SUMMARY AND CONCLUSIONS

Concentrating on agricultural exports of Malaysia, this paper examines the causal relationship between Malaysia's exports and growth. The direction of causation is investigated in both bivariate and multivariate context by using vector autoregressive (VAR) models. This model is then subjected to three different test procedures: Granger's causality test, Hsiao's technique and variance decomposition. The results indicate no bidirectional causality between the variables investigated. However unidirectional causality is found in the bivariate model where growth causes exports and in the multivariate model where both growth and capital cause exports. The results are not similar when different causality test procedures are employed in the multivariate context. From the results we can draw some tentative conclusions. It appears that capital utilization in the agricultural sector is still very small. In order to improve this sector's competitiveness and to maintain its contribution to the Malaysian economy, effort has to be made to ensure greater capital utilization. Furthermore, with a projected moderate increase in world growth, this task seems inevitable.

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Constant Market Share Analysis of the ASEAN Timber Trade

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ABSTRAK

Kertas ini menyelidik pertumbuhan eksport keluaran-keluaran kayu ASEAN semasa jangkamasa-jangkamasa kemelesetan dan pengembangan perdagangan keluaran-keluaran kayu dunia antara 1979 sehingga 1987. Analisis bahagian pasaran konstan diguna untuk mengukur prestasi pertumbuhan eksport keluaran-keluaran kayu ASEAN berbanding dengan pertumbuhan purata dunia bagi kesemua keluaran ini. Prestasi eksport keluaran-keluaran kayu ASEAN didapati dipengaruhi oleh suasana ekonomi dunia. Struktur eksport keluaran kayu ASEAN di segi diversifikasi komoditi dan pasaran yang lembab telah menghalang peningkatan selanjut bahagian pasaran eksport dunia untuk negara-negara ASEAN. Suatu penelitian langkah-langkah yang diambil oleh negara-negara ASEAN untuk meningkatkan kepelbagaian industri keluaran kayu dibincangkan.

ABSTRACT

This paper investigates the growth in exports of ASEAN wood products during sub-periods of recessive and active world trade patterns that were experienced between 1979 to 1987. The Constant Market Share Analysis was used to measure ASEAN export growth performance relative to average growth in world export of wood products. It was found that the ASEAN wood products export trade was susceptible to world economic conditions. The structure of ASEAN's wood products export in terms of the lack of commodity and market diversifications has further contributed to the lack in market share improvements. A review of some ASEAN policies at diversifying its wood product commodities are provided in the paper.

INTRODUCTION

Global export trade in the wood products that ASEAN participated in grew from US\$33,149 million to US\$48,358 million from 1979 to 1983. But the year to year global export growth trend was by no means uniform. The global export growth performance showed two general opposite trends which can be classified as a sub-period of declining export trade during 1979-83 and a revival sub-period during 1983-87.

ASEAN, being a small player in the global wood products trade, also experienced similar hiccups in export performance. Although its export of wood products rose from US\$4,957 million in 1979 to US\$6,370 million in 1987, its exports slipped 5% annually in the earlier sub-period but recovered and expanded at an annual rate of 15% during the latter sub-period. Despite the resurgence in exports, ASEAN share of world exports for wood products did not improve

during the last decade. In 1987 market share remained at 13% as in 1979 (Table 1).

To what extent the lack of improvement in the ASEAN share of this world trade can be attributed to a lack of product and market diversification or to other competitive factors remains to be seen. The ASEAN share in the wood products trade was unevenly distributed. Volume of exports of sawlogs, sawntimber and sleepers, and veneer and plywood was quite significant. As at 1987 ASEAN exported 21.2% of the total world exports for all the three product categories. The main contributors were mainly from Malaysia for sawlogs, and sawntimber and sleepers; and Indonesia for plywood. For the other processed wood products, ASEAN did not appear to be a dominant world supplier taking up only a meagre 3.1%. The main exporters for wooden millworks and furnitures mainly came from Singapore and Thailand.

