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EFFECTIVE MODELS FOR MEASURING STUDENTS' ATTITUDES TOWARD THE MARKETING EDUCATION PROGRAM

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Abstract

The author used two attitude-measuring models in compare the attributes of the marketing education program, tangible or symbolic, in terms of their relative importance to students' attitudes toward the program. The data were analyzed by using multiple regression. The findings are that students' attitudes are more closely related to the program's tangible attributes than to the symbolic attributes. However, the relationship to the symbolic attributes, although secondary, is significant. The findings should facilitate in developing a promotional campaign which will incorporate and emphasize the significantly important tangible and symbolic attributes of the program. The findings also demonstrate the effectiveness of the models to measure student attitudes in any vocational area.

The purpose of this study was to identify how students feel about particular attributes of a vocational program. Based on the findings, educators strengthen or modify the program for better results. Thus, research-based information can assist vocational educators to develop more appropriate promotional packages that will adequately inform students and attract them into appropriate vocational programs. The use of effective models to measure students' attitudes toward tangible and symbolic program attributes can provide researchers with sound research results that teachers and other educational leaders can easily

implement.

Research can identify and assist in resolving problems in vocational education programs, such as declining enrollments. In Virginia, marketing education enrollments have been declining (Hatzios & Heath-Camp, 1991). In the past 15 years, low enrollments in marketing education have been a serious problem nationally (Burrow, 1985; Ely, 1984). Even though national enrollments have taken a turn upward in recent years (Hatzios & Heath-Camp, 1991), with the anticipated growth in total student numbers in the educational system (U. S. Department of Labor, 1992), there is a need to continue program growth in marketing across the nation.

Theoretical Framework

Marketing theory and research support that consumers' attitudes toward product attributes influence their purchasing behavior toward those products. Consumers form those attitudes based on their image of the product from the dual perspectives of its tangible and symbolic attributes (Claiborne & Sirgy, 1990).

Attitudes are defined as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6). Lutz (1981, p. 234) defined attitudes as representing covert feelings of favorability or unfavorability toward an object, person, issue, or behavior. People learn attitudes over time by being in contact with the object directly (experience) or through receiving information about the object. Consumers use learned attitudes as a guide to their overt behavior with respect to the attitude object, giving rise to consistently favorable or unfavorable patterns of responses. Attitude measurement can provide understanding of purchase predisposition for a particular brand or service. Attitudes are assumed to be precursors of behavior. If a person is favorably predisposed toward a brand or service, that favorable predisposition should lead to favorable behaviors with respect to the brand, service, or program.

Tangible attributes are defined as the evaluative criteria used in decision making that are functional, utilitarian, or performance-oriented, i.e., they are means to higher ends. For example, tangible attributes of the marketing education program may include such considerations as the level of difficulty of the subject matter, the level of intellectual challenge required, or expected financial awards (Claiborne & Sirgy, 1990). Symbolic attributes are defined as the evaluative criteria used in decision making that are value expressive, i.e., that reflect or express one's self-concept. For example, symbolic attributes of the marketing education program may include such considerations as the extent to which participation will reflect certain image characteristics of the students, such as being business-like, entrepreneurial, money-hungry, sociable, intelligent, ambitious, or greedy (Claiborne & Sirgy, 1990).

Rationale for the Study

Although research is available regarding the tangible or functional criteria of students' choices of the marketing education program (Clodfelter, 1984), a search of the literature did not reveal any studies investigating the symbolic or value-expressive criteria, nor was research found that compares the relative role of tangible versus symbolic attributes in students' choices. However, the research in marketing indicates that there is a match between a person's self-image and a preferred product's or service's image, referred to as "self-image congruity" (Sirgy, 1985). From this, one can infer that a student may prefer a program that will reinforce his or her self-image.

This study identifies how students feel about particular attributes of a vocational program, the tangible and symbolic attributes of the marketing education program in Virginia, and then estimates the relationships between each of those attributes and the students' attitudes toward the program. In addition, the study illustrates the effectiveness of the models used, and their applicability in measuring students' attitudes in any vocational education program.

The findings will enable educators to develop effective promotional campaigns to attract and retain students in the program. The findings will also demonstrate the effectiveness of the models.

