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## A Cross-National Comparison of Consumers' Attitudes Toward Direct Marketing and Purchase Intention

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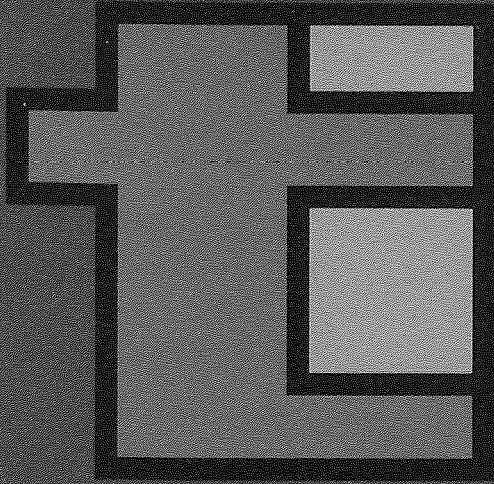
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**Tinbergen Institute**  
Strategy and Industrial Economics

***"A Cross-National Comparison of Consumers' Attitudes Toward Direct Marketing  
and Purchase Intention: An Application of the Schematic Processing Framework"***

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## **A Cross-National Comparison of Consumers' Attitudes Toward Direct Marketing and Purchase Intentions: An Application of the Schematic Processing Framework**

### **Abstract**

Existing research indicates that attitudes toward the three elements of direct marketing (the source, mode, and response channel) influence consumers' intentions to purchase directly marketed products. While research investigating attitudes and consumers' response has been conducted in the U.S., there has been no research to date which examines attitude structures and purchase intentions towards direct marketing in a multi-country setting, in spite of the standardized global efforts of direct marketers. This study presents findings on attitude structures regarding direct marketing for three affluent open markets, the U.S., Singapore, and the Netherlands and empirically investigates the relationships between these consumers' attitudes toward the three elements of direct marketing and purchase intentions.



# **A Cross-National Comparison of Consumers' Attitudes Toward Direct Marketing and Purchase Intentions: An Application of the Schematic Processing Framework**

## **Introduction**

Ever since the retailers Sears Roebuck, and Co., and J.C. Penney offered their customers the option of buying from catalogs, retailing has not been the same. As more and more consumers purchase directly marketed products, traditional retailers have been fighting hard to keep their market share. The global increase in demand for directly marketed products can be attributed to a broad variety of factors: changing consumer life styles; regulations regarding opening hours for retailers in many countries which impose constraints on consumers' time; the rapid growth of middle income segments in many markets; and the demands of the workplace. Capitalizing on these environmental trends, direct marketers have used technological advances in improved computer graphics, telecommunications and data processing to create attractive catalogs, brochures, newspaper and television advertisements, and electronic mailing for directly marketed products. These factors, coupled with competitively priced products, improved product quality, money back guarantees, and the ease of ordering merchandise have resulted in a phenomenal growth in revenues for directly marketed products. For example, in 1992 in the United States, 45.4 percent of the adult population placed an order by mail for a product or service. Sixty-one percent of adult females made a purchase by mail or telephone, and 12.8 million adults ordered merchandise offered via television direct marketing (Direct Marketing Association, 1993).

The growth of direct marketing activities is not limited to the United States. Consumers across Europe and Asia are also embracing the opportunities offered by direct marketing. Even in the densely populated areas of Europe that are served by some of the world's most renowned retailers, directly marketed products are satisfying consumer needs

that are not being met by traditional retail outlets. At the same time, marketers in Europe and Asia are realizing that direct marketing can be more efficient compared to traditional forms of promotion and distribution. Further, direct marketing is also considered an effective way of introducing and building up demand for new products which established retailers are reluctant to stock. Collectively, these factors have contributed to rapid growth in revenues for direct marketed products outside the United States. As evidence, mail order sales in 1991 in Germany totalled \$21.4 billion, in Japan \$12.4 billion, in Canada \$6.9 billion, and in the Netherlands \$2.2 billion (Fishman 1992).

Despite the worldwide growth of direct marketing, direct marketers face two major problems: first, not all consumers are responding favorably to direct marketing offers and second, as increasing numbers of direct marketers are entering the field, competition is intensifying. In this competitive environment where some consumers are skeptical about direct marketing, it is essential for direct marketers to know what factors affect consumers' purchase behavior. And, for direct marketers operating cross-nationally, it is important to know whether these factors operate similarly across countries or whether they are country specific.