TABLE 1
Asean market shares of world exports in
wood products

Wood products	SITC code	Asean market shares of world exports (%)		
		1979	1983	1987
Sawlog	247	44.61	39.72	31.02
Sawntimber and sleepers	248	10.34	11.40	11.40
Veneer and plywood	634	10.63	19.40	28.16
Wooden millworks	635	3.54	5.54	5.25
Furnitures	821	2.51	2.79	2.61
Total products		12.91	12.63	12.96

A distinct characteristic of Asean wood products export structure is its concentration on the unprocessed and primary processing level. In 1987, sawlog comprised 38.37% of its wood products export, sawntimber and sleepers 25.73% and veneer and plywood another 27.77%. Wooden millworks and furnitures together provided only 8.12%. ASEAN wood products commodity base have experienced a slight change in composition during the period from 1979 to 1987 (Table 2). The compositions of sawlogs, and sawntimber and sleepers have declined while those of veneer and plywood have risen. However the compositions for wooden millworks and furnitures have not indicated much improvement.

With respect to market destinations ASEAN exports of wood products have a high dependence on the demand of Asian countries for

TABLE 2
Composition of Asean wood products export

Wood products	SITC code	Asean export in percentage		
		1979	1983	1987
Sawlog	247	55.73	41.99	38.37
Sawntimber & sleepers	248	27.35	29.38	25.73
Veneer & plywood	634	11.01	18.53	27.77
Wooden millworks	635	1.77	3.37	3.40
Furnitures	821	4.13	6.73	4.72
Total products		100	100	100

unprocessed timber; but have a more diversified market clientele for the processed wood products. In 1987, 99.9% of ASEAN sawlog export trade was mainly imported by Japan, South Korea, Hong Kong and Taiwan. In sawntimber and sleepers, 32.5% went to the Asian countries and 59.0% were imported by Europe. While in veneer and plywood 47.4% went to the Asian countries with Europe taking up 20.9% and North America 29.9%. However, among the secondary and finished wood products such as furniture and other wooden millworks, North America and Europe were the dominant buyers. Asian countries imported only 16.2% and 16.0% respectively of ASEAN furniture and other wooden millworks exports. During the period from 1979 to 1987 the directions of total wood products trade from ASEAN did not seem to show much variation with the exception of exports to Japan. The distribution of ASEAN total export of wood products by country of destination is given in Table 3.

The object of this paper is to identify some of the factors that can influence the export trend of ASEAN wood products. Using the Constant Market Share (CMS) analysis, ASEAN growth in wood products export is compared to the general expansion in the world market size of the wood products trade and their differences are disaggregated into the following sources:

(a) structural characteristics of ASEAN wood products trade which can be disaggregated further into:

- (i) whether ASEAN exports wood-based commodities whose demands grow more strongly than the world average,
- (ii) whether ASEAN primarily exports to countries whose growth rates of wood products import are bigger than the world average,

and

(b) other competitiveness factors.

It is important to rationalise the choice of subperiods as different sub-periods may give different results. In addition, the model is also sensitive to the choice of commodities that represent the product group and of market destinations of export. Since this paper attempts to analyse the export performance in wood products of ASEAN, the choice of the sub-periods

TABLE 3
Composition of ASEAN wood products export according to countries of destination (%)

Country of destination	Share of total Asean export (in %)		
	1979	1983	1987
Australia	1.935	2.345	1.906
Austria	0.521	0.663	0.474
Belgium	1.887	1.820	1.905
Canada	0.645	0.908	1.009
Denmark	0.510	0.631	0.519
Egypt	0.018	0.000	0.026
Finland	0.000	0.007	0.010
France	4.320	2.829	3.473
German	4.991	5.947	4.546
Greece	0.101	0.050	0.000
Hong Kong	2.016	2.598	3.659
Ireland	0.163	0.000	0.016
Italy	3.437	2.373	2.377
Japan	38.937	45.713	48.659
Korea	16.412	0.006	5.464
Netherlands	4.839	5.519	4.636
Norway	0.286	0.331	0.329
Portugal	0.000	0.011	0.000
Saudi Arabia	0.000	0.140	0.176
Spain	0.486	0.353	0.438
Singapore	5.613	6.593	3.680
Sweden	0.236	0.308	0.241
Switzerland	0.235	0.245	0.235
U. Kingdom	5.799	7.942	5.785
U.S.A.	6.612	12.667	10.438
	100.000	100.000	100.000