Purpose of the Study

The purpose of the present study was to identify how students feel about particular attributes of a vocational program, that is, how students' attitudes relate to the marketing education program's tangible and symbolic attributes. Specifically, the study addresses the following research questions:

1. What are the tangible and symbolic attributes of the marketing education program?
2. To what degree do overall attitudes (average of all students' attitudes for all attributes) toward tangible and symbolic attributes relate to overall students' attitudes toward the marketing education program?
3. To what degree do each of the identified attributes relate to students' attitudes toward the marketing education program?

Methodology

Instrumentation

The development of the instrument required two basic sets of information: symbolic attributes of the marketing education program, and tangible attributes of the program, as perceived by students. In addition, an overall student attitude toward the marketing education program was needed. The questionnaire consisted of items or statements that measured the tangible attributes of the program, symbolic attributes of the program, and students' overall attitudes toward the program.

Attributes

The sets of attributes were constructed based on the findings of a series of focus group interviews, a survey conducted with students at two local high schools (both marketing and non-marketing), and on an extensive review of related literature from both marketing and non-marketing education. A set of global attitude statements regarding the marketing education program were generated from literature review. The resulting instrument was validated by a panel a five judges selected based on their expertise in survey research and on their experience in conducting similar research in the past.

The focus group interviews were conducted with 10 marketing students and ten non-marketing students separately, in the two local high schools. The students were chosen randomly from marketing and non-marketing education classes. During the procedure, students were asked to express their feelings, opinions, and interests about the program. Then, they were requested to respond to a series of prepared questions which facilitated in producing attributes of the marketing education program. The same four groups of students were asked to complete a short survey in order to generate additional program attributes.

The resulting draft instrument developed by the researcher was constructed on the basis of the focus group interviews, the short survey results, and the literature review. It was then presented to a panel of judges who validated the instrument for accuracy, readability, clarity, comprehensiveness, and applicability. They also validated a small bio-data section of the instrument.

Thus the final draft instrument was composed of a set of ten tangible attributes, a set of nine symbolic attributes, a set of four global attitude attributes toward the program, and a short bio-data section. A field test was conducted and is explained in the next section.

Tangible Attributes.

The first part of the instrument measured student perceptions of the 10 identified tangible attributes. Students were asked to rate the importance of each attribute with regard to their perceptions of the program. A scale of 1 = very important to 5 = very unimportant was used. They were then asked to rate the extent to which they believed that the marketing education program possessed each attribute. A scale of 1 = very likely to 5 = very unlikely was used.

Symbolic Attributes

The next part of the instrument involved the symbolic attributes of the program. In order to measure the symbolic attributes of the program, a semantic differential scale was used which has been used successfully in the measurement of self-image and store image (Sirgy, 1982).

The student's ideal social self-image was chosen for measurement because high school students are generally concerned about how they would like their peers and other people to perceive them. Generally, they would like others to have a certain image of them (e.g., modern, intellectual, etc.). There is extensive literature in psychology (in human development and adolescence) that supports the notion that adolescents are very much influenced by what their peers and people in their immediate environment think of them (Krosnick & Judd, 1982; Montemayor, 1982).

The ideal social self-image was obtained by asking students to rate how they would like others to see them in relation to nine symbolic attributes. The program's image was obtained by asking each respondent to rate his or her image of students enrolled in the marketing education program. The image of the person enrolled in the program is used as the program's image because this is the stereotypical perception one has of the program due to an image elicited by the generalized user of the program (Sirgy, 1982).

Overall Attitude.

The attitude measure consisted of four global questions about the program (e. g., marketing education is a good program). The items were rated on a scale of 1 = strongly agree to 5 = strongly disagree. This measure became the dependent variable in the study.

Reliability.

Reliability of the instrument was estimated in two ways for the different parts of the survey. A test-retest procedure was performed on data obtained during a preliminary study. A measure of internal consistency was computed on the complete data set from the administration of the final survey.

