

**PERCEPTION OF CONSUMER PROBLEMS AND CONCERNS RELATED TO
CONSUMER PROTECTION AND EDUCATION:
A COMPARATIVE STUDY BETWEEN AMERICAN AND EGYPTIAN ACADEMIC
COMMUNITIES**

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State University in partial fulfillment of the requirements for the degree of

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In

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(ABSTRACT)

The purpose of this study was to explore differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of problems. The relationships between fourteen independent variables and perceived consumer problems of American and Egyptian consumers also were examined. The independent variables that were studied include: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward government, attitudes toward business as consumer protection agencies, attitudes toward consumer education efforts, and demographic variables of gender, age, marital status, presence of children, family annual income, education level, employment status, and university position.

Specific objectives of this study were: (1) To determine if there are differences between American and Egyptian consumers in the following areas: perception of consumer problems; concerns related to price, quality, safety, labeling and information, and concerns about the environmental effects of products and their packaging; needs fulfillment related to perceived adequacy of income, needs fulfillment related to perceived improvement in living situations; expectations and experiences with products; attitudes toward consumer protection efforts by government; attitudes toward consumer protection efforts by business; and attitudes toward consumer education efforts. (2) To analyze relationships between perception of consumer problems and concerns and the following: needs fulfillment related to perceived income adequacy; needs fulfillment related to perceived improvement in living situations; expectations and experiences with products; attitudes toward consumer protection efforts by government; attitudes toward consumer protection efforts by business; and attitudes toward consumer education efforts. (3) To investigate the influence of demographic variables of gender, age,

marital status, presence of children, family annual income, education level, university position, and employment status on the perception of consumer problems and concerns.

Data were obtained through a questionnaire developed by the researcher. The questionnaire was first developed in English, and then translated into Arabic with a back translation check. The reliability of the instrument was tested with a test-retest procedure. A questionnaire, an explanatory cover letter, and a stamped self-addressed envelope, were mailed to 180 randomly selected respondents at Virginia Tech and Radford University. Graduate students assigned at Ain Shams University and Sadat Academy delivered the questionnaires personally to the 180 randomly selected respondents in both universities in Cairo. The completed questionnaires were collected within three weeks after delivery. There were 112 questionnaires returned from Virginia Tech and Radford University, of which 108 were acceptable for analysis (60%). There were 154 questionnaires returned from Egypt, of which 142 were acceptable for analysis (78.8%). Hence, a total of 250 responses were used in the data analysis for an overall return rate of 69.4%.

Procedures for statistical analysis involved eight phases including: the reliability analysis, frequency distribution, chi-square, factor analysis, the two-sample independent t-test, stepwise multiple regression, Analysis of Variance (ANOVA), and discriminant analysis.

Results revealed a statistically significant difference in the total score on consumer problems between the two samples. Also, results showed a significant difference in the total score on consumer concerns related to quality, safety, and labeling and information. However, the variables that were found to discriminate the two samples in order of importance were: perception of consumer problems, concerns for quality, concerns for labeling and information, concerns for safety, and concerns for price. The most important concern for all respondents was quality. The majority of the American respondents perceived that they had more adequacy of income and improvement in living situations than the Egyptian respondents. Also, they conveyed a positive attitude toward government regulations and business efforts to protect consumers' interests as opposed to the Egyptian respondents who conveyed a negative attitude toward the same aspects.

“Consumers are to economics what voters are to politics; consumers with rights enhance the wealth of the nation.” (Turner, 1994)

Dedication

This dissertation is dedicated to my mother and my father.

Thank you for being there right from the start.

For giving your patience, your support, your time, and your heart.

For sharing my dreams, for believing in *Allah* and in me.

For helping me grow to be all I can be.

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First and last thanks to *Allah*, The most merciful, the all merciful

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Chapter I

INTRODUCTION

The problems and concerns among consumers have always been major influences in the strength, as well as the scope, of the consumer movement both locally and internationally. Citizens around the globe are concerned about how economic development and international trade policies affect consumers, how to obtain protection against products harmful to health and the environment, how to deal with health and safety problems, how to be part of the decisions that are made in corporate board rooms that affect well-being, and how to reduce disparities in income and consumption among consumers (Garman, 2000). In recent years, however, there have been some indications that the consumer movement in the United States has weakened. Evidence of this includes:

- budget cuts that are used as the conservatives' way to "reduce the burden" of government regulation of business,
- attacking and undermining a number of key consumer protections by the Congress and many state legislatures,
- budgets that are being reduced for state and local consumer protection agencies,
- sharply reduced appropriations for the federal Consumer Product Safety Commission, Environmental Protection Agency, and Federal Trade Commission.

While such events tend to present a less optimistic picture of consumerism in the United States, Mayer (1989) and Garman (2000) indicate that consumerism is not fading but, instead, has matured. According to Garman, consumerism has historically been on the rise during stable economic times.

On the international scene, the consumer movement has grown steadily since it started in the 1960's. The International Organization of Consumers Unions (IOCU) voices the concerns of international consumers from over eighty countries, including many from the third world. In the beginning, IOCU was mainly concerned with the testing of consumer products to ensure safety and sharing of information among member countries. Today, however, IOCU also is involved with many social, economic, and environmental issues that affect consumers from all over the world, especially those from the less developed countries (LDCs) (Brobeck, 1997).

One of the major concerns of IOCU is the effect of unrestricted sales of hazardous products to third world countries. According to Fazal (1983) and Kerton (1983), the third world countries have been used as dumping grounds for many products which are banned or restricted in the countries of origin. Illustrations of the dark side of marketing to consumers in developing countries include: the export of banned or restricted agricultural pesticides and chemicals (polychlorinated biphenyls or PCB's, DDT, aldrin, dieldrin, and paraquat) and other outlawed products; shipping abroad (dumping) of nuclear, toxic and medical wastes; mislabeling (birth control pills); selling ineffective drugs; not identifying and labeling the known side effects of prescription drugs; selling dangerous pharmaceuticals (thalidomide for tension and clioquinol for diarrhea); testing dangerous technologies (Depo-Provera for birth-control); exploitively marketing inappropriate breast-milk substitutes; permitting unsafe manufacturing facilities (Bhopal); and selling unsafe products (asbestos) (Kerton, 1983). The marketing of these banned or restricted products poses serious health and safety threats to many third world consumers.

The need to study consumer problems from a global perspective has become increasingly apparent and pressing. More multi-national corporations are expanding their manufacturing plants and consequently the sales of consumer goods in the less developed countries. Thus, many goods and services that were formerly sold only to consumers in industrialized countries are now finding their way into the lives of third world consumers as well.

Post (1982) discussed two issues that arise from the expansion of consumer markets in the third world. The first issue concerns the appropriateness of the product, per se, in the environment of the third world nations. The second issue involves deceptive and irresponsible marketing techniques used to sell the products and services. A worldwide controversy since the 1960's has been the sale of infant formula to poor consumers in the third world. These consumers not only cannot afford to buy the formula, but also lack the appropriate skills and knowledge of proper infant feeding with formula to ensure adequate nutrition.

Statement of the Problem

Consumers, both in industrialized countries such as the United States and those in the developing countries such as Egypt, face many consumer-related problems. As a result of a global market system inherent today, similar or identical brands of products are consumed internationally. While specific problems and concerns of consumers around the world may

differ, consumer problems and concerns fall into similar, identifiable categories. Some of these problems pertain to production and marketing techniques such as price, quality, safety, labeling, and information of products, and the environmental effects of products and their packaging.

The first step in the process of solving consumer problems, either for individuals or for a group in a global community, is the ability to identify pertinent consumer problems. Then they must solve the problem within the consumer's own environment and relate those problems and solutions to the larger environment. Basic rights of consumers, such as the right to safety of products, are indeed basic human rights. Regardless of where consumers live, in big cities of the industrialized world or in remote villages of the third world, their rights should be the same.

Purpose of the Study

The purpose of this study was to explore differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of problems. The relationships between fourteen independent variables and perceived consumer problems of American and Egyptian consumers also were examined. The independent variables that were studied include the following: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward government and business as consumer protection agencies, attitudes toward consumer education efforts, and demographic variables of gender, age, marital status, presence of children, family annual income, education level, university position, and employment status. Specific objectives of this study were:

1. To determine if there are differences between American and Egyptian consumers in the following areas:
 - a) perception of consumer problems;
 - b) concerns related to price, quality, safety, labeling and information, and concerns about the environmental effects of products and their packaging;
 - c) needs fulfillment related to perceived adequacy of income,
 - d) needs fulfillment related to perceived improvement in living situations;
 - e) expectations and experiences with products;
 - f) attitudes toward consumer protection efforts by government;
 - g) attitudes toward consumer protection efforts by business;

- h) attitudes toward consumer education efforts.
2. To analyze relationships between perception of consumer problems and concerns and the following:
 - a) needs fulfillment related to perceived income adequacy;
 - b) needs fulfillment related to perceived improvement in living situations;
 - c) expectations and experiences with products;
 - d) attitudes toward consumer protection efforts by government;
 - e) attitudes toward consumer protection efforts by business;
 - f) attitudes toward consumer education efforts.
 3. To investigate the influence of demographic variables of gender, age, marital status, presence of children, family annual income, education level, university position, and employment status on the perception of consumer problems and concerns.

Delimitations of the Study

The delimitations of the study were as follows: First, the study focused on consumers' perceptions of problems and concerns related to price, quality, safety, labeling and information, and concerns about the environmental effects of products and their packaging. Second, the study focused on consumers' perceptions about consumer protection and education. Third, the subjects included only American and Egyptian consumers who had relationships with particular universities, and were presently employed in universities residing in Blacksburg and Radford, Virginia and Cairo, Egypt.

Limitations of the Study

Limitations of the study included: First, the study was concerned with problems associated with consumer products in general, and not specific products or services. Second, the findings of this study can be generalized only to those consumers in both the U.S. and Egypt with similar characteristics as those respondents selected in the study.

Uses of the Study

While there is a growing concern for the rights of international consumers, very few studies have been conducted to compare consumer-related problems between consumers in

industrialized and third world countries. This study is designed to explore differences and similarities of consumer-related problems and concerns as perceived by American and Egyptian consumers.

Results of this study can provide educators and policy makers with another source of information to reaffirm and supplement that received through complaints. Such information may help improve existing consumer policies and establish new ones. Relevant information derived from this study also may be used by those in consumer education. Business can benefit through positive efforts in improving product quality, safety, and responsible marketing strategies that will improve consumer welfare worldwide, not just in the industrialized countries.

Conceptual Framework of the Study

This study explored differences in the perceived consumer problems and concerns between American and Egyptian respondents, as measured by a composite score for perception of problems. The conceptual base for this research is the socio-psychological determinants of perception as proposed by Bruner and Postman (1948). Bruner and Postman (1948) categorized the determinants of perception theories into formal or structural and informal or behavioral. The formal or structural determinants are related to central nervous system biochemical functions such as sensory activities, and the effects of stimulation on these sensory receptors. The informal or behavioral determinants are concerned with socio-psychological factors such as needs, tensions, past experiences, and emotions. Perception of consumer problems is more closely related to informal behavioral determinants of perception. The present study, therefore, utilizes the socio-psychological determinants of perception of problems as the basis for selection of the independent variables.

The following determinants of perception were selected for investigation in the present study: needs fulfillment, expectations and past experiences, attitudes, and selected personal attributes such as gender, age, stage in the family life cycle, family income, education level, and employment status. The review of related literature pertaining to these determinants and their influences on perception of consumer problems is presented in this study in Chapter II.

Consumer problems and concerns are major factors affecting quality of life. The number of consumer concerns continues to grow due to some of the recent changes in the economies of the world that affect the worldwide consumer movement. According to Swagler (1993), these

changes include: (1) technological changes, (2) the emergence of the information age, (3) globalization of the economy, (4) deregulation, and (5) environmental concerns.

Studies revealed that high prices, low quality, unsafe products, insufficient information and lack of labels, and life-threatening environmental effects of products and their poor packaging are the topmost-cited problems (Allhalh & Sahbl, 1998; Bronnenberg, 1996; Drumwright, 1994; Kalwani et. al, 1990; Olson, 1997; Zeithaml, 1988).

Therefore, the research model (Figure 1) was developed from the conceptual framework to serve as the basis for exploring the research questions. The relationships between fourteen independent variables and perceived consumer problems and concerns of American and Egyptian consumers were examined. The independent variables that were studied include the following: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, attitudes toward consumer education efforts, and demographic variables of gender, age, marital status, presence of children, family annual income, education level, university position, and employment status.

Operational Definitions

The following operational definitions are defined as they were used in this study.

Consumer Perception

The process by which consumers select, organize, and interpret information to form a meaningful picture of the world based on each consumer's own needs, values, and expectations.

Consumer Problems

This concept relates to conditions that cause dissatisfaction in the process of selecting, using, or disposing of goods and services (Mayer, 1991) that affects consumers in a negative way and require attention. The concept is operationalized in this study as those problems experienced by the respondents themselves, their family members, and by others.

Consumer Protection

Is the prevention of physical or economic disadvantage or damage to the buyers and/or users of goods and services for personal or household use.

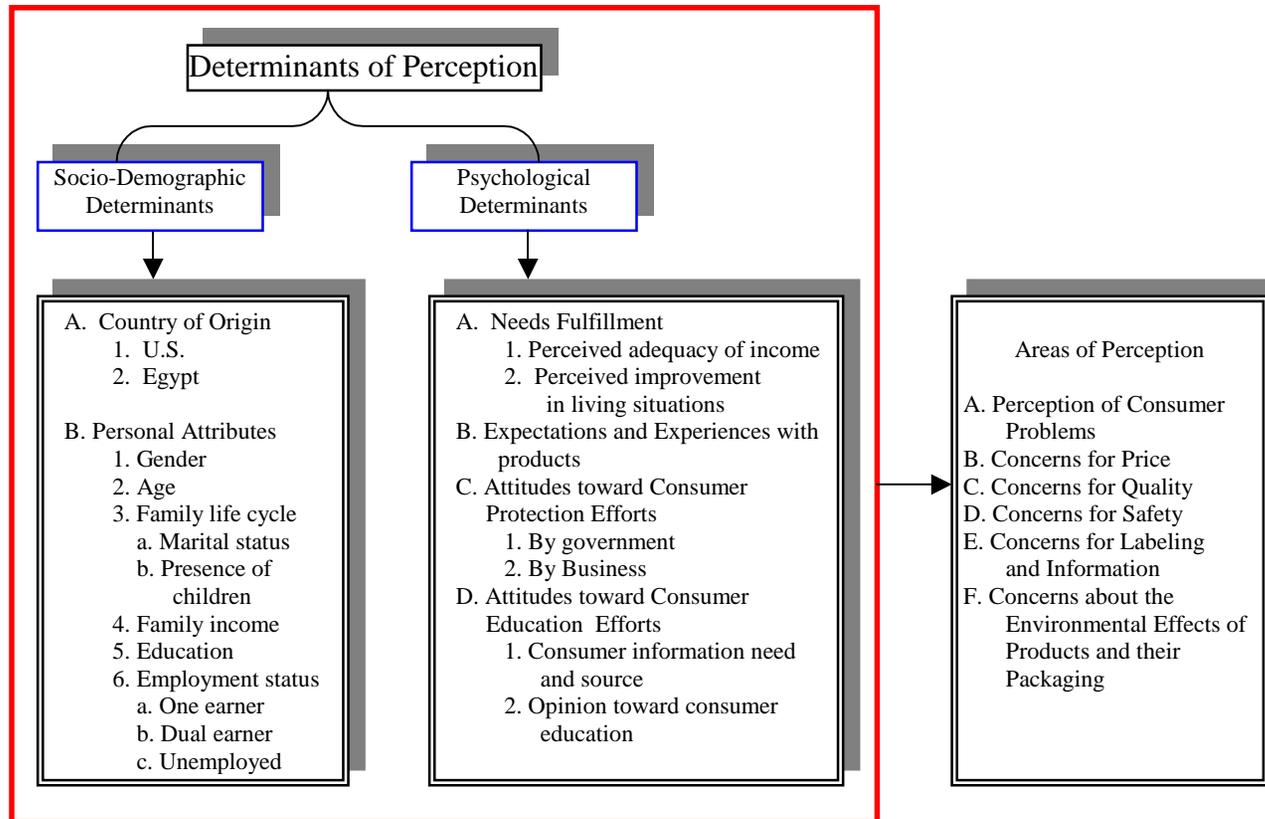


Figure 1. Perception of Consumer Problems and Concerns
 Related to Protection and Education Research Model

Consumer Education

Process of gaining the knowledge and skills needed in managing consumer resources and taking actions to influence the factors which affect consumer decisions.

Needs Fulfillment

In this study, the concept is used to encompass questions relating to perceived adequacy of income, perceived financial improvement, perceived improvement in general living conditions.

Egyptian Pound

The pound is the Egyptian currency. At the time this study was conducted, the exchange rate between the Egyptian pound and the American dollar was approximately 3.92 pounds to one American dollar.

Organization of the Dissertation

This chapter explained the need to conduct studies to compare perceptions of consumer-related problems and concerns related to protection and education between consumers in industrialized and third world countries. The problem statement, purpose of the study, delimitations and limitations of the study were outlined. Finally, the chapter concluded with the uses of the results of the study, the conceptual framework, and the operational definitions.

The remainder of this dissertation is organized in the following manner: Chapter II, Review of Literature; Chapter III, Methodology; Chapter IV, Results; Chapter V, Discussion; and Chapter VI, Summary, Conclusions, and Recommendations.

Chapter II

REVIEW OF LITERATURE

The purpose of this chapter is to review literature related to perception of consumer problems. First, concepts central to perception are presented to form the framework of the study. Second, literature revealing the relationships between selected demographic variables and the perception of consumer problems is reviewed. This review of literature provided a basis for the research. Where possible, research from both the United States and Egypt has been reported.

Interpretation of Perception

The question of why situations appear as they do has been challenged by many researchers and has contributed to the emergence of various perception theories. These theories cover a wide range of knowledge including those related to memory trace, learning theories, sensory-tonic theory, and many others (Sheth, Mittal & Newman, 1999).

Bruner and Postman (1948) categorized the determinants of perception theories into formal or structural and informal or behavioral. The formal or structural determinants are related to central nervous system biochemical functions such as sensory activities, and the effects of stimulation on these sensory receptors. The informal or behavioral determinants are concerned with socio-psychological factors such as needs, tensions, past experiences, and emotions (Allport, 1955; Bruner & Postman, 1948; Lucas, 1966).

Perception of consumer problems is more closely related to informal behavioral determinants of perception. The present study, therefore, utilizes the socio-psychological determinants of perception of problems as the basis for selection of the independent variables.

Social Perception

Bartley (1969) designated three different aspects of perception derived from the influence of the social processes:

First, is the influence brought about directly by other people. It may be operative through the presence, examples, wishes, or prestige of other people.

The second aspect of social influence is one in which socially meaningful and socially originated properties are responded to. This differs from the first sort of social perception in that it may pertain to a physical property of a physical object, such as size or shape.

The third aspect is the phenomenon of individual differences (p. 421-422).

McGinnies (1949) discussed several social dimensions influencing perception. He believed that "perceptions are structured not only with respect to the limiting stimulus conditions, but also with regard to the possibilities of reward, need fulfillment, attitudinal orientation, potential anxiety, and symbolic values and release from tension, to name a few" (p. 244).

How one perceives a certain situation may reflect on experience one had in the past. The role of past experiences was recognized by many social psychologists as also influencing one's perception (Allport, 1955; Burner & Postman, 1948; Hochberg, 1978; Schiffman & Kanuk, 1994; Stogdill, 1959).

Stogdill (1959) contended that one's perception of any given situation also is influenced by the information one receives from the situation and by one's expectations of the situation. The desirability of the situation is in turn affected by one's "... internalized scales and norms and values which are determined by past experiences. That which conforms to these norms tends to be readily perceived, and that which departs from the norm tends to be rejected" (p. 71).

Based on the socio-psychological dimensions of perception as proposed by Bartley (1969), Bruner and Postman (1948), and Hochberg (1978), the following determinants of perception were selected for investigation in the present study: needs fulfillment, attitudes, expectations, past experiences, and selected personal attributes such as gender, age, family life cycle, family income, education, and employment status.

Influences on Perception

Several socio-psychological determinants have been suggested as influencing perception. The review of related literature pertaining to these determinants and their influences on perception of consumer problems is presented in this section.

Human Needs and Needs Satisfaction

Although some psychologists have suggested that individuals have different need priorities (Dichter, 1960), others believe that most human beings experience the same basic needs, to which they assign a similar priority ranking.

Maslow's hierarchy of needs theory proposes five levels of pre-potent human needs: physiological needs, safety needs, social needs, egoistic needs, and self-actualization needs. According to Maslow, humans act to satisfy different needs which are pursued in an hierarchical order related to their urgency for survival. The higher needs of self-esteem and self-actualization, tend to become more salient only after the basic physiological needs of food, clothing, shelter, safety needs, and social needs are satisfied (Maslow, 1970).

Another view on human needs presented by Mallus (1980), provided a new dimension of looking at needs hierarchy. Mallus termed it a "nested model," as shown in Figure (1).

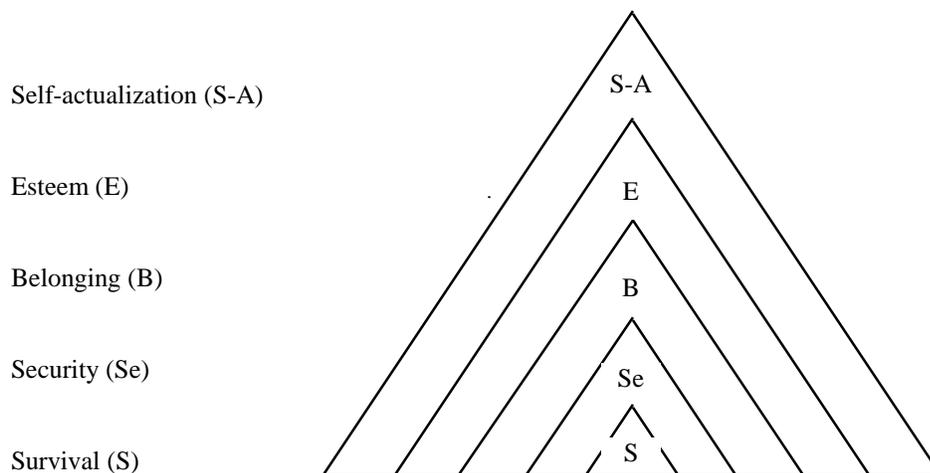


Figure 2. "Nested model" of needs

Three implications were suggested by Mallus (1980) for the "nested model" of human needs:

1. All that has gone is inside and understood. You are *all* of those things.
2. What has not been attained is *not* understood and therefore is not reasonable. This is a source of much misunderstanding and agony at personal, corporate, national, and international levels.
3. Because each step adds new dimensions, each level is more complicated than before. This yields a tree of values and a more complex society (Mallus, 1980).

Differences in what consumers perceive as their problems may indeed be the recognition of their needs hierarchy. The need for food and clothing, for example, may be satisfied differently by different groups of people (Hoyer & MacInnis, 1997). This tends to be even more complicated in a study using cross-cultural and cross-national subjects. The cultural, economic, and religious factors not only affect their requirements, but also determine at which level they are on hierarchy of needs (Brislin, Lonner & Thorndike, 1973; Schiffman & Kanuk, 1994). How consumers translate their needs and then evaluate the fulfillments of their needs through consumption of goods and services, may determine their perception of consumer-related problems.

Consumer Attitudes and Values

Consumer attitudes and values, like other aspects of human behavior, are affected by the environment to which the consumers are exposed (Schwartz & Bilsky, 1987). Consumers differ in how they evaluate the adequacy of certain products or services because their standards vary as a result of differences in values (Gross, Crandall & Knoll, 1980). Katona and Strumpel (1978) believed that attitudes tend to be rather "volatile" with time. Consumer values, on the other hand, tend to be rather stable but they too tend to change with time (Hoyer & MacInnis, 1997; Inglehart, 1977; Katona & Strumpel, 1978; Powers, 1981; Stampfl, 1978; Zeithaml, 1988).

According to Powers (1981), in the 1950's, money and material possessions were important symbols of success. Consumers derived personal pleasures from material acquisitions. This "materialistic" value system (Richins, 1994) which was dominant during the period of industrial revolution motivated consumers to work harder in order to earn more, so that they might in turn spend more. The "transitional age" consumer values which emerged between the 1960's and the 1970's were triggered by the slow economic growth due to shortages of natural resources, double digit inflation, recession, and high unemployment rates (Belk, 1985). In the 1980's, a "trade-off psychology" in which consumers would weigh the cost-benefit of their consumption decisions began to emerge (McGowan, 1992). In the 1990's, awareness about the consumer interest is undoubtedly the highest in history. Today's consumer interest is no longer being submerged into the broader public interest. Consumers all over the world now demand an acceptable quality of goods and services with fair or low prices appropriate for particular levels of quality. In short, they want a good deal for themselves and others (Garman, 2000).

Hoyer and MacInnis (1997) asserted that one of the major consumer problems at the end of the century is to change the industrial age consumer value system to that of "post-industrialized." Some of the changes in attitudes and values will include buying only what is needed, buying for typical rather than extremes, renting, sharing, recycling, conserving, weighing convenience against cost of convenience, and functionalism and durability rather than planned obsolescence. Consumers, therefore, need to be more concerned about maintaining or improving not the standard of living and the level of consumption but the quality of life.

The significance of materialism is not restricted to the United States. Recent studies of Japanese and Chinese consumers reveal an increasing emphasis on a materialistic lifestyle (Brannen, 1992). To illustrate, although consumers in the People's Republic of China have historically regarded bicycles, sewing machines, and wristwatches as critical consumer goods, by the mid – 1980s (after Mao Zedong's death) refrigerators, washing machines, color television sets, cameras, and video recorders were added to the list of "must have" consumer goods (Jones, et. al 1985). Materialistic tendencies are also regarded as a driving factor in the success of home and catalogue shopping among Japanese consumers (Sanghavi, 1989). The desire for material goods is particularly acute in former communist countries such as the Czech Republic and Romania, where consumers strive to acquire as many Western goods as possible, especially a car, TV, and fashionable clothes and shoes (Ger, Belk & Lascu, 1992).

Toffler (1980) predicted that there is an indication that a certain ethic, termed the "prosumer ethic" (p. 387) will prevail in the future. According to Toffler (1980), the prosumer ethic places high value on self-created products rather than market products. While money and material possessions are still important, other personal characteristics such as "self-reliance, the ability to do things with one's own hands" (p. 387) are also important (Toffler, 1980).

A study of 13,484 respondents from nine European communities revealed that consumers exhibited different consumer values. Results further indicated that while individuals with materialistic values dominated all age groups, there was an increasing number of subjects with post-materialistic values at every younger age level, especially those between the ages of 15 and 25 (Inglehart, 1977).

Mallus (1980) contended that consumers who exercise the most sensible type of consumption behavior are the "socially conscious integrated consumers" (p. 9). These consumers tend to be well educated and have high income. Mallus further contended that the

"socially conscious" consumers tend to be "inner directed," and represent approximately a fourth of the American population (Mallus, 1980).

Adopting Maslow's hierarchy of needs, Inglehart (1977) postulated that people tend to reveal a hierarchy of motives, hence a hierarchy of values. Inglehart (1977) hypothesized that the formative years are crucial in value hierarchy development. If individuals live a major part of their lives during times of economic stress, then they tend to be rather insecure in their attitudes toward material things. Countries also differ in their economic strengths and affluence, which tend to affect the quality and living standards of the population in general. As such, the attitudes and values of the majority of the people in the less developed countries may still be in the lower level of the need and value hierarchy, depicting even fewer socially conscious and integrated consumer values.

Expectation and Satisfaction

Hoyer and MacInnis (1997) contended that attitudes and expectations are closely related. Both of these concepts tend to affect one's perceptions and shape one's behavior. Katona (1975) suggested that the growing concern among consumers related to poor quality of products and services may have been affected by "..... the worsening of workmanship, lesser durability, and similar objective factors, or in consumers' expecting more from the goods and services than before" (p. 385).

Sheth and Mittal (1996) suggested that it is difficult for consumers to define objectively what expectations they have of the products and services purchased. Consumers also have difficulty in defining facts about the problems with the product or service purchased. Several researchers, however, have used subjective measures in determining the relationship between consumers' expectations with products and services, and their satisfaction or dissatisfaction experienced (Levesque & McDougall, 1996; Olshavsky & Miller, 1972; Westbrook, 1980).

Westbrook (1980) studied the influence of several "affective" variables such as "optimism, pessimism, life satisfaction, generalized consumer discontent, mood and social desirability" (p. 52) on consumers' satisfaction with products. Results revealed significant relationships between satisfaction and realization of expectations, overall life satisfaction and consumer discontent. However, these significant relationships were found only for car purchases. Satisfaction with footwear products was found to be significantly related to

expectations being met or exceeded. The present study postulates that as long as there is a gap between what is expected and what is experienced, through feelings of dissatisfaction with the products and services purchased, consumers are likely to perceive problems.

Demographic Influences on Perception

Demographic variables have been found in many studies to be related to consumer problems. In this study, selected demographic variables influencing consumer problems were investigated to determine their relationships with perceived consumer problems of Americans and Egyptians.

Gender

The possible difference between the perception of consumer problems of male and female respondents is of interest in the present study. In today's marketplace, gender is used to implement segmentation strategies (Meyers-Levy & Sternal, 1991). Gender differences are attributed to sociological/biological tasks and traits (Darley & Smith, 1995). Gender segmentation is successful because it is easily identifiable and accessible, and it is considered very profitable (Darley & Smith, 1995). Many businesses have begun to see gender marketing as a method of market share expansion (Sloan, 1997; Trapp, 1993). Products generally made for men have been re-evaluated and adjusted to attract a female market. In the past and present, men and women have and still occupy different social roles and are exposed to different pressures. In the past, women have traditionally assumed submissive and subordinate roles in the American culture in relation to the more dominant roles assumed by males (Meyers-Levy & Sternal, 1991). Demographically, women have changed tremendously. Women have enjoyed advances in educational attainment, labor force participation, career involvement, and economic independence (Crispell, 1992). Women also have experienced significant increases in divorce and single parent families. Nowadays, women are more involved in major decision making such as home buying, savings and investments, and buying a new car (Dorch, 1994).

Men, on the other hand, also have experienced changes in their lifestyles. They have changed the way they shop, work at home, and dress. Research also indicates that 46 percent of men buy their own personal items, and half or more of the male population buy most or all of their own things (Crispell, 1992). Men are shopping as frequently as women, but their habits are

different. The study also indicated that men are more likely to shop on a daily basis. Men also are considered to be buyers, and not shoppers (Crispell, 1992). Further, men spend more time grooming than in the past, and seek more knowledge than in the past. Men also are gaining responsibility for shopping, selecting, and preparing foods (Sloan, 1997). They are helping out more with housework and child care (Crispell, 1992). Zeithaml (1988) also found that males spend less time planning shopping trips than females. Compared to females, males make more shopping trips than females (Crispell, 1992; Zeithaml, 1988).

Claxton and Ritchie (1979) reported in their study of middle class respondents that men and women were different in their ranking of relative difficulty in shopping for different goods and services. Male respondents perceived more problems related to the purchasing of furniture, appliances, automobile repairs, home repairs and renovations. Female respondents perceived more problems related to purchasing of clothing, footwear, groceries, furniture and appliances. It was suggested that the differences in the perceived problems between male and female respondents might be related to differences in their shopping experiences.

Age

Age is another variable that is of interest in the present study. Age is considered to be a powerful determinant of consumer behavior and concern because it affects consumers' interests, tastes, purchasing ability, political preferences, and investment behavior (Hawkins, Best & Coney, 1991). Today, longer life spans have created an increase in the number of older consumers. The mature market consists of 53 million people controlling about three fourths of America's assets and half of the disposable income (Moschis, Mathur & Smith, 1993).

Research indicates that shopping patterns of consumers tend to change as their age increases. Zeithaml (1988) found that as age increases, the number of shopping trips, amount of shopping time, and the number of supermarkets visited increases. Older shoppers tend to have more discretionary time than younger shoppers. Therefore, they spend more time per shopping trip and make more frequent trips (Zeithaml, 1988). Older shoppers also were found to plan shopping trips more than younger consumers, and the older the shopper, the more important shopping trips were to the consumer. Older shoppers tend to use more information and economize more than younger consumers.