Source: Yearbook of International Trade Statistics, United Nations (1979-1987).

was based on the trends in the region's export performance of the product groups. The first sub-period observes the recessionary phenomenon in most of the industrial countries where except, Japan, U.S.A., West Germany and U.K., experienced a slowdown in their growth rates of GNP during 1979-83, with some years showing negative rates. The second sub-period on the other hand, shows higher growth rates of GNP of these countries, followed by increased imports, including that of wood products from ASEAN. In this case, our choice of the above sub-periods did

not differ significantly if it was done on the basis of growth trends in major importing countries.

MODEL DEVELOPMENT

The CMS is widely used to evaluate export performance. Among studies which applied this model are Leamer and Stern (1970), Richardson (1971), Rigaux (1971), Sprott (1972), Bidun Farusi (1980), Bowen and Pelzman (1984) and Fatimah and Roslan (1989). The CMS works on the basis of comparing ASEAN actual export achievements with those of changes in hypothetical export values under the assumption of constant market shares in given markets. The difference between both values is associated with effects of the structural characteristics of the ASEAN wood products trade. This structural effect can be further disaggregated into effects of commodity composition and market destination, while the residuals are taken to represent the effect of other competitiveness factors in explaining the gain and loss in market shares. However, it should be noted that the CMS only disaggregates the contributions of growth in world market size and structural effects of diversification in commodity and market on the market share performance of a region. The model lumps other influential factors in the residual term which is often called the competitiveness factor. In so doing, this model would have to be complemented with other methods when the empirical importance of such residual factors is needed.

The differences in ASEAN actual export value growths over those of the hypothetical export growths under the assumption of constant market shares in given markets are calculated to observe the dependence of ASEAN wood products export on world trade in these products. Two levels of analysis are conducted to explain the outcomes of these observations. The first attributes the changes in export performance to structural and other competitiveness effects. In the second analysis the structural effects are further disaggregated into commodity and market destination effects. The formula used to disaggregate the above factors of export growth is as follows:

First Stage

$$(X^2 - X^1) - rX^1 = \sum_j (r_{ij} - r) X^1_{ij} \quad \text{Structural effect} \\ + \sum_j [X^2_{ij} - (1 + r_{ij}) X^1_{ij}] \quad \text{Competitiveness effect}$$

Second Stage

$$\begin{aligned}
 (X^2 - X^1) - rX^1 &= \sum_i (r^1_i - r) X^1_i && \text{Commodity composition effect} \\
 + \sum_{i,j} (r_{ij} - r) X^1_{ij} &&& \text{Market destination effect} \\
 + \sum_{i,j} [X^2_{ij} - (1 + r_{ij}) X^1_{ij}] &&& \text{Competitiveness effect}
 \end{aligned}$$

Whereby

$$\begin{aligned}
 \sum_j X_{ij} &= X_i \\
 \sum_i X_{ij} &= X_j \\
 \sum_{i,j} X_{ij} &= X
 \end{aligned}$$

and

- X = value of ASEAN export of all wood products.
- X_i = value of ASEAN export of wood product i.
- X_{ij} = value of ASEAN export of wood product i to market j.
- r = growth rate of world export of all wood products during the particular period.
- r_i = growth rate of world export of wood product i during the particular period.
- r_{ij} = growth rate of world export of wood product i to country j during the particular period.

Superscripts 1 and 2 indicate beginning and end of sub periods investigated.

Structural effect collects the influence of commodity composition as well as the influence of market destination on export changes

Competitiveness effect gives the difference between the actual export value and the hypothetical export value which would have resulted, if ASEAN market share had been kept constant for each commodity i within each market destination j. It measures the export value, which ASEAN has lost or gained through change of market share to competition from other exporters.

Commodity composition effect measures whether ASEAN exports mainly commodities whose demand grow faster or more slowly than the world average. It is positive if ASEAN exports commodities with growth rates higher than the world average and vice versa.