The test-retest procedure was carried out by administering the questionnaire to a group of high school students similar to those being sampled for the study (n = 26), at two different times, four weeks apart. Test-retest reliability coefficients (Pearson's r) of .86 on the tangible-attributes scale, .92 on the symbolie attributes scale, and .82 on the overall attitude scale were obtained. After the study was conducted and all data were collected, a Cronbach's alpha reliability analysis was conducted for the four attitude indicators of the attitude measure (the four attitude questions). A very good alpha of .85 was secured. The Cronbach's alpha was used only for the four attitude questions because these are indicators of one general or global construct (e.g., Marketing education is a good program). The Pearson's correlation r was used to measure the tangible and symbolic scales because these scales contain independent, separate constructs; thus, for such scales Pearson's r is appropriate and not Cronbach's alpha.

Data Collection

Population and Sample

The population that was studied included all 210 high schools in Virginia with marketing education programs. The sample size was based on the arbitrary criteria of alpha = .05, effect = .10, and power of test = .90. Based on those a-priori criteria, and using the formulas given in Hinkle, Oliver, and Hinkle (1985), the required sample size was 430 students. Assuming a response rate of 80 percent, an initial sample of 540 was set to produce the required sample of 430 students.

The 210 high schools were rank ordered from the largest to smallest according to student population. The whole set of schools was then divided into quintiles (five groups) based on population. Three high schools were randomly selected from each quintile using a table of random numbers. This procedure produced a requirement for the use of 15 high schools.

Thirty-six students from both marketing and non-marketing students (18 each) were systematically selected (every nth student after a random start) from the marketing classes and from the study hall classes in each school (this produced the required sample). Because study hall classes have a mixture of all grade students, they were used to facilitate the administration of the survey to the students. The principal and the marketing teacher of each high school confirmed that the study hall students were representative of all different grades and academic levels. The non-marketing students were included in the study because it was important to see how much these students knew about marketing and how they felt about the program. This information will enable educators to develop effective promotional campaigns to attract students into the program.

Administration

The instruments were mailed to the marketing teachers in each of the 15 selected high schools. A total of 503 complete, usable questionnaires were returned for analysis.

Analysis

Analytical Procedures Used

Research question 1 was addressed by use of focus group interviews, short surveys, a literature review, and a validation panel. Research question 2 was addressed by multiple regression. In this case, tangible attribute totals and symbolic attribute totals were computed as described in the following sections. Then, the two totals were used as independent variables in the regression model, using overall student attitude toward the program as the dependent variable.

Research question 3 was also addressed by multiple regression where the ratings of each of the ten tangible attributes and nine symbolic attributes were the independent variables, and the overall student attitude toward the program was the dependent variable of the study. Since this was an explanatory study rather than a predictive one, a full-model regression procedure was used, with all variables being entered simultaneously.

Two social science models were used for the analysis, the Self-Image Congruence model (Sirgy, 1985) and the Bass-Talarzyk (1972) attitude model. The first model was used to compute the symbolic attributes (self-image congruence), and the second model was used to compute the tangible attributes.

Self-Image Congruence

The Self-Image Congruence model was used to measure the student's ideal social self-image and the program's image (measuring the symbolic attributes of a program). The model is as follows: Ideal Social Congruity = Product image - Ideal Social Self-Image. The model provides us with an estimate of the degree to which the program image matches (is in congruence with) a person's ideal social self-image (Sirgy, 1982). The self-image congruence model has been used frequently and successfully to predict consumer behavior.

The major premise behind this approach is that a cognitive matching exists between value-expressive attributes of a given product or service and consumer self image. This match provides the symbolic attributes of a product or service (Sirgy, 1982, 1985; Claiborne & Sirgy, 1990).

The model was used to obtain absolute scores of ideal social congruity (Martin & Bellizzi, 1982). A congruence score is the absolute arithmetical difference between the same semantic differential adjective pair for self-image and product image measurements (Dolich, 1969). This score is summed for all the attributes of the student's self-image and program image to obtain the total congruence score for each person. The lower the score or the smaller the difference between the ideal social self-image and the program's image, the higher the congruity or matching between the person's self-image and the program's image.

Bass-Talarzyk Model

The Bass-Talarzyk model was used to measure the belief-importance variables of the marketing education program (measuring the tangible attributes of the program). The model is as follows:

Ab = SUM (WiBi) where:

Ab = attitude toward the brand or object
Wi = the weight or importance of attribute i
Bi = the evaluative aspect or belief toward attribute i
n = the number of attributes rated

Each student was asked to state how important each of the tangible attributes of a marketing education program was to him or her (Wi). Then the student was asked to rate the extent to which he or she believed the marketing education program in his or her school possessed each of the stated attributes (Bi).