Several studies have examined the influence of demographic factors such as income level, occupational status, education level, and family life cycle on consumers attitudes and behavior toward direct marketed products (Berry 1979; Cunningham and Cunningham 1973; Gillett 1970; Lavin 1993). Other studies (Cox and Rich 1964; Reynolds 1974; Spence, Engle, and Blackwell 1970) have used cognitive factors such as risk perception, trust in people, or attitude toward risk for explaining the differences between frequent and infrequent shoppers of directly marketed products.

A richer description is offered by Akhter (1989), who proposed that the evaluation of three elements of direct marketing (source, media, response channel) plays an important role

in influencing consumers' purchase behavior. In particular, Akhter's framework suggests that consumers' attitudes toward direct marketers, the multi-modes used by the direct marketers, and the response channels available to consumers, influence the likelihood of consumers' purchase decisions. Akhter and Durvasula (1991) empirically tested this framework to show how differences in consumers' attitudes toward the three elements of direct marketing account for significant variations in purchase intentions for direct marketed products. Specifically, consumers' attitudes toward the three elements of direct marketing were measured in terms of favorableness or unfavorableness. Then an assessment was made on the impact on purchase intentions for consumers whose attitudes toward all three elements of direct marketing were positive versus those whose attitudes toward all three elements were negative. Likewise, the purchase intentions were examined when attitudes toward at least two of the three elements were favorable as compared to when attitudes toward at least two of the three elements were unfavorable, and also when consumer attitudes toward any given element (e.g., response channel) were either favorable or unfavorable.

A common feature of existing studies including that by Akhter and Durvasula (1991) on consumers' purchase behavior of directly marketed products is that they are all U.S. based. As direct marketing grows worldwide, it is important to determine whether and to what extent results from studies conducted with the U.S. samples are applicable to other countries. This has both theoretical and practical implications. Therefore, the objective of this study is to compare consumers' attitudes toward direct marketing and the effect these attitudes have on purchase intentions in a cross-national context. To achieve this, the framework proposed by Akhter (1989) will be applied to data obtained from three countries, the United States, the Netherlands, and Singapore, all of which are economically advanced countries with highly competitive retailing institutions and media infrastructure. If the results are fairly similar across



the countries, then the prospect exists that the Akhter framework can be used as a basis for understanding consumers' purchase behavior for directly marketed products in a generalizable way. On the other hand, if the results are substantially different across the countries, then country-specific frameworks must be developed to understand consumer behavior within a country. As such, this research addresses the criticism about inadequate testing of consumer behavior models before applying them cross-culturally.

The remainder of the paper is organized as follows. First, we will review the existing literature on consumers' attitudes and purchase intentions towards direct marketing, including the framework proposed by Akhter (1989). Second, we will discuss the methodology for questionnaire development and data collection approaches used to test consumer attitudes cross culturally. Finally, we will provide the results of the study and a discussion of the study's contributions and managerial implications.

### **Literature Review**

Although extensive research has been conducted on different aspects of direct marketing, one area receiving scant attention is how consumers' schema of the three elements of direct marketing (source, media, and response channel) affects their purchase behavior. This lack of research on schematic information processing is not surprising, given the newness of the field of direct marketing. Only recently have scholars from such diverse areas as consumer behavior, cognitive psychology, and marketing communication begun to contribute to the literature on cognitive processes related to the direct marketing phenomenon. What is encouraging for direct marketing though is that a vast body of literature exists on how consumers engage in schematic information processing and respond to external stimuli. This body of literature can provide both the impetus and direction for conducting schema-related

research in direct marketing. It is with this in mind that this brief literature review on schematic information processing and direct marketing is being presented.

The study of cognitive behavior such as how people receive, process, and interpret information has a long, rich tradition. Besides others, Asch (1946), Bartlett (1932), and Piaget (1952) were the early psychologists who focused on the usefulness of the schema construct for understanding cognitive behavior. In the cognitive psychology literature, schema is defined as an internal cognitive structure which contains knowledge about the attributes of a category and the links among these attributes (Rumelhart and Ortony 1977). Rumelhart (1984) also notes that a schema theory is a theory about how knowledge is represented and how this representation facilitates the use of knowledge in particular ways. People develop and use a schema for different things such as social situation, products, and countries. As a packet of knowledge, a schema aids information processing and decision making. For example, people with a schema for a theatre can drive to a theatre, park their car, purchase tickets, and seat themselves, all with a minimum expenditure of cognitive effort. In contrast, people who do not have a theater schema will spend more time in processing information and making decisions.

Numerous studies have been conducted to study the effect of schema on consumer behavior. For example, Meyers-Levy and Tybout (1989) found that the presence of moderate schema incongruity enhanced product evaluations. And Suja, Bettman, and Suja (1986) discovered that customers' prior notions (schema) about typical salespeople affected their information processing. Furthermore, Akhter, Andrews, and Durvasula (1994) found that under schema congruity, that is, when there is a match between the brand and store, favorable brand judgments were formed; and under schema incongruity, that is, when there is a mismatch between brand and store, unfavorable brand judgments were formed.