Market destination effect measures whether ASEAN exports mainly to countries with growth rates higher or lower than the world average. It is positive if ASEAN exports to countries with growth rates higher than the world average and vice versa.

DATA

Data were not available for every disaggregated commodity breakdown of the wood product free on board (F.O.B) export value. However, it was possible to obtain five classes of wood product

exports from the United Nation's Yearbook of International Trade Statistics, 1979 to 1987. These products include Standard International Trade Classifications' (SITC) commodity number 247 which is sawlog, SITC commodity number 248 (sawntimber and sleeper), SITC commodity number 634 (veneer, plywood and other panel products), SITC number 635 (wooden millworks) and SITC number 821 (furniture and fixtures).

RESULTS

During the recessive sub period of 1979-83 ASEAN experienced declining export earnings from wood products when the export value decreased by 5% per annum while during the 1983-87 sub period ASEAN experienced recovery in export demand which grew 15% per annum. These changes in export value can be accounted to the contraction and expansion in world trade of wood products. During the 1979-83 period, ASEAN export of wood products declined by US\$1,032.6 million. Had the region followed the decline in world's export of that product category, ASEAN export in 1983 would have fallen by 91.8 percent of the declined values. These changes imply that patterns in world trade in wood products considerably affect those of ASEAN.

Other factors have also contributed to the decrease in ASEAN exports besides the reduction in size of world trade. The affirmation of the above influence can easily be shown in the latter period of 1983-87 when the region's export of wood products turned round and recorded an increase of US\$2,544.1 million following the increase in world exports of these products (Table 4 and Figure 1). In fact, during this period, ASEAN achieved hypothetical export growths under the assumption of constant market shares in all export markets. At this juncture it may be too early to assume that ASEAN had recovered its competitive edge in the second period without first investigating the structure of ASEAN wood products export.

As indicated above, during the first period ASEAN lost its market share in 1979 but covered it in 1983, during the second period. The proportion of these uncompetitive (or competitive) edges attributable to the roles of commodity composition and market diversification, could shed some light on the importance of these factors to exports growth. In both sub-periods, these structural effects have retarded exports only

TABLE 4

Actual and hypothetical changes in ASEAN wood products export (US\$million)

Period	1979-83	1983-87
Changes in actual exports	-1,032.6	2,531.0
Changes in hypothetical exports under assumption of constant market share	-947.9	2,544.1

to be counteracted favorably by competitiveness factors that seemed to contribute to ASEAN export achievements.

The constant market share model ascribes the export growth during a particular period to commodity and market diversification and other residual factors that normally include productivity growth: favourable changes in exchange rates, taxation and subsidisation; stable price and lower resource costs; and improvement in efficiency of marketing and quality. In this paper we would argue that ASEAN export competitiveness would be enhanced if its inflation rate is lower and exchange rate is favourable vis-a-vis industrial countries.

Within ASEAN Malaysia, Singapore and Indonesia are the major exporters of wood products (Singapore's export constitutes re-export). Comparing the inflation rates in ASEAN with those of industrialised countries, it was

found that Singapore, Malaysia and Thailand's rates were lower while those of Indonesia and the Philippines were higher than the industrialised countries during both sub-periods. For instance, in the first sub-period Singapore, Malaysia and the Philippines experienced average inflation rates of 0.7%, 1.88% and 2.3% respectively and those of Indonesia and the Philippines were 8.8% and 5.7% respectively. The industrialised countries were on average experiencing an inflation rate of 4.2%. Taking inflation rates to indicate changes in resource costs in each of the Asean countries, it would imply that there was an improvement in the export competitiveness of some of the ASEAN countries vis-a-vis industrialised countries.

Similarly, looking at the exchange rates of ASEAN member countries during the two sub-periods, all the ASEAN currencies experienced depreciations in value. As the exchange rates are expressed as the amount of local currencies that can be exchanged for one US Dollar, the depreciation would make the region's export more competitive during the sub-periods.