The two variables, the "importance" and "belief," were multiplied for each tangible attribute for each student. The resulting variable (Ab) represents the student's weighted attitude toward the tangible attributes of the marketing education program. In the findings, the functional or tangible variable is referred to as Functional Congruence (FC).

Results

Research Question 1

What are the tangible and symbolic attributes of the marketing education program? As it was described earlier, focus group interviews, short surveys, literature review, and validation panel were used to develop ten tangible attributes and nine symbolic attributes of the marketing education program. These attributes are found in Table 1.

Table 1. Attributes of the Marketing Education program

Tangible Attributes:

FC1 =	The program adequately trains students for employment in marketing-related jobs.
FC2 =	Graduates of the program get jobs with good starting pay.

FC3 =	The teacher-coordinator helps students with job placement (find a job after graduation).
FC4 =	The program provides useful practical experience through on-the-job training.
FC5 =	The program prepares students for college.
FC6 =	The program involves a variety of learning experiences such as field trips, class role-play situations, films, competitive events, etc. rather than just lecture/discussion.
FC7 =	The program offers the opportunity for students to earn credit, for working part time.
FC8 =	The program teaches students how to communicate effectively with people.
FC9 =	The program teaches students responsibility.
FC10 =	The program prepares students to make good career choices.

Symbolic Attributes:

SC1 = Modern	SC4 = Exciting
SC2 = Friendly	SC5 = Professional
SC3 = Confident	SC6 = Sophisticated

Research Question 2

To what degree do overall attitudes toward tangible and symbolic attributes relate to overall students' attitudes toward the marketing education program?

The functional congruence total (tangible attributes) and the ideal self-image congruence total (symbolic attributes) were calculated, and then, by using multiple regression, these totals were regressed on overall student attitude (see Table 2).

Table 2. Regression Analysis of Functional Congruence Total (FCT) and Self-Image Congruence Total (SCT) on Overall Program Attitude Toward Marketing Education (n=458)

Variable	Standardized Coefficients	Probability
FCT	.406878	.0000*
SCT	.268567	.0000*

$R2 = .26166$ (26%)
* $P < .05$
Note: The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

The larger positive standardized regression coefficient (.407) for the functional congruence tells us that the tangible attributes of the marketing education program explained more of the variance in student attitudes toward the program than the symbolic attributes (standardized coefficient .269). However, the symbolic attributes also contributed significantly to the explanation of the variance in overall student attitudes toward the program.

Research Question 3

To what degree do each of the identified attributes relate to students' attitudes toward the marketing education program?

The relationships between each of the tangible and symbolic attributes and overall student attitude were estimated by multiple regression. Table 3 shows all 19 variables, where partial correlations (Beta weights) were calculated for each of the variables while controlling for the remaining 18. An overview of the table shows that two tangible attributes (FC4 and FC1) and three symbolic attributes (SC2, SC1, and SC7) were significantly related to overall student attitude toward the program.

Table 3. Regression Analysis of Functional Congruities (FC, tangibles attributes) and Self-Image Congruities (SC, symbolic attributes) on Overall Student Attitudes toward Marketing Education

Attributes	Standardized Coefficients	Probability
Tangible:		
FC1 Training	.187585	.0021*
FC2 Get good job	.069946	.1484
FC3 Job placement	-.006399	.8883
FC4 Work experience	.211569	.0004*

FC5 College preparation	-.075166	.0810
FC6 Learning Experience	-.062148	.1860
FC7 Work credit	.101166	.0640
FC8 Communication	-.068738	.3025
FC9 Responsibility	.108607	.0957
FC10 Career Choice	.050825	.3827
Symbolic:		
SC1 Modern	.132336	.0018*
SC2 Friendly	.182391	.0001*
SC3 Confident	.040324	.3886
SC4 Exciting	.087614	.0611
SC5 Professional	.019583	.6774
SC6 Sophisticated	.0008092	.9861
SC7 Wants-to-be-rich	.102151	.0119*
SC8 Business-like	-.006166	.8891
SC9 Sociable/outgoing	-.007137	.8793

R^2 = .36664 (37%)
* $P < .05$
Note: The scale used to measure the attributes ranged from 1, the best score, to 5, the worst score.

