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Factors Influencing Employer Attitudes towards Vocational Education

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ABSTRAK

Kajian ini berdasarkan model konseptual untuk menentukan kekuatan dan arah perhubungan antara angkubah penentu yang terpilih dan sikap majikan tentang pendidikan vokasional. Ciri-ciri personal majikan dan ciri-ciri tempat pekerjaan bertindak sebagai angkubah penentu. Angkubah-angkubah yang secara signifikan berkait dengan sikap majikan adalah sejenis pekerjaan, tahap pendidikan pekerja, jangka masa bekerja, jantina dan umur. Tiap-tiap set angkubah ciri-ciri personal dan set angkubah tempat pekerjaan secara unik menerangkan, sebahagian daripada varian sikap majikan. Sama ada benar atau tidak, bahawa majikan yang melaksanakan jenis pekerjaan yang memberi perkhidmatan dan jantina mereka, merupakan dua angkubah yang dapat meramalkan sikap majikan terhadap pendidikan vokasional. Majikan yang memberikan perkhidmatan dan majikan lelaki mempunyai sikap yang lebih positif.

ABSTRACT

This study tested a conceptual model to determine the strengths and directions of relationships between selected predictor variables and the attitude of employers about vocational education. Personal characteristics of employers and characteristics of the firm served as predictor variables. Variables significantly related with employer attitude were type of business, employee educational level, years in business, sex and age. The set of varaibles of personal characteristics and the firm each uniquely explained a portion of the variance in employer attitudes. Whether or not the employer operated a service type of business and the sex of the employer were the two variables which best predicted employer attitude toward vocational education. Service employers and male employers possessed the more positive attitudes.

INTRODUCTION

A major objective of vocational education is to assist in meeting the manpower needs of a country by preparing skilled and semi-skilled people for the workforce. The task of educational planners is to achieve a proper balance among general education, vocational education, and vocational training and to determine what sorts of institutions are best fitted to perform each of these functions. A major factor influencing the general versus vocational ratio is the willingness and capability of the industrial and business sectors of the economy to assist in carrying out a vocational education and training programme (Postlethwaite & Thomas, 1980, pp 292 – 293)

Vocational and technical education programmes have courses of study directly related to the specific fields of manpower requirements. The expectation is that youths participating in

such programmes will be more employable and more productive (McCracken, 1986, pp 1 & 2). This enhanced productivity might, over time, influence the economic development of the nation. According to opinions in each of the three countries (Germany, Japan and the United States of America), economic success could have been impossible without a strongly sustained vocational education and training effort (National Economic Development Office, 1984, p iv).

Educational planners in Malaysia have been facing a dilema. There has been a shortage of skilled manpower, yet youths completing vocational education programmes have been failing to compete successfully for employment. There appears to be little coordination between potential employers of youth and the schools in the preparation of students for employment. The employment community lacks a vested interest in preparing youth for work. "I perceive the problems faced by government agencies producing skill(ed) workers is due to lack of coordination between industry and training agencies in terms of identifying the skills required by the labour market. The weak linkage between the users and producers of skilled workers needs to be seriously looked into", (Asnan Pi'i in Faculty of Educational Studies, 1984, pp 37 – 38).

Conceptual Model

A model of selected factors having potential influence on employer attitudes about vocational education was developed *(Figure 1)*. The strength and direction of the relationships between the identified factors and the outcome variable was unknown. This model, therefore, served as the conceptual framework upon which this study was based. Attitudes describe how people feel about something, in this case vocational education. Attitudes are formed as a result of beliefs and influences of the environment. The conceptual model identifies the personal characteristics of race, sex, age and education and the firm characteristics of business type, years in business, number of employess (size of firm) and employee educational level as factors which potentially influence attitudes about vocational education.

Objective

The primary objective of this study was to determine the strengths and directions of the relationships between selected predictor variables and the measured attitude of employers about vocational education. Also, this study attempted to determine if a significant portion of the variance in employer attitudes