In both sub-periods, commodity composition of ASEAN wood product exports had always undermined the region's export performance, curtailing its exports during times of downturn and boom in world exports of wood products (Table 5 and Figures 2 and 3). ASEAN exports were concentrated in wood products with growth

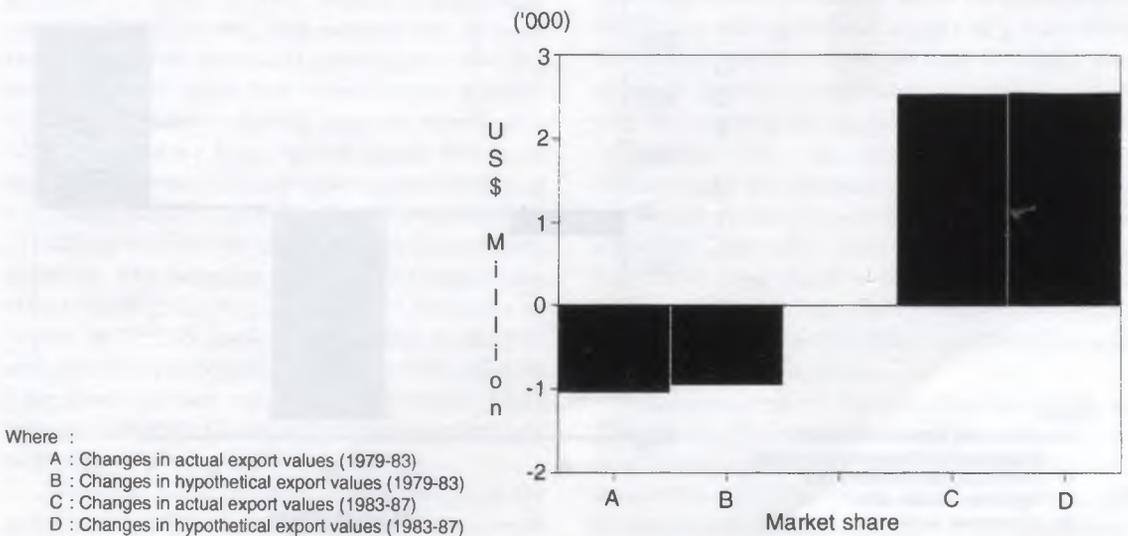


Figure 1: Comparison between changes in actual and hypothetical export values (US\$ million)

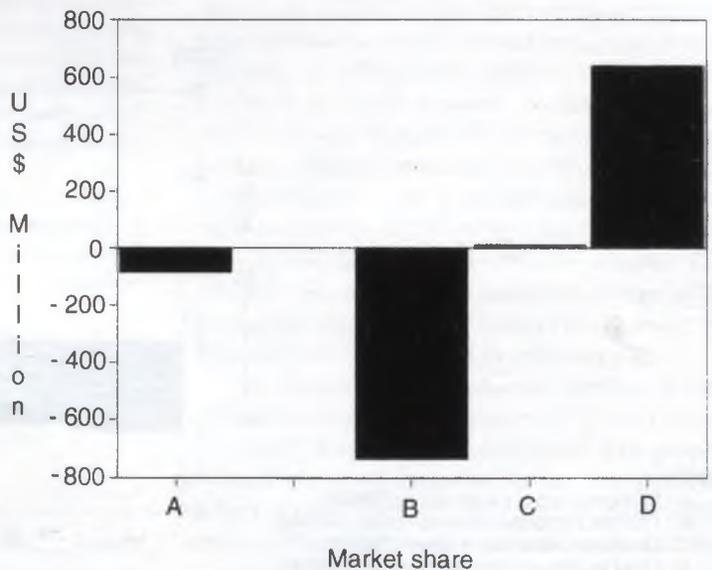
TABLE 5
Constant market share analysis of changes in ASEAN wood products export (US\$ million)