The use of the schema construct for understanding consumer behavior related to direct

marketing offerings has also been demonstrated. Just as consumers have schemas for retail stores, brands, and products, Akhter (1989) hypothesized that consumers also have a schema for the three elements of direct marketing. The three elements are the source (direct marketers), media (catalogs, direct mail, etc.), and the response channel (ordering by mail or telephone). Akhter (1989) noted that the organization of source, media, and response channel schemas will generate favorable or unfavorable affective responses in consumers, which, in turn, influence their purchase behavior. While the schematic information framework proposed by Akhter found support in the United States (Akhter and Durvasula 1991), it is not known whether the same schema framework can find support cross-culturally. Given the rapid growth of direct marketing activity worldwide, it is important for direct marketers who wish to operate cross-nationally to know whether consumers' schema for the three elements of direct marketing (source, media, and response channel) affects their purchase behavior in various countries. This issue is addressed in our paper.

## Method

To conduct a cross-national test of the schema framework, measures of consumers' overall attitudes toward direct marketers (as opposed to attitudes toward specific direct marketers), catalogs, and ordering by mail were obtained in three countries. The measures employed, questionnaire administration, and data analysis are consistent with those of the earlier study (Akhter and Durvasula, 1991). As identical direct marketers or catalogs may not exist across the countries, it is advisable not to use the names of specific direct marketers (e.g., Talbots, Ikea) or catalogs. As will be discussed below, the questionnaire included both positive and negative statements about direct marketers, catalogs, ordering by mail, and purchase probability.

Consistent with the previous study, student subjects were used for data collection. While there is criticism about the use of student samples, its use is supported for theory or model testing purposes (Calder, Tybout, Phillips 1981). Though student samples cannot be viewed as nationally representative, they are comparable as a group in many respects across the three countries, which is a major concern in cross-national research (Douglas and Craig 1983; Douglas, Morrin, and Craig, 1994). For the topic under investigation, student subjects are also relevant because they constitute a relevant target market for the products marketed through catalogs. Finally, apart from the homogeneity of sampling business students, all three countries have affluent consumers, cosmopolitan, open, internationally competitive markets, highly developed media infrastructure, and consumers in each country have high media exposure and heavy exposure to advertising.

### **Sample and Questionnaire Administration**

Data for this study were collected from three countries: the United States, the Netherlands, and Singapore. The subjects participating in the study were all undergraduate students enrolled in various business administration courses at major Universities in the three countries. A total of 134 subjects in the United States, 150 subjects in the Netherlands, and 271 subjects in Singapore provided complete responses to the questionnaire. Fifty five percent of the subjects in the United States, 61% in the Netherlands, and 41% in Singapore were male. The mean age of the subjects was 19 in the United States, 21 in the Netherlands, and 22 in Singapore. Singaporean subjects were slightly older than those in the United States, as the male subjects in Singapore had to complete mandatory two-year national service before entering the University.

The questionnaire was about six pages in length. Across the three samples, it was

administered at major Universities during class time, by first providing detailed instructions to the subjects as to how to complete the instrument. To reduce order bias in subject response, two versions of the questionnaire were used. The second version of the questionnaire was obtained by rotating the order of the items as compared to the first version. In order to avoid acquiescence bias, both positive and negative statements about direct marketers, catalogs, ordering by mail, and purchase intention were included in the two questionnaire versions. The order of positive and negative statements was selected randomly. In the United States and Singapore, the questionnaire was administered in English, while in the Netherlands, the Dutch version of the questionnaire was used. The Dutch version of the questionnaire was prepared using standard translation procedures and with the help of three bilingual experts, who were fluent in both English and Dutch.

## **Measures**

A total of 31 items were asked to measure attitudes and purchase intentions: 10 items regarding consumers' attitudes toward direct marketers generally (source), 10 items measuring attitudes towards catalogs ((mode), 8 items relating to ordering by mail (response channel), and three items on purchase intentions. Following is a brief discussion of those measures.

**Items About Direct Marketers (Source):** Ten seven-point likert scales were used in this study to measure people's attitudes toward direct marketers (i.e. **ATDM**). Subjects indicated their degree of agreement or disagreement with statements, such as, direct marketers in general: provide good service, charge a lot for delivering the products, provide a broad assortment of products, are trustworthy, sell products at competitive prices, provide a convenient way to shop, sell high quality products, tend to annoy consumers by calling on the phone, tend to annoy consumers by filling the mailbox with unwanted mail, and provide good after-sales service.