Moreover, Table 3 shows that the attribute with the greatest standardized regression coefficient was the

"work experience" attribute (FC4), and the second most important was the "friendly" attribute (SC2).

Discussion

This study was designed to investigate the relationships of the tangible and symbolic attributes of the marketing education program to student attitudes about the program at the high school level. Attitude toward the program's attributes is assumed to relate closely to students' willingness to enroll and remain in the program. The relationships were successfully measured through the use of the two social sciences models. As mentioned earlier, past research has measured students' perceptions of only the tangible attributes or of the program itself (Clodfelter, 1984; Reed & Smith, 1985).

The analysis indicated that students' attitudes are more closely related to the tangible attributes of the marketing education program than to the symbolic attributes. However, the relationship of students' attitudes toward the symbolic attributes of the program was found to be significant as well. Although the R2 obtained in this study may appear low, (26% and 37% for tangible and symbolic attributes, respectively), it should be noted that in social sciences, explanation of even 10 percent of the variance of the dependent variable is considered a very good result (Cohen, 1977, p. 80).

As stated earlier, students' attitudes were also closely related to selected symbolic attributes of the program. This secondary relationship should not be ignored. In the past, the relative importance of the symbolic attributes of the marketing education program has not been examined, and thus the importance of these attributes has been unknown.

High school students are not definite about what career routes they will pursue, and they are easily influenced to change future career interests. All students, both those enrolled and those not enrolled in marketing, make up the target market for the marketing education program. They need to be informed and influenced by the benefits (both tangible and symbolic) of the program or courses (Hatzios, Heath-Camp & Camp, 1992). These students can also influence members of their peer groups to enroll in the program. Marketing students have already been influenced positively and are participating in the program; however, we must continue to develop effective promotional strategies and program designs to keep them in the program. The reader should note that a positive influence on students to enroll in the marketing program will result in a positive influence toward their peer group, parents, counselors, teachers, and others (Smith, 1985). As noted earlier in this article, employment growth has been projected in marketing and sales occupations by the year 2005 (U. S. Department of Labor, 1993). According to these statistics, there will be a definite need for well-trained marketing personnel in the near future.

Recommendations

An effective promotional campaign should be designed for students. The campaign should emphasize the strongest (statistically significant) tangible and symbolic attributes found for the students in this study. The logo should incorporate the strongest of all attributes, which is: The "friendly" attribute of the program.

The promotional campaign should also incorporate in its design the most important tangible and symbolic attributes of the program found in this study. These are: The "friendly" attribute, the "work experience" attribute, the "modern" attribute, the "training for employment" attribute, and the "wantsto-be-rich" attribute. Overall, an equal emphasis should be placed on both the tangible and symbolic attributes in the campaign, as they are identified above. The equal emphasis on both types of attributes is recommended because when the attributes were put in the analysis separately, the symbolic attribute "friendly" was found to be the most important one of all (see Table 3). Thus, the symbolic attributes of the program are equally important to students, and hence they deserve equal attention in the promotional campaign.

In addition, during instruction the teacher-coordinator should emphasize the attributes "work experience" and "training for employment" as the major tangible benefits of the marketing education program. These

attributes of the program will help students get good jobs, as well as enhance their chances for advancement in their jobs.

Conclusion

The Self-Image Congruence and Bass-Talarzyk models successfully measured students' attitudes toward marketing education, and thus they can be used in any service area of vocation education to measure the tangible and symbolic attributes of a program and their relative effect on students' attitudes toward that program. For example, the identification of certain important symbolic attributes of a vocational program can assist educators to incorporate these attributes in to an effective promotional campaign, and thus help to elevate the overall image of vocational education. Also, the findings of studies such as this one, can assist educators and program planners of vocational education to promote and perhaps modify vocational education programs successfully in order to attract and retain interested students. Furthermore, research can be carried out to measure students' perceptions toward other high school programs (e.g., Music program, English program, Science program), and then determine how those relate to students' perceptions of vocational education programs.

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