Harris (1983) revealed that age was inversely related to perception of consumer concerns. Respondents who were between 18 and 49 years of age perceived more consumer problems than those who were older. Two studies reported by Bernhardt (1981) and a study by Burton and Hennon (1980) also revealed that age was related to perceived consumer concerns. According to Burton and Hennon (1980), older participants expressed fewer consumer problems than younger participants and felt that they did not need consumer education. The high level of consumer concerns of younger consumers was studied by Barksdale and Darden (1972). They found that younger and liberal consumer respondents were more critical of marketing and were not as satisfied with procedures for handling consumer complaints.

Bernhardt (1981) revealed that older consumers did not know where to obtain reliable consumer information or help with consumer problems. Also, Bernhardt (1981) found that the major problems of the elderly included unavailability of advertised specials, unsatisfactory performance/quality, and unsatisfactory repair/service. The elderly also felt that complaining was not worth the effort and took too much time.

A study by Wall et al. (1978) indicated that age was related to satisfaction with clothing performance. Younger respondents were shown to be less satisfied with performance of their clothing than older respondents. Wall et al. (1978) suggested that the dissatisfactions among younger consumers were related, in part, to their high expectations and their awareness of new fabrics.

Family Life Cycle

Murphy and Staples (1979) contended that the traditional concept of family life cycle, in which a family generally goes through three main phases of growth -beginning, expanding, and contracting- has become rather unrealistic today. They proposed a new concept of family life cycle that takes into consideration changes in the population distribution, the shifts in the demographic structure, and family composition. These changes in population structure have been attributed to such phenomena as rising rates of divorce, low fertility rates, rising employment rates among women (Murphy & Staples, 1979; Toffler, 1970).

The concept of family life cycle proposed by Murphy and Staples (1979) incorporated various types of family stages such as "young single, and young married without children" (p.

16). Stampfl (1978) proposed a thirteen-stage consumer life cycle starting with "childhood" stage and ending with "solitary survivor, retired."

Such changes within the family affect not only the demands for family resources, but also the availability of those resources. If demands for consumer goods and services do not match with the availability of family resources, such as money, information and consumer skills, consumers are more likely to face problems (Schiffman & Kanuk, 1994).

In the present study, the variables marital status, and presence of children in different age groups are chosen to represent some changes within the family during its life cycle. It is postulated that consumer-related problems are associated with these two variables.

Family Income

The variable of family income has been shown to be related to perception of consumer problems in several research studies. Income was found to affect the amount of time spent shopping, number of supermarkets visited weekly, extent of planning, amount of purchase, weekly expenditures on purchases, and the importance of shopping (Zeithaml, 1988). Shoppers with higher income planned significantly less than those with lower income, and spent more time shopping than those with lower income (Zeithaml, 1988). Research indicates that individuals with higher income may be less inclined to be economical shoppers (Zeithaml, 1988).

Using scanning data, Gupta and Chintagunta (1994) examined demographic variables as predictors of segmentation. The study of data on catsup purchases indicate that income and household size significantly affect the segment membership probabilities. Low-income consumers tend to be price and promotion sensitive, while larger households prefer the more prominent brands.

A study by Harris (1983) revealed that consumers who indicated their concerns for six or more of the eleven consumer concerns had mainly low and middle-incomes. Their concerns were associated with high prices of many products, high rates of interest, poor quality of products, poor quality of repairs, unsafe products and deceptive advertising.

Harris (1983) also discovered that high-income consumers perceived more progress in at least five of the seven consumer areas presented. While specific areas of progress perceived by the high income respondents were not revealed, respondents indicated that consumer areas of

"labeling and information about products, consumers' shopping skills, safety of most products and most companies' handling of complaints from consumers" (p. 15) have improved.

Wheatley and Chiu (1977) revealed in their study that income had a positive effect on consumers' perception of quality of products when other variables were controlled. A study of China's middle class consumers (Thorelli, 1990) found that 88% of the respondents said that they experienced disappointment with at least one purchase of consumer durables. The study further revealed that as income increased, more consumers reported dissatisfactions with products in general.

These studies suggested two possible effects of income on perception of consumer problems. First, as income increased consumers were better able to purchase varieties of goods and services. Consequently, these consumers face greater possibilities of experiencing problems and disappointments as a result of their purchases. Second, high income consumers may have had better choices of goods and services, so they may not have encounter as many problems as low income consumers.

In Egypt, the national policies instituted after 1952 have brought major changes in the distribution of income and improved the standards of living of the less fortunate segments of the population. However, they may have slowed down economic growth and limited the overall level of social welfare. Employment and pricing policies have created distortions in the economy and diverted scarce resources away from productive activities. Furthermore, the social equity policies and programs developed over the last decades have failed to eliminate poverty (Gergis, 1995).

Poverty numbers are, inevitably, disputed. Government statistics show 23% of Egyptian households below the official poverty line (which itself is low); this, according to the government, is an improvement on the 1970s, when 40% of households were below the line. Restrictive laws, dating back to Nasser's time, allow the government to discourage non-official Egyptians from challenging these findings. One result of this discreet form of censorship is that an academic study showing higher poverty figures is not published. Even so, the consensus of independent observers seems to be that up to 35% of Egyptian households are now below the poverty line, compared with about 20% in 1990. Another study, based on household income and expenditure surveys, shows an even steeper rise in poverty between 1991 and 1996 (Barbara, 1999).

Level of Education

Knowles (1950) stated that "the ultimate objective of education is to produce individuals who are effective members of the societies to which they belong" (p. 30). Thus, the learning environment should help individuals improve or change knowledge, skills, attitudes, appreciation, and understanding.

Egypt spends a respectable 6-7% of GDP on education. It has built thousands of new schools in a bid to keep up with population growth. A 1998 Carnegie Endowment for International Peace study finds that, on average, Egypt's labor force has spent four years at school compared with one and-a-half year in 1975. But decades of under-investment in education and surging population growth have strained the system beyond endurance; numbers at schools and colleges are now about 16 million, compared with around 7 million in the early eighties (Barbara, 1999).

One's level of education has been found to affect values. According to Inglehart (1977), people with high education tend to reveal post-materialistic values, and are able to perceive consumer problems from a macro and global perspective. Generally, those with higher education also tend to be involved with arousing public attention on relevant consumer issues and initiating development of consumer policies.

The study of Warland, Herman, and Moore (1984) revealed that those who are highly educated are more likely to complain personally to someone in the marketplace. Also, Herland, Herrman, and Willits (1975) divided consumers into three groups such as "upset-action, upset-no action, and not upset" groups. The "upset-action" consumers are better educated and more politically committed than the other two groups. The "upset-action" consumers are frequently upset and take action concerning their problems. The "upset-no action" consumers are less educated than the "upset-action" consumers and do not engage as often in consumer and political actions as their "upset-action" consumers. So, the "upset-no action" consumers are highly upset, but they are frustrated in deciding what to do by lack of knowledge and lack of experience. The "not upset-action" consumers are less educated than the "upset-action" consumers and the most politically conservative group. The "not upset-action" consumers also were much more satisfied with the business system and less educated in consumerism than the other two groups.

Best (1981) reported that there was a relationship between level of consumer education and consumer problems. According to Best (1981), those who were less educated were more

likely to feel difficulties in identifying consumer problems. Thorelli (1990) has suggested that more advanced economies, where educational attainments are higher and consumer expectations are greater, exhibit stronger consumer discontent or dissatisfaction with the product market in the formal sector of the economy. Similarly, in the context of developing countries, where educational attainments and consumer expectations are lower, one expects weaker consumer dissatisfaction. Thus, consumerism should be strongest in the developed rather than the developing countries.

Kaynak and Wikstrom (1985) noted that increases in income and education cause higher levels of expectation and thus create more anxiety and dissatisfaction among consumers. They also stated that a negative relationship exists between consumer dissatisfaction and the level of consumer education, because a critical mass of educated individuals capable of feeling the effect of deteriorating living conditions must be present. Hendon (1975) also supported this notion. He noted that as affluence increases, needs become more complex and harder to satisfy, thus creating a potential for dissatisfaction.

Thorelli expressed a similar view (1981). He suggested that a strong correlation exists between consumer aspiration levels and degrees of economic development. Most consumers of LDCs have low levels of aspiration (Thorelli & Sentell, 1982) or aspiration levels equal to their prevailing living conditions (Kaynak, 1985). Thus, one expects the levels of consumerism activity to vary by level of economic development given that the stages of economic development reflect differences in consumer demand patterns (Kaynak, 1986).

However, a study by Harris (1983) revealed that people with low education and low income were more concerned than higher educated people with higher income about specific aspects of the marketplace such as high prices, poor quality products, poor quality after service and repairs, and dangerous products. Harris's results (1983) also showed that respondents with high education tended to perceive progress rather than decline in the marketplace, while those with low education perceived the opposite. These findings suggest that unsatisfactory economic situations, as a result of low education, may bring about a feeling of general dissatisfaction with life including consumption (Katona, 1975). The findings also suggest a relationship between perceived consumer problems and unsatisfactory experiences in the marketplace. The respondents' lack of knowledge and fewer options due to low purchasing power may have contributed to their unsatisfactory experiences in the market.

Employment Status

Hoyer and MacInnis (1997) indicated that since the mid - 1960's the gap between male and female labor participation has continued to narrow. A high percentage of working women are single, widows, and divorced. However, statistics also indicated that the percentage of dual earner families is on the rise (Sheth, Mittal & Newman, 1999). This phenomenon has created different lifestyles for families. Dual income families generally have higher income than one-income families. Besides differences in income, other changes tend to be apparent such as those concerning patterns in purchasing decisions and shopping behavior (Schiffman & Kanuk, 1994).

The relationship between employment status of wives and family consumption patterns has been studied by many researchers. Strober and Weinberg (1977) discovered that the size of family income and whether the family had recently moved to a different house were more important predictors in purchase decisions than wife's employment status.

The review of literature did not reveal any direct relationship between perception of consumer problems and employment status. It is postulated in the present study that single-earner families and dual-earner families have differences in needs, experiences, and purchasing patterns that would contribute to differences in perception of consumer problems.

Selected Consumer Problems and Concerns

The dependent variables that are chosen in the present study include the different problems and concerns perceived by American and Egyptian consumers. According to Thorelli (1983), factors such as the differences in the marketing institutions, seller strategies, the market system performances, and consumer-related factors tend to affect, not only the types, but also the frequency, of the problems experienced by consumers. Thorelli (1983) further asserted that consumers from Less Developed Countries (LDCs) face a risky market environment where fraudulent marketing techniques are carried out with little concern for the basic rights of consumers.

Price of Goods and Services

Product choice has been heavily influenced by price, which creates considerable variation in consumer selection across product categories (Engel, Blackwell & Miniard, 1990;

Bronnenberg, 1996). Factors such as expected and reference price, price awareness, and price and product quality are research streams identified in the literature (Putler, 1992).

Expected price and price reference is a strategy in which the consumer decides on a particular product based upon their price expectations for the product (Kalwani, Yim, Rinne, & Sugita, 1990). This decision is based on information from past prices, contextual variables (e.g., store environment), and expectations of future prices. Research indicates that product sales can be undermined when a product is introduced to the consumer at a lower price, and then the price is made higher (Kalwani, Yim, Rinne, & Sugita, 1990).

Other studies indicate that consumers are more likely to choose a product that is a sure price rather than one that may be priced lower during a particular event-risk aversion (Puto, 1987). Event risk aversion refers to the level of risk a consumer is willing to take when price fluctuations exist. Consumers are less likely to risk paying a particular price for an item that may change, and are more likely to choose a product with which they feel comfortable relative to price. Kalwani, Yim, Rinne, and Sugita (1990) found that the past price of a brand is not the only factor that influences customer price expectations. Anticipated price also is influenced by other variables such as frequency of brand promotion, economic conditions, and customer characteristics.

Studies indicate that some consumers believe that a positive relationship exists between product price and quality (Lichtenstein, Ridgway & Netemeyer, 1993; Tellis & Gaeth, 1990; Monroe & Dodds, 1988; Olson, 1997). Zeithaml (1988) suggests, however, that price, as an indicator of quality, depends on (1) the availability of other cues to quality, (2) the price variation within a class of products, (3) the product quality variation within a category of products, (4) the level of the consumer's price awareness, and (5) the consumer's ability to detect quality variation in a group of products.

Lichtenstein, Ridgway and Netemeyer (1993) found that consumers use price as a prestige sensitivity cue. This suggests that the purchase of higher price brands infers something to others about the purchaser. For example, the purchase of an expensive wine by a consumer may indicate character traits of that consumer, a big spender or that the consumer has a high income. Tellis and Gaeth (1990) suggest that consumers are more price-aware than they are quality aware, and price may be used to infer level of quality. Previous literature indicates that consumers may use best value, price seeking, and price aversion as choice strategies. Tellis and

Gaeth (1990) suggest, however, that consumers may use a combination of these strategies to choose a brand. “Best value” strategy, refers to the practice of selecting a brand with the least overall cost in terms of price and expected quality. A “price-seeking” strategy refers to the selection of the highest priced brand to maximize expected quality. A “price aversion” strategy is choosing the lowest priced brand to minimize immediate costs. Rao and Monroe (1989) conducted a meta-analysis of studies which examined the influence of price, brand name, and store name on a consumer’s evaluation of product quality. The study found that the relationship between perceived quality, price, and brand name are positive.

A study by Harris (1983) showed that 67% of American respondents indicated that high price of goods and services is a major concern of consumers. However, the concern decreased by 10% from 1976 to 1982. Best (1981) reported that high costs of products such as grocery items and clothing are major concerns among frequently purchased products, while car parking, appliance repair, and car repair are major concerns among service areas. An earlier study by Claxton and Ritchie (1979) also revealed that high price of goods, especially groceries and clothing, was a major concern.

Consumer concerns related to high prices have been major worries in less developed countries. Allahh and Sahbl (1998) found a high level of consumer concerns related to the high prices of products in Egypt. High prices are usually caused by artificially curtailing the supply and creating black-markets by business, with unfair and arbitrary prices. High prices are largely over-charges by sellers. In order to avoid the high cost of sellers, it is desirable to cut the circulation process of products, if possible. Park (1979) suggests that the only way to shorten the circulation process of products occurs through cooperative purchase with neighbors or friends. Cooperative purchase will not only reduce high costs of products, but also protects consumers from overcharging by sellers.

Quality of Products and Services

Another major concern of many consumers today is the apparent deterioration of quality of goods and services in general. According to Toffler (1970) planned obsolescence of products is exercised by manufacturers in order to keep the machinery of production going.

A study reported by Barksdale and Darden (1972) revealed that 12% of the respondents strongly agreed and 38% agreed that the quality of most products had not improved over the last

few years. Only 35% disagreed and 3% strongly disagreed with the sentiment. Harris (1983) compared the perception of quality between respondents surveyed in 1976 and in 1982. Results showed that a higher percentage of respondents in 1982 than in 1976 felt that the quality of products had improved.

Thorelli (1982), in research in Thailand and China, revealed that 81% of the respondents in China, and 68% of those surveyed in Thailand said they often found impurities in the foods purchased. Thorelli (1983) suggested three reasons for poor quality products, especially of food stuffs in many third world countries. First, is the lack or absence of quality control in the manufacturing of food products. Second, is the striking lack of a transportation system and third, is the unsuitable storage facilities for preservation of foods. Allahh and Sahbl (1998) discussed the Egyptian consumers' major concern regarding the quality of products and services. The major concerns for quality are the lack of standards of products by fraud of sellers or malfunctions of the products, difficulties in returning goods of poor quality, and delay or lack of services. Poor quality items include electric appliances, foods, clothing, cosmetics or sanitary items, and toys.

The quality of a product has been shown to be a strong predictor of brand choice. Morton (1994) examined 600 brands to determine the relationship between brand and quality. The researcher found that quality was the driving force for sales increases among many of the products. The researcher also found that the influence of value perceptions are quality and price driven. Too low of a price on a product could drive the perceived quality of a product down.

Safety of Products

The concern for safety of consumer products led to the formation of the International Organization of Consumers Unions (IOCU) in the early 1960's. Member countries shared information on the results of product safety tests to alert consumers about the dangers of certain products that move between countries. The concern for safety has not diminished; instead it has grown with the formation of "Consumer Interpol" at the United Nations, aimed at alerting global consumers to harmful products (Fazal, 1983).

Products are less safe in the less developed countries than the industrialized countries (Thorelli, 1982). Analyses performed by the Department of Chemistry, Ministry of Health in Egypt, revealed that there were extensive cases of adulteration of foods. Banned chemical

additives and food coloring were found in such items as candy, tea, coffee, and other food products (Al Desouki, 1993). The adulteration of food stuffs also was indicated to be of concern to consumers in Thailand and China (Thorelli, 1988).

Allhalh and Sahbl (1998) revealed major Egyptian consumer problems. Most consumer problems are related to un-clean, improper, and unsafe products. These results are similar to those of Turkish consumers. Tek (1983) indicated that a major consumer concern was the safety of products. Some sellers frequently use harmful food color to make a profit; for example, making a watermelon look ripe by using harmful red color.

A study by Harris (1983), however, determined that 62% of American respondents perceived that the safety of products had improved over the last ten years, while 26% of the respondents thought otherwise. Results also revealed a 2% increase in the number of persons who felt that the safety of products had improved in 1982 compared to the 1976 survey.

The U.S. Congress established the Consumer Product Safety Commission (CPSC) in 1972 in order to protect the public against unreasonable risks of injury associated with consumer products. In addition to this purpose, the agency's enabling legislation, the Consumer Product Safety Act, also includes the following purposes: to assist consumers in evaluating the comparative safety of consumer products; to develop uniform safety standards for consumer products and to minimize conflicting state and local regulations; and to promote research and investigation into the causes, and prevention of product-related deaths, illnesses, and injuries (Meier et al., 1998).

CPSC has the authority to set mandatory standards, ban products, order recalls of unsafe products, or institute labeling requirements. The agency also provides information to the public about hazardous products. CPSC learns about product-related injuries, and deaths through a variety of sources, including the National Electronic Injury Surveillance System, consumer complaints, in-depth investigations by CPSC staff, and other databases, and other sources (Meier et al., 1998).

With some 15,000 different products within its jurisdiction, CPSC is significantly challenged to keep track of the many firms it oversees and regulates. In some cases the products are simple and straight forward, requiring minimal technical expertise to understand the operation of the products and their possible hazards. In other cases, the products are highly sophisticated and complex, requiring CPSC staff to be up-to-date on the latest manufacturing

developments and inventions. Likewise, depending upon the product, the profits recognized from sales of products within CPSC's jurisdiction varies. The effect on profits of CPSC action (such as a recall) is similarly dependent upon the type of product and possible associated hazards (Meier et al., 1998).

American consumers have clearly benefited in the areas where the CPSC has taken action. Whether it be reducing clothing fire deaths and strangulations in baby cribs, or decreasing children's access to hazardous substances, the agency, through its use of standards and bans, has changed the way certain products are made (Meier et al., 1998).

The CPSC has been most effective in addressing risks to young children and it continues today to emphasize the issues that affect the very young. It has a much less successful record in reducing long-term chronic hazards associated with consumer products (e.g., toxic exposures). In part, this probably reflects the American society's willingness to be more accepting of risks that it cannot perceive as well (Meier et al., 1998).

Overall research tended to suggest that American consumers generally perceived improvement in the safety of products in general, more so than did third world consumers.

Labeling and Information

Another difference between the consumer environments of less developed countries and industrialized countries is in the availability and amount of information about consumer products and services. Useful and important information on the labels of packaged products, such as ingredients, weights, prices, care instructions and others, are all new concepts to consumers in less developed countries (Thorelli, 1988).

Research estimates that poor diets account for over 300,000 deaths a year, and that about 35 percent of cancer death are attributable to poor diet in the U.S. (Blaylock, Smallwood & Variyam, 1996). Consequently, in an effort to make nutrition information available to consumers, the Nutritional Labeling and Education Act (NLEA) was implemented in 1994. The NLEA mandates that nutrition labeling be placed on food packages. The objective is to provide consistent, understandable, and usable labels that can help consumers make healthier food choices (Nayga, 1996).

Economists have long recognized the importance of consumer information and knowledge with regard to consumer behavior (Pauly & Satterthwaite, 1981; Kenkel, 1990).

However, there is considerable debate about the influence of nutrition knowledge on food purchase behavior. Most Americans are familiar with the U.S. Department of Agriculture's Dietary Guidelines but seem to have little understanding of how to translate the nutrition guidelines into healthy eating practices. Despite intensive nutrition education efforts and media exposure, total fat intake has not changed. It is, therefore, becoming increasingly clear that nutrition knowledge may not directly predict dietary behavior because those with more knowledge do not necessarily change their behavior (Sapp, 1991; Shepherd & Stockley, 1987; Shepherd & Towler, 1992). This may be why intervention programs aimed at increasing nutrition knowledge or awareness, such as supermarket point-of-purchase programs, seem to have had limited impact (Rodgers, Kessler, Portnoy & Potosky, 1994).

Several studies also have alluded to the apparent disparity between the health behaviors of males and females. Nayga (1996) reported that males are less likely to perceive nutrition as important when food shopping than are females. An earlier study also revealed that males are less likely to use food labels than females (Nayga, 1996). A possible explanation for these patterns is that females find risk-reducing search strategies (i.e., food label use) more useful than males (Mitchell & Boustani, 1993). However, there has been no other concrete explanation for these patterns.

The economics of information predicts that the consumer will continue to acquire and process information so long as the costs of additional acquisition, and processing do not outweigh the additional benefits. The amount of search may vary among individuals due to differences in either the costs of search or the perceived benefits. For example, time pressures from being employed may inhibit the extent that labels are utilized. On the other hand, nutrition knowledge and education may facilitate label use by increasing the perceived benefits of label use and, by increasing efficiency, decreasing the cost of using them. Therefore, the consumer decides the optimal level of label use by comparing the marginal benefits of improved health to the marginal costs (Nayga, 2000).

Research has identified a large number of factors that have been found to influence the extent of information search (Moore & Lehmann, 1980). These factors can be grouped into the following categories: (1) individual characteristics, (2) time pressure factors, and (3) beliefs and perceptions.

It is well known that individual characteristics influence information search behavior (Ippolito & Mathios, 1990). For example, previous research suggests that information search is influenced by various demographic factors, such as gender, age, and education (Katona & Mueller, 1955; Schultz, 1975). Phillips and Sternthal (1977) concluded that older consumers are likely to process less information than younger consumers because they are less capable of processing large amounts of information and also have greater market experience. On the other hand, Mitchell and Boustani (1993) found that older respondents perceived risk-reducing strategies to be more useful than their younger counterparts when purchasing breakfast cereals. Mitchell (1993) also suggested that those high in perceived risk seem to be particularly responsive to information sought in comparison with information offered to them.

Bettman and Park (1980) theorized that information search depends on a consumer's ability to search for information. A number of studies have found that higher levels of education lead to increasing levels of information search (Katona & Mueller, 1955; Schultz, 1975).

There is evidence that time pressures affect the types of information used in decision-making. Time pressure has been found to affect nutrition information search (Beatty & Smith, 1987; Feick, Herrmann & Warland, 1986; Katona & Mueller, 1955; Park, Iyer & Smith, 1989).

The more consumers feel that their health is likely to suffer in the future, the greater the perceived health risk. Research on consumer risk suggests that perceptions of risk motivates people to accept reasons for increased information search (Feick, Herrmann & Warland, 1986). Moore and Lehman (1980) argued that consumers have a better incentive to believe the benefits of information search when the product was purchased for others to consume.

In Egypt, several studies focused on the importance of information (i.e. ads, and labeling) in providing consumer protection. These studies were concerned with the importance of safeguarding the main consumer rights (the right to choose, the right to safety, the right to be informed, and the right to be heard) by the companies and organizations producing, and distributing goods and services. Especially, the consumer's right for complete information regarding the product or the service. This can be either through ads or labels on the package.

These studies have reached several conclusions: First, there is excessive advertising for products, but only to attract consumers to buy it, without mentioning the main facts about it. Second, poor packaging and labeling, in most cases the labels are not suitable to the nature of the product itself. These labels often include only displaying goods without price tags, deceptive

advertising, and sales promotion campaigns that do not possess any real value in the products. Third, consumers' dissatisfaction with the process of presenting information that is done by manufacturing companies. Since the information written on packages is whatever business organizations consider best suits their interests. The rest of the information that consumers need is either not there at all, or not written clearly. Fourth, the inability of consumers to send their complaints to the responsible parties (producing and distributing companies), due to the absence of a system that receives customer complaints (Allhalh & Sahbl, 1998; El Kareem, 1996; Radwan, 1990; Gomaa, 1982; Saad, 1982).

Turkish consumers also face labeling and information problems. Tek (1983) indicated that the majority of the Turkish consumers were most likely to be deceived by sellers because they depend on the advice of salesmen or the advertising of managers at the point of purchase rather than on labeling. As a result, the position of Turkish consumers is apt to be subject to the influence of sellers, especially in the decision of price and quality.

Environmental Effects of Products and their Packaging

With the growth of public concern about the environment and government/business response to this concern, the 1990s has been declared the decade of environmentalism (Drumwright, 1994; Kangun, Carlson & Grove, 1991). Roper's national opinion poll on attitudes toward the environment shows that the majority of Americans regard a number of issues as "very serious," including industrial water and air pollution, destruction of ozone and rain forests, industrial accidents, oil spills, and hazardous waste (Roper Starch Worldwide, 1996). Many people believe that businesses should play a major role in confronting these issues, as evidenced by a national Cone/Roper survey on cause-related marketing (Cone Communications Press Release, 1994) which found that quality of the environment ranked second only to crime among issues businesses should work hardest on solving.

Response to this public concern is indicated by the dramatic increase in the number of "green" product introductions between 1985 and 1990 (Drumwright, 1994). Furthermore, there is evidence that more marketers are making environmental claims about their products. For example, Mayer, Gray-Lee, Scammon, and Cude's (1996) audit of grocery store products across the United States uncovered environmental product or package claims, either explicit or implied, for 66 percent of the 397 brands they audited. In spite of the apparent proliferation of green

marketing, however, actual consumer purchasing has lagged behind verbally expressed concern for the environment (Mayer, Scammon & Gray-Lee, 1993; Shrum, McCarty & Lowery, 1995). One reason for this lack of consumer responsiveness may be the confusion about and skepticism toward green marketing communications (Gray-Lee, Scammon & Mayer, 1994), possibly spawned by distrust in advertising in general. For instance, 72 percent of the respondents in a consumer panel study of attitudes toward television advertising indicated that less than one-quarter of TV ads are honest and credible (Mittal, 1994). Gray-Lee, Scammon, and Mayer (1994) argue that the nature of environmental claims makes these communications especially likely to mislead consumers. In support of this argument, Moore's (1993) in-depth interviews with consumers found pervasive distrust of marketing "hype," leading respondents to perceive little association between "green" products and helping the environment.

To the extent that consumers do not believe the environmental benefits touted in ads and on product labels, the costs of both developing and communicating the benefits of these new or improved "green" products are wasted. Furthermore, consumers who are skeptical of such marketing claims may inadvertently forego the chance to help the environment by purchasing genuinely beneficial or less harmful products. These arguments have led some to assert that consumer distrust of advertising and other forms of marketing communications reduces marketplace efficiencies (Pollay & Bawari, 1993). On the other hand, the Federal Trade Commission (FTC) and other public policy and consumer groups, who are concerned with the potential to mislead consumers, argue that skepticism provides consumers with a "healthy" viewpoint from which to make product evaluations. They also suggest that skepticism should be enhanced through education and training. From a public policy standpoint, a desired state for consumers is that they are skeptical in those areas where there is greater potential to mislead and less skeptical in areas where there is less potential to mislead. When this is not the situation, then public policy action in the form of additional regulation or consumer education may be called for.

In 1992, the Federal Trade Commission issued guidelines for the use of environmental marketing claims (Federal Trade Commission News, 1992). The guides were intended to reduce confusion by helping consumers understand the basis for environmental claims, to increase consumer confidence in such claims so they would be more likely to make product comparisons and choices using environmental criteria, and to enable consumers to use the power of the

marketplace to achieve environmental goals. For manufacturers, the goals were to prevent misleading use of environmental terms in advertising and package labeling; to ensure the use of accurate, specific claims and discourage vague, trivial, and overstated claims; to reduce uncertainty about FTC law enforcement actions; and to encourage marketers to produce and promote more environmentally benign products. The guidelines address the use of eight commonly-used environmental claims: recyclable, degradable, compostable, recycled content, source reduction, refillable, ozone safe, and general environmental benefit claims.

Perception of Consumer Protection Efforts

Consumers today face a marketplace that is both complex and risky. As such, it is increasingly difficult for consumers to fend their consumer rights without both public and private support. For decades, governments all around the world have enacted legislation, standards, and amendments, which aim at protecting consumer rights. However, the effectiveness of administering these laws varies among nations (Brobeck, 1997).

Thorelli (1988) asserted that consumer protection efforts by governments are weak among the less developed countries (LDCs). The rise of consumerism in many of the LDCs, however, has increased not only the involvement but also the recognition of the roles played by consumer protection groups, such as consumer associations, clubs and unions, in voicing consumer problems and concerns. Today, more business groups are responding favorably toward consumerism. Many businesses have realized the advantage of dealing directly with consumers' dissatisfactions in the market. Improved consumer-business communication, such as thorough disclosure of information and better handling of consumer complaints, tend to encourage customer loyalty and repeat business (Sheth et. al., 1999).

In this study, the differences between the attitudes of American and Egyptian consumers toward consumer protection efforts by government and business would be determined. The present study would also determine a possible relationship between perceived consumer problems and consumers' attitudes toward government and business.

Government and Consumer Protection

Consumers have been shown to have conflicting views about consumer protection efforts by government. Some indicated that consumers' protection by government was unnecessary,

while others felt the efforts have been insufficient and conducted rather weakly (Post, 1982; Thorelli, 1988). Several studies showed that respondents supported additional government regulations as a means of solving consumer problems (Allhalh & Sahbl, 1998; Barksdale & Darden, 1972; Harris, 1983; Widdows, et. al., 1995). Iams (1980) found that demographic variables related to household composition, type of employment, and educational levels were significant predictors of consumers' attitudes toward federal regulations and educational efforts. Iams (1980) also found that negative attitudes toward government regulations were significant among "empty nest consumers."

In Asia, though the political form of each country is different. Each has adopted some measure of consumer protection. As instances, India (1986), Korea (1986), the People's Republic of China (1993), and Taiwan (1994) have adopted comprehensive consumer protection laws (Widdows et. al., 1995). In the People's Republic of China (PRC), for example, the government has created agencies named "Consumer Associations," has enhanced the consumer protection function within other regulatory agencies, has developed consumer laws at national, provincial, and local levels, and has launched major campaigns against fraud and unethical business practices (Xiao, et. al., 1993). Malaysia has a Ministry of Domestic Trade and Consumer Affairs whose pro-consumer activities are usually backed up by enthusiastic local media (Rachagan, 1992). Korea has 22 nonprofit consumer groups whose functions include information dissemination, consumer education, and product testing (Widdows, et. al., 1995). Taiwan's Consumer Protection Union is allowed to pursue class action suits on behalf of consumers, as well as act as a complaint-handling body and generally assist consumers (Xiao, et al., 1994).

Indonesia's Consumer Foundation (YLKI) is active in research including surveys, in education and training, and in dissemination of consumer information through *warta Konsumen*, a consumer magazine (Wood, 1991). India boasts some 400 private consumer groups. It is also a matter of record that India's first consumer protection group was started by nine Bombay housewives (Narayanswami, 1989). Thai housewives have long been providing leadership in consumer training and awareness through the National Council of Women of Thailand's Consumer Affairs Program (Xiao, et al., 1994). It is also not to be overlooked that the International Organization of Consumer Unions (IOCU) has a branch linking consumer

organizations from 30 countries in the Asia-Pacific Rim located in Penang, Malaysia (Rachagan, 1992).

In 1991, the Egyptian government signed an accord with international agencies adopting a wide range of economic liberalization policies in exchange for a foreign debt relief-package. As a result of this accord, the Egyptian economy has become an integral part of a global economy dominated by transnational corporations (TNCs) and powerful lending institutions like the World Bank and International Monetary Fund (IMF). To survive in this context, the Egyptian government has pursued strategies of export-led growth and opened up the Egyptian market to international trade and investment. The Egyptian government, now under enormous pressure to make its country conducive and attractive to foreign investment, has rendered itself open to abuses by TNCs. Some of the abuses are: the export of banned or restricted agricultural pesticides and chemicals and other outlawed products; dumping nuclear, toxic, and medical wastes; mislabeling (birth control pills); selling ineffective drugs; not identifying and labeling the known side effects of prescription drugs; selling dangerous pharmaceuticals; testing dangerous technologies; exploitively marketing inappropriate breast-milk substitutes; permitting unsafe manufacturing facilities; and selling unsafe products.