**Items About Catalogs (Mode):** Ten seven-point likert-scale items measured attitudes toward catalogs (i.e. **ATC**). Subjects indicated their degree of agreement or disagreement with statements such as catalogs in general: are of good quality, carry products that are relatively high in price, provide sufficient information to judge product quality, do not carry products that are needed, provide sufficient information to compare different brands, do not allow one to feel confident in judging the size or color of the products, give confidence that one would be satisfied with the product once the product is received, provide clear information for placing orders, adequately represent the quality of products, make products appear more attractive than they actually are. Of these ten items, two of the items (carry products that are relatively high in price and provide clear information for placing orders) exhibited poor item-total correlations across the country samples. Hence these items were deleted and only the other eight items were used when performing further analyses.

**Items About Ordering By Mail (Response Channel):** Eight seven-point likert scale items were used to measure attitudes toward ordering by mail (i.e., **ATM**). These items include, ordering by mail in general: is a convenient way of shopping, is impersonal because the presence of the sales person is missed, makes it easy to return the products, is not fun because it takes away the personal aspects of shopping, means it takes a long time to order and receive the products, is very reliable, is risky because I have to provide my credit card number when placing the order, and results in accurate processing of orders.

#### **Purchase Intention Measure**

Given the suggestions for using multiple item scales wherever possible (Dillon, Madden, and Firtle 1990), three seven-point semantic differential scales were used in this study to measure purchase intention. Subjects were asked to indicate their likelihood of purchasing a product from a direct marketer if the same product was available in a retail store.



The responses were: likely/unlikely, probable/improbable, and conceivable/inconceivable.

Confirmatory factor analysis of the three item scale showed that the three items indeed could be grouped together. The coefficient alpha estimates for the three-item scale were above 0.8 across the three samples. On the basis of these results, subjects' overall purchase intention was then measured as a sum their responses to the three individual items.

### **Establishing Evidence of Cross-cultural Validity and Reliability**

Before comparing attitudes across countries, or investigating the link between attitudes and purchase intentions, a necessary first step in the research is to establish evidence of dimensionality and reliability of the three attitude scales and purchase intention scale across the three countries. Confirmatory factor analysis via Lisrel VII (Joreskog and Sorbom, 1989) was used for this purpose. Establishing dimensionality is necessary before summing the items of each scale to obtain respective composite scores. The results of confirmatory factor analysis are presented in Table 1.

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Table 1 About Here

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**Dimensionality:** In order to test if attitude structures across countries are similar in dimension, each scale should be represented as a one-factor model. If this is the case, then all 10 items measuring attitudes toward direct marketers belonged to one factor. The fit of this model, as given by the  $\chi^2$  was compared to the fit of the null model, which assumes that each item of an attitude scale such as ATDM could be represented by a separate factor and that none of the ten items of the ATDM scale could be grouped together. Table 1 shows the  $\chi^2$  fit values for the one-factor model for each scale respectively, and the corresponding  $\chi^2$  fit values for the null model. For any given scale in any country, if the  $\chi^2$  fit for the one-factor model is significantly lower ( $p < .05$ ) than the  $\chi^2$  fit of the null model, then support for a one-

dimensional factor structure exists. For example, for the ATDM scale in the United States, the  $\chi^2$  fit for the one-factor model (113.9, 35 df.) is significantly lower ( $\chi^2$  difference=169.8, df.=10,  $p<.05$ ) than the  $\chi^2$  fit of the null model (283.7, 45 df.), thereby supporting the unidimensional factor structure for the ATDM scale. Similar  $\chi^2$  difference tests provide support for various one-factor models across the three countries (see Table 1).

Table 1 also provides other fit statistics to assess the dimensionality of the three attitude scales. For the goodness-of-fit index (GFI) and the adjusted-goodness-of-fit index (AGFI), fit values of one indicate perfect fit between the model and the data. Across the three countries and the scales, both GFI and AGFI are relatively high (i.e. closer to 1). The expected cross-validation index (ECVI) is another indicator of fit. For a good model, ECVI should be small, with the smallest value of ECVI being that of the saturated model (see Brown and Cudeck, 1993, for a description of the expected cross-validation index). Again, across the three countries and attitude scales, the ECVI for the one-factor model was relatively closer to the ECVI for the saturated model and lower than that of the null model. The GFI, AGFI, and ECVI provide support for the unidimensional factor structure for the three attitude scales across the three countries.