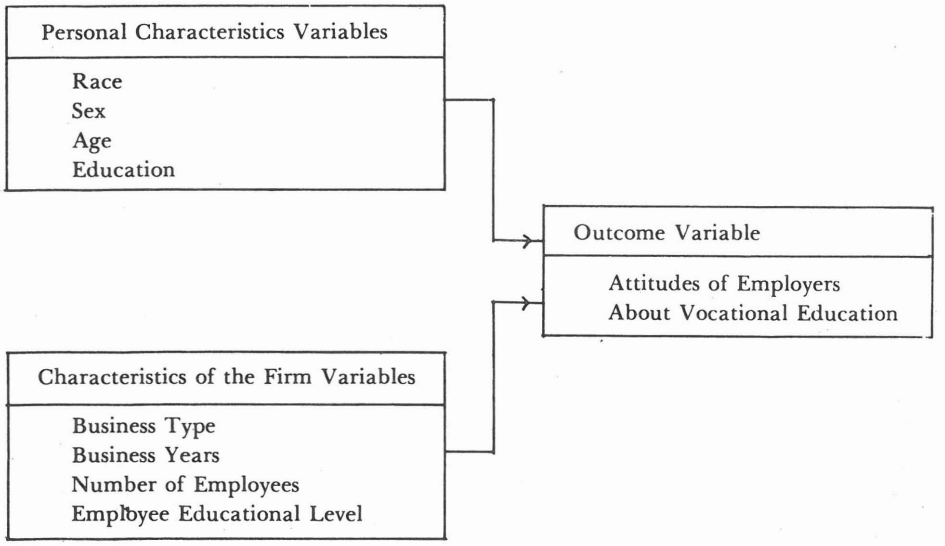

Fig. 1: Factors potentially influencing employer attitudes towards vocational education

about vocational education could be explained by the factors identified in the conceptual model.

For the personal characteristics variable set the variables and their levels were: race (Chinese, Indian or Malay), sex (male or female), age (25 or less, 26 – 35, 36 – 45, 46 – 55 or 56 and over) and education (less than Standard 6, through Standard 6, through Form 3, through Form 5, or diploma or degree).

For the variable set containing characteristics of the firm or place of business, the variables and their levels were: type of business (agriculture, commerce, construction, manufacturing or service), years in business (actual number of years), number of employees (actual number of employees), and employee educational level (none, lower elementary, elementary, lower secondary or upper secondary).

The outcome or dependent variable (employer attitude about vocational education) was measured by a 4-point Likert-type scale containing 11 items.

MATERIALS AND METHODS

Population and Sample

The target population consisted of employers in agriculture, commerce, construction, manufacturing and service firms. The accessible population included the employers in the areas of commerce, construction, manufacturing and service that were registered with the Ulu Langat District Office in the State of Selangor. The agricultural population was the list of estates in the Ulu Langat District in the directory published by the estate association. The Ulu Langat District runs from the southern part of Cheras through Bangi and east of the Kuala Lumpur-Seremban highway. The major employment area is in and around Kajang. The study was limited to this area because of its nearness to Universiti Pertanian Malaysia, because the population lists could be obtained from the district office, and because, for this initial study of this topic, the employers represented a diversity of size, scope and business interests.

A stratified random sample was drawn using a table of random numbers. Based upon the numbers of various types of business on the population list, the sample consisted of five agricultural employers, 30 commerce employers, five construction employers, 25 manufacturing employers and 40 service employers. Alternates equal to one-half the original number were drawn for use as substitutes when data could not be collected from employers in the original sample.

Using a 95 percent confidence interval and a sample size of 100, the margin of error in estimating population parameters from the sample data was plus a minus .082 on the 4-point attitude scale.

Instrumentation

Questions were written to secure respondent input necessary to fulfill each of the specific objectives. A combination of open-ended and close-ended questions was developed, based upon which could more effectively meet each objective. The questions were then arranged in an appropriate order for interviews with similar types of questions grouped together. A panel of faculty members reviewed the questions for content validity. The instrument was translated from English to Bahasa Malaysia. The instrument was then re-translated back to English to check the accuracy of the translation.

Data Analysis

For each of the variables of interest in this study, descriptive data were calculated in the form of frequencies and measures of central tendency appropriate for the type of data. In order to conduct additional model-testing analyses of two of the nominal variables (race and type of business), it was necessary to compute additional sub-variables. The race variable became Chinese (yes or no), Indian (yes or no), and Malay (yes or no). The type of business

variable became agriculture (yes or no), commerce (yes or no), construction (yes or no), manufacturing (yes or no), and service (yes or no). These variables and the sex variable (male or female) could then be treated as dichotomous data in point-biserial correlation and regression analyses.

Respondent ratings for the 11-items in the outcome variable scale were tested for reliability using the Cronbach's Alpha statistic. A satisfactory Cronbach's Alpha coefficient (.83) enabled the researcher to sum each respondent's ratings for the 11 items and then divide the sum by 11, resulting in a mean rating for each respondent.

Correlations were computed between each of the factors in *Figure 1* and the outcome variable. The correlations between race and attitude, and between business type and attitude were multiple correlations because of the sub-variables created for purpose of analysis.