The slogan “buyer beware” remains the rule in Egypt, and typically there are few, if any, consumer protection agencies to prevent these difficulties or to help consumers seek redress. Also, a framework of self-regulatory market institutions often does not exist. Economists argue that the important point is to arrange affairs so that the producer, and ultimately the consumer, bears the full cost of producing any good or service. If this is done, the hazards show up as acid rain or as shiploads of toxic waste cruising the seas in search of ill-informed victims in a country (such as Egypt) without effective standards will be stopped (Kerton, 1983).

While it is true that consumer protection laws and enforcement of the laws are generally poorer among the less developed countries than the industrialized countries, considerable efforts are being made to strengthen these weaknesses in many less developed countries (Lytton et al., 1983). Small improvements are being made to reduce the export of toxic wastes and dangerous pharmaceuticals. Consumer leaders from 42 African countries (Egypt was one of them) met in 1996 and issued the Harare Guidelines for each of their countries to support the U.N Guidelines for consumer protection. This document, together with the Model Law for Africa, which is also being developed, will act as a tool for pressuring African national governments and regional

bodies into enacting appropriate consumer protection legislation and enforcement mechanisms (Brobeck, 1997).

Thorelli (1983) stressed that consumer protection, along with education and information, should be the main thrust of consumer policy in the less developed countries. Consumer protection needs to relate to such areas as "product integrity, product quality, deceptive practices, complaint handling, health and safety" (p. 148).

In Egypt, several studies focused on defining the concept of "consumer protection" theoretically and practically. These studies identified "consumer protection" from a theoretical point of view and in application. Researchers, in these studies, have reached certain conclusions, most important of which are: First, consumer protection is the combined and organized efforts of the society to protect the rights of the consumers in their dealings with businesses. This protection is the responsibility of several parties, and not only one. Consumer dealings include those in goods as well as services. Second, the responsibility for consumer protection is that of the government in all facets of its activities (i.e., judicial, supervisory, and censory), legal departments, individuals (i.e., public organizations, non-governmental organizations), and exchange departments (i.e., advertising agencies). Third, the importance of consumer protection increases especially in developing countries, including Egypt. This is because these countries suffer from relatively scarce and limited resources, as well as population explosion, and scarcity in certain products (Abdel Galeel, 1982; Hamudah, 1981).

Other studies focused on the efficiency and effectiveness of the legislative branch in protecting the Egyptian consumer. The most important results of these studies are: first, the executive authority is negligent in certain aspects concerned with supervising and following the application of laws on consumer protection. Second, there are a large number of laws and regulations that organize the marketing activities of public sector companies. The laws focus on protecting the consumer in certain marketing aspects, while neglecting others. In addition, there are loopholes in these laws that are used by producers and distributors to protect themselves when involved in negative marketing practices.

Third, the inadequacy of the punishments present in the legislation and laws on commercial fraud. Consequently, breaking these laws harms the consumers, and encourages business organizations to continue their deception. In addition to the negligence and slowness of the legal proceedings. However, there was some change after promulgating law number 113

for commercial fraud by the ministry of supply and internal affairs in 1995 (El Dorghamy, 1979; Farahat, 1982; Afifi & Montasser, 1981).

Business and Consumer Protection

Business has not generally projected the image of being the protector of consumer rights. Thorelli (1982) studied the attitudes of consumers in China and Thailand toward sellers. Results indicated a strong feeling of distrust toward sellers in these countries. Sellers were thought to be dishonest by 29% of the Chinese respondents, while 47% of Thai respondents felt the same. Sellers were perceived to be honest by only 8% of the Chinese respondents while only 6% of the Thai respondents indicated the same.

Barksdale and Darden (1972) reported that 52% of the respondents in a U.S. national sample said that "most manufacturers are more interested in making profits than in serving consumers" (p. 29) while only 12.4% did not agree with that statement. Another study by Harris (1983) did not show much improvement in the attitudes of respondents toward business over the years. The majority of the respondents (54%) felt that "the deal that consumers get in the marketplace has worsened" (p. 15) while only 31% believed otherwise. The same study by Harris (1983), however, found that a high percentage (45%) of the respondents thought the handling of complaints by the companies had improved while 39% said it had become worse. A higher percentage of consumers perceived business conditions were better in 1982 than in 1976.

Some studies focused on business marketing behavior and practices in Egypt. The most important conclusions of these studies are: 1) consumers are generally not satisfied with the marketing practices of business organizations in the areas of: product quality, labeling and information, pricing and customer service; 2) the scarcity of certain products, and the excess inventory for business organizations; 3) customers complain about exposure to several marketing problems in sales, disrespect to the conditions of selling, and advertising deception; 4) some businesses are inclined to achieve more profits at the expense of consumer's interests, which require the government to exert more effort to protect the consumer (El Kataby, 1991; El Morsy, 1990; Ibrahim, 1991; Abdel Hadi, 1989; Radwan, 1990).

Other studies focused on consumer protection as one of the perspectives and domains of businesses' social responsibilities. The main concern of these studies is the importance of protecting the consumer by business organizations, since it should be considered one of their

management's social responsibilities, and they should stick to applying them. Furthermore, the social and personal understanding of marketing forces organizations to take into consideration the social impact of their practices, decisions, policies, and marketing programs they adopt. The focus should not only be on the economic costs and returns.

The most important conclusions reached by these studies are: 1) business organizations are more concerned with economic motives rather than social ones; 2) business organizations are not completely devoted to their social responsibilities, which includes: consumer protection, achieving personal satisfaction, contributing to protecting the environment against pollution of all kinds, improving the quality of life and standard of living, contributing to solving social problems such as unemployment, infrastructure projects, and education; 3) dissatisfaction of consumers about the marketing practices of business organizations (Mahmoud, 1992; Metawaa, 1985; Farahat, 1993).

Perception of Consumer Education Efforts

Consumer education is a lifelong socialization process provided to individual and family consuming units of varying consumption ages and structures such that they can accumulate, in a progressive, empowering manner, the knowledge, skills, attitudes, and behaviors considered necessary for managing resources, engaging in rational consumption behavior and taking actions as citizens. This includes coping with, adapting to and influencing and dealing with the impact of economic, social, ecological, political, and technological systems at the micro, macro and global levels such that individual, familial and societal betterment results (McGregor, 1996). In this section, three perspectives on consumer education are reviewed.

Need for Consumer Education

Today, consumer education should not only provide aid in unsatisfactory situations, but it should also inform consumers for efficient and responsible consumption. There have been several efforts to describe the need for consumer education according to the changes of social and economic conditions, as well as life cycle stages.

According to Garman (2000), consumers every day are faced with a marketplace that contains anti-competitive practices and a whole host of deceptions and misrepresentations. Consumers continue to make poor buying decisions based on insufficient and sometimes

inaccurate information. Nader observes that, “We don’t grow up civic – we grow up corporate. In the schools, we learn how to sell ... We don’t know how to be a skilled consumer or a skilled citizen” (Nye, 1993, p. 9).

Garman (2000) stated that a better-educated citizenry, in terms of consumer information and issues, could greatly help all consumers live a better quality of life. Consumers must be educated to understand market conditions that can affect them negatively, to know how to go about effectively buying within the American marketplace, and to appreciate the mechanisms that help them change the market while securing, protecting, and asserting their consumer rights. Pro-active consumer-citizens are needed to help make the American marketplace function more effectively for consumers.

In 1991, the Consumer Federation of America and American Express conducted a study of the consumer knowledge levels of high school seniors. This research revealed that many students lack the basic knowledge and skills needed to make important personal financial decisions they face as adults. On this multiple-choice test, high school students answered only 42 percent of the questions correctly. Scores were especially low in the areas of credit, bank accounts, landlord-tenant obligations, and automobiles. For example, only 18 percent of the students understood the importance of the annual percentage rate (APR) when considering a loan.

In 1996, a comprehensive test, developed by consumer experts, and administered by the Educational Testing Service (ETS), on the nation’s consumer knowledge revealed serious inadequacies. The findings revealed that consumers correctly know only 54 percent of the questions about everyday consumption items. The test covered the consumption areas of banking, insurance, housing, food, product safety, and durable goods, and it was given to over 1100 people nationwide. The subject areas where consumers scored the poorest were housing purchases, checking/saving, food purchases, and life insurance. Those in their twenties scored much lower than those in their forties and fifties (Garman, 2000).

When the Jump Start Coalition for Personal Financial Literacy released its 2000 Personal Financial survey of high school seniors, it reported a decline in the level of financial literacy since 1997 (Mandell, 2000). It related this decline to the limited inclusion of personal finance concepts in high school curricula and focus on passing rates for basic exit exams.

According to Bymers (1983), separate courses of consumer education started to appear in the 1930s. The primary purpose of consumer education during that period was to provide information concerning the knowledge and skills in managing resources and to take action for unfair treatments. In 1998, 26 states mandated inclusion of consumer education in secondary school curricula (Mandell, 1998).

Stampfl (1978) indicated that consumer education should be provided according to the change of life cycle. He suggested that consumer educators need to consider the different demands for goods and services of each family stage, including age, income, experience, number of children, and life cycle position. Also, consumer educators must determine teachable moments for communication of marketplace knowledge and skills.

In another study, Burton and Hennon (1980) identified the need for consumer education for the elderly. The elderly need consumer education because they have marketplace problems. Burton and Hennon suggested that consumer educational programs for the elderly should be provided according to their needs and level of understanding. These consumer educational programs also should be delivered in large number with the lowest cost.

Moschis, Lauton, and Stampfl (1980) compared an effect of consumer knowledge of preschool children before consumer education and after consumer education. The results indicated that those who received the formal program showed significant gains as a result of their training. Moschis, Lautin, and Stampfl suggested that it is desirable to provide consumer education for preschool children regarding basic marketplace concepts and sequencing at an appropriate vocabulary level. Also, it is desirable to educate children about the consumers' role as early as possible.

Thorelli (1971) observed that, "We need more consumer education – and notably for the underprivileged. Without education there is no motivation or receptivity, indeed, no basis for informed consumer-ship" (p. 432). Thorelli (1983) later described the urgent need for consumer education in the less developed countries. Consumer education needs to be required in all schools to strengthen the capacity of independent thinking and critical evaluation so that consumers can learn to exercise their rights.

Changing Focus of Consumer Education

Some of the recent changes in the economies of the world affect the worldwide consumer movement and education. According to Swagler (1993), these changes include:

(1) technological changes which have caused restructuring of businesses in the communications industry, and new products created with biotechnology, (2) the emergence of the information age which has increased the need for information but restricted its access largely to affluent consumers, (3) globalization of the economy which has raised the cost of information and decreased the level of corporate accountability, (4) deregulation which has raised the costs of information search for consumers, and (5) environmental concerns which have focused attention upon deterioration of resources and high levels of consumption by a few (Swagler, 1993).

The focus of consumer education needs to change toward a global perspective to accommodate the complexity and humanity of the international marketplace (McGregor, 1996). This global approach to consumer education allows consumers to deal with the real meaning of consume: “to destroy, use or expend. The enormous productive capacities and market forces of [North America] have been committed to satisfying human needs and desires with little overall regard to the short term or long term future of life on the planet [or life in other nations]“ (Goldsmith 1996, p. 87). “It is time to change the way we teach our children consumer education” (McGregor 1996, p.16).

Both Peterson (1993) and Garman (1992) suggest that, rather than simply teaching *how* to buy, consumer educators have to teach students to think about *what* to buy. Lusby (1992) would extend this to include *whether* to buy at all, thus challenging materialism and commercialism. Friedman (1993) defined materialism as a “cultural system in which [individual] material interests are not made subservient to other social goals” (p.24). Jacobson (1993) clarified that commercialism consists of “ubiquitous product [and service] marketing that leads to a preoccupation with individual consumption to the detriment of society” (p.30). Stevens (1994) believed that “teaching students about roles of consumers as citizens may well yield a lifelong impact on the planet and other global citizens” (p.1).

The focus of consumer education needs to change toward efficient and responsible consumption. Consumer educators need to be alert and narrow the focus regarding new issues such as rapidly changing financial markets, communication systems, technology, and non-market production (Stevens, 1994). Consumer economic students need to be able to understand and

analyze consumer issues and to be prepared as consumers and consumer professionals for the global marketplace.

Stampfl (1982) identified the urgent change of focus in consumer education because of social and economic changes. Stampfl (1982) devised three categories of consumers: industrial age consumers, traditional age consumers, and post industrial consumers. Then, Stampfl (1982) explained the characteristics of the three consumers. The major characteristics are the following: first, the industrial consumers are concerned with earning more money for solving consumer problems; second, the traditional age are concerned with their job and efficient consumption, although they are seldom concerned with the social consequences; and third, the post industrial age consumers will be concerned with efficient and responsible consumption as well as those products related to the ecosystem. Stampfl (1982) also emphasized that consumer education should be focused according to changes of social and economic events.

Bannister and Monsma (1982) discussed the change of focus in consumer education, because society is in a significant period of growth and change. Traditionally, the central focus of consumer education in school was on decision-making related to personal money management and buy-man-ship. However, Bannister and Monsma (1982) insisted that there is a need to strengthen consumer-citizen participation with decision-making and resource management. Nader (1975) also emphasized that consumer education needs to change so that students can exercise effective citizenship.

Consumers' Opinion Toward Consumer Education

Consumers' opinions are important in providing information for future consumer education programs. Some studies found negative attitudes toward consumer education. Nader showed negative attitudes about including consumer education in school curricula. According to Nader, "school curriculum does not emphasize living skills. Also, teaching consumer skill rarely involves students' experiences outside of school. As a result, students do not know how to deal with their consumer rights: where to go to have their grievances resolved or how to get information" (Nye 1993, p. 19). Consumer education should be viewed as both defensive and offensive education. Hermann (1982) revealed that the content of American consumer education in high school texts has been largely unresponsive to social and economical changes. Also, the

channels and techniques that could be used in consumer representation are seldom mentioned in consumer education texts.

According to McGregor (1996), “if we want to teach students to be citizens who consider the effects of their consumption decisions on others’ lives and on the planet, we must bring a global perspective to consumer education” (p.19). Engberg (1993) and Crawford (1993) clarify that students cannot embrace a global perspective in family resource management or consumer education unless we teach them to think critically about their resource management decisions. This way of thinking entails: (1) identifying values and environmental factors related to the context of the problems caused by our consumption and production decisions, (2) considering global consequences of alternatives to current management decisions, (3) evaluating the adequacy and reliability of information we use to make family resource management decisions, and (4) analyzing the moral acceptability of solutions to a problem caused by our consumption decisions

The Consumer Movement in Egypt

There is no consumer movement in Egypt, since consumers in Egypt do not play an active role in keeping and protecting their rights, despite the fact that businesses and organizations do not respect these rights. All that businesses and organizations do, in the best case, is to follow the laws and regulations on: pricing, promotion, packaging, labeling, and distribution. In spite of this, these laws concerning the pricing of many of the essential products do not protect the rights and interests of consumers. This is due to the existence of a large number of companies and organizations that break the prices for several reasons: (1) the lack of detailed supervision and the poor enforcement of laws by concerned government departments and offices. They fail to make sure that the prices are being followed; (2) the prices that are set are not realistically when compared to the cost of production. Thus, merchants do not receive a reasonable margin of profit, and consumers do not hold on to it. The above information lead one to say, with a high degree of confidence, that there does not exist a consumer movement in Egypt (Bazaraa, 1981).

According to Afifi and Montasser (1981), the Egyptian legislative, executive, and judicial branches were concerned about consumer protection. This is clear from the large body of

legislation, decisions and laws produced to organize and supervise any offenses concerning the different marketing strategies.

In the field of production, there is the law number 48 for the year 1949, which was amended by the law number 152 for the year 1949 banning the deception in human and animal nourishment. Also, the law number 57 for the year 1939, amended by the law 205 for the year 1956 regulating commercial labeling and information. Also, the minister of supply's executive order number 279 for the year 1974 regulating the packaging of sugar, and order number 252 regulating the packaging of tea, and the laws and decisions about patent rights, and the health regulations of products, and the measures and specifications.

In the field of pricing, there was the law number 163 for the year 1950 on setting prices and margins of profit. Also, resolution number 119 for the year 1977 set the percentages of profits on imported goods. There are other resolutions compelling merchants to disclose their prices.

In the field of promotion, there was law number 48 for the year 1949, which was amended by law number 152 for the year 1949, which bans fraud of all kinds. This includes deception in the product itself, its specifications, or its structure. Also, the administrative decisions regulating ads or prohibiting it on certain consumers, and in certain media (e.g., TV, cigarettes). As well as, the rules organized for personal selling, its methods, paying, and balances.

In the field of distribution, there was law number 95 for the year 1945 defining consumer goods and supplies. Also, law number 241 for the year 1956 banning monopolies. There was the decision of the minister of supply (number 112 for the year 1966) about the methods of distribution of consumer goods and supplies, and the following decisions regulating distribution of flour, meat, and fish. Also, there were the decisions guaranteeing consumers' share of scarce goods.

This study done by Afifi and Montasser (1981) showed that in spite of the guarantees given to the consumer by the legal frame; there is still no consumer protection. The lack of effectiveness in this domain is due to the following reasons: (1) the existence of loopholes in the legal frame; (2) the exaggeration of the legal frame in trying to protect the consumer (i.e., unrealistic prices, hard to apply specifications, harming the interest of the other party of consumers like real estate owners in certain cases); (3) the lack of enforcement of laws by the

executive power; (4) neglect in legal proceedings (i.e., slowness, the absence of courts or departments specialized in consumer protection cases); (5) neglect in punishment; (6) the scarcity of products in the markets leading the consumer to accept any given price; (7) lack of consumer education and low living standards; (8) neglect of public and media censorship.

Various studies have focused on the importance and the necessity of the consumer movement. The consumer movement is a social phenomenon, concerned with different activities necessary to keep and protect consumers. The consumer movement includes decisions of individual consumers and the different organizations, in response to their dissatisfaction with different aspects of their mutual relationship, such as the relationship of the consumer with the seller, or the former's relationship with his political, social, economic, or biological environment (i.e., problems in education, pollution, or high prices). Also, these studies shed light on consumer movements in developed countries, such as the USA, Sweden, Australia, Denmark and England, and the role the government in these countries played in defending the rights of consumers.

The most important conclusions of these studies are: (1) the consumer movement is important because it converts individual consumer action to group action that has its weight when marketing decisions are taken by different companies; (2) the importance of forming consumer groups. Important roles can be played by public and political organizations, as well as by women, students and the media; (3) consumers have different perceptions and opinions concerning the concept of consumer protection, and the effectiveness of the consumer movement. This depends on the characteristics of these consumers with regards to their education, gender, age, social status, employment, culture, and social environment (Bazaraa, 1981; Abdullah, 1983; Abu Bakr, 1995).

Other studies focused on the role of different organizations in accomplishing an integrated consumer protection system and the opinion of the Egyptian consumer in this system. The most important results of these studies are: (1) there is no complete protection of consumer rights or interests in the Egyptian marketplace, especially in the fields of government services, and products. Companies producing and distributing products abide by a few protection rules and neglect others; (2) consumers lack the knowledge about their basic rights, and what procedures to take to protect these rights; (3) consumers have a negative view about the protection efforts of government, its organs, and non-governmental organizations; (4) there is a

lack of organization and balance between the different departments responsible for consumer protection, whether in the pre-production stage, in production, or in the marketing stage and after-sale services; (5) the studies confirm the need to increase the efforts of consumer protection associations and voluntary associations, in order to achieve a complete protection for the consumer in the various fields, and the need to introduce these associations in the different districts and governorates to defend consumer rights (Salem, 1995; Amer & Abdel Halim, 1995; Ibrahim, 1983; Abu Zaid, 1993; Keratam, 1983).

Summary of Literature Review

The review of literature identified concepts related to various problems and concerns perceived by consumers. Consumers' perception of problems could be related to several psycho-socio-economic and demographic variables. Factors such as needs, expectations and attitudes tended to influence one's perception of consumer-related problems. Demographic variables such as gender, age, family life cycle, family income, education level and employment status were also shown to influence consumers' needs and fulfillment of the needs, expectations, experiences and consequently their perception of consumer-related problems. The review of literature suggested that consumers' perception of problems was influenced by consumer protection efforts by government and business and that there are differences in consumer protection provided in America and in Egypt. Also, the need for consumer education and the development of future consumer education programs was described. Lastly, the review of literature showed that there is not a consumer movement in Egypt.

Chapter III

METHODOLOGY

This chapter discusses the methodology and procedures used to achieve the objectives of this study. The general objective of this study was to explore differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of consumer problems. The specific objectives of this study were:

1. To determine if there are differences between American and Egyptian consumers in the following areas:
 - a) perception of consumer problems;
 - b) concerns related to price, quality, safety, labeling and information, and concerns about the environmental effects of products and their packaging;
 - c) needs fulfillment related to perceived adequacy of income;
 - d) needs fulfillment related to perceived improvement in living situations;
 - e) expectations and experiences with products;
 - f) attitudes toward consumer protection efforts by government and business;
 - g) attitudes toward consumer education efforts.
2. To analyze relationships between perception of consumer problems and the following:
 - a) needs fulfillment related to perceived income adequacy;
 - b) needs fulfillment related to perceived improvement in living situations;
 - c) expectations and experiences with products;
 - d) attitudes toward consumer protection efforts by government;
 - e) attitudes toward consumer protection efforts by business;
 - f) attitudes toward consumer education efforts.
3. To investigate the influence of demographic variables of gender, age, marital status, presence of children, family annual income, education level, university position, and employment status on the perception of consumer problems and concerns.

A discussion of the population and sample design, development of the instrument, the data collection procedures, data analysis, and null hypotheses is provided.

Population and Sample Design

The towns of Blacksburg and Radford in the state of Virginia, with population of 55,250 (The World Almanac And Book of Facts, 1999), and Cairo, Egypt with population of 10,390,000 (The World Almanac And Book of Facts, 1999) are the sites chosen for this study. Cairo, the capital city of Egypt, has many features of any city in the developed western countries such as Blacksburg, and Radford in Virginia. Consumers shop in modern supermarkets and shopping malls as well as in the more traditional and informal open markets prevalent in many less developed countries. These supermarkets and shopping malls are well stocked with consumer goods that are imported from many industrialized countries. This section contains a brief description of the cities and the universities that were included in the study.

Selection of Sites

Virginia

Virginia is located on the eastern seaboard of the U.S. It is the fourth largest of the southern Atlantic states and thirty-sixth in size among the 50 states. The total area of Virginia is 40,767 square miles.

Virginia ranks as the 12th most populous state in the U.S. Its population is 6,872,912 (The World Almanac And Book of Facts, 1999). The population density is 156.3 persons per square mile (60 per square km).

Blacksburg

Blacksburg is the largest town in Virginia with a culturally diverse population of approximately 39,050 (1999 Census). It is located in southwest Virginia, 210 miles from Richmond, VA, and 275 miles from Washington, DC. Blacksburg's size is 19.6 square miles, a university town that serves as a home to Virginia Tech, the state's largest university. Blacksburg caters to the small town appearance, surrounded by major metropolitan cities as Richmond and Washington, DC.

Radford

Radford is located in the heart of southwest Virginia. Its population is 16,200 (1999 Census). Radford's size is 9.63 square miles. Radford University is the city's largest employer. The city of Radford is 20 miles away from the state's largest university, Virginia Tech.

Cairo

Cairo, the largest urban city in the Arab world, Africa, and the Middle East, lies in the Nile Valley where it begins to broaden into the fertile delta. The city spans the width of the valley between rocky bluffs that demarcate the Western and Eastern deserts. In fact, Cairo could be the world's only city with monuments dating back to four different historical periods-the Pharaonic, the Roman, the Christian and the Islamic.

Cairo has 23 districts and 35 stations. Its area is 457 km² (1005.4 miles). It makes up 0.04 % of Egypt. Cairo's rank among governorates (which are similar to states) is the 26th. Its population density (Avg.) is 32.470 population/ (km²). Its total population is 10,390,000. Cairo's ratio of male to female is 51.16% to 48.84 %. Ain Shams University and Sadat Academy for Management Sciences are in Cairo city.

Virginia Tech

From a meager beginning in October of 1872, Virginia Polytechnic Institute and State University, popularly known as Virginia Tech, has evolved into a comprehensive university of national and international prominence. As Virginia's largest university with 25,000 students, and with annual research expenditures of about \$170 million, Virginia Tech consistently ranks among the top 50 research universities in the United States.

Virginia Tech is located in Blacksburg, Virginia. Virginia Tech's eight colleges (agriculture, architecture, arts/sciences, business, human resources/education, engineering, natural resources, and veterinary medicine) and graduate school, offer more degree programs than any other university in the state of Virginia with 71 undergraduate and 147 graduate programs. Virginia Tech has 25,000 students, making it the largest in the commonwealth of Virginia. It has 17:1 student-faculty ratio. Virginia Tech's main campus includes 100 buildings, 2,600 acres, and an airport.

The university's faculty and students are involved in more than 3,500 research projects in fields ranging from biotechnology to materials, from the environment and energy to food and health, and from transportation to computing information.

Interesting Facts about Virginia Tech

The university offers more career options than any other Virginia university, with nearly 220 undergraduate and graduate degree programs. The university budget equals approximately \$650 million annually. Tech has about 150,000 alumni from every state and about 100 countries. Virginia Tech produces 40 percent of the state's Ph.D.'s. Tech's annual research expenditures consistently place it in the top 50 research institutions in the nation. U.S. News ranked Virginia Tech among the Top 50 Best National Public Universities. Of all universities - public or private - U.S. News & World Report ranked Virginia Tech the 46th best value in the country. Virginia Tech consistently ranks among the top 15 schools in the nation in number of patents received.

Radford University

Radford University (RU) is located in the city of Radford, Virginia. It is a coeducational, comprehensive public university with highly diverse curricula for undergraduates and selected graduate programs. Undergraduate majors include 112 program options in the Colleges of Arts and Sciences, Business and Economics, Education and Human Development, Health and Human Services, and Visual and Performing Arts. The College of Graduate and Extended Education offers 45 programs of study at the master's and specialist levels. These programs provide advanced and specialized courses of study, supervised practicum experiences and opportunities for research. The university has an outstanding nationally recruited faculty, 82 percent of whom hold doctorates or other terminal degrees in their teaching fields. While their primary focus is on the teaching and learning process, the faculty also are engaged in significant scholarly, creative, and public service activities.

A Brief History

Radford University was established by the General Assembly as the State Normal and Industrial School for Women in 1910 and has been in continuous session since its 1913 opening. The university became Radford State Teachers College in 1924 and was authorized to award the

Bachelor of Arts degree in 1935. In 1944, the university was consolidated with the Virginia Polytechnic Institute as its Women's Division and renamed Radford College. The General Assembly severed the formal affiliation of Radford College with Virginia Tech in 1964, and an autonomous administration was established for Radford College. The college also was authorized to grant the Master of Science degree. In 1972, after almost 60 years as an all-women's college, Radford became coeducational and in 1979 was granted university status by the General Assembly.

Today, Radford University is a coeducational, comprehensive institution with undergraduate and graduate programs. In the last 25 years, enrollment has increased dramatically. During the fall of 1999, the enrollment was 8,580 in on- and off-campus programs. Radford's students come from all over the Commonwealth: 41 percent from Western and Southwest, 13 percent from Northern Virginia, 14 percent from Tidewater and Southside and 16.5 percent from Richmond and Central Virginia. About 15 percent of students come from other states and 43 foreign countries.

Ain Shams University

Ain Shams University, as the third Egyptian University, was founded in July 1950 under the name of "Ibrahim Pasha University." It participated with the two earlier universities, "Cairo University" (Fouad the 1st) and "Alexandria University" (Farouk the 1st) in fulfilling the message of universities and meeting the increasing demand of youth for higher education. When it was first established, Ain Shams University comprised a number of distinguished faculties and academic institutes, which were later developed into the university.

After the Revolution of the 23rd of July 1952, it was suggested that Egyptian universities be given names that were strongly linked with the roots and historical landmarks of the country. Thus on 21st of February, 1954 the name of the University was changed to "Heliopolis", and then changed in the same year to its present name "Ain Shams", the Arabic for "Heliopolis", or "O'n", which was the oldest university in history. "O'n" University was established about 5000 years ago, and it had a wide fame as a center of knowledge and learning, especially in astronomy, engineering and medicine. Perhaps a perfect example of the knowledge and skill of "O'n" teachers is Imhotep, the chief priest, minister, and architect, who in 2700 B.C. designed the first large structure of stone known in history, Zoser's Step Pyramid in Sakkara. Westcar Papyrus

also states that the founder of the Fifth Dynasty was the Rector of "O'n" University before ascending the throne. However, the most important achievement of "O'n" University was the call for worshipping a single deity, the solar disk of Aton, at the hands of Akhenaton, who was influenced by the ideas of "O'n" priests.

Being a major scientific and cultural institution, Ain Shams University is fully aware of these challenges and is certain that it has - with other Egyptian Universities - a difficult responsibility for the creation of the next generation. Ain Shams University is aware and proud of its identity and traditions and is also ready for the creation of a better future for the country. In fact, Ain Shams University has played an undeniable role in developing the cultural and scientific life in Egypt and enriching human knowledge in general.

The university includes 14 faculties and 3 high institutes. In 1950, there were only eight faculties: faculty of Arts, faculty of Law, faculty of Commerce, faculty of Science, faculty of Engineering, faculty of Medicine, faculty of Agriculture, and Women's college. In 1969, the faculty of Education, known since 1880 as Teachers' college, became the ninth faculty in the University. In 1973 the faculty of languages (Al-Alsun) was made the tenth member in the University. However, the history of this faculty dates back to 1835.

In 1994, a decree was issued for the establishment of two more faculties, the faculty of Pharmacy and the faculty of Dentistry. In the same year, it was decided to establish the faculty of Computers and Information Sciences, and the study started the following year. The last faculty to join the University is the faculty of Special Education, in 1998. The High Institute of Nursing was established in 1980, and the Institute of Childhood Postgraduates Studies was established in 1981. The establishment of the Institute of Environmental Research and Studies was in 1982.

Sadat Academy for Management Sciences

The history of Sadat Academy of Management Sciences goes to back to 1954 since the establishment of the General Institute of Management. It became the National Institute of High Management in 1961, and then the Institute of Local Management in the year of 1967. These institutes were merged with the National Institute of Management and Development in 1970.

Sadat Academy of Management Sciences was established in accordance with the presidential decree no. 127 of 1981 with the purpose of developing an academic institution that would directly and honestly address the practical realities of the 21st century. The mission of the

Academy is to provide high quality educational opportunities to students from all segments of Egyptian society as well as from other countries, and to contribute to Egypt's cultural and intellectual life.

The academy offers programs at the undergraduate, graduate and professional levels. It prepares about 4200 students (2200 undergraduate students and 2000 graduate students) in fields such as business management, accounting, marketing, finance, computer science and other disciplines. It has 21:1 student faculty ratio, and 431 staff members.

Its mission is to promote and sustain academic programs that integrate instruction, research and community service. The teaching goal is to prepare students to assume positions of leadership in the various professions, and to effectively participate in the development of the nation. It is committed to research, especially in those areas that respond to the social, cultural, and technological needs of the Egyptian society. It provides its students with an environment that challenges their intellect and develops skills of critical thinking and creative problem solving.

The philosophy of the Sadat Academy is to provide expertise to different institutions and organizations in various fields including business management, accounting, marketing, finance, domestic and international trade.

Identification of Subjects

Respondents of faculty, staff, and graduate students from Blacksburg, Radford, and Cairo were systematically selected. The 2000 university faculty/staff directories for Virginia Tech and Radford University in Virginia, and Ain Shams University and Sadat Academy for Management Sciences in Cairo were used to select the Virginia and Cairo respondents. The respondents were selected at equal intervals from the directory's list until the whole sample was chosen (Malhotra, 1996). Faculty, staff, and graduate students were chosen for the sample for two reasons: One is convenience. Given our budget constraint, it was not be feasible to collect information from a totally representative sample of American and Egyptian consumers. The other reason is consistency. Choosing faculty, staff, and graduate students was consistent with other research conducted on this topic (Arndt, Crane, and Tallhaug, 1977; Darley, and Johnson, 1993; Fan, and Xiao, 1998). As this study aimed to compare individuals across countries, faculty, staff, and

graduate students comprised a homogeneous population that facilitates comparison and reduces bias.