**Reliability:** The internal consistency of attitude scales was examined next to assess scale reliability. Composite reliability estimates were computed from the Lisrel VII output using the procedure suggested by Fornell and Larcker (1981). These composite reliability estimates are similar to coefficient alpha and they are also reported in Table 1. As can be seen from the table, the reliability estimates of ATC scale are above .7 across the three country samples. The reliability of ATDM scales are also above .7 in the United States and The Netherlands samples. However, the reliability estimates for the ATM scale were modest across the three samples. In sum, the dimensionality and reliability tests provide consistent support

for summing items of each attitude scale to form respective composite scores.

### **Method of Analysis**

As the ultimate purpose of this study was to investigate the cross-cultural application of a model representing how favorable or unfavorable attitudes toward source, mode, and response channel affect purchase intentions, the items of each attitude scale were summed to obtain respective composite scores for each country. In each country and for each scale, the median subject score was used to dichotomize attitudes into favorable attitudes or unfavorable attitudes. For example, for the scale measuring attitudes toward direct marketers (ATDM) in the United States, subjects whose summed score on the ATDM scale was above the median comprised the favorable "source" attitude group and those whose summed score was below the median comprised the unfavorable "source" attitude group. The same procedure was used for classifying the subjects into favorable or unfavorable "mode" attitude groups and "response channel" attitude groups, based on the subjects' summed scores on ATC and ATM scales. The procedure was repeated for the other two countries. The median split was used for forming favorable and unfavorable attitude groups because the median was considered less susceptible to extreme responses. However, in our study, the mean and median for any scale were about the same across the three countries, and therefore the results would not have differed much if the mean split were employed instead.

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#### Exhibit 1 About Here

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Next, depending upon whether attitudes toward the source (direct marketers), mode (catalogs), and response channel (ordering by mail) were favorable or unfavorable, subjects in each country were classified into eight groups (see Exhibit 1). For example, if a subject's

attitudes toward source, mode, and response channel were all favorable, he/she was classified into group A. On the other hand, if the attitudes toward all three elements were unfavorable, the subject was then classified into group H. Otherwise, the subject was classified into one of the other groups (B through G) depending on his/her attitudes toward source, mode, and response channel. The eight groups were used as conditions or treatments in ANOVA with purchase intention score as the dependent measure. If the overall treatment effect was found to be statistically significant ( $p < .05$ ), then Student-Newman-Keuls (SNK) pairwise comparisons of the groups was performed to identify which groups' purchase intention mean was different from the others. Finally, to further assess the differences in purchase intentions across various treatment conditions, various contrasts were set up according to standard procedures.

## **Results**

### **Effects of Attitudes on Purchase Intentions**

Analysis of variance was performed next for the  $2 \times 2 \times 2$  factorial design to test whether the main effects, two-way interactions, and three-way interactions involving attitudes toward direct marketers (ATDM), attitudes toward catalogs (ATC), and attitudes toward ordering by mail (ATM) were significant. The dependent variable was the composite purchase intention score. This procedure was repeated across the three countries' samples. Results are shown in Table 2.

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Table 2 About Here  
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As shown in Table 2, the main effects for attitudes toward ordering by mail was significant across the three samples ( $P < .05$ ). The main effect for attitudes toward catalogs was also

significant for the United States and the Netherlands samples, but not for the Singapore sample. However, attitudes toward direct marketers had no significant effect on purchase intentions across the three samples. Further, with the exception of ATDM\*ATM interaction in the United States sample, no other two-way or three-way interactions were significant across the three samples.

In addition, an analysis of covariance was performed with number of past purchases as a covariate. This procedure was repeated using whether subject ever purchased from a direct marketer as a covariate. With the exception of the covariates for the Netherlands sample, the other samples showed no significant effect for the covariate. As the two-way and three-way interactions as well as the covariates were generally not significant, different contrasts based on the different combinations of the three attitude measures were performed. Table 3 provides the results of ANOVA and SNK pairwise comparisons for the eight different attitude groups as represented in exhibit 1.

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Table 3 About Here  
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It is evident from Table 3 that subjects' attitudes toward the source, mode, and response channel had significant effect on purchase intentions for the United States and the Netherlands samples, but not for the Singapore sample. The results of SNK pairwise comparisons are also presented in Table 3. It appears that the mean purchase intention for the group with favorable attitudes toward all three elements is significantly different from the mean purchase intention for some of the other groups in the United States and the Netherlands.

To further assess whether and to what degree the purchase intentions of various attitude groups were different from each other a series of contrasts were set up and tested

using SPSS. These results are presented in Table 4. For any pair of contrasts tested, it was expected that those with favorable attitudes would have a stronger intention to purchase than those with unfavorable attitudes. Hence, a series of 1-tail tests were performed to test for significant differences in mean purchase intentions among the contrast conditions.