Period	1979-83	1983-87
Differences between changes in actual and hypothetical exports	-84.7	-13.1
<i>Sources for the above differences</i>		
a) Structural effect:	-724.9	-775.8
i) Commodity composition effect	-735.6	-539.5
ii) Market destination effect	10.7	-236.3
b) Competitiveness effect	640.2	762.7
	-84.7	-13.1

rates lower than those of the world. World trade in raw and primary processed wood products, in which ASEAN commodity compositions were more concentrated, was less rapid than that for the secondary and finished wood products. At the end of the 1979-83 sub-period ASEAN wood products exports comprised 42% of sawlogs with a declining rate in world export of 50%; 29% of sawntimber and sleeper with a declining rate in world export of 20%; and 19% of veneer and plywood which recorded a declining rate in world export of 28%. All these commodities experi-

enced declining rates greater, or at least equal, to those of the world wood products export of 20%. Wooden millworks and furnitures which registered better export performance comprised only 7% of ASEAN wood products export. Wooden millworks recorded a smaller decline in growth rate of 5% while furnitures registered a high growth rate of 16%. Despite the greater growth in export demand for these latter two wood products, the ASEAN wood commodity export composition was still concentrated in raw and primary processed wood commodities. Thus ASEAN was not able to capitalise on the world demand for these tertiary processed wood products.

Market destination effect of ASEAN wood products has a smaller influence on the region's exports of wood products, both in times of rising and falling world exports of wood products. However in certain markets, it has been a positive contributor to the ASEAN export growth. For instance, in sawntimber and sleeper trade, the United Kingdom experienced a lower decline in trade and ASEAN took this opportunity to increase exports to this destination. On the other hand, the Netherlands and France faced greater declines in trade and ASEAN reduced its exports to these markets. Similarly for the veneer and plywood trade, ASEAN increased its exports to Hong Kong, Singapore and the United States to take advantage of the better growth in trade



Where :
 A : Differences between changes in actual and hypothetical export values
 B : Commodity composition effect
 C : Market destination effect
 D : Competitive factor

Figure 2: Constant market share analysis of changes in ASEAN's wood products export (US\$ million), 1979-83

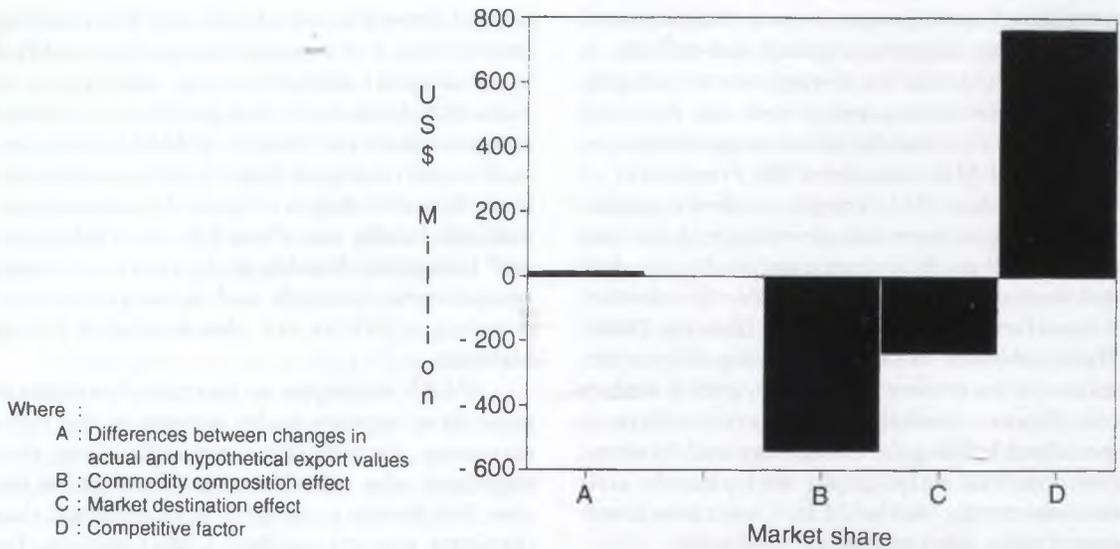


Figure 3: Constant market share analysis of changes in ASEAN's wood products export (US\$ million), 1983-87

relative to the average world trend. In the furniture trade, increased ASEAN exports were destined for the United States and the United Kingdom, two markets experiencing relatively higher growth in trade. However, in the sawlog trade, ASEAN was not able to shift its export destinations away from its traditional markets despite the higher decline in trade experienced by these countries relative to the world average.