Development of the Instrument

Data were obtained through a questionnaire developed by the researcher. The questionnaire was first developed in English, and then translated into Arabic with a back translation check. The survey instrument consists of thirteen scales. Each scale is comprised of items measuring the variable represented in the scale. A chart showing the different scales and the questionnaire items included in each of the scales is contained in Appendix A.

Since consumer-related problems cover a wide range of areas, twenty-one questions relating to specific consumer problems were included in the questionnaire. Other questions were designed to identify factors influencing consumers' perception of problems and concerns such as needs fulfillment, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, attitudes toward consumer education efforts, and selected demographic variables. Appendix B contains the English version of the questionnaire.

Testing for Validity and Reliability

(a) Evaluation of Content Validity

The content validity of the instrument was evaluated by a panel of three judges representing professionals in the consumer science area. These judges evaluated the representativeness of the questions as related to the variables and concepts identified in the study. The judges also evaluated the wording and the format of the questions to eliminate ambiguity and potential confusion. The variables included in the instrument were: dependent – the perceived consumer problems and concerns of American and Egyptian consumers; independent – perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward government, attitudes toward business as consumer protection agencies, attitudes toward consumer education efforts, and demographic variables of gender, age, marital status, number of children, family annual income, education level, university position, and employment status.

(b) Test-Retest Procedure

The reliability of the instrument was tested with a test-retest procedure (see Table 1). The instrument was first administered using a separate sample of 42 respondents of the American faculty, staff, and graduate students in Virginia Tech. Also, the Egyptian faculty and graduate students who are doing research in Virginia Tech were included in the sample. The instrument was distributed to these respondents for the pretest. Approximately a week later, 38 of the same individuals participated in the retesting of the instrument. After that, the test-retest responses were coded and the data were compiled and analyzed, using the Statistical Analysis System (SAS) for Windows, to determine if the test-retest responses were significantly correlated. The results of the test-retest procedure were reliable. Table 1 shows the significant correlation of the results of the test-retest procedure.

The instrument was revised according to the results of the above procedure. The items with low correlation coefficients were also found to be ambiguous by the judges. Thus, several changes were made to the instrument based on the results of the preliminary data analysis, the evaluation of the judges, and the comments and suggestions made by some respondents in the pilot tests including the clarity and the arrangement of some questions, readability of certain items, format of questionnaire, fonts and type of questionnaire.

1. All questions related to the same idea or concept were grouped together.
2. Questions with low correlation coefficients were reconstructed to make them easily understood. Some questions were changed to form several questions, each relating to one problem area.
3. A time period was added to the questions which asked if respondents had experienced certain problems.
4. Four questions were added to the instrument: the perceived adequacy of income related to health care needs, the opinion of the respondent as to whether consumer education programs offer good information regarding consumer representation and consumer organizations, the highest level of education that the respondent completed, and the employment status of respondent and spouse.

The revised questionnaire was translated to Arabic. The Arabic version of the questionnaire was reviewed by four Egyptian graduate students, who are attending Virginia Tech, for translation accuracy.

Table 1

Test-Retest Analysis of the Instrument

Scale	Correlation (r)
Perception of consumer problems	0.84
Concerns for price	0.72
Concerns for quality	0.83
Concerns for safety	0.81
Concerns for labeling/information	0.77
Concerns for environmental effects/packaging	0.82
Perceived adequacy of income	0.75
Perceived improvement in living situations	0.75
Expectations and experiences with products	0.76
Attitudes toward consumer protection by government and business	0.81
Preference for more information	0.77
Information source for consumer protection	0.76
Information source for consumer education	0.77
Attitudes for consumer education efforts	0.85
Demographic variables	0.93

Data Collection

A questionnaire, an explanatory cover letter (see Appendix C), and a stamped self-addressed envelope, were mailed to the 180 randomly selected respondents at Virginia Tech and Radford University. Approximately two weeks following the mailing of surveys, all potential respondents were sent a follow-up letter that offered thanks to all who had responded, and encouragement to complete the questionnaire to those who had not yet responded (see Appendix D).

Graduate students assigned from Ain Shams University and Sadat Academy delivered the questionnaires personally to the 180 randomly selected respondents at both universities in Cairo. The completed questionnaires were collected within three weeks after delivery.

There were 112 questionnaires returned from Virginia Tech and Radford University, of which 108 were acceptable for analysis. The rate of return for the American sample was 60%. There were 154 questionnaires returned from Egypt, of which 142 were acceptable for analysis. The rate of return for the Egyptian sample was 78.8%. Hence, a total of 250 responses were used in the data analysis for an overall return rate of 69.4%.

Data Analysis

The procedure for data analysis was divided into two segments, pre-analysis and analysis. During the pre-analysis, such activities as coding, data entry and cleaning were performed. Data coding, and data entry were performed by the researcher and were checked by two Egyptian students who were attending Virginia Tech, Blacksburg, Virginia. The study used the Excel software program for data entry.

In the analysis segment, the researcher performed statistical analysis using the SAS computer package version 8.1. Procedures for statistical analysis involved eight phases as follows:

1. The reliability analysis was first utilized to determine construct validity by using Cronbach's alpha of the measures.
2. In the second phase, frequency distribution analysis was computed to describe the demographic characteristics of the sample and the responses to each of the questionnaire items.

3. The third phase involved the use of chi-square analysis to determine the similarity or dissimilarity of frequency distribution between American and Egyptian responses for each questionnaire item.
4. In the fourth phase, factor analysis was used to define the dimensions or factors within each scale, and to confirm the structuring of the dependent variables.
5. The fifth phase involved the use of the two-sample independent t-test to determine: (1) differences between American and Egyptian consumers' perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging, and (2) differences between the independent variables in each country. The independent variables are: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts.
6. Stepwise multiple regression analysis was utilized in the sixth phase to determine relationships between two or more independent variables and an interval-scaled dependent variable.
7. In the seventh phase, Analysis of Variance (ANOVA) was used to investigate the influence of the selected demographic variables on the dependent variables.
8. Finally, in the eighth phase, a discriminant analysis was computed to isolate or discriminate among characteristics of American and Egyptian consumers.

Null Hypotheses

The following null hypotheses were tested:

- (1) There is no significant difference between consumer problems perceived by American and Egyptian consumers.
- (2) There is no significant difference between American and Egyptian consumers' concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging.
- (3) There is no significant difference between American and Egyptian consumers (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to

perceived improvement in living situations, (c) expectations and experiences with products, (d) attitudes toward consumer protection efforts by government, (e) attitudes toward consumer protection efforts by business, and (f) attitudes toward consumer education efforts.

- (4) There is no significant relationship between perception of consumer problems and (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to perceived improvement in living situations, (c) expectations and experiences with products, (e) attitudes toward consumer protection efforts by government, (d) attitudes toward consumer protection efforts by business, (e) attitudes toward consumer education efforts for American and Egyptian consumers.
- (5) There is no significant relationship between perception of consumer concerns for price and (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to perceived improvement in living situations, (c) expectations and experiences with products, (d) attitudes toward consumer protection efforts by government, (e) attitudes toward consumer protection efforts by business, (f) attitudes toward consumer education efforts for American and Egyptian consumers.
- (6) There is no significant relationship between perception of consumer concerns for quality and (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to perceived improvement in living situations, (c) expectations and experiences with products, (d) attitudes toward consumer protection efforts by government, (e) attitudes toward consumer protection efforts by business, (f) attitudes toward consumer education efforts for American and Egyptian consumers.
- (7) There is no significant relationship between perception of consumer concerns for safety and (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to perceived improvement in living situations, (c) expectations and experiences with products, (d) attitudes toward consumer protection efforts by government, (e) attitudes toward consumer protection efforts by business, attitudes toward consumer education efforts for American and Egyptian consumers.
- (8) There is no significant relationship between perception of consumer concerns for labeling and information and (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to perceived improvement in living situations,

- (c) expectations and experiences with products, (d) attitudes toward consumer protection efforts by government, (e) attitudes toward consumer protection efforts by business, (f) attitudes toward consumer education efforts for American and Egyptian consumers.
- (9) There is no significant relationship between perception of consumer concerns for environmental effects of products and their packaging and (a) needs fulfillment related to perceived adequacy of income, (b) needs fulfillment related to perceived improvement in living situations, (c) expectations and experiences with products, (d) attitudes toward consumer protection efforts by government, (e) attitudes toward consumer protection efforts by business, (f) attitudes toward consumer education efforts for American and Egyptian consumers.
- (10) There is no significant influence of gender on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging for American and Egyptian consumers.
- (11) There is no significant influence of age on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging for American and Egyptian consumers.
- (12) There is no significant influence of marital status on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging for American and Egyptian consumers.
- (13) There is no significant influence of university position on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging for American and Egyptian consumers.
- (14) There is no significant influence of family annual income on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging for American and Egyptian consumers.
- (15) There is no significant influence of education level on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and

(e) environmental effects of products and their packaging for American and Egyptian consumers.

(16) There is no significant influence of employment status on consumer problems and concerns related to (a) price, (b) quality, (c) safety, (d) labeling and information, and (e) environmental effects of products and their packaging for American and Egyptian consumers.

Summary of Methodology

This study was designed to explore differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of problems. This chapter described the sample that was studied. It also provided a discussion of the instrument development, the data collection procedures, and the data analysis. Finally, the null hypotheses were presented.

Chapter IV

RESULTS

This chapter contains a discussion of the validity of the instrument, a description of the subjects, the results of the statistical analysis of the data, and an examination of the hypotheses of the study. The level of significance was set at 0.05 for all tests in this study. The first section presents results of the reliability analysis used to determine construct validity using a Cronbach's alpha of the measures. The second section of this chapter consists of a description of the frequency distribution analysis to describe the demographic characteristics of the sample and the responses to each of the questionnaire items. The third section introduces the chi-square analysis to determine the similarity or dissimilarity of frequency distribution between American and Egyptian responses for each questionnaire item. The fourth section contains the results of the factor analysis defining the dimensions or factors within each scale, and confirming the structuring of the dependent variables.

In the fifth section, results of the two-sample independent t-test are presented to determine: (1) differences between American and Egyptian consumers' perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging, and (2) differences between the independent variables in each country. The independent variables are: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts. The sixth section contains results of the correlation and the stepwise multiple regression analysis that are used to determine relationships between two or more independent variables and an interval-scaled dependent variable.

The seventh section presents results of the Analysis of Variance (ANOVA) used to investigate influence of selected demographic variables (i.e., gender, age, marital status, presence of children, education level, university position, and employment status) on the dependent variables (i.e., perception of consumer problems and concerns). The eighth section consists of results of the discriminant analysis used to isolate or discriminate among characteristics of

American and Egyptian consumers. In the last section, an examination of the hypotheses of the study is presented.

Determining Reliability of Instrument

This section presents results of the reliability analysis used to determine construct validity using a Cronbach's coefficient alpha of the measures. A test-retest reliability check was first performed to determine the correlation between the total questionnaire score of the test group at time one with questionnaire score of the same group at time two. Results of the test were discussed in Chapter III (see Page 54).

A second test of reliability was performed to determine the internal consistency of the revised survey instrument. A Cronbach's coefficient alpha was computed to provide an estimate on all possible split-halves (Malhotra, 1996). Since the present study was concerned with comparing two groups of subjects rather than an "individual" subject, a minimum of 0.65 alpha coefficient was acceptable (Malhotra, 1996).

A Cronbach's coefficient alpha was computed for each scale variable in the study. A composite score was computed for both the dependent and the independent variables. The dependent variables were: perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging. The independent variables were: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts. Each composite score was regarded as a scale measure of each above-mentioned variable. The composite score for each variable was made by adding the items together that form a scale that represent this variable.

Within each scale, the effect of deleting one item at a time was also computed for alpha. This procedure enabled the researcher to observe the strength of each item in relation to other scales. It was observed that the individual items were approximately equal or 0.05 point less than or greater than the total average of alpha value for the scale. The Cronbach's coefficient alpha for each scale was found to be relatively high (see Table 2). Hence, based on these results, both the individual items as well as the overall scales in the instrument had significantly high reliability.

Table 2

Reliability Analysis of Scaled Items

Scale	Alpha
1. Perception of consumer problems	0.91
2. Concerns for price	0.78
3. Concerns for quality	0.80
4. Concerns for safety	0.78
5. Concerns for labeling/information	0.78
6. Concerns for environmental effects/packaging	0.83
7. Perceived adequacy of income	0.91
8. Perceived improvement in living situations	0.98
9. Expectations and experiences with products	0.79
10. Attitudes toward consumer protection efforts by government	0.95
11. Attitudes toward consumer protection efforts by business	0.79
12. Attitudes toward consumer education efforts	0.64

The items of question 52 (rank according to the order you prefer more information: decision making/financial planning, purchasing resources/conserving resources/information regarding consumer laws, rights, responsibility, and assistance/information regarding consumer representation, and consumer organizations), the items of question 53 (rank where you usually get information about consumer protection: mass media/advice from friends, family, and relatives/consumer organization/school education program), and the items in question 54 (rank where you usually get information about consumer education: mass media/advice from friends, family, and relatives/consumer organization/school education program) suffered from a perfect multicollinearity. Multicollinearity is defined as a strong linear relationship between the items of the question. When this strong relationship becomes perfect we call it perfect multicollinearity (Lomax,2001). For example, the summation of variables of question 52 is a fixed value equal to 21. This multicollinearity led to a very small value of the Cronbach's alpha coefficient (0.22). To solve this problem, a principal component analysis was performed for the items of each question of the questions 52, 53, and 54. Principal component analysis was used to transform a set of correlated variables to a new set of uncorrelated variables, and at the same time these new (uncorrelated) variables contained the same information that was in the original (correlated) variables. The researcher chose the first three principal components (i.e., new variables) of question 52 because they absorbed approximately 80% of the variance of the original variables (i.e., contain approximately 80% of the information of the original data). Also, the researcher chose the first two principal components of question 53, and the first two principal components of question 54. The results of the principal component analysis are presented in the appendix E. After choosing the principal components for each question of 52, 53, and 54, a composite score was computed for questions 52, 53, 54, and 55.

A Cronbach's alpha was computed for the new scale and the result is shown in Table 2. Although the value of alpha (0.64) of the attitudes toward consumer education scale is not as high as those of the rest of other scales, it is still reliable since it is not significantly different from 0.65.

Frequency Distribution Analysis: Differences in Each Questionnaire Item Between American and Egyptian Respondents

This section is divided into two subsections. The first subsection presents the demographic characteristics of the respondents. Demographic characteristics include gender, age, marital status, presence of children, education level, employment status, university position, and family annual income. The second subsection introduces the responses for each questionnaire items for both the dependent and the independent variables.

Demographic Characteristics of the Sample

The results of the cross-tabulations of the demographic variables of American and Egyptian respondents are presented in Table 3.

Gender

There were 48 male respondents from the U.S. (44.5%) and 77 male respondents from Egypt (54.3%). There were 60 females from the U.S. (55.5%) and 65 females from Egypt (45.7%). Hence, there were 125 females and 125 males in the entire sample.

Age (in years)

The largest proportion the American sample was between 30 to 39 years of age (33.3%), while the largest group of the Egyptian sample was between 40 to 49 years of age (41.5%). There were no respondents who were under 20 years of age and only two respondents who were between 60-69 years of age in the entire sample.

Marital Status

The majority of the respondents from both the U.S. (58.3%), and Egypt (82.3%) were married. Only 31.4% of the American respondents and 16.2% of the Egyptian respondents were single. There were few respondents who were widowed, divorced or separated.

Presence of Children

Presence of children in each age group was recorded for both American and Egyptian samples. Among the American respondents, 43.5% had no children, while there were only 20.5 % of Egyptian respondents who did not have children. The majority of Egyptians had children

Table 3

Demographic Characteristics of American and Egyptian Respondents

Variables	Americans N=108	Americans % ^a	Egyptians N=142	Egyptians % ^a
Gender				
Male	48	44.5	77	54.3
Female	60	55.5	65	45.7
Age (in years)				
Under 20	0	0	0	0
20-29	25	23.1	16	11.2
30-39	36	33.3	44	30.9
40-49	26	24.1	59	41.5
50-59	19	17.5	23	16.2
60-69	2	1.8	0	0
70 or over	0	0	0	0
Marital Status				
Single	34	31.4	23	16.2
Married	63	58.3	117	82.3
Widowed	1	0.9	1	0.7
Divorced	7	6.4	1	0.7
Separated	3	2.7	0	0
Presence of Children ^b				
Less than 1 year old	4	3.7	9	6.3
1-5 years old	16	14.8	43	30.2
6-12 years old	20	18.5	59	41.5
13-17 years old	12	11.1	41	28.8
18 years old or over	24	22.2	28	19.7
No children	47	43.5	29	20.5
Education Level				
High school graduate or equivalent	3	2.7	0	0
Some college or vocational school beyond high school	8	7.4	13	9.1
Completed a vocational training program beyond high school	0	0	0	0

(table continues)

Table 3 (continued)

Variables	Americans	Americans	Egyptians	Egyptians
	N=108	% ^a	N=142	% ^a
Education Level				
Completed a 2-year college degree	4	3.7	0	0
Completed a 4-year college degree	14	12.9	34	23.9
Some graduate work	17	15.7	0	0
Masters' degree	37	34.2	25	17.6
Doctoral degree	25	23.1	70	49.3
Employment Status				
Respondent:				
Full-time	84	77.7	139	97.8
Part-time	22	20.3	3	2.1
Unemployed	2	1.8	0	0
Spouse:				
Full-time	49	45.3	89	62.6
Part-time	4	3.7	5	3.52
Unemployed	12	11.1	24	16.9
Annual Income				
Under \$4,999	0	0	72	50.7
\$5,000 to \$9,999	0	0	30	21.1
\$10,000 to \$19,999	11	10.1	37	26.1
\$20,000 to \$29,999	14	12.9	0	0
\$30,000 to \$39,999	10	9.2	0	0
\$40,000 to \$49,999	9	8.3	0	0
\$50,000 to \$59,999	16	14.8	0	0
\$60,000 to \$69,999	10	9.2	0	0
\$70,000 to \$79,999	14	12.9	0	0
\$80,000 to \$89,999	6	5.5	0	0
\$90,000 to \$99,999	1	0.9	0	0
Over \$100,000	16	14.8	0	0
Missing cases	1	0.9	3	2.1

^a Percentages may not add to 100 due to rounding

^b Respondents could check more than one response

who were 6-12 years old (41.5%), while the majority of those with children in the American sample had children who were 18 years of age or older (22.2%).

Education Level

The Egyptian respondents reported having attained a higher level of education than the American participants. The majority of Egyptian respondents (49.3%) had a doctoral degree, while the majority of those from the U.S. had completed a masters' degree (34.2%). There were 23.9% Egyptians who had completed a 4-year college degree, while there were only 12.9% of American respondents who had received up to that level of education.

Employment Status

Among the American respondents, 77.7% of them indicated they were employed full time, 20.3% were employed part time, and 1.8% said they were unemployed. A majority of the American respondents (45.3%) also indicated that their spouses worked full time, 3.7% said their spouses worked part time and 11.1% had spouses who were unemployed.

Among the Egyptians, 97.8% said they were employed full-time, and 2.1% said they were employed part time. Nobody indicated that he/she was unemployed. A majority of the Egyptian subjects (62.6%) said their spouses were employed full time, 3.5% said their spouses worked part time, and 16.9% had spouses who were unemployed. Based on these figures, a high percentage of respondents from both countries were employed full time at the time of the survey. There also was a high percentage of respondents' spouses who were employed full time at the time of the survey. For the purpose of further analysis, the variable employment status was recoded into three groups: dual earner families, single earner families, and unemployed.

Family Annual Income

Results indicated that, in general, American respondents had a higher income than Egyptian respondents. As shown in Table 3, there were 14.8% Americans with a family annual income between \$50,000 to \$59,000. Also, another 14.8% of Americans had a family income over \$100,000. The majority of the Egyptian respondents (50.7%) were earning less than \$4,999 per year. There were 21.1% in the \$5,000 to \$9,999 annual income bracket, and 26.1% in the \$10,000 to \$19,999 annual income bracket.

Summary Profile

Based on the percentage distribution, the following demographic variables provided the profile of a “typical” American respondent in this study: a female, 30-39 years of age in 2001, married, no children, masters’ degree, employed full time, with a total family annual income between \$50,000 to \$59,000.

The following demographic characteristics provided the profile of a “typical” Egyptian respondent in this study: a male, 40 to 49 years of age in 2001, married, with children, doctoral degree, employed full time, with a total family annual income under \$4,999.

Frequency Distribution Analysis Results

Frequency distribution analysis of the data revealed the following results:

1. Questions 1 through 21 are the questionnaire items that form the perception of consumer problems scale. Results of frequency distribution indicated that the majority of the American respondents answered “experienced it myself or family” for some questions. These questions are: 1 (store did not have an advertised product), 2 (distasteful or offensive advertising), 3 (deceptive advertising), 4 (salesman misrepresented product/service), 5 (deceptive packaging), 6 (product had unsatisfactory performance or workmanship), 7 (unsatisfactory repair), 8 (unsatisfactory service), 9 (failure to receive delivery of ordered products), 13 (incorrect billing), and 20 (instructions for use unclear/incomplete). These results conveyed that the majority of the American respondents experienced problems related to untrue, deceptive, and misleading advertising. Meanwhile, the majority of the Egyptian respondents answered “experienced it myself or family” for all questions, except question 14 (manufacturer/dealer did not live up to warranty) (see Table 4).
2. Questions 22, 23, 32a, 33a, 34a, 35a, 36a, and 37a are the questionnaire items that constitute the consumers’ concern for price scale. Frequency distribution results showed that the majority of the American respondents worried “some” about high prices of many products, high cost of repairs on many products, and they had “moderate concern” for price of food, household appliances, and health related products. Meanwhile, they had “high concern” for price of clothing, automobiles, and furniture/furnishings. On the other hand, the majority of the Egyptian

Table 4

Frequency Distribution for Each Questionnaire Item in the Perception of Consumer Problems Scale

Question	U.S. (N=108)						Egypt (N=142)					
	Experienced it myself or family		Know others who did		No/don't know		Experienced it myself or family		Know others who did		No/don't know	
	n	%	n	%	n	%	n	%	n	%	n	%
1	79	73.1	11	10.2	18	16.7	110	77.5	13	9.1	19	13.4
2	55	50.9	4	3.7	49	45.4	114	80.3	20	14.1	8	5.6
3	70	64.8	7	6.5	31	28.7	118	83.1	19	13.4	5	3.5
4	55	50.9	11	10.2	42	38.9	115	80.9	20	14.1	7	4.9
5	53	49.1	8	7.4	47	43.5	95	66.9	29	20.4	18	12.7
6	79	73.1	5	4.6	24	22.2	112	78.8	21	14.8	9	6.3
7	50	46.3	13	12	45	41.7	91	64.1	32	22.5	19	13.4
8	66	61.1	8	7.4	34	31.5	113	79.6	25	17.6	4	2.8
9	69	63.8	9	8.3	69	63.9	74	52.1	28	19.7	40	28.2
10	40	37.1	12	11.1	56	51.6	117	82.4	22	15.5	3	2.1
11	41	37.9	12	11.1	55	50.9	78	54.9	42	29.6	22	15.5
12	28	25.9	8	7.4	72	66.7	87	61.2	25	17.6	30	21.1
13	57	52.7	11	10.2	40	37	77	54.2	34	23.9	31	21.8
14	17	15.7	11	10.2	80	74.1	53	37.3	21	14.8	68	47.9
15	18	16.6	6	5.5	84	77.8	87	61.3	30	21.1	25	17.6
16	5	4.6	7	6.5	96	88.9	68	47.9	31	21.8	43	30.3
17	9	8.3	6	5.6	93	86.1	77	54.2	36	25.3	29	20.4
18	16	14.8	7	6.5	85	78.7	81	57	34	23.9	27	19.0
19	31	28.7	9	8.3	68	62.9	86	60.6	30	21.1	26	18.3
20	60	55.6	5	4.7	43	39.8	98	69	29	20.4	15	10.6
21	16	14.8	10	9.3	82	75.9	49	34.5	25	17.6	48	33.8

Note. n is the number of respondents that answer the question with its corresponding response in the table.

- respondents worried “a great deal” about high prices of many products, high cost of repairs on many products, and they had “greatest concern” for price of food, clothing, automobiles, and household appliances). Meanwhile, they had “high concern” for price of furniture/furnishings, and they had “least concern” for health related products (see Table 5a and b).
3. Questions 26, 27, 28, 30, 32b, 33b, 34b, 35b, 36b, and 37b are the questionnaire items that form the consumers’ concern for quality scale. Results of frequency distribution analysis indicated that the majority of the American respondents worried “some” about poor quality of many products, poor quality of after sale services/repairs of products, poor quality of imported products, and poor quality of exported products. Meanwhile, they had “high concern” for quality of food, clothing, automobiles, household appliances, and health related products, and they had “greatest concern” for quality of furniture/furnishings. On the other hand, the majority of the Egyptian respondents worried “a great deal” about poor quality of many products, poor quality of after sale services/repairs of products, poor quality of imported products, and poor quality of exported products. Meanwhile, they had “greatest concern” for quality of clothing, and furniture/furnishings, and they had “high concern” for quality of food, automobiles, household appliances, and health related products (see Table 6a and b).
 4. Questions 29, 31, 32c, 33c, 34c, 35c, 36c, and 37c are the questionnaire items that constitute the consumers’ concern for safety scale. Frequency distribution analysis results showed that the majority of the American respondents worried “some” about unsafe/hazardous imported and exported products. Meanwhile, they had “moderate concern” for safety of food, clothing, automobiles, household appliances, and furniture/furnishings, and they had “greatest concern” for the safety of health related products. On the other hand, the majority of the Egyptian respondents worried “a great deal” about unsafe/hazardous imported and exported products. Meanwhile, they had “moderate concern” for safety of clothing, automobiles, household appliances, and furniture/furnishings. They had “greatest concern” for the safety of health related products, and they had “high concern” for the safety of food (see Table 7a and b).
 5. Questions 24, 25, 32d, 33d, 34d, 35d, 36d, and 37d are the questionnaire items that form the consumers’ concern for labeling and information scale. Results of

Table 5a

Frequency Distribution for Questionnaire Items 22-23 in the Consumer Concerns for Price Scale

Question	U.S. (N= 108)								Egypt (N=142)							
	A great deal		Some		Not much		Not at all		A great deal		Some		Not much		Not at all	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
22	28	25.9	59	54.6	18	16.7	3	2.8	132	92.9	8	5.6	2	1.4	0	0
23	29	26.8	57	52.8	19	17.6	3	2.8	107	75.3	25	17.6	7	4.9	3	2.1

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 5b

Frequency Distribution for Questionnaire Items 32a- 37a in the Consumer Concerns for Price Scale

Question	U.S. (N=108)										Egypt (N=142)									
	5		4		3		2		1		5		4		3		2		1	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
32a	28	25.9	15	13.8	38	35.2	16	14.8	8	7.4	47	33.1	7	4.9	46	32.4	10	7	25	17.6
33a	40	37.0	42	38.9	10	9.3	7	6.5	6	5.6	53	37.3	39	27.5	25	17.6	7	4.9	11	7.7
34a	26	24.1	32	29.6	32	29.6	11	10.2	4	3.7	57	40.1	13	9.1	43	30.3	9	6.3	13	9.1
35a	31	28.7	18	16.7	37	34.2	14	12.9	5	4.6	47	33.1	26	18.3	38	26.7	10	7	14	9.8
36a	35	32.4	38	35.2	18	16.7	7	6.5	7	6.4	44	31	47	33.1	27	19.0	4	2.8	13	9.1
37a	27	25	9	8.3	34	31.4	25	23.1	10	9.2	36	25.3	8	5.6	28	19.7	23	16.2	40	28.2

Note. 5 = Greatest concern, 4 = High concern, 3 = Moderate concern, 2 = little concern, 1 = least concern

Table 6a

Frequency Distribution for Questionnaire Items 26-28 and 30 in the Consumer Concerns for Quality Scale

Question	U.S. (N=108)								Egypt (N=142)							
	A great deal		Some		Not much		Not at all		A great deal		Some		Not much		Not at all	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
26	30	27.8	54	50	21	19.4	3	2.8	121	85.2	9	6.3	8	5.6	4	2.8
27	28	25.9	46	42.6	30	27.8	4	3.7	57	40.1	43	30.3	28	19.7	14	9.8
28	13	12	49	45.4	38	35.2	8	7.4	106	74.6	22	15.5	7	4.9	7	4.9
30	14	12.9	40	37	29	26.8	25	23.1	115	81	19	13.4	4	2.8	4	2.8

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 6b

Frequency Distribution for Questionnaire Items 32b-37b in the Consumer Concerns for Quality Scale

Question	U.S. (N=108)										Egypt (N=142)									
	5		4		3		2		1		5		4		3		2		1	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
32b	38	35.1	46	42.5	12	11.1	4	3.7	5	4.6	50	35.2	66	46.4	8	5.6	6	4.2	5	3.5
33b	45	41.6	47	43.5	5	4.6	5	4.6	3	2.7	66	46.4	56	39.4	3	2.1	1	0.7	9	6.3
34b	33	30.5	45	41.6	23	21.3	2	1.8	2	1.8	43	30.2	63	44.3	18	12.6	4	2.8	7	4.9
35b	29	26.8	58	53.7	11	10.1	4	3.7	3	2.7	48	33.8	62	43.6	15	10.5	2	1.4	8	5.6
36b	46	42.6	44	40.7	8	7.4	2	1.8	5	4.6	73	51.4	47	33.1	7	4.9	1	0.7	7	4.9
37b	21	19.4	60	55.5	15	13.8	6	5.5	3	2.7	41	28.8	64	45.1	12	8.4	11	7.7	7	4.9

Note. 5 = Greatest concern, 4 = High concern, 3 = Moderate concern, 2 = little concern, 1 = least concern

Table 7a

Frequency Distribution for Questionnaire Items 29 and 31 in the Consumer Concerns for Safety Scale

Question	U.S. (N=108)								Egypt (N=142)							
	A great deal		Some		Not much		Not at all		A great deal		Some		Not much		Not at all	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
29	22	20.3	40	37	31	28.7	15	13.9	107	75.3	28	19.7	4	2.8	3	2.1
31	23	21.3	33	30.6	26	24.1	26	24.1	123	86.6	8	5.6	8	5.6	3	2.1

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 7b

Frequency Distribution for Questionnaire Items 32c-37c in the Consumer Concerns for Safety Scale

Question	U.S. (N=108)										Egypt (N=142)									
	5		4		3		2		1		5		4		3		2		1	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
32c	26	24.1	27	25	32	29.6	14	12.9	6	5.5	32	22.5	45	31.7	44	31	9	6.3	5	3.5
33c	14	12.9	5	4.6	47	43.5	17	15.7	22	20.4	9	6.3	26	18.3	67	47.2	27	19	5	3.5
34c	36	33.3	22	20.3	36	33.3	5	4.6	6	5.6	26	18.3	48	33.8	52	36.6	9	6.3	0	0
35c	34	31.4	17	15.7	42	38.9	7	6.4	5	4.6	31	21.8	40	28.2	52	36.6	12	8.4	0	0
36c	17	15.7	14	12.9	54	50	12	11.1	8	7.4	12	8.4	32	22.5	73	51.4	17	11.9	1	0.7
37c	48	44.4	23	21.3	26	24.1	3	2.8	5	4.6	43	30.3	40	28.2	40	28.2	9	6.3	3	2.1

Note. 5 = Greatest concern, 4 = High concern, 3 = Moderate concern, 2 = little concern, 1 = least concern

frequency distribution analysis indicated that the majority of the American respondents worried “some” about deceptive and inaccurate labeling/information on packages and insufficient labeling/information on products. They had “little concern” for labeling and information of food, clothing, household appliance, furniture/furnishings, and health related products, and they had “least concern” for labeling and information of automobiles. On the other hand, the majority of the Egyptian respondents worried “a great deal” about deceptive and inaccurate labeling/information on packages and insufficient labeling/information on products. They had “little concern” for labeling and information of food, clothing, automobiles, household appliance, furniture/furnishings, and health related products (see Table 8a and b).