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#### Tables 4 About Here

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It is evident from table 4 that across the three countries' samples, purchase intentions were significantly different between the following groups: subjects with favorable attitudes toward all three elements vs. subjects with unfavorable attitudes toward all three elements (condition 1); subjects with at least two favorable attitudes vs. subjects with at least two unfavorable attitudes (condition 2); subjects with favorable attitudes toward ordering by mail vs. subjects with unfavorable attitudes toward ordering by mail (condition 5). In addition, for the United States and the Netherlands samples (but not for the Singapore sample), purchase intentions were also significantly different for subjects with favorable attitudes toward catalogs vs. subjects with unfavorable attitudes toward catalogs (condition 4). However, across the three samples, it was consistently noticed that purchase intentions were not affected by favorable or unfavorable attitudes toward direct marketers (condition 3).

#### **Other Results**

We also performed ANOVA and t-test for two independent samples to determine whether frequency of purchases and gender differences had any affect on purchase intentions. These results can be found in Table 2. For none of the three samples, gender had any affect on purchase intentions ( $p > .05$ ). As for frequency of purchases, no significant differences in purchase intention were found for the United States and Singapore samples, but a significant



difference was noticed for the Netherlands sample. In the Netherlands sample, those who made 3 or more purchases in the past had higher purchase intentions than those of the other groups (no purchases or 1 to 2 purchases).

### **Discussion**

As consumers in every country are increasingly purchasing directly marketed products, the need to understand consumer behavior across countries has become more pressing. Existing research postulates that attitudes toward direct marketers, mode, and response channel influence consumers' intention to purchase direct marketing products. Although the purported relations between attitudes and behavioral intentions have been tested in the U.S. there is a lack of cross-national corroboration. To fill this gap in the literature, we selected the schematic information processing framework that was conceptualized, developed, and tested in the United States (Akhter 1989; Akhter and Durvasula 1991). This framework was applied cross-nationally to data collected from three different countries, one from North America (the United States), one from Europe (the Netherlands), and one from Southeast Asia (Singapore), all of which are economically developed countries with highly competitive marketing environments.

First, a series of confirmatory factor analyses was performed to assess dimensionality and reliability of the scales to measure attitudes toward direct marketers (ATDM), attitudes toward catalogs (ATC), and attitudes toward ordering by mail (ATM). Cross-nationally, the dimensionality tests support the unidimensional factor structure of the three scales. Reliability indices are also acceptable (above 7) for the ATC scale. While the ATDM scale also have acceptable reliability in the United States and the Netherlands, it was relatively modest for the Singapore sample. The ATM scale, however, had modest reliability level across the three countries.

Next, a series of analyses of variance and covariance was performed with purchase intention as the dependent variable and favorable or unfavorable attitudes toward direct marketers, catalogs, and ordering by mail as the independent variable groups. Results indicated significant main effect for ATM cross-nationally, implying that purchase intentions were significantly different for people with favorable as opposed to unfavorable attitudes toward ordering by mail. While the main effect for ATC was also significant for the United States and the Netherlands samples, it was not so for the Singapore sample. Across the three countries, ATDM main affect was not significant, implying that purchase intention was not affected by attitudes (favorable or unfavorable) toward direct marketeers. This is not to say that attitudes toward direct marketers could be ignored altogether in assessing consumer purchase intentions. For example, this study found a significant interaction effect between attitudes toward direct marketers and attitudes toward ordering by mail (only) in the United States sample. This interaction would mean that for those consumers with favorable attitudes toward ordering by mail, the purchase intention was significantly higher when their attitudes toward direct marketers were also favorable (as opposed to unfavorable). Hence, for higher purchase intention favorable attitudes toward direct marketers is important. Results also revealed that with the exception of the covariate for the Netherlands sample, most of the other two-way and three-way interactions as well as the covariates were not significant. In the Netherlands sample, the significance of the covariate implies that those who purchased in the past had higher purchase intention scores than those who did not. In terms of the number of past purchases also, only the Netherlands sample results showed that subjects who made three or more purchases in the past were more likely to have higher purchase intent scores than those who made fewer or no purchases from direct marketers in the past.

An important part of Akhter's (1989) framework is that purchase intentions would

likely be different for those with favorable attitudes than those with unfavorable attitudes. A series of contrasts were thus setup to examine differences among the attitude groups. Results showed that cross-nationally, subjects with positive attitude toward all three elements of direct marketing had a significantly higher purchase intent than those whose attitudes toward all three elements were negative. Subjects whose attitudes toward at least two elements of direct marketing also had a significantly higher purchase intention than those who had unfavorable attitudes toward at least two elements of direct marketing. Across the three countries, purchase intention was different for those with favorable as opposed to unfavorable attitudes toward ordering by mail. While purchase intent was also affected by the valence of attitudes toward catalogs for the United States and the Netherlands samples, it was not affected by the valence of attitudes toward direct marketers across the three countries.