DISCUSSION

ASEAN export performance followed closely the growth in size of the world trade. Our investigation indicates that market size of more finished wood products grew faster during normal world trade but experienced a lower decline in growth during exports downturn. ASEAN can brace itself against future threats of economic slowdown and take opportunities of booming world trade for wood products by investing further in downstream processing activities. The negative commodity composition effect during the two subperiods studied was caused by ASEAN trade concentration in the raw and primary processed products which tend to have lower growth rates in world trade. Thus recent ASEAN efforts at promoting further downstream processing are credible.

Various policies have been adopted by individual ASEAN countries with the intention of conserving their domestic resources and encouraging further investments in downstream

processing. In Peninsular Malaysia, a log export embargo was imposed in 1985 while the imposition of levies on the export of sawntimber and veneer made from several popular species, highly in demand by the domestic moulding and furniture industries, began in 1990. Lately in January 1993, a log export embargo was also imposed in Sabah. Similar actions were taken by other ASEAN countries. Thailand has banned logging from its natural forests whilst the Philippines has banned exports of sawntimber. Indonesia, apart from banning log exports, has also imposed high export taxes on sawntimber which has the equivalent impact of a ban. With the exception of Indonesia and Malaysia, the shortage of local raw material is casting a shadow over the wood product industries of the ASEAN countries. The situation is expected to deteriorate in the next five years. There is expected to be greater dependence on intra regional trade with these countries importing logs and sawntimber from Malaysia and Indonesia. In the long term, considerable efforts are required for natural forest rehabilitation and forest plantation projects.

Various forms of tax incentives are given by ASEAN countries to encourage investments in downstream processing industries (Angeles and Roszehan, 1990). With the exception of Indonesia, all ASEAN countries grant an income tax holiday ranging from three to ten years at the maximum. The basic tax relief period is extended

if registered manufacturers meet a minimum level of net foreign exchange earnings and conform to the prescribed number of employments created, size of investments, indigenous raw material utilization rates, and locational requirements. In the case of Malaysia, the 1986 Promotion of Investment Act (PIA) exempts qualified manufacturers from income tax, development tax and excess profit tax for 5 years from production date and these exemptions are extendible for a further 5 years for pioneer status firms (Kaziah, 1990). The wood-based industries that can qualify for the above tax incentives include integrated timber complexes, mouldings (in certain states), specialised building items, furniture and furniture components, pulp, paper and paperboard, medium density fibreboard and wafer board and several other processed wood-based items.

The above tax exemption incentives are beneficial if manufacturers make profits. Some wood product industries that incur expenditure on initial investments such as pulp and paper mills are likely to suffer losses, or to make little profit in the initial years. On the other hand, wood product industries which are profitable in the early years would benefit the most from these tax incentives. Thus the income tax holiday is more meaningful if the losses can be carried forward. With the exception of the Philippines, all ASEAN countries have made this provision.

Investment allowances are provided by the Philippines, Malaysia and Thailand for purposes of tax deductions. In the Philippines and Malaysia up to 100% of the cost of qualifying capital expenditure incurred within a prescribed period may be deducted from profits of qualified manufacturers. In the former, the allowances are conditional on the major infrastructure being undertaken in industrial promotional areas or in infrastructural-deficient areas. In Malaysia, this allowance is granted to manufacturers who have not been given pioneer status. A smaller investment allowance is provided by Singapore. To encourage reinvestments, a 40 to 50% allowance is granted to a manufacturer who incurs qualifying capital expenditure for the purpose of approved expansion.

Additional incentives are offered specifically geared to the promotion of exports. For instance, export-oriented manufacturers of wood-based products are given import duty exemption on all raw materials that are not available locally by all ASEAN countries. Malaysia and Singapore also

permit depreciation allowances on qualified investments. For new and expanding qualified wood product manufacturers, exemption or reduction from taxes and duties on imported equipments are provided by all ASEAN countries. In the case of imported spare parts, exemptions from taxes and duty on imported spare parts not available locally, are allowed by the Philippines and Indonesia. Double deductions on export promotions, research and development and training activities are also provided for in Malaysia.