6. Questions 47 through 51 and 32e, 33e, 34e, 35e, 36, 37d are the questionnaire items that constitute the consumers’ concern for environmental effects of products and their packaging scale. Frequency distribution analysis results showed that the majority of the American respondents “agreed” that they have knowledge about buying products and packages that are environmentally safe, knowledge about the term “recycling” than the average person, knowledge about selecting products and packages that reduce the amount of waste ending up in landfills, knowledge about environmental issues, and that the current government regulations require manufacturers to put information on their packages indicating whether the package is recyclable. Meanwhile, the majority of the American respondents had “least concern” for environmental effects of products and their packaging of food, clothing, household appliances, furniture/furnishings, and health related products. They had a “little concern” for the environmental effects of products and their packaging of automobiles. On the other hand, the majority of the Egyptian respondents “agreed” that they have knowledge about buying products and packages that are environmentally safe, knowledge about the term “recycling” than the average person, knowledge about selecting products and packages that reduce the amount of waste ending up in landfills, and knowledge about environmental issues. They “disagreed” that the current government regulations require manufacturers to put information on their packages indicating whether the package is recyclable. Meanwhile, the majority

Table 8a

Frequency Distribution for Questionnaire Items 24 and 25 in the Consumer Concerns for Labeling and Information Scale

Question	U.S. (N=108)								Egypt (N=142)							
	A great deal		Some		Not much		Not at all		A great deal		Some		Not much		Not at all	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
24	22	20.4	53	49.1	25	23.1	8	7.4	114	80.3	25	17.6	2	1.4	1	0.7
25	20	18.5	55	50.9	26	24.1	7	6.5	98	69	28	19.7	13	9.15	3	2.1

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 8b

Frequency Distribution for Questionnaire Items 32d-37d in the Consumer Concerns for Labeling and Information Scale

Question	U.S. (N=108)										Egypt (N=142)									
	5		4		3		2		1		5		4		3		2		1	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
32d	5	4.6	14	12.9	11	10.2	51	47.2	24	22.2	4	2.8	10	7	25	17.6	75	52.8	21	14.7
33d	1	0.9	7	6.4	25	23.1	48	44.4	24	22.2	2	1.4	7	4.9	28	19.7	79	55.6	19	13.3
34d	8	7.4	1	0.9	3	2.7	36	33.3	57	52.7	2	1.4	4	2.8	18	12.6	76	53.5	35	24.6
35d	5	4.6	7	6.4	4	3.7	51	47.2	38	35.2	2	1.4	4	2.8	21	14.8	86	60.5	22	15.5
36d	2	1.8	6	5.5	11	10.2	45	41.6	41	37.9	2	1.4	4	2.8	20	14.1	80	56.3	29	20.4
37d	3	2.8	7	6.4	21	19.4	47	43.5	27	25	7	4.9	13	9.1	36	25.3	53	37.3	26	18.3

Note. 5 = Greatest concern, 4 = High concern, 3 = Moderate concern, 2 = little concern, 1 = least concern

of the Egyptian respondents had “least concern” for environmental effects of products and their packaging of food, clothing, automobiles, household appliances, furniture/furnishings, and health related products (see Table 9a and b).

7. The results of the frequency distribution analysis for “specific” questions of each consumer concern (i.e., concerns for price/quality/safety/labeling and information/environmental effects of products and their packaging of food/clothing/automobiles/household appliances/furniture and furnishings/health related products) indicated that:
 - The most important consumer concerns for food, for the American respondents, was the quality while the least important was the environmental effects of products and their packaging. On the other hand, the most important consumer concerns for food, for the Egyptian respondents, were the price and the quality, while the least important was the environmental effects of products and their packaging.
 - The most important consumer concerns for clothing, for both the American and the Egyptian respondents, were the price and the quality while the least important was the environmental effects of products and their packaging for both of them.
 - The most important consumer concerns for automobiles, for the American respondents, were the price and the quality, while the least important was the environmental effects of products and their packaging. On the other hand, the most important consumer concerns for automobiles, for the Egyptian respondents, was the price, while the least important was the environmental effects of products and their packaging.
 - The most important consumer concerns for household appliances, for the American respondents, was the quality while the least important was the environmental effects of products and their packaging. On the other hand, the most important consumer concerns for household appliances, for the Egyptian respondents, was the price, while the least important was the environmental effects of products and their packaging.

Table 9a

Frequency Distribution for Questionnaire Items 47-51 in the Consumer Concerns for Environmental Effects of Products and their Packaging Scale

Question	U.S. (N=108)								Egypt (N=142)							
	Strongly agree		Agree		Disagree		Strongly disagree		Strongly agree		Agree		Disagree		Strongly disagree	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
47	3	2.7	53	49.1	51	47.2	1	0.9	22	15.5	55	38.7	53	37.2	12	8.4
48	15	13.9	60	55.6	32	29.6	1	0.9	26	18.3	62	43.6	44	31	10	7
49	14	12.9	61	56.4	29	26.8	4	3.7	27	19	69	48.6	38	26.7	8	5.6
50	14	12.9	55	50.9	36	33.3	3	2.7	25	17.6	69	48.6	38	26.7	10	7
51	11	10.2	57	52.8	39	36.1	1	0.9	3	2.1	29	20.4	79	55.6	31	21.8

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 9b

Frequency Distribution for Questionnaire Items 32e-37e in the Consumer Concerns for Environmental Effects of Products and their Packaging Scale

Question	U.S. (N=108)										Egypt (N=142)									
	5		4		3		2		1		5		4		3		2		1	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
32 ^e	8	7.4	3	2.7	12	11.1	20	18.5	62	57.4	3	2.1	7	4.9	13	9.1	35	24.6	77	54.2
33 ^e	5	4.6	4	3.7	18	16.6	28	25.9	50	46.3	4	2.8	5	3.5	12	8.4	21	14.8	93	65.5
34 ^e	2	1.8	5	4.6	11	10.2	51	47.2	36	33.3	7	4.9	7	4.9	4	2.8	37	26	80	56.3
35 ^e	6	5.5	5	4.6	11	10.2	29	26.8	54	50	8	5.6	3	2.1	8	5.6	25	17.6	91	64.1
36 ^e	5	4.6	3	2.7	14	12.9	39	36.1	44	40.7	4	2.8	5	3.5	8	5.6	33	23.2	85	59.8
37e	6	5.5	6	5.5	9	8.3	24	22.2	60	55.5	8	5.6	10	7	19	13.3	39	27.4	59	41.5

Note. 5 = Greatest concern, 4 = High concern, 3 = Moderate concern, 2 = little concern, 1 = least concern

- The most important consumer concerns for furniture/furnishings, for both the American and the Egyptian respondents, was the quality, while the least important for both of them was the environmental effects of products and their packaging.
 - The most important consumer concerns for health related products, for the American respondents, was the safety, while the least important was the environmental effects of products and their packaging. On the other hand, the most important consumer concerns for health related products, for the Egyptian respondents, was the quality, while the least important were the price and the environmental effects of products and their packaging.
8. Frequency distribution analysis results for the questionnaire items that constitute the independent variables (i.e., perceived adequacy of income, perceived improvement in living situations, expectations/experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts) showed that:
- Questions 38 (a through h) are the questionnaire items that form the consumers' perceived adequacy of income scale. Frequency distribution analysis results showed that the majority of the American respondents expressed that their family income is "usually adequate" to meet all family needs of food, clothing, bills, mortgage/rent, transportation, insurance, recreation/travel, and health care. On the other hand, the majority of the Egyptian respondents indicated that their family income is "usually adequate" to meet the family needs of food, clothing, bills, mortgage/rent, transportation, and health care, while they conveyed that their family income is "sometimes adequate" to meet the family needs of insurance and recreation/travel (see Table 10).
 - Questions 39 through 41 are the questionnaire items that constitute the consumers' perceived improvement in living situations scale. Results of the frequency distribution analysis indicated that the majority of both the American and the Egyptian respondents conveyed that they are "better off today" compared to five years ago in the areas of financial well-being, ability to purchase more goods/services for family members, and overall family living conditions (see Table 11).

Table 10

Frequency Distribution for Questionnaire Items 38a-h in the Consumers' Perceived Adequacy of Income Scale

Question	U.S. (N=108)						Egypt (N=142)					
	Usually adequate		Sometimes adequate		Rarely adequate		Usually adequate		Sometimes adequate		Rarely adequate	
	n	%	n	%	n	%	n	%	n	%	n	%
38a	102	94.4	5	4.6	1	0.9	118	83.1	23	16.2	1	0.7
38b	87	80.5	18	16.7	3	2.8	87	61.3	50	35.2	5	3.5
38c1	101	93.5	6	5.6	1	0.9	92	64.8	46	32.4	4	2.8
38c2	99	91.6	8	7.4	1	0.9	93	65.5	39	27.4	10	7
38c3	101	93.5	6	5.6	1	0.9	92	64.8	46	32.4	4	2.8
38d	96	88.9	11	10.1	1	0.9	113	79.6	23	16.2	6	4.2
38e	95	87.9	12	11.1	1	0.9	102	71.8	35	24.6	5	3.5
38f	94	87	10	9.3	4	3.7	46	32.4	47	33.1	24	16.9
38g	59	54.6	31	28.7	18	16.7	35	24.6	66	46.5	41	28.8
38h	88	81.5	13	12	7	6.5	79	55.6	56	39.4	7	4.9

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 11

Frequency Distribution for Questionnaire Items 39-41 in the Consumers' Perceived Improvement in Living Situations Scale

Question	U.S. (N=108)						Egypt (N=142)					
	Better today		Better 5 years ago		No difference		Better today		Better 5 years ago		No difference	
	n	%	n	%	n	%	n	%	n	%	n	%
39	86	79.6	9	8.3	13	12	66	46.5	32	22.5	44	31
40	86	79.6	12	11.1	10	9.2	66	46.5	33	23.2	43	30.2
41	87	80.6	8	7.4	13	12	67	47.2	29	20.4	46	32.4

Note. n is the number of respondents that answer the question with its corresponding response in the table.

- Questions 42 (a through e) are the questionnaire items that form the consumers' expectations and experiences with products scale. Frequency distribution analysis results showed that the majority of the American respondents expressed that the products they buy "usually" perform as well as expected, easy to care for as expected, and products' warranties meet their expectations. Meanwhile, they conveyed that the products "sometimes" last as long as they should and easy to operate/handle as expected. On the other hand, the majority of the Egyptian respondents indicated that the products they buy "usually" last as long as they should, perform as well as expected, easy to care for as expected, and easy to operate/handle as expected. Meanwhile, they conveyed that the products' warranties "sometimes" meet their expectations (see Table 12).
- Questions 43 and 44 are the questionnaire items that constitute the consumers' attitudes toward consumer protection efforts by government scale. Results of frequency distribution analysis indicated that the majority of the American respondents "agreed" that the government regulations in trying to protect consumers are adequate and the enforcement of consumer laws by government is generally satisfactory. On the other hand, the majority of the Egyptian respondents "disagreed" that the government regulations in trying to protect consumers are adequate and the enforcement of consumer laws by government is generally satisfactory (see Table 13).
- Questions 45 and 46 are the questionnaire items that constitute the consumers' attitudes toward consumer protection efforts by business scale. Frequency distribution analysis results showed that the majority of the American respondents "agreed" that the businessmen in general are trustworthy and want to satisfy their customers and that in general most companies or stores handle consumer complaints well. On the other hand, the majority of the Egyptian respondents "disagreed" that the businessmen in general are trustworthy and want to satisfy their customers and that in general most companies or stores handle consumer complaints well (see Table 14).
- Questions 52 (a-f), 53 (a-d), 54 (a-d), and 55 (a-g) are the questionnaire items that constitute the consumers' attitudes toward consumer education efforts scale.

Table 12

Frequency Distribution for Questionnaire Items 42a-e in the Consumers' Expectations and Experiences With Products Scale

Question	U.S. (N=108)						Egypt (N=142)					
	Usually		Sometimes		Rarely		Usually		Sometimes		Rarely	
	n	%	n	%	n	%	n	%	n	%	n	%
42a	48	44.4	52	48.1	8	7.4	78	54.9	58	40.8	6	4.2
42b	56	51.8	52	48.1	0	0	74	52.1	61	42.9	7	4.9
42c	53	49.1	53	49.1	2	1.8	70	49.3	66	46.4	6	4.2
42d	53	49.1	55	50.9	0	0	75	52.8	62	43.6	5	3.5
42e	54	50	42	38.9	11	10.2	56	39.4	72	50.7	14	9.8

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 13

Frequency Distribution for Questionnaire Items 43-44 in the Attitudes Toward Consumer Protection Efforts by Government Scale

Question	U.S. (N=108)								Egypt (N=142)							
	Strongly agree		Agree		Disagree		Strongly disagree		Strongly agree		Agree		Disagree		Strongly disagree	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
43	6	5.5	77	71.3	22	20.3	3	2.7	5	3.5	43	30.2	44	30.9	50	35.2
44	8	7.4	76	70.3	23	21.3	1	0.9	5	3.5	42	29.5	44	30.9	51	35.4

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 14

Frequency Distribution for Questionnaire Items 45-46 in the Attitudes Toward Consumer Protection Efforts by Business Scale

Question	U.S. (N=108)								Egypt (N=142)							
	Strongly agree		Agree		Disagree		Strongly disagree		Strongly agree		Agree		Disagree		Strongly disagree	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
45	6	5.5	64	59.2	27	25	11	10.2	4	2.8	62	43.6	40	28.2	36	25.3
46	3	2.7	72	66.6	29	26.8	4	3.7	4	2.8	48	33.8	47	33.1	43	30.3

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Results of the frequency distribution analysis revealed that the majority of the American respondents ranked “decision making and financial planning” as the most important aspects that they need more information about, while they ranked their need for information regarding “consumer representation and consumer organization” as the least important aspect. In Egypt, the majority of the Egyptian respondents ranked “decision making” as the most important aspect that they need more information about, while they ranked their need for information regarding “consumer representation and consumer organization” as the least important aspect. The majority of the Egyptian respondents ranked “mass media (i.e., TV and Radio) and advice from friends, family, and relatives” as the most helpful channels that they usually get information from about consumer protection and consumer education, while they ranked “school education program” as the least helpful channel they usually get information about consumer protection and consumer education. In the U.S., the majority of the American respondents ranked “mass media (i.e., TV and Radio)” as the most helpful channel that they usually get information from about consumer protection and consumer education, while they ranked “school education program” as the least helpful channel they usually get information about consumer protection and consumer education. The majority of the American and the Egyptian respondents “agreed” that consumer education should include information about buying goods and services, decision making, financial planning, conserving resources, consumer laws, consumer rights and responsibilities, and consumer organizations (see Tables 15 a & b and Table 16).

Table 15a

Frequency Distribution for Questionnaire Items 52a-f in the Consumers' Information Need and Source Scale

Question	U.S. (N=108)												Egypt (N=142)											
	6		5		4		3		2		1		6		5		4		3		2		1	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
52a	24	22.2	21	19.4	22	20.3	14	12.9	8	7.4	19	17.5	63	44.3	30	21.1	14	9.8	20	14	3	2.1	12	8.4
52b	34	31.4	31	28.7	17	15.7	13	12	9	8.3	4	3.7	39	27.4	66	46.4	19	13.3	6	4.2	9	6.3	3	2.1
52c	15	13.8	23	21.2	33	30.5	22	20.3	9	8.3	6	5.5	7	4.9	14	9.8	79	55.6	31	21.8	10	7	1	0.7
52d	14	12.9	11	10.2	18	16.6	40	37	17	15.7	8	7.4	17	11.9	18	12.6	23	16.2	75	52.8	1	0.7	8	5.6
52e	20	18.5	11	10.2	7	6.5	14	12.9	45	41.6	11	10.1	10	7	7	4.9	3	2.1	8	5.6	74	52.1	40	28.1
52f	1	1	11	10.2	11	10.2	6	5.5	20	18.5	59	54.6	6	4.2	7	4.9	4	2.8	2	1.4	45	31.6	78	54.9

Note. 6 = Most preferred, 5 = Preferred, 4 = Somewhat preferred, 3 = Somewhat less preferred, 2 = Less preferred, and 1 = Least preferred.

Table 15b

Frequency Distribution for Questionnaire Items 53-54 in the Consumers' Information Need and Source Scale

Question	U.S. (N=108)								Egypt (N=142)							
	Most helpful		More helpful		Helpful		Least Helpful		Most helpful		More helpful		Helpful		Least helpful	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
53a	57	52.7	25	23.1	14	12.9	12	11.1	58	40.8	53	37.3	12	8.4	19	13.3
53b	28	25.9	50	46.2	22	20.3	8	7.4	73	51.4	52	36.6	9	6.3	8	5.6
53c	16	14.8	20	18.5	54	50	18	16.6	5	3.5	17	11.9	64	45.1	56	39.4
53d	7	6.4	13	12	18	16.6	70	64.8	6	4.2	20	14.1	57	40.1	59	41.5
54a	58	53.7	26	24	14	12.9	10	9.2	65	45.7	51	35.9	7	4.9	19	13.3
54b	25	23.1	53	49.1	20	18.5	10	9.2	66	46.4	58	40.8	10	7	8	5.6
54c	17	15.7	19	17.6	56	51.8	16	14.8	3	2.1	17	11.9	61	42.9	61	42.9
54d	8	7.4	11	10.2	17	15.7	72	66.6	8	5.6	16	11.2	64	45	54	38

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Table 16

Frequency Distribution for Questionnaire Items 55a-g in the Consumers' Opinion Toward Consumer Education Efforts Scale

Question	U.S. (N=108)								Egypt (N=142)							
	Strongly agree		Agree		Disagree		Strongly disagree		Strongly agree		Agree		Disagree		Strongly disagree	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
55a	38	35.1	67	62	3	2.7	0	0	75	52.8	65	45.7	1	0.7	1	0.7
55b	36	33.3	66	61.1	6	5.5	0	0	56	39.4	74	52.1	12	8.4	0	0
55c	37	34.2	67	62	4	3.7	0	0	63	44.3	71	50	8	5.6	0	0
55d	42	38.8	61	56.4	5	4.6	0	0	54	38	84	59.1	3	2.1	1	0.7
55e	39	36.1	68	62.9	1	0.9	0	0	72	50.7	68	47.9	2	1.4	0	0
55f	43	39.8	63	58.3	2	1.8	0	0	67	47.1	72	50.7	3	2.1	0	0
55g	24	22.2	76	70.3	8	7.4	0	0	63	44.3	74	52.1	4	2.8	1	0.7

Note. n is the number of respondents that answer the question with its corresponding response in the table.

Chi-square Analysis: Differences in Each Questionnaire Item Between American and Egyptian Respondents

This section introduces the chi-square analysis to determine the similarity or dissimilarity of frequency distribution between American and Egyptian responses for each questionnaire item. The results of the cross-tabulations of the chi-square analysis are presented in Table 17 (a through n).

Chi-square Analysis Results

Chi-square test is a non-parametric statistical test useful to analyze the data when they are in the form of frequency tables. In this study, a frequency table was established for each questionnaire item (see Tables 3 through 16). Subsequently, a chi-square test was computed to determine the similarity or dissimilarity of frequency distribution between American and Egyptian responses for each questionnaire item. The null hypothesis in this test is:

H_0 : There is a similar frequency distribution between American and Egyptian responses for each questionnaire item. To test the null hypothesis, the test statistic is¹:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c (O_{ij} - E_{ij})^2 / E_{ij}$$

where O_{ij} = observed number in the ij th cell and $E_{ij} = R_i C_j / n$ = expected number in the ij th cell. Where R_i is the summation of row i and C_j is the summation of column j , and r, c are the number of rows and columns respectively.

Rejecting the null hypothesis means that the frequency distribution for the American responses is different (dissimilar) from that of the Egyptian responses.

Table 17 (a through n) presents the results of the chi-square test for the questionnaire items that form a scale.

Chi-square analysis of the data revealed the following results:

1. Questions 1 through 21 (except Q1) are the questionnaire items that form the *perception of consumer problems* scale. The result indicates that there will be a statistically significant difference between the American and the Egyptian perception of consumer problems upon further analysis (see Table 17a).

¹ χ^2 test is used to test the homogeneity of responses between Americans and Egyptians.

Table 17a

Perception of Consumer Problems: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Store did not have an advertised product	1	2	0.67	0.72
Distasteful or offensive advertising	2	2	57.19	<0.0001
Deceptive advertising	3	2	32.55	<0.0001
Salesman misrepresented product/service	4	2	44.99	<0.0001
Deceptive packaging	5	2	32.76	<0.0001
Product had unsatisfactory performance or workmanship	6	2	18.07	0.0001
Unsatisfactory repair	7	2	26.37	<0.0001
Unsatisfactory service (not related to repair)	8	2	40.91	<0.0001
Failure to receive delivery of ordered product	9	2	32.06	<0.0001
Overcharge or excessive price	10	2	85.29	<0.0001
Goods received in damaged condition	11	2	38.40	<0.0001
Deceptive or fraudulent pricing/billing	12	2	52.67	<0.0001
Incorrect billing	13	2	11.47	0.0032
Manufacturer/dealer did not live up to warranty	14	2	18.33	0.001
Failure to receive refund	15	2	90.32	<0.0001

(table continues)

Table 17a (continued)

Questionnaire Item	Question	df	χ^2 -value	p-value
Product unsafe or caused injury	16	2	86.72	<0.0001
Product, such as foods, were adulterated with other substances	17	2	106.11	<0.0001
Product harmful to health	18	2	88.38	<0.0001
Product harmful to environment	19	2	52.27	<0.0001
Instructions for use unclear/incomplete	20	2	35.63	<0.0001
Refusal of credit	21	3	48.34	<0.0001

2. Among the questionnaire items that constitute the consumers' *concern for price* scale (i.e., questions 22, 23, 32a, 33a, 34a, 35a, 36a, and 37a), questionnaire items 22 (high prices of many products), 23 (high cost of repairs on many products), 32a (consumer concern for price of food), 34a (consumer concern for price of automobiles), and 37a (consumer concern for price of health-related products) showed statistically significant differences (see Table 17b).
3. Among the questionnaire items that constitute the consumers' *concern for quality* scale (i.e., questions 26, 27, 28, 30, 32b, 33b, 34b, 35b, 36b, and 37b), questionnaire items 26 (poor quality of many products), 27 (poor quality of after sale services/repairs of products), 28 (poor quality of imported products) and 30 (poor quality of exported products), were found to show statistically significant differences. This result indicates that the difference between American and Egyptian consumers' concern for quality was due to their concern about the "general" questions and not their concern about the "specific" questions. The general questions are the ones that ask about the consumer concerns of the poor quality of many products, the poor quality of after sale services/repairs of products, the poor quality of imported products, and the poor quality of exported products. The "specific" questions are the ones that deal with the consumer concern for quality of food, clothing, automobiles, household appliances, furniture/furnishings, and health related products (see Table 17c).
4. Differences for questions that constitute the consumers' *concern for safety* scale, {i.e., questions 29 (unsafe/hazardous imported products), 31 (unsafe/hazardous exported products), 32c (consumer concern for safety of food), 33c (consumer concern for safety of clothing), 34c (consumer concern for safety of automobiles), 35c (consumer concern for safety of household appliances), 36c (consumer concern for safety of furniture/furnishings), and 37c (consumer concerns for safety of health-related products)}, except questions 32c and 37c, were found to be statistically significant (see Table 17d).
5. All questions that constitute the consumers' *concern for labeling and information* scale, {i.e., questions 24 (deceptive and inaccurate labeling/information on packages), 25 (insufficient labeling/information on products), 32d (consumer concerns for

Table 17b

Consumer Concern for Price: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
High prices of many products	22	3	119.81	<0.0001
High cost of repairs on many products	23	3	59.23	<0.0001
Consumer concern for price of <i>Food</i>	32a	5	15.65	0.008
Consumer concern for price of <i>Clothing</i>	33a	5	6.93	0.226
Consumer concern for price of <i>Automobiles</i>	34a	5	23.59	0.0003
Consumer concern for price of <i>Household appliances</i>	35a	5	6.78	0.237
Consumer concern for price of <i>Furniture/Furnishings</i>	36a	5	3.44	0.633
Consumer concern for price of <i>Health related products</i>	37a	5	17.31	0.004

Table 17c

Consumer Concern for Quality: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Poor quality of many products	26	3	90	<0.0001
Poor quality of after sale services/repairs of products	27	3	11.20	0.01
Poor quality of imported products	28	3	101.62	<0.0001
Poor quality of exported products	30	3	118.26	<0.0001
Consumer concern for quality of <i>Food</i>	32b	5	3.45	0.63
Consumer concern for quality of <i>Clothing</i>	33b	5	8.10	0.15
Consumer concern for quality of <i>Automobiles</i>	34b	5	5.45	0.36
Consumer concern for quality of <i>Household appliances</i>	35b	5	5.45	0.36
Consumer concern for quality of <i>Furniture/Furnishings</i>	36b	5	4.01	0.55
Consumer concern for quality of <i>Health related products</i>	37b	5	7.10	0.21

Table 17d

Consumer Concern for Safety: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Unsafe/hazardous imported products	29	3	83.89	<0.0001
Unsafe/hazardous exported products	31	3	108.90	<0.0001
Consumer concern for safety of <i>Food</i>	32c	5	5.27	0.38
Consumer concern for safety of <i>Clothing</i>	33c	3	30.34	<0.0001
Consumer concern for safety of <i>Automobiles</i>	34c	5	18.64	0.002
Consumer concern for safety of <i>Household appliances</i>	35c	5	14.03	0.02
Consumer concern for safety of <i>Furniture/Furnishings</i>	36c	5	14.29	0.013
Consumer concern for safety of <i>Health related products</i>	37c	5	8.46	0.13

- labeling/information of food), 33d (consumer concerns for labeling/information of clothing), 34d (consumer concerns for labeling/information of automobiles), 35d (consumer concerns for labeling/information of household appliances), 36d (consumer concerns for labeling/information of furniture/furnishings), and 37d (consumer concerns for labeling/information of health related products), except questions 32d, 33d, and 37d, showed statistically significant differences (see Table 17e).
6. Many of the questions that constitute the consumers' *concern for environmental effects of products and their packaging* scale, {i.e., questions 47 (knowledge of buying products and packages that are environmentally safe), 48 (knowledge about the term "recycling" than the average person), 35e (consumer concerns for environmental effects/packaging of household appliances), 36e (consumer concerns for environmental effects/packaging of furniture/furnishings), and 37e (consumer concerns for environmental effects/packaging of health related products)} did not indicate statistically significant differences (see Table 17f).
 7. The results of the "specific" questions for each consumer concern (i.e., concerns for price/quality/safety/labeling and information/environmental effects of products and their packaging of food/clothing/automobiles/household appliances/furniture and furnishings/health-related products) showed that:
 - Consumers' concerns for food were not statistically significant, except for price.
 - Consumers' concerns for clothing were not statistically significant, except for safety and environmental effects of products and their packaging.
 - Consumers' concerns for automobiles were statistically significant, except for quality.
 - Consumers' concerns for household appliances were not statistically significant except for safety, and labeling and information.
 - Consumers' concerns for furniture and furnishings were statistically significant, except for price and quality.
 - Consumers' concerns for health related products were not statistically significant except for price.

Table 17e

Consumer Concern for Labeling and Information: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Deceptive and inaccurate labeling/information on packages	24	3	94.45	<0.0001
Insufficient labeling/information on products	25	3	62.81	<0.0001
Consumer concern for labeling/information of <i>Food</i>	32d	5	8.12	0.15
Consumer concern for labeling/information of <i>Clothing</i>	33d	5	5.73	0.34
Consumer concern for labeling/information on <i>Automobiles</i>	34d	5	33.25	<0.0001
Consumer concern for labeling/information on <i>Household appliances</i>	35d	5	24.30	0.0002
Consumer concern for labeling/information on <i>Furniture/Furnishings</i>	36d	5	12.07	0.034
Consumer concern for labeling/information on <i>Health related products</i>	37d	5	4.79	0.44

Table 17f

Consumer Concern for Environmental Effects of Products and their Packaging: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
I know that I buy products and packages that are environmentally safe	47	3	19.56	0.0002
I know more about recycling than the average person	48	3	7.76	0.05
I know how to select products and packages that reduce the amount of waste ending up in landfills	49	3	2.58	0.46
I am very knowledgeable about environmental issues	50	3	3.96	2.66
Government regulations currently require manufacturers to put information on their packages indicating whether the package is recyclable	51	3	51.70	<0.0001
Consumer concern for environmental effects/packaging of <i>Food</i>	32e	5	6.72	0.24
Consumer concern for environmental effects/packaging of <i>Clothing</i>	33e	5	12.56	0.02
Consumer concern for environmental effects/packaging of <i>Automobiles</i>	34e	5	22.69	0.0004
Consumer concern for environmental effects/packaging of <i>Household appliances</i>	35e	5	8.12	0.15
Consumer concern for environmental effects/packaging of <i>Furniture/Furnishings</i>	36e	5	12.99	0.023
Consumer concern for environmental effects/packaging of <i>Health related products</i>	37e	5	5.51	0.36

8. Results of the questionnaire items that constitute the *independent variables* (i.e., perceived adequacy of income, perceived improvement in living situations, expectations/experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts) showed that, except for expectations/experiences with products and opinion toward consumer education efforts, all independent variables exhibit a statistically significant difference in the questionnaire items which they constitute (see Tables 17g through 17m). This result indicates that there will be a statistically significant difference between American and Egyptian consumers for all independent variables (except expectations and experiences with products) upon further analysis (see Table 17f).
9. Finally, chi-square analysis for the demographic variables showed that, except for gender and for some groups of questionnaire item 59 (number of respondents' children in each age group), there were statistically significant differences between Americans and Egyptians for all demographics (see Table 17n).

Table 17g

Consumer Perceived Adequacy of Income: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Family income is generally adequate to meet the family needs for <i>Food</i>	38a	2	8.26	0.02
Family income is generally adequate to meet the family needs of <i>Clothing</i>	38b	2	11.14	0.003
Family income is generally adequate to meet the family needs of <i>Bills (utilities)</i>	38c1	2	28.90	<0.0001
Family income is generally adequate to meet the family needs of <i>Bills (phone)</i>	38c2	2	23.81	<0.0001
Family income is generally adequate to meet the family needs of <i>Bills (credit)</i>	38c3	2	32.60	<0.0001
Family income is generally adequate to meet the family needs of <i>Mortgage/Rent</i>	38d	2	4.65	0.10
Family income is generally adequate to meet the family needs of <i>Transportation</i>	38e	2	9.72	0.008
Family income is generally adequate to meet the family needs of <i>Insurance</i>	38f	3	76.56	<0.0001
Family income is generally adequate to meet the family needs of <i>Recreation/Travel</i>	38g	2	23.53	<0.0001
Family income is generally adequate to meet the family needs of <i>Health care</i>	38h	2	23.08	<0.0001

Table 17h

Consumer Perceived Improvement in Living Situations: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Family is better off or worse off today compared to five years ago in <i>Financial well-being</i>	39	2	28.29	<0.0001
Family is better off or worse off today compared to five years ago in <i>Ability to purchase more goods/services for family members</i>	40	2	30.89	<0.0001
Family is better off or worse off today compared to five years ago in <i>Overall family living conditions</i>	41	2	28.89	<0.0001

Table 17i

Consumer Expectations and Experiences: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
The products last as long as I thought they should	42a	2	3.19	0.20
The products perform as well as expected	42b	2	5.69	0.06
The products are easy to care for as expected	42c	2	1.17	0.56
The products are easy to operate/handle as expected	42d	2	4.66	0.09
The products' warranties meet my expectations	42e	3	4.75	0.19

Table 17j

Consumer Attitudes Toward Government: Chi-square Analysis of Responses for Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Government regulations in trying to protect consumers are adequate	43	3	55.13	<0.0001
The enforcement of consumer laws by the government is generally satisfactory	44	3	61.66	<0.0001

Table 17k

Consumer Attitudes Toward Business: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Businessmen in general are trustworthy and want to satisfy their customers	45	3	11.84	0.008
In general, most companies or stores handle consumer complaints well	46	3	37.63	<0.0001

Table 171

Consumer Information Need and Source: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Prefer more information about <i>Decision making</i>	52a	5	21.53	0.0006
Prefer more information about <i>Financial planning</i>	52b	5	11.39	0.04
Prefer more information about <i>Purchasing resources</i>	52c	5	24.98	0.0001
Prefer more information about <i>Conserving resources</i>	52d	5	23.27	0.0003
Prefer more information regarding <i>Consumer laws, consumer rights, consumer responsibility, and consumer assistance</i>	52e	5	26.89	<0.0001
Prefer more information regarding <i>Consumer representation and consumer organizations</i>	52f	5	17.68	0.003
I usually get information about consumer protection through <i>Mass media (TV, radio)</i>	53a	3	7.30	0.06
I usually get information about consumer protection through <i>Advice from friends, family, and relatives</i>	53b	3	21.31	<0.0001
I usually get information about consumer protection through <i>Consumer organizations</i>	53c	3	22.15	<0.0001

(table continues)

Table 171 (continued)

Questionnaire Item	Question	<u>df</u>	χ^2 -value	p-value
I usually get information about consumer protection through <i>School education program</i>	53d	3	18.50	0.0003
I usually get information about consumer education through <i>Mass media (TV, radio)</i>	54a	3	9.18	0.02
I usually get information about consumer education through <i>Advice from friends, family, and relatives</i>	54b	3	17.96	0.0004
I usually get information about consumer education through <i>Consumer organizations</i>	54c	3	32.40	<0.0001
I usually get information about consumer education through <i>School education program</i>	54d	3	26.63	<0.0001

Table 17m

Consumer Opinion toward Consumer Education: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Consumer education should include information about <i>Buying goods and services</i>	55a	3	9.70	0.02
Consumer education should include information about <i>Decision making</i>	55b	3	2.22	0.32
Consumer education should include information about <i>Financial planning</i>	55c	3	3.65	0.16
Consumer education should include information about <i>Conserving resources</i>	55d	3	2.06	0.55
Consumer education should include information about <i>Consumer laws</i>	55e	3	5.62	0.06
Consumer education should include information about <i>Consumer rights and responsibilities</i>	55f	3	1.43	0.48
Consumer education should include information about <i>Consumer organizations</i>	55g	3	15.50	0.014

Table 17n

Demographics: Chi-square Analysis of Responses from Americans and Egyptians

Questionnaire Item	Question	df	χ^2 -value	p-value
Gender	56	1	2.35	0.12
Age	57	5	13.60	0.008
Marital status	58	4	21.59	0.0002
Presence of children				
	59a	2	2.97	0.22
	59b	3	10.90	0.01
	59c	3	15.36	0.001
	59d	3	13.45	0.003
	59e	4	1.71	0.79
University position	61	2	8.09	0.01
Employment status				
Respondent	62a	2	25.85	<0.0001
Spouse	62b	3	16.78	0.0008

Factor Analysis

The objective of this section is to apply the factor analysis to each set of questionnaire items that form one dependent variable. The dependent variables are: perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging. Factor analysis was applied to each variable, for each country, to describe the structure of this variable, that is, to find out the subsets of the questionnaire items that compose together the factors representing the dependent variable.