Semi partial multiple regression coefficients were calculated for each variable set (personal characteristics and characteristics of the firm). This enabled an analysis of the unique contribution to the explanation of the variance in the outcome variable by each of the two variable sets. A stepwise multiple regression analysis was completed to determine which factors could best predict employer attitude toward vocational education.

RESULTS

Employers represented five firms engaged in agriculture, 27 in commerce, five in construction, 23 in manufacturing and 38 in service. The races of the employers were Chinese (85.7%), Malay (8.2%) and Indian (6.1%). Ninety percent were male and ten percent were female. The median age was 37.1 years. Nine of the employers had not completed elementary education, 27 had completed elementary education, 22 had completed lower secondary education, 32 had completed upper secondary education and 8 had completed a diploma or degree. The median number of years in business for the employing firms was 9.7. The median number of employees was 4.4 but the mean was 25.0, indicating the data were highly skewed. The median educational level of employees in the firm was completion of elementary education.

Descriptive information concerning the outcome variable is provided in Table 1. The 11 attitude statements about vocational education received an overall mean rating of 3.14 with a standard deviation of .36. The employers were in general agreement with all of the statements.

Personal Characteristics

The relationship between the personal characteristic variables and employer attitudes about vocational education were calculated (Table 2). Sex and age were found to be significantly related with employer attitudes, but at a low level. Males were more favourable towards vocational education than were females ($R = .15$). Younger employers were more favourable towards vocational education than older employers ($R = -.14$). Race ($R = .13$) and education ($R = .00$) were uncorrelated with attitudes about vocational education.

A semi-partial correlation coefficient was calculated to determine the unique portion of the variance in employer attitudes that could be explained by the personal characteristic set of variables (Table 3).

A significant proportion of the variance in employer attitudes about vocational education was explained by the cumulative personal characteristics set ($sR^2 = .096$, $F = 3.00$, $p < .05$). In Table 3, K_B represents the number of variables in the variable set and K_A represents the number of variables in the other set(s).

Characteristics of the Firm

Business type, business years and employee educational level were found to be significantly related with employer attitudes (Table 2). Business type was more highly related with employer attitude than any other factor ($R = .64$). Inspection of the data revealed that service employers possessed more positive attitudes

TABLE 1
Employer attitudes towards vocational education

Attitude statements	Mean rating	Std. dev.
Students should learn about the world of work while they are in school.	3.38	.55
Vocational education is helpful in meeting employers manpower needs.	3.34	.55
Vocational education helps young people prepare for productive work.	3.31	.48
Students should be able to prepare for specific occupations while they are in school if they choose to do so.	3.29	.56
Students should be able to elect vocational educational courses to learn job skills in school.	3.21	.54
Students should explore various occupations while they are in school.	3.16	.62
Vocational education teaches good work attitudes.	3.08	.53
Vocational education is appropriate in preparing workers for any firm	3.05	.69
Vocational education helps students maintain their interests in school.	3.01	.56
Students who complete vocational education courses are adequately prepared for productive work.	2.81	.62
It is the schools' responsibility to prepare all students for jobs.	2.76	.74
Overall statistics for attitude scale.	3.14	.36

Notes: Cronbach's Alpa reliability coefficient for the 11-item scale = .83; 4 = Strongly Agree; 3 = Agree; 2 = Disagree; 1 = Strongly Disagree; N = 98.

TABLE 2
Correlation of attitudes about vocational education with independent variables

Independent variables	Correlation	Significance
Personal characteristics		
Race	*.13	$p > .10$
**Sex	.15	$p < .10$
Age	−.14	$p < .10$
Education	.09	$p > .10$
Firm characteristics		
Business type	*.64	$p < .001$
Business years	−.18	$p < .05$
Number of employees	−.10	$p > .10$
Employee education level	−.21	$p < .05$

*Multiple correlation coefficients.
**Coding: Male = 2, Female = 1.

about vocational education than did employers in other types of business. Employee educational level was negatively related with employer attitude (R = −.21). Employers with more highly educated employees were less favourable towards vocational education. Years in business was also

TABLE 3
Semi-partial multiple regression coefficents for set of independent variables

Variable set	K_A	K_B	sR^2	F	Significance
Personal characteristics	4	4	.096	3.00	$p < .05$
Firm characteristics	4	4	.465	14.53	$p < .001$

Note: Total $R^3 = .568$, $F = 6.84$, $p < .001$.

negatively related with employer attitude ($R = -.18$). Employers in business for more years possessed less favourable attitudes about vocational education. The number of employees, representing the size of the business, was unrelated with employer attitude ($R = -.10$).