ASEAN strategies to increase downstream processing appears to be moving in the right direction. Already there are indications that exports of value added wood products are on the rise. For instance, in 1989 it is reported that furniture exports reached US\$63 million, far exceeding the target initially set by the Malaysian government's Industrial Master Plan.

POLICY IMPLICATIONS AND CONCLUSION

The performance of ASEAN wood products export during the period 1979-87 was characterised by a period of slack demand followed by a recovery stage in the latter years ; this was in harmony with world trade patterns. This trade pattern is an indication that ASEAN wood products export is susceptible to world economic conditions. The structure of ASEAN wood products export has further contributed to its lack in market share improvements. Asean has little control over the world economy but to further improve its export trade it has to broaden its wood manufacturing base.

While diversification through downstream woodbased industrial development can increase the Asean share of the global wood product market share it has other beneficial implications. Further domestic processing of logs and sawntimber before export would also generate higher indirect output growth among other sectors in the economy due to the greater technological linkages with these sectors. Proportionally, the export of downstream wood products such as furniture and fixtures contributed more to direct and indirect output, employment, value added and tax revenues than to the export of logs and sawntimber. For instance in terms of output, Malaysian exports of furniture and fixtures generated indirect production in other sectors of the economy of about 90% more than its export value (Mohd

Shahwahid, 1992), while comparable figures for the export of logs and sawntimber were 30% and 60% of their export values respectively. Furthermore, the export of furniture and fixtures also generated high indirect value added which amounted to 120% more than the direct value added emanated from its exports. This indirect value added created was much more than that emanating from log and sawntimber exports. The same trend can be seen with respect to employment and tax revenues.

To broaden its manufacturing base by expanding downstream activities, the Asean countries would have to make structural changes in their wood product industries. Future trends in domestic consumption of logs, sawntimber and plywood for further processing are expected to change rapidly. From production and consumption estimates of these primary raw materials provided by Baharuddin (1989), a distinct increasing trend of future domestic consumption in the Asean countries is noted. Log exports from Asean countries are expected to decline from 17 million cubic metres in 1990 to 11 million cubic metres by 1995. It is also expected that 80 percent of sawntimber production will be domestically consumed, either for direct consumption or for further processing by 1995. This percentage is 7 percent more than that for 1990. For plywood, domestic consumption is expected to increase from 31 percent to 36 percent during the same period.

Greater investments in new plants and machinery would have to be made. Indonesia has made this happen for its plywood industry resulting in it being the number one world exporter. The equipment, operation and technological standards are on average comparable to those available in industrialized countries. However, apart from the plywood industry of Indonesia, a similar high standard in other Asean wood product industries is found only in isolated export oriented ventures in which multi-national companies are involved. Substantial lack of reinvestment over the past years has resulted in the use of inadequate and obsolete machinery in sawmills and in woodworking and furniture plants. Asean countries have planned to increase investments in downstream processing by attracting direct foreign investments, in particular from Taiwan, South Korea and Japan as well as by encouraging the involvement of a new generation of planning-conscious and management-

trained local entrepreneurs who are more willing to adopt new technologies (Turbang, 1989). The adoption of new technology is needed if quality products meeting international standards at competitive prices are to be made.

Greater efforts in manpower planning and training are also needed if Asean countries are to encourage greater downstream processing. A majority of wood-working and furniture factories in Asean countries consist of small manufacturing units and predominantly family oriented business concerns. A salient feature of these enterprises is the low level of technically trained workers. The limited formal training opportunities available do not help these enterprises. Most of the employees were trained on the job in an informal and often disorganised manner. The few larger manufacturing units which are export oriented ventures are in many cases owned by multinational companies. A limited few are owned by locals. These latter companies are more capable of providing more organised training facilities. In the expansion of the wood product industries, governments of Asean countries would have to provide more formal and comprehensive training opportunities to meet manpower needs. One example to follow is the Asean Timber Technology Centre which is involved in the dissemination and transfer of new wood-working technology.

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