Within each factor analysis, the procedure is as follows:

- (1) Choosing the number of factors that represent together the dependent variable under consideration. The number of chosen factors are equal to the number of eigenvalues for the correlation matrix of the variables which are greater than or equal to one².
- (2) Testing the adequacy of the factors chosen by using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. A value of 0.7 or greater is considered to be a good indicator for the adequacy of the factors chosen (Lomax, 2001).
- (3) Extracting the factors using the Principal Component Analysis (PCA) and then calculating the initial loadings. The loadings are the correlation coefficients between the questionnaire items and the factors.
- (4) Finally, rotating the initial loadings using the Varimax rotation method³.

In the following subsections, the results of factor analysis for each dependent variable in each country are presented.

² One major method for determining number of factors is Kaiser's rule. It suggests that the number of factors to be retained = the number of eigenvalues ≥ 1 .

³ Since the initial loadings may not be easily interpretable, it is useful to rotate them using a rotation method.

Perception of Consumer Problems

In U.S.:

A factor analysis was computed for the questions 1 through 21 that load on the perception of consumer problems scale. Six factors had eigenvalues greater than or equal to one. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.79 which indicates a good factor model. The rotated loadings are presented in Table 18a.

As shown in Table 18a, questions 2 (distasteful or offensive advertising), 3 (deceptive advertising), 4 (misrepresentation of product/service), 5 (deceptive packaging), 6 (unsatisfactory performance or workmanship of a product), 8 (unsatisfactory service), and 20 (unclear/incomplete instructions for use) load on the first factor. Questions 9 (failure to receive delivery of ordered products), 10 (overcharge or excessive price), 12 (deceptive or fraudulent pricing/billing), and 13 (incorrect billing) load on the second factor. Questions 18 (product harmful to health), 19 (product harmful to environment), and 21 (refusal of credit) load on the third factor. Questions 7 (unsatisfactory repair), 14 (manufacturer/dealer did not live up to warranty), and 15 (failure to receive refund) load on the fourth factor. Questions 16 (unsafe or caused injury product), and 17 (products adulterated with other substances) load on the fifth factor, and questions 1 (store did not have an advertised product), and 11 (goods received in damaged condition) load on the sixth factor. Table 18b summarizes these results and gives the percentage of the variance from the total variance for each factor.

As shown in Table 18b, the percent of variance of the first factor is approximately 31% which is triple that of the second factor. Thus, we can say that the questions that dealt with the untrue, deceptive, and misleading advertising, and that load on the first factor are the most important items in determining the perception of consumer problems in the U.S.

Table 18a

Rotated Factor Loadings for the Questions Forming the Perception of Consumer Problems Scale in the U.S.

Questions 1 through 21	Factors					
	1	2	3	4	5	6
Q1	0.07	- 0.07	0.06	0.01	- 0.15	<u>0.85</u>
Q2	<u>0.72</u>	- 0.04	0.26	- 0.05	0.10	0.01
Q3	<u>0.63</u>	0.37	0.02	- 0.12	0.21	0.22
Q4	<u>0.69</u>	0.04	0.27	0.18	0.06	0.11
Q5	<u>0.70</u>	0.33	- 0.04	- 0.01	0.07	- 0.04
Q6	<u>0.68</u>	0.21	- 0.02	0.26	0.01	- 0.01
Q7	0.30	- 0.08	0.01	<u>0.79</u>	0.08	0.08
Q8	<u>0.62</u>	0.18	- 0.01	0.26	0.08	- 0.07
Q9	0.02	<u>0.50</u>	0.33	0.20	0.30	- 0.03
Q10	0.26	<u>0.73</u>	0.17	- 0.01	0.09	- 0.12
Q11	0.02	0.46	0.09	0.31	0.19	<u>0.54</u>
Q12	0.19	<u>0.71</u>	0.18	0.11	- 0.07	0.06
Q13	0.46	<u>0.57</u>	- 0.12	0.04	0.16	0.10
Q14	0.17	0.48	0.09	<u>0.60</u>	0.27	0.07
Q15	0.07	0.24	0.42	<u>0.53</u>	0.07	0.05
Q16	0.11	0.19	0.17	0.40	<u>0.68</u>	- 0.09
Q17	0.19	0.07	0.17	0.01	<u>0.81</u>	- 0.05
Q18	0.07	0.02	<u>0.73</u>	0.15	0.36	0.20
Q19	0.20	0.17	<u>0.73</u>	- 0.07	0.20	0.03
Q20	<u>0.73</u>	0.08	0.25	0.24	0.01	0.06
Q21	0.23	0.30	<u>0.61</u>	0.31	- 0.27	- 0.13

Table 18b

Summary of the Results of Factor Analysis for the Perception of Consumer Problems Scale in the U.S.

Factors	% of Variance	Questions Forming the Factor
1	30.9	Q2, Q3, Q4, Q5, Q6, Q8, and Q20
2	9.3	Q9, Q10, Q12, and Q13
3	6.5	Q18, Q19, and Q21
4	6.1	Q7, Q14, and Q15
5	5.6	Q16, and Q17
6	4.9	Q1, and Q11

In Egypt:

Seven factors were chosen. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.73 which indicates a good factor model. The rotated loadings are presented in Table 19a.

As shown in Table 19a, questions 15 (failure to receive refund), 16 (unsafe or caused injury product), 17 (products adulterated with other substances), 18 (product harmful to health), and 19 (product harmful to environment) load on the first factor. Questions 9 (failure to receive delivery of ordered products), 11 (goods received in damaged condition), 12 (deceptive or fraudulent pricing/billing), 13 (incorrect billing), and 14 (manufacturer/dealer did not live up to warranty) load on the second factor. Questions 2 (distasteful or offensive advertising), 4 (misrepresentation of product/service), and 6 (unsatisfactory performance or workmanship of a product) load on the third factor. Questions 1 (store did not have an advertised product), and 5 (deceptive packaging) load on the fourth factor. Questions 3 (deceptive advertising), 20 (unclear/incomplete instructions for use), and 21 (refusal of credit) load on the fifth factor. Questions 7 (unsatisfactory repair), and 8 (unsatisfactory service) load on the seventh factor. Table 19b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 19a

Rotated Factor Loadings for the Questions Forming the Perception of Consumer Problems Scale in Egypt

Questions 1 through 21	Factors						
	1	2	3	4	5	6	7
Q1	0.19	0.13	- 0.26	<u>0.69</u>	0.16	0.18	0.01
Q2	0.03	0.03	<u>0.78</u>	- 0.04	0.04	0.14	- 0.11
Q3	0.09	- 0.01	0.14	0.14	<u>0.78</u>	0.10	0.03
Q4	0.05	0.09	<u>0.66</u>	0.18	0.27	- 0.18	0.21
Q5	0.16	0.12	0.20	<u>0.69</u>	- 0.03	- 0.05	- 0.06
Q6	0.05	0.04	<u>0.58</u>	- 0.12	- 0.34	0.50	0.04
Q7	- 0.01	0.41	0.04	0.15	- 0.02	- 0.13	<u>0.61</u>
Q8	0.04	- 0.06	0.00	- 0.16	0.01	0.12	<u>0.83</u>
Q9	0.11	<u>0.75</u>	- 0.19	- 0.01	0.10	- 0.17	0.03
Q10	- 0.18	0.00	0.08	0.09	0.14	<u>0.74</u>	0.01
Q11	0.07	<u>0.58</u>	0.01	0.22	0.04	0.39	0.26
Q12	- 0.01	<u>0.76</u>	0.11	0.17	0.02	0.12	0.01
Q13	0.07	<u>0.73</u>	0.19	- 0.01	- 0.06	0.06	0.07
Q14	0.42	<u>0.55</u>	0.09	0.27	- 0.17	- 0.24	- 0.15
Q15	<u>0.52</u>	0.45	- 0.11	- 0.16	0.05	- 0.09	- 0.05
Q16	<u>0.67</u>	0.22	0.04	0.34	- 0.01	0.06	- 0.19
Q17	<u>0.78</u>	- 0.02	- 0.03	0.10	0.25	0.02	0.11
Q18	<u>0.79</u>	0.04	0.16	0.10	- 0.02	- 0.15	0.07
Q19	<u>0.84</u>	0.05	0.00	0.07	- 0.02	- 0.06	0.02
Q20	0.35	0.22	- 0.12	- 0.28	<u>0.46</u>	0.29	- 0.20
Q21	0.40	0.41	- 0.02	0.20	- <u>0.42</u>	0.14	- 0.01

Table 19b

Summary of the Results of Factor Analysis for the Perception of Consumer Problems Scale in Egypt

Factors	% of Variance	Questions Forming the Factor
1	21.8	Q15, Q16, Q17, Q18, and Q19
2	10.4	Q9, Q11, Q12, Q13, and Q14
3	8.3	Q2, Q4, and Q6
4	6.6	Q1, and Q5
5	6.1	Q3, Q20, and Q21
6	5.5	Q10
7	4.8	Q7 and Q8

As shown in Table 19b, the percent of variance of the first factor is twice that of the second factor. Thus, we can say that the questions that dealt with the health related and the environmental effects of products, and that load on the first factor are the most important questions that determine the perception of consumer problems in Egypt. Also, question 10 (overcharge and excessive price) loads on a factor by itself. This reveals the importance of the price for the Egyptian consumers.

Consumer Concerns for Price

In U.S.:

Two factors were chosen according to the number of eigenvalues greater than or equal one. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.78 which indicates a good factor model. The rotated loadings are presented in Table 20a.

As shown in Table 20a, questions 32a (consumer concern for the price of *food*), 33a (consumer concern for the price of *clothing*), 34a (consumer concern for the price of *automobiles*), 35a (consumer concern for the price of *household appliances*), 36a (consumer concern for the price of *furniture/furnishings*), and 37a (consumer concern for the price of *health related products*) load on the first factor. Questions 22 (high prices of many products), and

23 (high cost of repairs on many products) load on the second factor. Table 20b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 20a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Price Scale in the U.S.

Questions 22-23 and 32a through 37a	Factors	
	1	2
Q22	0.01	<u>0.88</u>
Q23	0.04	<u>0.87</u>
Q32a	<u>0.81</u>	0.08
Q33a	<u>0.74</u>	0.02
Q34a	<u>0.87</u>	0.04
Q35a	<u>0.82</u>	- 0.06
Q36a	<u>0.84</u>	- 0.01
Q37a	<u>0.75</u>	0.04

Table 20b

Summary of the Results of Factor Analysis for the Consumer Concerns for Price Scale in the U.S.

Factors	% of Variance	Questions Forming the Factor
1	48.9	Q32a, Q33a, Q34a, Q35a, Q36a, and Q37a
2	19.3	Q22 and Q23

As shown in Table 20b, the most important questions that show the consumer concerns for price in the U.S. are the ones that ask about the prices of specific products (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

In Egypt:

Three factors were chosen. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.83 which indicates a good factor model. The rotated loadings are presented in Table 21a.

Table 21a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Price Scale in Egypt

Questions 22-23 and 32a through 37a	Factors		
	1	2	3
Q22	0.11	- <u>0.86</u>	- 0.08
Q23	0.03	0.04	<u>0.98</u>
Q32a	<u>0.69</u>	0.30	- 0.12
Q33a	<u>0.86</u>	- 0.05	- 0.08
Q34a	<u>0.87</u>	0.00	0.12
Q35a	<u>0.83</u>	0.21	0.00
Q36a	<u>0.77</u>	- 0.12	0.11
Q37a	0.52	<u>0.57</u>	- 0.09

As shown in Table 21a, questions 32a (consumer concern for the price of *food*), 33a (consumer concern for the price of *clothing*), 34a (consumer concern for the price of *automobiles*), 35a (consumer concern for the price of *household appliances*), and 36a (consumer concern for the price of *furniture/furnishings*) load on the first factor. Questions 22 (high prices of many products) and 37a (consumer concern for the price of *health related products*) load on the second factor. Question 23 (high cost of repairs on many products) loads on the third factor. Table 21b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 21b

Summary of the Results of Factor Analysis for the Consumer Concerns for Price Scale in Egypt

Factors	% of Variance	Questions Forming the Factor
1	43.9	Q32a, Q33a, Q34a, Q35a, and Q36a
2	15.2	Q22 and Q37a
3	12.8	Q23

As shown in Table 21b, the most important questions that determine the consumer concerns for price in Egypt are the ones that ask about the prices of specific products (food, clothing, automobiles, household appliances, furniture/furnishings). It is notable that question 23 (high cost of repairs on many products) forms one factor by itself. This reveals the importance of this issue to the consumers in Egypt.

Consumer Concerns for Quality*In U.S.:*

Two factors were chosen according to the number of eigenvalues greater than or equal to one. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.83 which indicates a good factor model. The rotated loadings are presented in Table 22a.

As shown in Table 22a, questions 32b (consumer concern for the quality of *food*), 33b (consumer concern for the quality of *clothing*), 34b (consumer concern for the quality of *automobiles*), 35b (consumer concern for the quality of *household appliances*), 36b (consumer concern for the quality of *furniture/furnishings*), and 37b (consumer concern for the quality of *health related products*) load on the first factor. Questions 26 (poor quality of many products), 27 (poor quality of after sale services/repairs of products), 28 (poor quality of imported products), and 30 (poor quality of exported products) load on the second factor. Table 22b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 22a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Quality Scale in the U.S

Questions 26, 27, 28, 30 and 32b through 37b	Factors	
	1	2
Q26	0.01	<u>0.81</u>
Q27	0.07	<u>0.77</u>
Q28	- 0.05	<u>0.80</u>
Q30	- 0.09	<u>0.82</u>
Q32b	<u>0.80</u>	- 0.05
Q33b	<u>0.91</u>	0.04
Q34b	<u>0.78</u>	- 0.06
Q35b	<u>0.84</u>	- 0.05
Q36b	<u>0.89</u>	0.09
Q37b	<u>0.71</u>	- 0.03

Table 22b

Summary of the Results of Factor Analysis for the Consumer Concerns for Quality Scale in the U.S.

Factors	% of Variance	Questions Forming the Factor
1	40.8	Q32b, Q33b, Q34b, Q35b, Q36b, and Q37b
2	25.7	Q26, Q23, Q28, and Q30

As shown in Table 22b, the most important questions that determine the consumer concerns for quality in the U.S. are the ones that ask about the prices of specific products (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

In Egypt:

Two factors were chosen. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.84 which indicates a good factor model. The rotated loadings are presented in Table 23a.

Table 23a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Quality Scale in Egypt

Questions 26, 27, 28, 30 and 32b through 37b	Factors	
	1	2
Q26	0.01	<u>0.62</u>
Q27	0.17	<u>0.47</u>
Q28	0.00	<u>0.74</u>
Q30	- 0.05	<u>0.84</u>
Q32b	<u>0.75</u>	0.11
Q33b	<u>0.88</u>	0.11
Q34b	<u>0.85</u>	- 0.03
Q35b	<u>0.91</u>	0.06
Q36b	<u>0.82</u>	0.15
Q37b	<u>0.81</u>	- 0.08

As shown in Table 23a, questions 32b (consumer concern for the quality of *food*), 33b (consumer concern for the quality of *clothing*), 34b (consumer concern for the quality of *automobiles*), 35b (consumer concern for the quality of *household appliances*), 36b (consumer concern for the quality of *furniture/furnishings*), and 37b (consumer concern for the quality of *health related products*) load on the first factor. While questions 26 (poor quality of many products), 27 (poor quality of after sale services/repairs of products), 28 (poor quality of imported products), and 30 (poor quality of exported products) load on the second factor. Table 23b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 23b

Summary of the Results of Factor Analysis for the Consumer Concerns for Quality Scale in Egypt

Factors	% of Variance	Questions Forming the Factor
1	42.7	Q32b, Q33b, Q34b, Q35b, Q36b, and Q37b
2	19.2	Q26, Q27, Q28, and Q30

As shown in Table 23b, the most important questions that determine the consumer concerns for quality in Egypt are the ones that ask about the quality of specific products (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

Consumer Concerns for Safety

In U.S.:

Three factors were chosen according to the number of eigenvalues greater than or equal to one. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.73 which indicates a good factor model. The rotated loadings are presented in Table 24a.

As shown in Table 24a, questions 34c (consumer concern for the safety of *automobiles*), 35c (consumer concern for the safety of *household appliances*), and 37c (consumer concern for the safety of *health related products*) load on the first factor. Questions 29 (unsafe/hazardous imported products), and 31 (unsafe/hazardous exported products) load on the second factor. Questions 33c (consumer concern for the safety of *clothing*), and 36c (consumer concern for the safety of *furniture/furnishings*) load on the third factor. Table 24b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 24a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Safety Scale in the U.S.

Questions 29, 31 and 32c through 37c	Factors		
	1	2	3
Q29	0.14	<u>0.93</u>	0.06
Q31	0.02	<u>0.94</u>	0.16
Q32c	<u>0.62</u>	0.06	0.41
Q33c	0.00	0.04	<u>0.90</u>
Q34c	<u>0.88</u>	0.06	0.17
Q35c	<u>0.82</u>	0.25	0.21
Q36c	0.36	0.25	<u>0.74</u>
Q37c	<u>0.88</u>	- 0.04	- 0.10

Table 24b

Summary of the Results of Factor Analysis for the Consumer Concerns for Safety Scale in the U.S.

Factors	% of Variance	Questions Forming the Factor
1	34.3	Q34c, Q35c, and Q37c
2	23.5	Q29, and Q31
3	20.4	Q33c, and Q36c

As shown in Table 24b, the most important questions that determine the consumer concerns for safety in the U.S. are the ones that ask about the safety of automobiles, home appliances and health related products.

In Egypt:

Two factors were factors chosen. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.80 which indicates a good factor model. The rotated loadings are presented in Table 25a.

Table 25a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Safety Scale in Egypt

Questions 29, 31 and 32c through 37c	Factors	
	1	2
Q29	0.11	<u>0.83</u>
Q31	- 0.09	<u>0.72</u>
Q32c	<u>0.78</u>	0.09
Q33c	<u>0.56</u>	- 0.03
Q34c	<u>0.81</u>	- 0.02
Q35c	<u>0.80</u>	0.01
Q36c	<u>0.70</u>	- 0.19
Q37c	<u>0.81</u>	0.17

As shown in Table 25a, questions 32c (consumer concern for the safety of *food*), 33c (consumer concern for the safety of *clothing*), 34c (consumer concern for the safety of *automobiles*), 35c (consumer concern for the safety of *household appliances*), 36c (consumer concern for the safety of *furniture/furnishings*), and 37c (consumer concern for the safety of *health related products*) load on the first factor. Questions 29 (unsafe/hazardous imported products), and 31 (unsafe/hazardous exported products) load on the second factor. Table 25b summarizes these results and gives the percentage of the variance from the total variance for each factor.

As shown in Table 25b, the most important questions that determine the consumer concerns for safety in Egypt are the ones that ask about the safety of specific products (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

Table 25b

Summary of the Results of Factor Analysis for the Consumer Concerns for Safety Scale in Egypt

Factors	% of Variance	Questions Forming the Factor
1	42.4	Q32c, Q33c, Q34c, Q35c, Q36c, and Q37c
2	16.1	Q29, and Q31

Consumer Concerns for Labeling and Information

In U.S.:

Two factors were chosen according to the number of eigenvalues greater than or equal to one. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.73 which indicates a good factor model. The rotated loadings are presented in Table 26a.

As shown in Table 26a, questions 32d (consumer concern for the labeling and information of *food*), 33d (consumer concern for the labeling and information of *clothing*), 34d (consumer concern for the labeling and information of *automobiles*), 35d (consumer concern for the labeling and information of *household appliances*), 36d (consumer concern for the labeling and information of *furniture/furnishings*), and 37d (consumer concern for the labeling and information of *health related products*) load on the first factor. Questions 24 (deceptive and inaccurate labeling/information on products), and 25 (insufficient labeling/information on products) load on the second factor. Table 26b summarizes these results and gives the percentage of the variance from the total variance for each factor.

As shown in Table 26b, the most important questions that determine the consumer concerns for labeling and information in the U.S. are the ones that ask about the labeling and information of specific products (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

Table 26a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Labeling and Information Scale in the U.S.

Questions 24-25 and 32d through 37d	Factors	
	1	2
Q24	0.05	<u>0.92</u>
Q25	0.04	<u>0.92</u>
Q32d	<u>0.69</u>	0.04
Q33d	<u>0.77</u>	- 0.11
Q34d	<u>0.85</u>	0.02
Q35d	<u>0.78</u>	0.12
Q36d	<u>0.85</u>	0.02
Q37d	<u>0.47</u>	0.11

Table 26b

Summary of the Results of Factor Analysis for the Consumer Concerns for Labeling and Information Scale in the U.S.

Factors	% of Variance	Questions Forming the Factor
1	41.7	Q32d, Q33d, Q34d, Q35d, Q36d, and Q37d
2	21.6	Q24, and Q25

In Egypt:

Two factors were chosen. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.79 which indicates a good factor model. The rotated loadings are presented in Table 27a.

Table 27a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Labeling and Information Scale in Egypt.

Questions 24-25 and 32d through 37d	Factors	
	1	2
Q24	0.03	<u>0.72</u>
Q25	0.01	<u>0.80</u>
Q32d	<u>0.61</u>	0.33
Q33d	<u>0.78</u>	0.17
Q34d	<u>0.78</u>	- 0.12
Q35d	<u>0.80</u>	0.10
Q36d	<u>0.78</u>	- 0.06
Q37d	<u>0.55</u>	0.46

As shown in Table 27a, questions 32d (consumer concern for the labeling and information of *food*), 33d (consumer concern for the labeling and information of *clothing*), 34d (consumer concern for the labeling and information of *automobiles*), 35d (consumer concern for the labeling and information of *household appliances*), 36d (consumer concern for the labeling and information of *furniture/furnishings*), and 37d (consumer concern for the labeling and information of *health related products*) load on the first factor. Questions 24 (deceptive and inaccurate labeling/information on products), and 25 (insufficient labeling/information on products) load on the second factor. Table 27b summarizes these results and gives the percentage of the variance from the total variance for each factor.

As shown in Table 27b, the most important questions that determine the consumer concerns for labeling and information in Egypt are the ones that ask about the labeling and information of specific products (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

Table 27b

Summary of the Results of Factor Analysis for the Consumer Concerns for Labeling and Information Scale in Egypt

Factors	% of Variance	Questions Forming the Factor
1	39.2	Q32d, Q33d, Q34d, Q35d, Q36d, and Q37d
2	19.1	Q24, and Q25

Consumer Concerns for Environmental Effects of Products and their Packaging

In U.S.:

Three factors were chosen according to the number of eigenvalues greater than or equal one. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.83 which indicates a good factor model. The rotated loadings are presented in Table 28a.

As shown in Table 28a, questions 32e (consumer concern for the environmental effects of *food* and their packaging), 33e (consumer concern for the environmental effects of *clothing* and their packaging), 34e (consumer concern for the environmental effects of *automobiles*), 35e (consumer concern for the environmental effects of *household appliances*), 36e (consumer concern for the environmental effects of *furniture/furnishings* and their packaging), and 37e (consumer concern for the environmental effects of *health related products* and their packaging) load on the first factor. Questions 48 (know more about recycling than the average person), 49 (know how to select products and packages that reduce the amount of waste ending up in landfills), and 50 (knowledgeable about environmental issues) load on the second factor. Questions 47 (know that I buy products and packages that are environmentally safe), and 51 (government regulations currently require manufacturers to put information on their packages indicating whether the package is recyclable) load on the third factor. Table 28b summarizes these results and gives the percentage of the variance from the total variance for each factor.

As shown in Table 28b, the most important questions that determine the consumer concerns for environmental effects of products and their packaging in the U.S. are the ones that ask about the environmental effects of specific products and their packaging (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

Table 28a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Environmental Effects of Products and their Packaging Scale in the U.S.

Questions 47-51 and 32e through 37e	Factors		
	1	2	3
Q47	- 0.11	0.27	<u>0.69</u>
Q48	0.10	<u>0.89</u>	0.13
Q49	0.01	<u>0.92</u>	0.08
Q50	0.01	<u>0.85</u>	0.14
Q51	- 0.03	0.05	<u>0.85</u>
Q32e	<u>0.83</u>	0.01	- 0.11
Q33e	<u>0.86</u>	0.07	- 0.19
Q34e	<u>0.88</u>	0.00	- 0.03
Q35e	<u>0.82</u>	0.01	0.01
Q36e	<u>0.85</u>	0.08	- 0.12
Q37e	<u>0.83</u>	0.00	0.16

Table 28b

Summary of the Results of Factor Analysis for the Consumer Concerns for Environmental Effects of Products and their Packaging Scale in the U.S.

Factors	% of Variance	Questions Forming the Factor
1	39.1	Q32e, Q33e, Q34e, Q35e, Q36e, and Q37e
2	22.3	Q48, Q49, and Q50
3	12.1	Q47, and Q51

In Egypt:

Two factors were chosen. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.83 which indicates a good factor model. The rotated loadings are presented in Table 29a.

Table 29a

Rotated Factor Loadings for the Questions Forming the Consumer Concerns for Environmental Effects of Products and their Packaging Scale in Egypt

Questions 47-51 and 32e through 37e	Factors	
	1	2
Q47	0.09	<u>0.83</u>
Q48	0.09	<u>0.86</u>
Q49	0.12	<u>0.87</u>
Q50	0.10	<u>0.86</u>
Q51	0.05	<u>0.32</u>
Q32e	<u>0.70</u>	0.19
Q33e	<u>0.86</u>	0.15
Q34e	<u>0.85</u>	0.02
Q35e	<u>0.90</u>	0.04
Q36e	<u>0.83</u>	0.06
Q37e	<u>0.73</u>	0.14

As shown in Table 29a, questions 32e (consumer concern for the environmental effects of *food* and their packaging), 33e (consumer concern for environmental effects of *clothing* and their packaging), 34e (consumer concern for the environmental effects of *automobiles*), 35e (consumer concern for the environmental effects of *household appliances*), 36e (consumer concern for the environmental effects of *furniture/furnishings* and their packaging), and 37e (consumer concern for environmental effects of *health related products* and their packaging) load on the first factor. While questions 47 (know that I buy products and packages that are

environmentally safe), 48 (know more about recycling than the average person), 49 (know how to select products and packages that reduce the amount of waste ending up in landfills), 50 (knowledgeable about environmental issues), and 51 (government regulations currently require manufacturers to put information on their packages indicating whether the package is recyclable) load on the second factor. Table 29b summarizes these results and gives the percentage of the variance from the total variance for each factor.

Table 29b

Summary of the Results of Factor Analysis for the Consumer Concerns for the Environmental Effects of Products and their Packaging Scale in Egypt

Factors	% of Variance	Questions Forming the Factor
1	36.6	Q32e, Q33e, Q34e, Q35e, Q36e, and Q37e
2	28.3	Q47, Q48, Q49, Q50, and Q51

As shown in Table 29b, the most important questions that determine the consumer concerns for environmental effects of products and their packaging in Egypt are the ones that ask about the environmental effects of specific products and their packaging (food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

Two-sample Independent T-test:
Differences in Perception of Consumer
Problems and Concerns Between American and Egyptian Respondents

In this section, results of the two-sample independent t-test are presented to determine: (1) differences between American and Egyptian consumers' perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging, and (2) differences between the independent variables in each country. The independent variables were: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts.

This section is divided into two sub-sections. The first sub-section contains some descriptive statistics along with the mean confidence intervals for the variables in each country. The second sub-section presents the calculations for the two-sample independent t-test, and shows the t-test analysis results that determine if there is a significant difference between the American and the Egyptian consumers.

Differences Between American and Egyptian Respondents to the Twelve Scales of the Study:
Descriptive Statistics and Mean Confidence Intervals

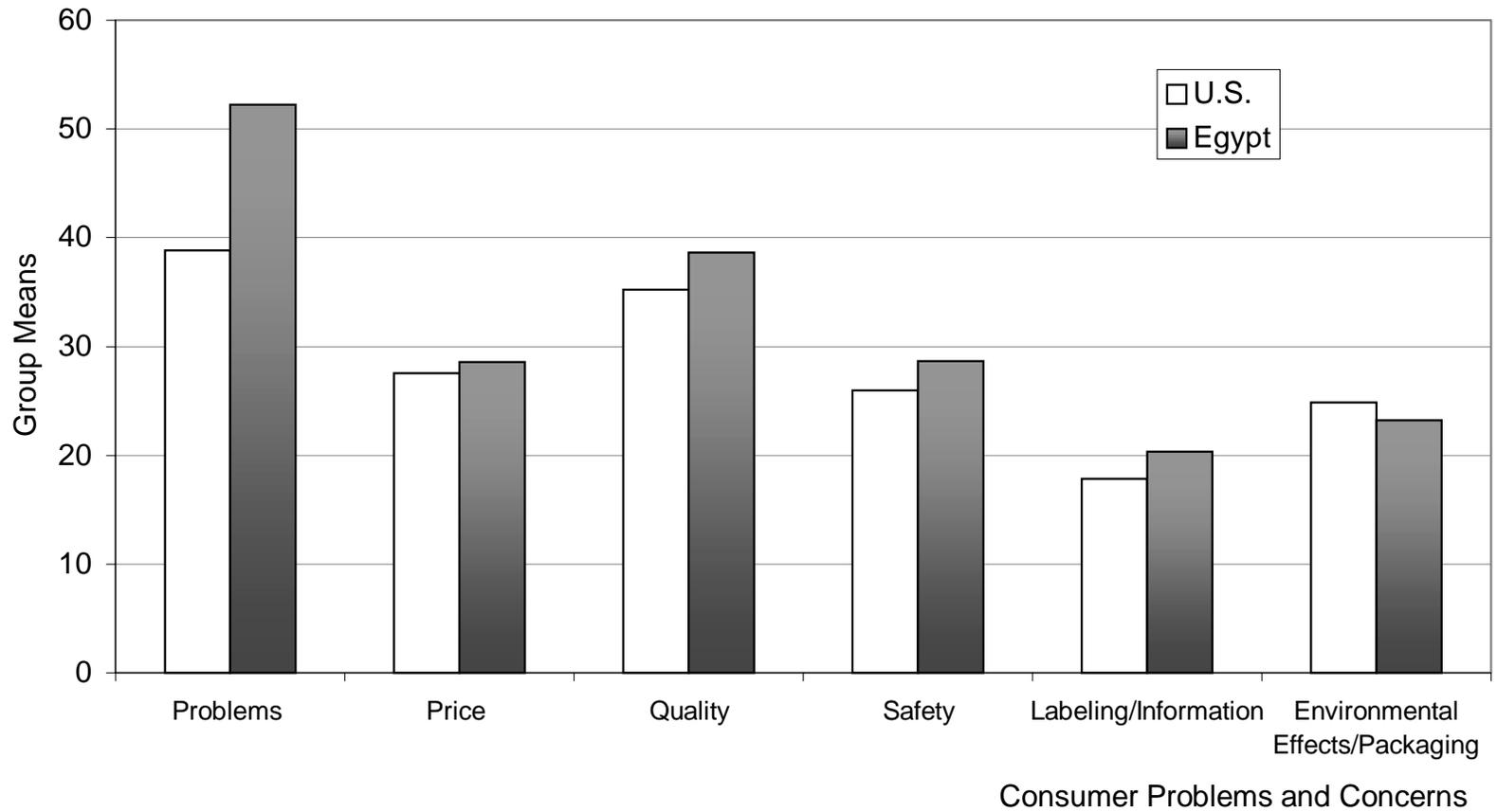
Results, shown in Table 30, reveal that Americans had higher group mean scores for concerns for environmental effects of the products and their packaging, perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, and attitudes toward consumer protection efforts by business. Egyptians showed higher group mean scores for perception of consumer problems, concerns for price, concerns for quality, concerns for safety, concerns for labeling and information, and attitudes toward consumer education efforts than Americans (see Graphs 1 and 2 for the group means of scores).