In summary, the results of our cross-national study are generally consistent with those postulated by Akhter (1989). Cross-nationally, this study confirms that subjects' attitudes toward ordering by mail and, to some extent, their attitudes toward catalogs are more important than their attitudes toward direct marketers in affecting purchase intentions. Notable differences are that the attitudes toward direct marketers scale had relatively modest reliability for the Singapore sample. As compared to the United States and the Netherlands samples, attitudes toward catalogs also had no effect on purchase intentions in Singapore. This result is perhaps due to the reliance of direct marketers on television advertisements more frequently than on catalogs to communicate their product information. Overall, our cross-national study suggests that the framework suggested by Akhter (1989) is useful for understanding consumers' purchase behavior for directly marketed products. Moreover, this framework would serve as a useful guideline for direct marketers operating cross-nationally to

determine why some of their potential customers favor directly marketed products while others do not.

Our study indicates that the scale to measure attitudes toward ordering by mail and, to some extent, the scale to measure attitudes toward direct marketers require purification for greater applicability in cross-national studies. Across the three countries, our study showed that attitudes toward direct marketers had no affect on purchase intentions. While this may be good news for some direct marketers, it is a source of concern for others who try to differentiate themselves from their competitors by projecting a better image. Studies should be conducted to determine why this factor did not have any significant affect cross-nationally. We studied student samples that were matched in terms of age and area of study because of the need to use comparable samples in theory testing. Future studies should try to determine whether and to what extent nonstudent samples' attitudes affect purchase intentions. Next, an important finding of our study was that even though subjects with favorable attitudes had significantly higher purchase intent scores than those with unfavorable attitudes, their purchase intent scores were still modest, and this result applies cross-nationally. This means that direct marketers have to go a long way in improving purchase intention scores. One topic for future investigations, therefore, is to determine if there are other factors besides attitudes that affect purchase intentions and, if so, how direct marketers should position themselves on those factors to obtain the best purchase intention score possible from consumers. All the same, by using confirmatory factor analysis and analyses of variance, this research demonstrates how attitudes toward the three elements of direct marketers can be assessed and the purchase intentions among attitude groups tested cross-nationally.

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**Exhibit 1**  
**Attitude Toward Source, Mode, and Response Channel**

<b>Groups</b>	<b>Source</b>	<b>Mode</b>	<b>Response</b>
<b>A</b>	Favorable	Favorable	Favorable
<b>B</b>	Favorable	Favorable	Unfavorable
<b>C</b>	Favorable	Unfavorable	Favorable
<b>D</b>	Favorable	Unfavorable	Unfavorable
<b>E</b>	Unfavorable	Favorable	Favorable
<b>F</b>	Unfavorable	Favorable	Unfavorable
<b>G</b>	Unfavorable	Unfavorable	Favorable
<b>H</b>	Unfavorable	Unfavorable	Unfavorable

**TABLE 1**  
**Cross-National Comparison of Scale Dimensionality and Reliability for Attitude-Direct Marketers (ATDM), Attitude-Catalogs(ATC), Attitude-Mail (ATM): Results of Confirmatory Factor Analysis**

Fit Statistics	United States (n=134)			The Netherlands (n=150)			Singapore (n=271)		
	ATDM	ATC	ATM	ATDM	ATC	ATM	ATDM	ATC	ATM
Reliability(alpha)	0.71	0.77	0.63	0.70	0.71	0.63	0.61	0.73	0.61
<u>Dimensionality</u> $\chi^2$ (1-factor model)	113.9	98.0	63.4	64.4	56.3	77.2	176.7	74.2	78.1
dof (1-fac model)	35	20	20	35	20	20	35	20	20
$\chi^2$ (null model)	283.7	279.8	168.0	219.6	198.0	213.8	335.6	372.0	227.6
dof (null model)	45	28	28	45	28	28	45	28	28
Expected Cross-validation index (1-factor model)	1.2	1.0	0.7	0.7	0.6	0.7	0.8	0.8	0.4
Expected cross-validation index (saturated model)	0.8	0.5	0.5	0.7	0.5	0.5	0.4	0.3	0.3
Expected cross-validation index (null model)	2.3	2.2	1.4	1.6	1.4	1.5	1.3	1.4	0.9
Goodness-of-fit index	0.88	0.84	0.91	0.92	0.90	0.90	0.87	0.93	0.93
Adjusted-Goodness-of-fit index	0.77	0.72	0.69	0.83	0.79	0.79	0.79	0.87	0.88