The semi-partial correlation coefficient (Table 3) for the variable set, characteristics of the firm, explained a highly significant unique portion of the variance in employer attitude about vocational education ($sR^2 = .465$, $F = 14.53$, $p < .001$).

Prediction of Employer Attitudes

A stepwise multiple regression analysis was used to determine which factors would best serve as predictors of employer attitude toward vocational education. For this analysis, the subvariables created for the race and type of business variables were used independently rather than being considered as a set. As shown in Table 4, two variables, one from the characteristics of the firm set and one from the personal characteristics set, were sufficient to serve as predictors of the dependent variable. Whether or not the employer represented a service firm explained the greatest portion of the variance ($R^2 = .437$). An additional .074 of the variance was explained by the sex of the employer. The total R^2 for the prediction equation was 0.511.

DISCUSSION

Based upon the findings of this study, there appear to be several significant factors contributing to the development of employer attitudes towards vocational education. First, these attitudes were more positive in employers in service firms. Perhaps workers in service-oriented firms need skills that are more difficult to develop in an on-the-job method of training. Therefore, employers were more supportive of such training being provided by the schools.

Second, younger employers and those in business for fewer years were more supportive of vocational education in the schools. Perhaps younger employers are less bound by the traditional view of schools as providing academic instruction only. Younger employers may see the need for more highly skilled employees to compete in the future.

Third, employee educational level appeared to have an influence on employer attitude. Employers having employees with less education were more supportive of vocational education. Evidently having less well-educated employees

TABLE 4
Step-wise multiple regression of employer attitude scores on the significant independent variables

Independent variables	R^2	R^2 increment	F
Employer in service firm (yes or no)	.437	.437	*53.81
Sex of employer	.511	.074	* 8.97

*$p < .001$

enabled employers to more clearly see a need for vocational education in the schools.

Fouth, males were more supportive of vocational education than females. Evidently, those who work in traditional male work roles feel the need for vocational education to a greater extent than those who work in traditional female work areas.

tant factors which were verified by this study were business type, employee educational level, years in business, sex and age.

Replication of this study with other samples of employers is recommended as a means of testing the applicability of the revised model.

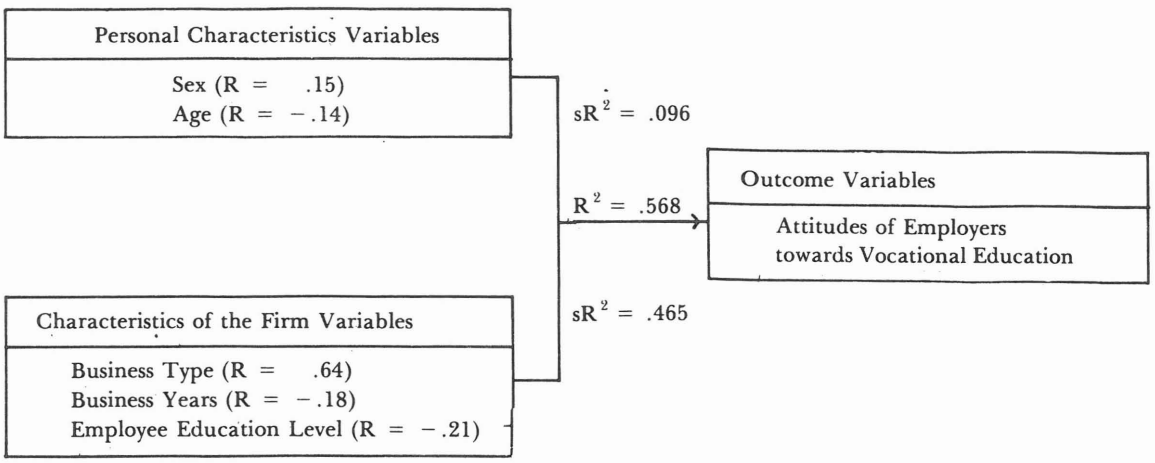

Fig. 2: A revised model of factors influencing employer attitudes about vocational education

Finally, characteristics of the place of business seemed to have a much greater influence on employer attitudes than did the personal characteristics of the employer. This would indicate that educational programmes may not receive universal acceptance from the entire business community. The community is made up of sub-groups relating to the type of work being done.

Revised Models

Based upon the findings, the model forming the conceptual framework for this study was restructured. The new model can be found as *Figure 2*. The variables or factors included in the revised model were those which contributed a significant portion of the variance in the dependent or outcome variable and attitude of employers about vocational education. The impor-

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