Table 30

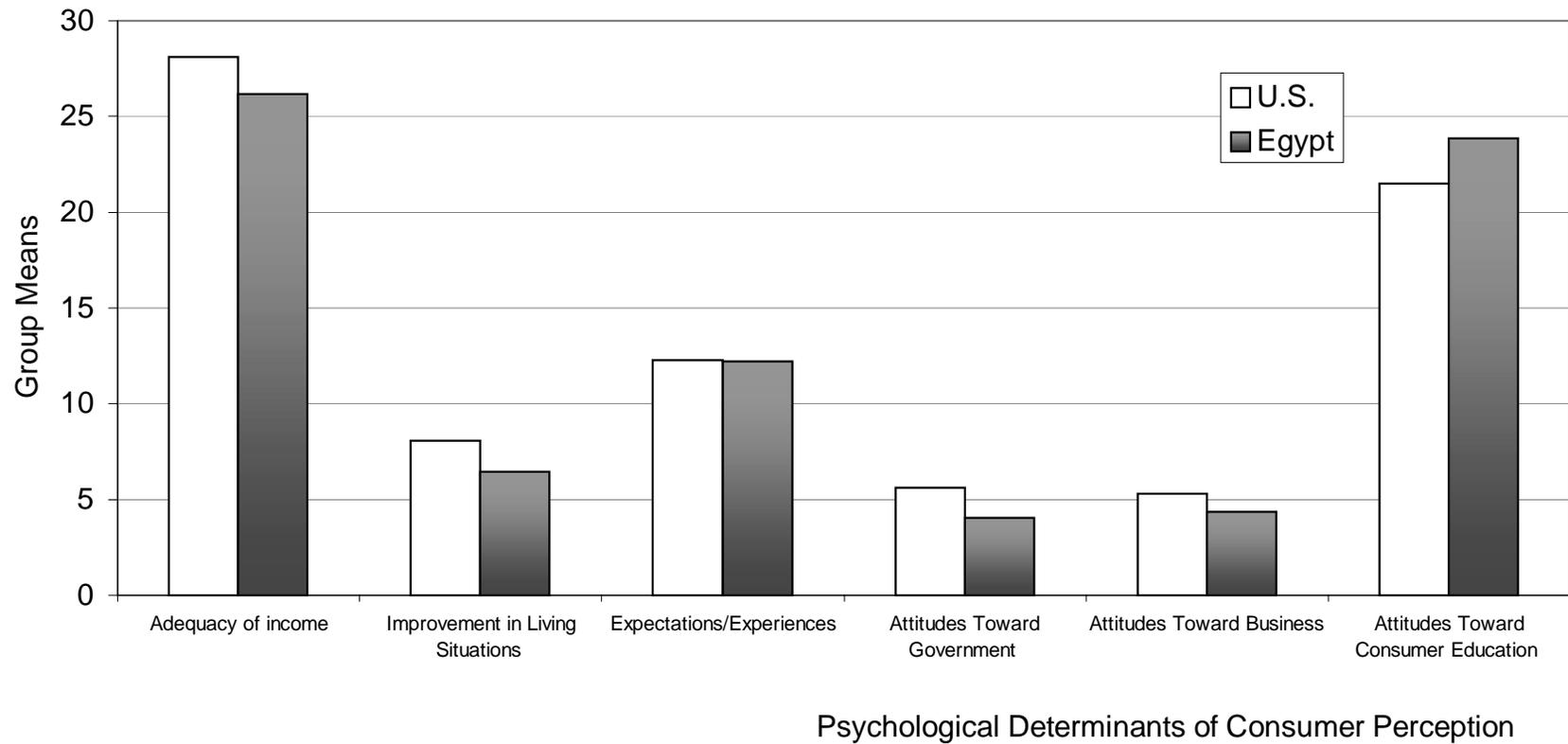
Differences Between American and Egyptian Respondents to the Twelve Scales of the Study: Descriptive Statistics and Mean Confidence Intervals

Variables	U.S.					Egypt				
	Minimum	Maximum	Mean	95% Confidence Interval of the Mean	Standard Deviation	Minimum	Maximum	Mean	95% Confidence Interval of the Mean	Standard Deviation
Perception of consumer problems	21	63	38.87	37.01, 40.73	9.76	35	63	52.27	51.03, 53.50	6.89
Concerns for price	12	38	27.57	26.42, 28.72	5.94	14	38	28.61	27.54, 29.68	6.27
Concerns for quality	17	46	35.26	34.24, 36.26	5.29	19	46	38.67	37.67, 39.66	5.83
Concerns for safety	13	38	25.97	24.85, 27.09	5.78	19	38	28.63	27.89, 29.37	4.35
Concerns for labeling/information	9	35	17.83	16.89, 18.78	4.88	10	36	20.34	19.65, 21.04	4.08
Concerns for environmental effects/packaging	14	44	24.85	23.68, 26.03	6.08	12	46	23.22	22.08, 24.36	6.69
Perceived adequacy of Income	10	30	28.10	27.48, 28.72	3.24	10	30	26.16	25.31, 27.01	3.82
Perceived improvement in living situations	3	9	8.06	7.69, 8.43	1.92	3	9	6.46	6.03, 6.89	2.57
Expectations and experiences with products	8	16	12.26	11.84, 12.69	2.21	5	15	12.21	11.86, 12.56	2.11
Attitudes toward government	2	8	5.63	5.45, 5.82	0.99	2	8	4.02	3.73, 4.32	1.78
Attitudes toward Business	2	8	5.28	5.06, 5.50	1.14	2	8	4.33	4.06, 4.59	1.61
Attitudes toward consumer education efforts	10.97	32.23	21.51	20.64, 22.37	4.54	12.16	37.67	23.88	23.12, 24.64	4.59

Graph 1. Differences Between Americans and Egyptians in Consumer Problems and Concerns



Graph 2. Differences Between Americans and Egyptians in the Psychological Determinants of Consumer Perception



Two-sample Independent T-test

This sub-section presents the calculations for the two-sample independent t-test, and shows the t-test analysis results that determine if there is a significant difference between the American and the Egyptian consumers. The differences between American and Egyptian consumers in their perception of consumer problems and concerns for price, quality, safety, labeling and information, environmental effects and packaging are presented along with the differences in the selected determinants of perception in each country (i.e., the independent variables). The independent variables were: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts.

Calculations

The aim of the t-test is to determine if the variables are significantly different between the American and the Egyptian respondents. For testing $H_0: \mu_1 = \mu_2$, the test statistic is:

$$t' = (\bar{X}_1 - \bar{X}_2) / \left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2} \right)^{\frac{1}{2}}$$

where \bar{X}_i is the mean value of the i^{th} population sample and S^2 is the estimate of the common invariance.

T-test Analysis Results

Results, shown in Table 31, indicate that the difference between American and Egyptian respondents are significant for each variable except for consumers concerns for price, and the consumers expectations and experiences with products.

T-test results showed significant difference between the American and the Egyptian perception of consumer problems ($t=11.88$, $df=190$, $p<0.0001$), concerns for quality ($t=4.72$, $df=232$, $p<0.0001$), safety ($t=3.93$, $df=188$, $p=0.0001$), labeling and information ($t=4.24$, $df=201$, $p<0.0001$), environmental effects of products and their

Table 31

Two-Sample Independent T-test: Differences Between Americans and Egyptians

Variable	Degrees of Freedom	t-value	p-value
Perception of consumer problems	190	11.88	<0.0001
Concerns for price	229	1.32	0.19
Concerns for quality	232	4.72	<0.0001
Concerns for safety	188	3.93	0.0001
Concerns for labeling and information	201	4.24	<0.0001
Concerns for environmental effects/packaging	232	1.98	0.049
Perceived adequacy of income	156	3.68	0.0003
Perceived improvement in living situations	248	5.62	<0.0001
Expectations and experiences with products	224	0.18	0.85
Attitudes toward government	229	9.10	<0.0001
Attitudes toward business	247	5.26	<0.0001
Attitudes toward consumer education efforts	232	4.08	<0.0001

packaging ($t=1.98$, $df=232$, $p=0.04$), perceived adequacy of income ($t=3.68$, $df=156$, $p=0.0003$), perceived improvement in living situations ($t=5.62$, $df=248$, $p<0.0001$), attitudes toward consumer protection efforts by government ($t=9.1$, $df=229$, $p<0.0001$), attitudes toward consumer protection efforts by business ($t=5.26$, $df=247$, $p<0.0001$), and attitudes toward consumer education efforts ($t=4.08$, $df=232$, $p<0.0001$).

Meanwhile, t-test results revealed no significant difference between the two samples in their concerns for price, with a t value of 1.32 ($df=229$, $p=0.18$), and in their expectations/experiences with products, with a t value of 0.18 ($df=224$, $p=0.85$). Also, the p-value of the consumer concerns for environmental effects of products and their packaging is not as small as the rest of the significantly different dependent variables. In fact, at a lower significance level such as $\alpha = 0.04$, the consumer concerns for environmental effects of products and their packaging is regarded as it is not significantly different. In addition, the chi-square analysis indicated that the question items that form this concern (i.e., consumer concerns for environmental effects of products and their packaging) are not statistically significant. Also, in further analyses, this variable will show non-significant difference between the two countries. Thus, we can assert that the consumer concerns for environmental effects of products and their packaging is not significantly different between the Americans and the Egyptians.

Determinants of Perception of Consumer Problems and Concerns

This section contains results of the Pearson correlation coefficients and the stepwise multiple regression analysis that were used to determine significant relationships between two or more independent variables and an interval-scaled dependent variable (i.e., to select the determinants of each dependent variable from the independent variables).

Pearson Correlation Coefficients and the Stepwise Regression Analyses Results

The Pearson correlation coefficient measures the direction and the degree of association (i.e., relationship) between the dependent and the independent variables. The formula of Pearson correlation coefficient is:

$$\rho_{xy} = \frac{(N \sum_{i=1}^N X_i Y_i) - (\sum_{i=1}^N X_i)(N \sum_{i=1}^N Y_i)}{\sqrt{\left(N(\sum_{i=1}^N X_i^2) - (\sum_{i=1}^N X_i)^2 \right) \left(N(\sum_{i=1}^N Y_i^2) - (\sum_{i=1}^N Y_i)^2 \right)}}$$

Where x and y are the independent and the dependent variables respectively, and N is the number of observations. After calculating the correlation coefficient between each pair of independent and dependent variables, a t-test was performed to test the significance of the coefficient. The null hypothesis for this test is:

$$H_0 = \rho = 0$$

where ρ is the correlation coefficient between the dependent and the independent variables in the population. The test statistic for this test is:

$$t = \frac{r}{\sqrt{1 - r^2 / (n - 2)}}$$

where r is the sample correlation coefficient and n is the sample size. Pearson correlation coefficients for each pair of the dependent and the independent variables in each country are presented in Tables 32a and 32b. However, we cannot depend on the results of Pearson correlation coefficients in choosing (i.e., selecting) the determinants of each dependent variable. Thus, stepwise regression procedure was used.

Table 32a

Pearson Correlation Coefficients: Relationships Between Perception of Consumer Problems and Concerns and Selected Independent Variables for Americans

Independent Variables	Dependent Variables					
	Perception of Consumer Problems	Concerns for Price	Concerns for Quality	Concerns for Safety	Concerns for Labeling/Information	Concerns for Environmental Effects/Packaging
Perceived adequacy of income	r= - 0.308 p= 0.001	r= -0.054 p= 0.582	r= -0.078 p= 0.431	r= 0.072 p= 0.465	r = - 0.111 p= 0.260	r= - 0.063 p= 0.521
Perceived improvement in living situations	r= 0.019 p= 0.846	r= -0.072 p= 0.465	r= 0.029 p= 0.767	r= -0.009 p= 0.925	r= 0.109 p=0.268	r= 0.160 p= 0.102
Expectations and experiences with products	r=- 0.369 p= 0.000	r= 0.148 p= 0.131	r= -0.154 p= 0.118	r= -0.133 p= 0.176	r= - 0.133 p= 0.175	r= - 0.025 p= 0.803
Attitudes toward consumer protection by government	r= - 0.230 p= 0.017	r= 0.126 p= 0.199	r= 0.060 p= 0.540	r= -0.012 p= 0.905	r= - 0.087 p= 0.377	r= - 0.058 p= 0.559
Attitudes toward consumer protection by business	r= -0.267 p= 0.005	r= 0.185 p= 0.059	r= 0.137 p= 0.164	r= -0.033 p= 0.735	r= - 0.203 p= 0.037	r= - 0.124 p= 0.206
Attitudes toward consumer education efforts	r= 0.209 p= 0.030	r= -0.272 p= 0.005	r= 0.059 p= 0.552	r= 0.141 p= 0.151	r= 0.196 p= 0.045	r= 0.204 p= 0.037

Table 32b

Pearson Correlation Coefficients: Relationships Between Perception of Consumer Problems and Concerns and Selected Independent Variables for Egyptians

Independent Variables	Dependent Variables					
	Perception of Consumer Problems	Concerns for Price	Concerns for Quality	Concerns for Safety	Concerns for Labeling/Information	Concerns for Environmental Effects/Packaging
Perceived adequacy of income	r= 0.244 p= 0.028	r= - 0.22 p= 0.053	r= 0.191 p= 0.094	r= 0.136 p= 0.235	r= - 0.056 p= 0.627	r= 0.179 p= 0.118
Perceived improvement in living situations	r= 0.346 p= 0.000	r= 0.049 p= 0.575	r= -0.081 p= 0.351	r= -0.161 p= 0.062	r= 0.069 p= 0.429	r= 0.176 p= 0.041
Expectations and experiences with products	r= 0.216 p= 0.017	r= -0.162 p= 0.060	r= 0.139 p= 0.108	r= 0.192 p= 0.026	r= 0.082 p= 0.346	r= 0.016 p= 0.855
Attitudes toward consumer protection by government	r= 0.255 p= 0.005	r= -0.079 p= 0.361	r= -0.002 p= 0.980	r= 0.136 p= 0.117	r= - 0.029 p= 0.740	r= 0.016 p= 0.856
Attitudes toward consumer protection by business	r= 0.246 p= 0.006	r= 0.047 p= 0.586	r= -0.061 p= 0.484	r= -0.028 p= 0.749	r= - 0.080 p= 0.359	r= 0.008 p= 0.930
Attitudes toward consumer education efforts	r= 0.195 p= 0.032	r= -0.051 p= 0.554	r= -0.079 p= 0.360	r= -0.137 p= 0.113	r= 0.140 p= 0.106	r= 0.330 p= 0.000

The stepwise regression analysis was performed for two reasons. First, to select the most important independent variables that have a significant relationship with the dependent variable under consideration (i.e., to choose the independent variables that can significantly predict the dependent variable; these independent variables are referred to as the determinants of the dependent variable). Second, to estimate the linear regression function between the dependent variable and the independent variables, which are selected (by the stepwise selection) to be the determinants of this dependent variable (Lomax, 2001).

In the following subsections, results of the correlation coefficient and stepwise regression analyses for each pair of the dependent variables (i.e., perception of consumer problems, concerns for price, concerns for quality, concerns for safety, concerns for labeling and information, and concerns about environmental effects of products and their packaging) and the independent variables (i.e., perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts) in each country are presented.

Perception of Consumer Problems

In the U.S. :

As shown in Table 32a, the correlation coefficients for the perception of consumer problems and each independent variable (except for the perceived improvement in living situations) were significant. However, the relationship between the perception of consumer problems and each independent variable (except for the attitude toward consumer education efforts) was an inverse relationship according to the negative sign of the correlation coefficients.

The stepwise regression analysis selected the following independent variables to be the determinants of the perception of consumer problems in the U.S. The independent variables were: expectations and experiences with products, perceived adequacy of income, attitudes toward consumer education efforts, and attitude toward consumer protection efforts by government. The independent variables were presented in a

descending order according to the importance of each variable with respect to the perception of consumer problems. Table 33a presents the regression coefficients for each determinant along with the t-value and the p-value for testing the significance of each regression coefficient.

Table 33a

Stepwise Regression Coefficients of the Determinants of the Perception of Consumer Problems in the U.S.

Determinants	Regression Coefficient	t-value	p-value
Constant	72.362	7.399	0.000
Expectations and experiences with products	-1.178	2.95	0.004
Perceived adequacy of income	- 0.673	2.531	0.013
Attitudes toward consumer education efforts	0.379	2.040	0.044
Attitudes toward consumer protection efforts by government	-1.466	1.681	0.096

As shown in Table 33a, the only non-significant regression coefficient was attitudes toward consumer protection efforts by government, while the rest of the regression coefficients were significant.

In Egypt:

As shown in Table 32b, all of the correlation coefficients for the perception of consumer problems and each independent variable are significant. The relationship between the perception of consumer problems and each independent variable was positive according to the positive sign of the correlation coefficients.

The stepwise regression analysis selected the following independent variables to be the determinants of the perception of consumer problems in Egypt. The independent variables were: perceived improvement in living situations, attitudes toward consumer protection efforts by business, perceived adequacy of income, and attitudes toward consumer education efforts. The independent variables were presented in a descending order according to the importance of each variable with respect to the perception of consumer problems. Table 33b presents the regression coefficients for each determinant along with the t-value and the p-value for testing the significance of each regression coefficient.

Table 33b

Stepwise Regression Coefficients of the Determinants of the Perception of Consumer Problems in Egypt

Determinants	Regression Coefficient	t-value	p-value
Constant	31.488	6.025	0.000
Perceived improvement in living situations	0.666	3.385	0.001
Attitudes toward consumer protection by business	0.702	2.243	0.027
Perceived adequacy of Income	0.341	1.968	0.031
Attitudes toward consumer education efforts	0.189	1.726	0.087

According to the p-values, as shown in Table 33b, the only regression coefficient that was not significant was the attitudes toward consumer education efforts, while the rest of the regression coefficients were significant.

Consumer Concerns for Price

In the U.S. :

Results, shown in Table 32a, reveal that the only significant relationship was between the consumer concerns for price and the attitudes toward consumer education efforts. However, this relationship was an inverse relationship according to the negative sign of the correlation coefficients. Meanwhile, the p-value for the correlation coefficient between the consumer concerns for price and the attitudes toward consumer protection efforts by business was closer to 0.05.

Subsequently, the stepwise regression analysis selected the independent variables of attitudes toward consumer education and attitudes toward consumer protection efforts by business to be the determinants of the consumer concerns for price in the U.S. The independent variables were presented in a descending order according to the importance of each variable with respect to the consumer concerns for price. Table 34a presents the regression coefficients for each determinant along with the t-value and the p-value for testing the significance of each regression coefficient.

Table 34a

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Price in the U.S.

Determinants	Regression Coefficient	t-value	p-value
Constant	29.923	8.62	0.000
Attitudes toward consumer education efforts	- 0.368	3.092	0.003
Attitudes toward consumer protection efforts by business	1.050	2.227	0.028

As shown in Table 34a, all regression coefficients were significant.

In Egypt:

As shown in Table 32b, results reveal that there was a significant relationship between consumer concerns for price and the perceived adequacy of income. However, this relationship was an inverse relationship according to the negative sign of the correlation coefficient.

Subsequently, the stepwise regression analysis chose the independent variables of perceived adequacy of income to be the only determinant for consumer concerns for price in Egypt. Table 34b presents the regression coefficient for the determinant (i.e., perceived adequacy of income) along with the t-value and the p-value for testing the significance of the regression coefficient.

Table 34b

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Price in Egypt

Determinants	Regression Coefficient	t-value	p-value
Constant	37.911	8.138	0.000
Perceived adequacy of income	- 0.355	2.007	0.047

According to the p-value, as shown in Table 34b, the regression coefficient for the perceived adequacy of income was significant.

Consumer Concerns for Quality

In the U.S.:

As shown in Table 32a, there was no significant relationship between the consumer concerns for quality and any independent variable. Subsequently, the stepwise regression analysis did not select any independent variable to be the determinant of the consumer concerns for quality in the U.S.

In Egypt:

As shown in Table 32b, no independent variable had a significant relationship with the consumer concerns for quality. However, the perceived adequacy of income had a p-value that was closer to the 0.05 level of significance. Subsequently, it was the only independent variable that the stepwise regression procedure chose to be the determinant of consumer concerns for quality in Egypt. As shown in Table 35, the regression coefficient for the perceived adequacy of income was not significant.

Table 35

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Quality in Egypt

Determinants	Regression Coefficient	t-value	p-value
Constant	31.284	7.206	0.000
Perceived adequacy of income	0.282	1.711	0.089

Consumer Concerns for Safety

In the U.S. :

As shown in Table 32a, there was no significant relationship between the consumer concerns for safety and any independent variable. As a result, the stepwise regression procedure did not choose any independent variable to be the determinant of the consumer concerns for safety in the U.S.

In Egypt:

As shown in Table 32b, the only independent variable that had a positive significant relationship with consumer concerns for safety was the expectations and experiences with products. Also, the perceived improvement in living situations variable had a p-value that was close to the 0.05 level of significance. Consequently, the stepwise regression analysis selected these two independent variables (i.e., expectations and experiences with products, and the perceived improvement in living situations) to be the

determinants of the consumer concerns for safety. Table 36 presents the regression coefficients for each determinant along with the t-value and the p-value for testing the significance of each regression coefficient.

Table 36

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Safety in Egypt

Determinants	Regression Coefficient	t-value	p-value
Constant	25.656	11.862	0.000
Expectations and experiences with products	0.396	2.391	0.018
Perceived improvement in living situations	- 0.289	2.134	0.035

According to the p-values, as shown in Table 36, the two coefficients of the two independent variables were significant.

Consumer Concerns for Labeling and Information

In the U.S.:

As shown in Table 32a, the attitudes toward consumer protection by business and the attitudes toward consumer education efforts each had a significant relationship with the consumer concerns for labeling and information in the U.S. Attitudes toward consumer protection by business had a negative relationship with the consumer concerns for labeling and information, while the attitudes toward consumer education efforts had a positive one.

Subsequently, these two independent variables (i.e., attitudes toward consumer protection by business and the attitudes toward consumer education efforts) were the variables that were chosen by the stepwise regression procedure to be the determinants of

the consumer concerns for labeling and information in the U.S. Table 37 presents the regression coefficients for each determinant along with the t-value and the p-value for testing the significance of each regression coefficient.

Table 37

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Labeling and Information in the U.S.

Determinants	Regression Coefficient	t-value	p-value
Constant	17.885	6.168	0.000
Attitudes toward consumer protection efforts by business	- 0.918	2.330	0.022
Attitudes toward consumer education efforts	0.228	2.251	0.026

As shown in Table 37, the regression coefficients of the attitudes toward consumer protection efforts by business and the attitudes toward consumer education were both significant.

In Egypt:

As shown in Table 32b, there was no significant relationship between the consumer concerns for labeling and information and any independent variable. As a result, the stepwise regression procedure did not choose any independent variable to be the determinant of the consumer concerns for labeling and information in Egypt.

Consumer Concerns for Environmental Effects of Products and their Packaging

In the U.S.:

As shown in Table 32a, the attitudes toward consumer education efforts had a positive significant relationship with the consumer concerns for environmental effects of products and their packaging. Also, the stepwise regression analysis selected this

independent variable (i.e., the attitudes toward consumer education efforts) to be the determinant of the consumer concerns for environmental effects of products and their packaging. Table 38a presents the regression coefficients for the only determinant along with the t-value and the p-value for testing the significance of the regression coefficient.

Table 38a

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Environmental Effects of Products and their Packaging in the U.S.

Determinants	Regression Coefficient	t-value	p-value
Constant	19.139	6.937	0.000
Attitudes toward consumer education efforts	0.266	2.118	0.037

As shown in Table 38a, the regression coefficient of the attitudes toward consumer education efforts was significant.

In Egypt:

As shown in Table 32b, two independent variables had a significant relationship with the consumer concerns for environmental effects of products and their packaging. These variables were: the attitudes toward consumer education efforts, and the perceived improvement in living situations. The relationship between the consumer concerns for environmental effects of products and their packaging and the two independent variables was positive according to the positive sign of the correlation coefficients.

The stepwise regression analysis selected the attitudes toward consumer education efforts to be the only determinant of the consumer concerns for environmental effects of products and their packaging in Egypt. Table 38b presents the regression coefficients for the determinant along with the t-value and the p-value for testing the significance of the regression coefficient.

Table 38b

Stepwise Regression Coefficients of the Determinants of the Consumer Concerns for Environmental Effects of Products and their Packaging in Egypt

Determinants	Regression Coefficient	t-value	p-value
Constant	12.368	4.471	0.000
Attitudes toward consumer education efforts	0.454	3.995	0.000

As shown in Table 38b, the regression coefficient for the attitudes toward consumer education efforts was significant.

Summary of the Determinants of Consumer Problems and Concerns in Each Country

Table 39 presents the determinants for each dependent variable in each country.

Table 39

The Determinants for Each Dependent Variable From the Independent Variables in Each Country

Dependent Variables	U.S.		Egypt	
	Independent Variables (Determinants)	Significant/ Non-significant	Independent Variables (Determinants)	Significant/ Non-significant
Perception of Consumer Problems	Expectations and experiences with products	Significant	Perceived improvement in living situations	Significant
	Perceived adequacy of income	Significant	Attitudes toward consumer protection efforts by business	Significant
	Attitudes toward consumer education efforts	Significant	Perceived adequacy of income	Significant
	Attitudes toward consumer protection by government	Non-significant	Attitudes toward consumer education efforts	Non-significant
Concerns for Price	Attitudes toward consumer education efforts	Significant	Perceived adequacy of income	Significant
	Attitudes toward consumer protection efforts by business	Significant		
Concerns for Quality	_____	_____	Perceived adequacy of income	Non-significant
Concerns for Safety	_____	_____	Expectations and experiences with products	Significant
			Perceived improvement in living situations	Significant
Concerns for Labeling and Information	Attitudes toward consumer protection efforts by business	Significant	_____	_____
	Attitudes toward consumer education efforts	Significant		
Concerns for Environmental Effects of products and their Packaging	Attitudes toward consumer education efforts	Significant	Attitudes toward consumer education efforts	Significant

Influence of the Demographic Variables on the Perception of Consumer Problems and Concerns

In this section, the influence of each demographic variable on each dependent variable was investigated. The demographic variables were: gender, age, marital status, presence of children, education level, employment status, university position, and family annual income. This section was divided into two subsections. The first subsection presents the results of the one-way Analysis of Variance (ANOVA) in each country, while the second subsection contains the results of the two-way ANOVA.

Results of the One-way ANOVA

A one-way ANOVA is a parametric statistical analysis in which the influence of one independent variable (factor) on the dependent variable is investigated. In this section, the independent variable was not an interval scale variable (as in regression analysis). Rather, it was a nominal scale variable (as in the demographic variables).

One-way analyses of variance (ANOVA) were established for each dependent variable in each country. Within each analysis, the researcher considered one independent variable (demographic variables) and studied its influence on the dependent variable (perception of consumer problems and concerns variables) under consideration. A significant influence of a demographic variable on a dependent variable meant that the perception of consumer problems and concerns were varied according to the different classes of the demographic variable. As shown in Tables 40 and 41, the results of the one-way ANOVA in the U.S. and in Egypt are presented. The following results were found:

- Perception of consumer problems: In the U.S., the presence of children in three age groups had a significant influence on the perception of consumer problems. These age groups were: 1-5 years old, 13-17 years old, and 18 years old or over. In Egypt, three demographic variables had a significant influence on the perception of consumer problems. These demographic variables were: the employment status of the respondent's spouse, the family annual income, and the presence of children in three age groups. These age groups were: less than 1 year old, 6-12 years old, and 18 years old or over.

Table 40

Results of the One-way ANOVA for Each Dependent Variable in the U.S.