Table 2  
Results of Analysis of Variance and Covariance

	<u>U.S.</u>	<u>Netherlands</u>	<u>Singapore</u>
1. Sample size	134	150	271
2. Effects of Attitudes (ANOVA RESULTS)			
Main Effects: (F prob.)			
ATDM	.60	.70	.37
ATC	.03	.00	.52
ATM	.01	.01	.05
Two-way Interactions			
ATDM*ATC	.63	.49	.85
ATDM*ATM	.01	.11	.55
ATC*ATM	.16	.69	.21
Three-way Interactions			
ATDM*ATC*ATM	.57	.70	.99
(ANCOVA RESULTS)			
Covariate is Ever Purchased thru a DM)	.38	.00	.30
3. <u>Other Results:</u>			
(Mean purchase prob. by sex)			
Mean: Males	9.68	8.57	9.76
Females	9.58	7.68	9.68
F-value	.01	1.88	.02
prob.	.91	.17	.88
ANOVA Results: (Mean purchase prob. by number of past purchases)			
Mean: No purchases	8.73	6.81	9.54
1-2 purchases	9.82	9.51	9.95
3 or more	10.50	14.2	10.40
F-value	1.22	34.4	0.37
F-prob.	.30	.00	0.69

**TABLE 3**  
**Effects of Attitudes Toward Source, Mode, and Response on**  
**Purchase Intentions When Using Mail as Response Channel**

**A. United States Sample**

<u>Analysis of Variance</u>							
Independent Variable	F-Value	df	p<				
-----							
Overall attitudes groups	4.34	7,126	.00				
SNK Pairwise Comparisons							
-----							
Mean Purchase Intention Score							
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Grp A	Grp B	Grp C	Grp D	Grp E	Grp F	Grp G	Grp H
12.32	8.6	11.53	6.38	9.45	11.38	8.83	7.35
(Note: The mean of grp A is different from mean of grp D							
Further, the mean of grp H is different from means of grps A,C,F							

**B. Netherlands Sample**

<u>Analysis of Variance</u>							
Independent Variable	F-Value	df	p<				
Overall attitudes groups	4.92	7,142	.00				
SNK Pairwise Comparisons							
-----							
Mean Purchase Intention Score							
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Grp A	Grp B	Grp C	Grp D	Grp E	Grp F	Grp G	Grp H
10.12	9.58	7.53	7.00	10.21	8.13	9.00	5.92
(Note: The mean of grp A is different from means of grps B,C,D,E,F,G,H)							

**C. Singapore Sample**

<u>Analysis of Variance</u>							
Independent Variable	F-Value	df	p<				
-----							
Overall attitudes groups	1.31	7,263	.24				
SNK Pairwise Comparisons							
-----							
Mean Purchase Intention Score							
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Grp A	Grp B	Grp C	Grp D	Grp E	Grp F	Grp G	Grp H
11.06	9.42	9.74	9.70	10.74	8.39	9.68	8.87
(Note: When all pairs of means were simultaneously compared, no significant mean differences were noticed for any pair of groups)							

**Note: Higher purchase intent scores imply stronger intent to purchase.**

**TABLE 4**  
**Contrast Values for Various Attitudinal Conditions**  
**for the United States, Netherlands, and Singapore Samples**

Condition	Favorable attitudes groups & Mean purchase intentions	Unfavorable attitudes groups & Mean purchase intentions	1-tail t-test prob<
1. All three attitudes favorable or un- favorable	A	H	
United States.....	12.32	7.35	.00
Netherlands.....	10.12	5.92	.00
Singapore.....	11.06	8.87	.00
2. At least two attitudes are favorable vs. at least two attitudes are unfavorable	A,B,C,E	D,F,G,H	
United States.....	11.06	8.24	.01
Netherlands.....	9.59	7.09	.00
Singapore.....	10.37	9.11	.04
3. Favorable vs. Unfavorable attitudes toward direct marketers	A,B,C,D	E,F,G,H	
United States.....	10.74	8.63	.30
Netherlands.....	9.00	7.59	.35
Singapore.....	10.17	9.26	.18
4. Favorable vs. Unfavorable attitudes toward catalogs	A,B,E,F	C,D,G,H	
United States.....	11.02	8.36	.01
Netherlands.....	9.65	6.88	.00
Singapore.....	10.22	9.31	.25
5. Favorable vs. Unfavorable attitudes toward ordering by mail	A,C,E,G	B,D,F,H	
United States.....	11.03	8.19	.01
Netherlands.....	9.49	7.10	.00
Singapore.....	10.44	9.07	.03



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