Demographic Variables	Dependent Variables					
	Perception of consumer problems	Consumer concerns related to price	Consumer concerns related to quality	Consumer concerns related to safety	Consumer concerns related to labeling/information	Consumer concerns related to environmental effects/packaging
Gender	F = 0.041 p = 0.84	F = 0.004 p = 0.951	F = 0.041 p = 0.841	F = 0.817 p = 0.368	F = 0.000 p = 0.988	F = 0.023 p = 0.880
Age	F = 2.032 p = 0.095	F = 2.138 p = 0.082	F = 2.079 p = 0.089	F = 1.556 p = 0.192	F = 1.132 p = 0.346	F = 0.964 p = 0.431
Marital status	F = 0.965 p = 0.430	F = 2.416 p = 0.054	F = 0.568 p = 0.687	F = 1.879 p = 0.12	F = 1.243 p = 0.298	F = 1.500 p = 0.208
Presence of children in each age group						
Less than 1 year old	F = 0.043 p = 0.958	F = 0.797 p = 0.454	F = 0.089 p = 0.915	F = 0.374 p = 0.689	F = 0.718 p = 0.49	F = 0.671 p = 0.514
1-5 years old	F = 3.672 p = 0.029	F = 0.899 p = 0.410	F = 0.032 p = 0.969	F = 5.104 p = 0.008	F = 0.582 p = 0.561	F = 0.073 p = 0.929
6-12 years old	F = 0.034 p = 0.966	F = 2.084 p = 0.13	F = 1.104 p = 0.335	F = 0.682 p = 0.508	F = 0.386 p = 0.681	F = 0.683 p = 0.508
13-17 years old	F = 3.344 p = 0.039	F = 2.562 p = 0.082	F = 1.091 p = 0.34	F = 0.285 p = 0.753	F = 0.35 p = 0.71	F = 0.945 p = 0.39
18 years old	F = 2.681 p = 0.036	F = 0.304 p = 0.875	F = 0.299 p = 0.878	F = 2.560 p = 0.043	F = 0.396 p = 0.811	F = 0.416 p = 0.797
Education level	F = 1.537 p = 0.174	F = 2.12 p = 0.058	F = 1.971 p = 0.077	F = 2.26 p = 0.044	F = 1.499 p = 0.187	F = 1.022 p = 0.416
University position	F = 0.22 p = 0.803	F = 3.335 p = 0.04	F = 0.118 p = 0.888	F = 1.442 p = 0.241	F = 0.113 p = 0.893	F = 1.689 p = 0.205
Employment status						
Respondent	F = 1.914 p = 0.153	F = 1.026 p = 0.362	F = 0.023 p = 0.977	F = 0.121 p = 0.886	F = 0.076 p = 0.927	F = 0.208 p = 0.813
Respondent's spouse	F = 0.499 p = 0.683	F = 0.860 p = 0.465	F = 0.858 p = 0.466	F = 2.229 p = 0.089	F = 1.42 p = 0.241	F = 0.69 p = 0.56
Family annual income	F = 1.07 p = 0.392	F = 0.912 p = 0.511	F = 0.697 p = 0.710	F = 1.421 p = 0.19	F = 1.05 p = 0.407	F = 1.145 p = 0.34

Table 41

Results of the One-way ANOVA for Each Dependent Variable in Egypt

Demographic Variables	Dependent Variables					
	Perception of consumer problems	Consumer concerns related to price	Consumer concerns related to quality	Consumer concerns related to safety	Consumer concerns related to labeling/information	Consumer concerns related to environmental effects/packaging
Gender	F = 0.18 p = 0.672	F = 0.666 p = 0.416	F = 0.315 p = 0.576	F = 0.586 p = 0.445	F = 0.065 p = 0.799	F = 0.638 p = 0.426
Age	F = 1.921 p = 0.13	F = 0.498 p = 0.684	F = 0.685 p = 0.563	F = 0.326 p = 0.807	F = 0.956 p = 0.416	F = 0.876 p = 0.459
Marital status	F = 1.568 p = 0.213	F = 1.24 p = 0.298	F = 0.498 p = 0.684	F = 1.653 p = 0.18	F = 0.846 p = 0.471	F = 0.963 p = 0.413
Presence of children in each age group						
Less than 1 year old	F = 4.22 p = 0.042	F = 1.229 p = 0.27	F = 1.043 p = 0.309	F = 0.029 p = 0.865	F = 4.244 p = 0.041	F = 0.136 p = 0.713
1-5 years old	F = 1.186 p = 0.318	F = 4.060 p = 0.009	F = 0.944 p = 0.422	F = 1.195 p = 0.314	F = 1.668 p = 0.177	F = 1.697 p = 0.171
6-12 years old	F = 2.905 p = 0.038	F = 0.327 p = 0.806	F = 1.086 p = 0.357	F = 0.488 p = 0.691	F = 0.389 p = 0.761	F = 0.518 p = 0.671
13-17 years old	F = 1.516 p = 0.214	F = 0.539 p = 0.657	F = 0.538 p = 0.657	F = 2.972 p = 0.034	F = 1.836 p = 0.144	F = 0.401 p = 0.752
18 years old	F = 3.063 p = 0.031	F = 3.912 p = 0.010	F = 0.624 p = 0.601	F = 0.342 p = 0.795	F = 1.008 p = 0.392	F = 0.796 p = 0.498
Education level	F = 1.593 p = 0.195	F = 5.768 p = 0.001	F = 3.609 p = 0.015	F = 3.643 p = 0.015	F = 2.648 p = 0.052	F = 4.275 p = 0.006
University position	F = 1.007 p = 0.417	F = 5.134 p = 0.000	F = 2.375 p = 0.042	F = 2.099 p = 0.070	F = 1.536 p = 0.183	F = 3.778 p = 0.003
Employment status						
Respondent	F = 1.123 p = 0.291	F = 0.498 p = 0.482	F = 0.026 p = 0.871	F = 5.224 p = 0.024	F = 0.015 p = 0.904	F = 0.134 p = 0.715
Respondent's spouse	F = 3.226 p = 0.025	F = 1.558 p = 0.203	F = 0.26 p = 0.854	F = 0.949 p = 0.419	F = 0.716 p = 0.544	F = 0.881 p = 0.453
Family annual income	F = 2.768 p = 0.006	F = 2.072 p = 0.037	F = 1.221 p = 0.288	F = 1.620 p = 0.117	F = 0.813 p = 0.605	F = 1.432 p = 0.182

- Consumer concerns for price: In the U.S., university position was the only demographic variable that had a significant influence on consumer concerns for price. In Egypt, four demographic variables had a significant influence on consumer concerns for price. The demographic variables were: education level, the university position, the family annual income, and the presence of children in two age groups. The age groups were: 1-5 years old and 18 years old or over.
- Consumer concerns for quality: In the U.S., there were no demographic variables that had a significant influence on consumer concerns for quality. There were two demographic variables that had a significant influence on consumer concerns for quality in Egypt. These demographic variables were: the education level and the university position.
- Consumer concerns for safety: In the U.S., education level and the presence of children in two age groups (1-5 years old and 18 years old or over) were the demographic variables that had a significant influence on consumer concerns for safety in the U.S. In Egypt, education level, employment status of the respondent, and number of children in the age group of 13-17 years old had a significant influence on consumer concerns for safety.
- Consumer concerns for labeling and information: No demographic variables had a significant influence on consumer concerns for labeling and information in the U.S. Meanwhile, the only demographic variable that had a significant influence on consumer concerns for labeling and information in Egypt was the presence of children in the age group of less than 1 year old.
- Consumer concerns for environmental effects of products and their packaging: In the U.S., no demographic variables had a significant influence on consumer concerns for the environmental effects of products and their packaging. In Egypt, education level and university position were the demographic variables that had a significant influence on consumer concerns for the environmental effects of products and their packaging. Table 42 presents a summary for the results of the one-way ANOVA.

Table 42
Summary of the One-way ANOVA Results

Dependent Variables	U.S.	Egypt
Perception of consumer problems	Presence of children in the age groups: 1-5 years old, 13-17 years old, and 18 years old or over	Presence of children in the age groups: less than 1 year old, 6-12 years old, and 18 years old or over Employment status of the respondent's spouse Family annual income
Consumer concerns for price	University position	Presence of children in the age groups: 1-5 years old, and 18 years old or over Education level University position Family annual income
Consumer concerns for quality	_____	Education level University position
Consumer concerns for safety	Presence of children in the age groups of 1-5 years old, and 18 years old or over Education level	Presence of children in the age groups of 18 years old or over Education level Employment status of the respondent
Consumer concerns for labeling and information	_____	Presence of children in the age groups of less than 1 year old
Consumer concerns for environmental effects of products and their packaging	_____	Education level University position

Results of the Two-way ANOVA

A two-way analysis of variance (ANOVA) is a parametric statistical analysis that seeks to study the influence of two nominal-scale independent variables on the dependent variable (Lomax, 2001). In this study, two-way analyses of variance (ANOVA) were computed for each dependent variable. Within each analysis, two demographic variables were considered; the country of origin and the personal attribute variables.

The aim of the analysis was to determine if the country of origin and one of the demographic variables (i.e., gender, age, marital status, presence of children, education level, employment status, university position, and family yearly income) had a significant influence on the dependent variable (i.e., perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging) and the interaction between them. A significant influence of the interaction between the two variables meant that there was a joint effect of them on the dependent variable. In fact, the first aim has already been studied in the t-test analysis (see Page 134). However, the results introduced in this section may be regarded as a check of accuracy of the results given in the earlier t-test section. As shown in Table 43, the results of the two-way ANOVA are presented. The following results were found:

Perception of consumer problems:

- There was always a significant influence of the country of origin on the perception of consumer problems. This result was the same as the one that had been obtained from the t-test analysis (see Page 134).
- Of demographic variables, only the presence of children ages 1-5 years old, had a significant influence on the perception of consumer problems.
- The interaction between the country of origin and the age of the respondent had a significant influence on the perception of consumer problems. Also, the interaction between the country of origin and the presence of children in the age groups of 13-17 years old, and 18 years old or over had a significant influence on the perception of consumer problems.

Table 43

Results of the Two-way ANOVA for Each Dependent Variable

Variables	Problems		Price		Quality		Safety		Labeling/ information		Environmental effects/packaging	
	F- value	p- value	F- value	p- value	F- Value	p- value	F- Value	p- value	F- value	p- value	F- value	p- value
Country	143.58	<0.0001	1.60	0.21	21.05	<0.0001	17.26	<0.0001	18.59	<0.0001	3.67	0.056
Gender	0.17	0.68	0.26	0.613	0.28	0.60	1.49	0.224	0.03	0.87	0.19	0.66
Interaction	0.00	0.95	0.35	0.55	0.06	0.81	0.12	0.731	0.02	0.89	0.95	0.43
Country	121.70	<0.0001	1.02	0.312	19.36	<0.0001	17.98	<0.0001	12.50	0.0005	4.95	0.027
Age	1.11	0.350	2.04	0.09	1.12	0.35	1.11	0.351	1.02	0.399	0.65	0.63
Interaction	3.92	0.009	0.52	0.67	1.85	0.14	1.42	0.24	1.81	0.146	1.10	0.351
Country	31.32	<0.0001	0.08	0.78	0.33	0.57	2.41	0.121	1.35	0.245	0.01	0.921
Marital status	0.29	0.88	1.42	0.23	0.21	0.93	1.44	0.221	0.67	0.61	0.45	0.77
Interaction	2.84	0.060	1.52	0.21	0.88	0.451	2.57	0.054	1.71	0.165	2.07	0.105
Country	13.78	0.0003	1.37	0.24	0.98	0.32	2.34	0.127	2.83	0.094	0.09	0.76
Presence of children in the age group of less than 1 year old	0.56	0.569	1.03	0.35	0.11	0.89	0.50	0.60	2.04	0.132	0.65	0.521
Interaction	0.89	0.346	0.52	0.47	0.70	0.40	0.00	0.98	0.00	0.964	0.22	0.64

(table continues)

Table 43 (continued)

Variables	Problems		Price		Quality		Safety		Labeling/ information		Environmental effects/packaging	
	F- value	p- value	F- value	p- value	F- Value	p- value	F- Value	p- value	F- value	p- value	F- value	p- value
Country	24.50	<0.0001	5.09	0.024	3.79	0.052	2.16	0.143	8.64	0.0036	0.77	0.38
Presence of children in the age group of 1-5 years old	2.78	0.04	3.21	0.023	0.72	0.543	2.44	0.064	1.09	0.355	0.57	0.63
Interaction	2.26	0.106	2.28	0.104	0.10	0.905	7.57	0.006	0.95	0.386	0.23	0.79
Country	68.65	<0.0001	0.00	0.978	5.00	0.026	4.63	0.032	9.49	0.0023	0.51	0.474
Presence of children in the age group of 6-12 years old	0.93	0.425	1.50	0.214	0.68	0.566	0.89	0.45	0.58	0.629	0.69	0.50
Interaction	0.84	0.431	0.64	0.53	0.77	0.172	0.32	0.732	0.11	0.894	0.26	0.77
Country	73.75	<0.0001	1.06	0.304	8.76	0.0034	4.11	0.04	7.65	0.0001	0.27	0.604
Presence of children in the age group of 13-17 years old	1.42	0.239	1.47	0.223	1.13	0.3381	1.47	0.222	0.77	0.512	0.20	0.898
Interaction	5.68	0.003	1.73	0.179	0.39	0.678	0.72	0.490	0.70	0.497	1.36	0.257

(table continues)

Table 43 (continued)

Variables	Problems		Price		Quality		Safety		Labeling/ information		Environmental effects/packaging	
	F- value	p- value	F- value	p- value	F- value	p- value	F- value	p- value	F- value	p- value	F- value	p- value
Country	61.49	<0.0001	2.23	0.136	4.42	0.036	0.05	0.815	7.00	0.0087	0.56	0.443
Presence of children in the age group of 18 years old or over	1.33	0.258	0.85	0.49	0.14	0.97	2.67	0.033	0.28	0.89	0.18	0.949
Interaction	5.62	0.001	2.11	0.099	0.73	0.535	1.43	0.235	0.84	0.474	1.11	0.343
Country	10.09	0.0017	0.15	0.697	7.47	0.0068	5.59	0.018	0.28	0.597	0.78	0.378
Education level	1.76	0.076	3.34	0.0007	2.47	0.0104	2.91	0.002	1.95	0.045	2.13	0.027
Country	122.73	<0.0001	0.03	0.854	24.01	<0.0001	13.73	0.0003	17.92	<0.0001	0.15	0.7012
University position	0.73	0.598	4.11	0.0014	2.04	0.0738	0.389	2.04	1.01	0.414	4.01	0.0017
Interaction	0.25	0.777	4.35	0.0139	1.3	0.273	0.0674	1.3	0.96	0.384	0.73	0.485
Country	4.53	0.034	0.02	0.89	2.21	0.14	9.53	0.023	1.86	0.174	0.84	0.360
Employment status of the respondent	1.38	0.25	1.19	0.30	0.03	0.97	2.06	0.129	0.10	0.907	0.16	0.851
Interaction	1.43	0.23	0.41	0.52	0.01	0.92	2.72	0.971	0.01	0.904	0.03	0.864

table continues)

Table 43 (continued)

Variables	Problems		Price		Quality		Safety		Labeling/ information		Environmental effects/packaging	
	F- value	p- value	F- value	p- value	F- Value	p- value	F- Value	p- value	F- value	p- value	F- value	p- value
Country	46.23	<0.0001	1.60	0.207	5.13	0.024	3.77	0.053	6.63	0.01	2.74	0.099
Employment status of the respondent's spouse	0.52	0.670	2.08	0.103	0.44	0.722	1.13	0.34	0.61	0.607	0.41	0.742
Interaction	1.96	0.12	0.18	0.911	0.47	0.706	2.20	0.88	1.75	0.157	1.12	0.343
Country	84.89	<0.0001	0.86	0.35	9.45	0.002	10.80	0.0012	8.25	0.004	1.84	0.176
Family annual income	1.09	0.372	1.59	0.1119	1.31	0.225	2.06	0.028	1.45	0.156	1.47	0.151
Interaction	1.90	0.061	1.21	0.35	0.68	0.707	0.82	0.586	0.44	0.892	0.70	0.687

Consumer concerns for price:

- As shown in Table 43, the p-values for the country of origin were always greater than 0.05. Hence, there was no significant influence of country of origin on the consumer concerns for price. This result was the same as the one that had obtained from the t-test analysis (see Page 134).
- The education level and the presence of children in the age group of 1-5 years old significantly influenced consumer concerns for price.
- The interaction between the country of origin and the respondent's university position had a significant influence on the consumer concerns for price.

Consumer concerns for quality:

- The country of origin had a significant influence on the consumer concerns for quality (i.e., most of the p-values are smaller than 0.05).
- The education level was the only demographic variable that had a significant influence on the consumer concerns for quality.
- No significant interaction was found.

Consumer concerns for safety:

- The country of origin had a significant influence on the consumer concerns for safety (i.e., most of the p-values are smaller than 0.05).
- The education level, the family annual income, and the presence of children in the age group of 18 years or over had a significant influence on the consumer concerns for safety.
- The interaction between the country of origin and the presence of children in the age group of 1-5 years old had a significant influence on the consumer concerns for safety. Also, the interaction between the country of origin and the employment status of the respondent had a significant influence on the consumer concerns for safety.

Consumer concerns for labeling/information:

- The country of origin had a significant influence on the consumer concerns for labeling and information (i.e., most of the p-values are smaller than 0.05).
- The education level was the only demographic variable that had a significant influence on the consumer concerns for labeling and information.

Consumer concerns for environmental effects/packaging:

- The country of origin had no significant influence on the consumer concerns for environmental effects of products and their packaging (i.e., the p-values are greater than 0.05). This result is almost the same as the one that had been obtained from the t-test analysis (see Page 134).
- The education level and the university position were the demographic variables that had a significant influence on the consumer concerns for environmental effects of products and their packaging.
- No significant interaction was found.

Discriminant Analysis: Allover Differentiation Between American and Egyptian Respondents

In this section, and in order to statistically differentiate or isolate the responses of Americans and Egyptians, a canonical discriminant analysis was performed. Discriminant analysis is a multivariate technique concerned with investigating observed differences between two or more distinct groups. In this study, a canonical discriminant analysis was used to obtain the most important dependent variables in differentiating between the American and the Egyptian respondents.

The first step in the analysis was to test the equality of group means between American and Egyptian respondents using the multivariate analysis of variance technique. Results showed that, using the *Wilk's Lambda* test, there was a significant difference between the group means of the American and the Egyptian respondents (F-value of 42.62, $df = (6, 216)$, and $p\text{-value} = 0.000$).

The second step in the analysis was to test the equality of group means for each dependent variable separately between Americans and Egyptian respondents. Table 44 presents the *Wilk's Lambda* and the F-values along with the degrees of freedom and the p-values for testing each dependent variable.

Table 44

Test of Equality of Group Means for Each Dependent Variable

Dependent Variables	Wilk's Lambda	F-value	<u>df₁</u>	<u>df₂</u>	p-value
Perception of consumer problems	0.611	140.91	1	221	<0.0001
Concerns for price	0.998	0.466	1	221	0.496
Concerns for quality	0.897	25.492	1	221	<0.0001
Concerns for safety	0.915	20.437	1	221	<0.0001
Concerns for labeling/information	0.912	21.415	1	221	<0.0001
Concerns for environmental effects/packaging	0.988	2.674	1	221	0.103

As shown in Table 44, the variables of perception of consumer problems, concerns for quality, concerns for safety, and concerns for labeling and information were significant, while the variables of concerns for price and concerns for environmental effects of products and their packaging were not significant. In fact, the same results were obtained by the t-test presented earlier in this chapter (see t-test analysis results Page 134). Thus, the results obtained were a good check of the accuracy of the preceding results.

The third step in that analysis was to test the equality of the covariance matrices in the two populations. The results showed an F-value of 7.277 {(df = 15, 190960), p-value = 0.000}. According to the p-value, the two-covariance matrices were significantly different. Hence, the covariance matrices in the two groups, rather than the pooled covariance matrix (i.e., the common covariance matrix) were used in the analysis.

The fourth step in the analysis was to apply the canonical discriminant analysis to choose the “best” variables that would contain almost as much information as the original variables. In

other words, to eliminate the variables that were not significant in differentiating between the groups. Among the six dependent variables under study, the canonical discriminant analysis chose the perception of consumer problems, concerns for price, concerns for quality, concerns for safety, and concerns for labeling and information to be the significant variables in discriminating between the American and the Egyptian respondents. Thus, the only variable discarded from the analysis was the consumers' concerns for environmental effects of products and their packaging.

Among these chosen dependent variables, the standardized canonical discriminant function was computed. Table 45 presents the standardized discriminant function coefficients for the selected variables.

Table 45

Standardized Canonical Discriminant Function Coefficients for the Discriminating Dependent Variables

Discriminating Dependent Variables	Discriminant Coefficients
Perception of consumer problems	0.701
Concerns for price	0.592
Concerns for quality	0.340
Concerns for safety	0.606
Concerns for labeling/information	0.633

Using this discriminant function, the observations were classified, and the result of the overall correctly classified observations was 83.6%. This result indicates that the discriminant function was efficient and reliable.

The final step in the analysis was to order the variables according to their ability to discriminate between the American and the Egyptian respondents. In order to do that, the correlations between the discriminating variables (selected variables) and the standardized canonical discriminant function was computed. Results are presented in Table 46.

Table 46

Correlation Coefficients Between the Discriminating Variables and the Standardized Canonical Discriminant Function

Discriminating Dependent Variables	Correlation with the Function
Perception of consumer problems	0.737
Concerns for quality	0.313
Concerns for labeling/information	0.287
Concerns for safety	0.281
Concerns for price	0.042

As shown in Table 46, the most important variable in differentiating between the American and the Egyptian respondents was the perception of consumer problems (i.e., it had the highest correlation coefficient with the standardized canonical discriminant function). Following this were the variables for concerns for quality, concerns for labeling and information, and concerns for safety. The least important variable was concerns for price that had a correlation coefficient closer to zero.

Examination of Hypotheses

This last section presents a summary of the results of the examination of each null hypothesis of the study. The acceptance or rejection of the null hypothesis was based on the findings of the statistical analysis. Tables 47, 48, and 49 contain the results of the data analysis for each of the hypotheses. The hypotheses testing is based upon the t-test, the test of the significance of the correlation coefficients, or the Analysis of Variance (ANOVA). The 0.05 level of significance was the criterion for acceptance or rejection of the null hypotheses.

Table 47

Summary of Hypotheses Testing: Differences Between Consumer Problems and Concerns for Americans and Egyptians

Null Hypotheses	Results of the Statistical Test	Decision
<u>Hypothesis 1</u> There is no significant difference between consumer problems perceived by American and Egyptian consumers.	$df = 190$ t -value = 11.88 $p \leq 0.0001$	Reject
<u>Hypothesis 2a</u> There is no significant difference between American and Egyptian consumers' concerns related to price.	$df = 229$ t -value = 1.32 $p = 0.189$	Fail to reject
<u>Hypothesis 2b</u> There is no significant difference between American and Egyptian consumers' concerns related to quality.	$df = 232$ t -value = 4.72 $p < 0.0001$	Reject
<u>Hypothesis 2c</u> There is no significant difference between American and Egyptian consumers' concerns related to safety.	$df = 188$ t -value = 3.93 $p = 0.0001$	Reject
<u>Hypothesis 2d</u> There is no significant difference between American and Egyptian consumers' concerns related to labeling and information.	$df = 201$ t -value = 4.24 $p < 0.0001$	Reject
<u>Hypothesis 2e</u> There is no significant difference between American and Egyptian consumers' concerns related to environmental effects of products and their packaging.	$df = 232$ t -value = 1.98 $p = 0.0491$	Fail to reject ⁴

(table continues)

⁴ According to the results obtained from the two-way ANOVA and Wilk's Lambda, consumers' concerns related to environmental effects of products and their packaging is not significantly different between the Americans and the Egyptians.

Table 47 (continued)

Null Hypotheses	Results of the Statistical Test	Decision
<u>Hypothesis 3a</u> There is no significant difference between American and Egyptian consumers' needs fulfillment related to perceived adequacy of income.	$df = 156$ t -value = 3.68 $p = 0.0003$	Reject
<u>Hypothesis 3b</u> There is no significant difference between American and Egyptian consumers' needs fulfillment related to perceived improvement in living situations.	$df = 248$ t -value = 5.62 $p < 0.0001$	Reject
<u>Hypothesis 3c</u> There is no significant difference between American and Egyptian consumers' expectations and experiences with products.	$df = 224$ t -value = 0.18 $p = 0.8565$	Fail to reject
<u>Hypothesis 3d</u> There is no significant difference between American and Egyptian consumers' attitudes toward consumer protection efforts by government.	$df = 229$ t -value = 9.10 $p < 0.0001$	Reject
<u>Hypothesis 3e</u> There is no significant difference between American and Egyptian consumers' attitudes toward consumer protection efforts by business.	$df = 247$ t -value = 5.26 $p < 0.0001$	Reject
<u>Hypothesis 3f</u> There is no significant difference between American and Egyptian consumers' attitudes toward consumer education efforts.	$df = 232$ t -value = 4.08 $p = < 0.0001$	Reject

(table continues)

Table 48

Summary of Hypotheses Testing: Relationships Between Consumer Problems/Concerns and the Psychological Determinants of Perception for Americans and Egyptians

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 4a</u> There is no significant relationship between perception of consumer problems and needs fulfillment related to perceived adequacy of income.	r = - 0.308 p = 0.001	Reject	r = - 0.308 p = 0.001	Reject
<u>Hypothesis 4b</u> There is no significant relationship between perception of consumer problems and needs fulfillment related to improvement in living situations.	r = 0.019 p = 0.846	Fail to reject	r = 0.346 p = 0.000	Reject
<u>Hypothesis 4c</u> There is no significant relationship between perception of consumer problems and expectations and experiences with products.	r = - 0.369 p = 0.000	Reject	r = 0.216 p = 0.017	Reject
<u>Hypothesis 4d</u> There is no significant relationship between perception of consumer problems and attitudes toward consumer protection efforts by government.	r = - 0.230 p = 0.017	Reject	r = 0.255 p = 0.005	Reject
<u>Hypothesis 4e</u> There is no significant relationship between perception of consumer problems and attitudes toward consumer protection efforts by business.	r = - 0.267 p = 0.005	Reject	r = 0.246 p = 0.006	Reject
<u>Hypothesis 4f</u> There is no significant relationship between perception of consumer problems and attitudes toward consumer education efforts.	r = 0.209 p = 0.030	Reject	r = 0.195 p = 0.032	Reject

(table continues)

Table 48 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 5a</u> There is no significant relationship between consumers' concerns related to price and needs fulfillment related to perceived adequacy of income.	r = - 0.054 p = 0.582	Fail to reject	r = 0.191 p = 0.094	Fail to reject
<u>Hypothesis 5b</u> There is no significant relationship between consumers' concerns related to price and needs fulfillment related to perceived improvement in living situations.	r = - 0.072 p = 0.465	Fail to reject	r = - 0.081 p = 0.351	Fail to reject
<u>Hypothesis 5c</u> There is no significant relationship between consumers' concerns related to price and expectations and experiences with products.	r = 0.148 p = 0.131	Fail to reject	r = - 0.162 p = 0.060	Fail to reject
<u>Hypothesis 5d</u> There is no significant relationship between consumers' concerns related to price and attitudes toward consumer protection efforts by government.	r = 0.126 p = 0.199	Fail to reject	r = 0.079 p = 0.361	Fail to reject
<u>Hypothesis 5e</u> There is no significant relationship between consumers' concerns related to price and attitudes toward consumer protection efforts by business.	r = 0.185 p = 0.059	Fail to reject	r = 0.047 p = 0.586	Fail to reject
<u>Hypothesis 5f</u> There is no significant relationship between consumers' concerns related to price and attitudes toward consumer education efforts.	R = - 0.272 p = 0.005	Reject	r = - 0.051 p = 0.554	Fail to reject

(table continues)

Table 48 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 6a</u> There is no significant relationship between consumers' concerns related to quality and needs fulfillment related to perceived adequacy of income.	R = - 0.078 p = 0.431	Fail to reject	r = 0.191 p = 0.094	Fail to reject
<u>Hypothesis 6b</u> There is no significant relationship between consumers' concerns related to quality and needs fulfillment related to perceived improvement in living situations.	r = 0.029 p = 0.767	Fail to reject	r = - 0.081 p = 0.351	Fail to reject
<u>Hypothesis 6c</u> There is no significant relationship between consumers' concerns related to quality and expectations and experiences with products.	R = - 0.154 p = 0.118	Fail to reject	r = 0.139 p = 0.108	Fail to reject
<u>Hypothesis 6d</u> There is no significant relationship between consumers' concerns related to quality and attitudes toward consumer protection efforts by government.	r = 0.060 p = 0.54	Fail to reject	r = - 0.002 p = 0.980	Fail to reject
<u>Hypothesis 6e</u> There is no significant relationship between consumers' concerns related to quality and attitudes toward consumer protection efforts by business.	r = 0.137 p = 0.164	Fail to reject	r = - 0.061 p = 0.484	Fail to reject
<u>Hypothesis 6f</u> There is no significant relationship between consumers' concerns related to quality and attitudes toward consumer education efforts.	r = 0.059 p = 0.552	Fail to reject	r = - 0.079 p = 0.360	Fail to reject

(table continues)

Table 48 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 7a</u> There is no significant relationship between consumers' concerns related to safety and needs fulfillment related to perceived adequacy of income.	r = 0.072 p = 0.464	Fail to reject	r = 0.136 p = 0.235	Fail to reject
<u>Hypothesis 7b</u> There is no significant relationship between consumers' concerns related to safety and needs fulfillment related to perceived improvement in living situations.	r = - 0.009 p = 0.925	Fail to reject	r = - 0.161 p = 0.062	Fail to reject
<u>Hypothesis 7c</u> There is no significant relationship between consumers' concerns related to safety and expectations and experiences with products.	r = - 0.133 p = 0.176	Fail to reject	r = 0.192 p = 0.026	Reject
<u>Hypothesis 7d</u> There is no significant relationship between consumers' concerns related to safety and attitudes toward consumer protection efforts by government.	r = - 0.012 p = 0.905	Fail to reject	r = 0.136 p = 0.117	Fail to reject
<u>Hypothesis 7e</u> There is no significant relationship between consumers' concerns related to safety and attitudes toward consumer protection efforts by business.	r = - 0.033 p = 0.735	Fail to reject	r = - 0.028 p = 0.749	Fail to reject
<u>Hypothesis 7f</u> There is no significant relationship between consumers' concerns related to safety and attitudes toward consumer education efforts.	r = 0.141 p = 0.151	Fail to reject	r = - 0.137 p = 0.113	Fail to reject

(table continues)

Table 48 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 8a</u> There is no significant relationship between consumers' concerns related to labeling/information and needs fulfillment related to perceived adequacy of income.	r = - 0.111 p = 0.261	Fail to reject	r = - 0.056 p = 0.627	Fail to reject
<u>Hypothesis 8b</u> There is no significant relationship between consumers' concerns related to labeling/information and needs fulfillment related to improvement in living situations.	r = 0.109 p = 0.268	Fail to reject	r = 0.069 p = 0.429	Fail to reject
<u>Hypothesis 8c</u> There is no significant relationship between consumers' concerns related to labeling/information and expectations and experiences with products.	r = - 0.133 p = 0.175	Fail to reject	r = 0.082 p = 0.346	Fail to reject
<u>Hypothesis 8d</u> There is no significant relationship between consumers' concerns related to labeling/information and attitudes toward consumer protection efforts by government.	r = - 0.087 p = 0.377	Fail to reject	r = - 0.029 p = 0.74	Fail to reject
<u>Hypothesis 8e</u> There is no significant relationship between consumers' concerns related to labeling/information and attitudes toward consumer protection efforts by business.	r = - 0.203 p = 0.037	Reject	r = - 0.08 p = 0.359	Fail to reject
<u>Hypothesis 8f</u> There is no significant relationship between consumers' concerns related to labeling/information and attitudes toward consumer education efforts.	r = 0.196 p = 0.045	Reject	r = 0.14 p = 0.106	Fail to reject

(table continues)

48 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 9a</u> There is no significant relationship between consumers' concerns related to environmental effects/packaging and needs fulfillment related to perceived adequacy of income.	r = - 0.063 p = 0.521	Fail to reject	r = 0.179 p = 0.118	Fail to reject
<u>Hypothesis 9b</u> There is no significant relationship between consumers' concerns related to environmental effects/packaging and needs fulfillment related to improvement in living situations.	r = 0.16 p = 0.102	Fail to reject	r = 0.176 p = 0.041	Reject
<u>Hypothesis 9c</u> There is no significant relationship between consumers' concerns related to environmental effects/packaging and expectations and experiences with products.	r = - 0.025 p = 0.803	Fail to reject	r = 0.016 p = 0.855	Fail to reject
<u>Hypothesis 9d</u> There is no significant relationship between consumers' concerns related to environmental effects/packaging and attitudes toward consumer protection efforts by government.	r = - 0.058 p = 0.559	Fail to reject	r = 0.016 p = 0.856	Fail to reject
<u>Hypothesis 9e</u> There is no significant relationship between consumers' concerns related to environmental effects/packaging and attitudes toward consumer protection efforts by business.	r = - 0.124 p = 0.206	Fail to reject	r = 0.08 p = 0.93	Fail to reject
<u>Hypothesis 9f</u> There is no significant relationship between consumers' concerns related to environmental effects/packaging and attitudes toward consumer education efforts.	r = 0.204 p = 0.037	Reject	r = 0.33 p = 0.000	Reject

Table 49

Summary of Hypotheses Testing: Influences of Demographic Variables on Consumer Problems and Concerns for Americans and Egyptians

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 10a</u> There is no significant influence of gender on consumer problems.	F = 0.041 p = 0.84	Fail to reject	F = 0.18 p = 0.672	Fail to reject
<u>Hypothesis 10b</u> There is no significant influence of gender on consumers' concerns related to price.	F = 0.004 P = 0.951	Fail to reject	F = 0.666 p = 0.416	Fail to reject
<u>Hypothesis 10c</u> There is no significant influence of gender on consumers' concerns related to quality.	F = 0.041 p = 0.841	Fail to reject	F = 0.315 p = 0.576	Fail to reject
<u>Hypothesis 10d</u> There is no significant influence of gender on consumers' concerns related to safety.	F = 0.817 p = 0.368	Fail to reject	F = 0.586 p = 0.445	Fail to reject
<u>Hypothesis 10e</u> There is no significant influence of gender on consumers' concerns related to labeling/information.	F = 0.000 p = 0.988	Fail to reject	F = 0.065 p = 0.799	Fail to reject
<u>Hypothesis 10f</u> There is no significant influence of gender on consumers' concerns related to environmental effects/packaging.	F = 0.023 p = 0.88	Fail to reject	F = 0.638 p = 0.426	Fail to reject
<u>Hypothesis 11a</u> There is no significant influence of age on consumer problems.	F = 2.032 p = 0.095	Fail to reject	F = 1.921 p = 0.13	Fail to reject
<u>Hypothesis 11b</u> There is no significant influence of age on consumers' concerns related to price.	F = 2.138 p = 0.082	Fail to reject	F = 0.498 p = 0.684	Fail to reject

(table continues)

Table 49 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 11c</u> There is no significant influence of age on consumers' concerns related to quality.	F = 2.079 p = 0.089	Fail to reject	F = 0.685 p = 0.563	Fail to reject
<u>Hypothesis 11d</u> There is no significant influence of age on consumers' concerns related to safety.	F = 1.556 p = 0.192	Fail to reject	F = 0.326 p = 0.807	Fail to reject
<u>Hypothesis 11e</u> There is no significant influence of age on consumers' concerns related to labeling/information.	F = 1.132 p = 0.346	Fail to reject	F = 0.956 P = 0.416	Fail to reject
<u>Hypothesis 11f</u> There is no significant influence of age on consumers' concerns related to environmental effects/packaging.	F = 0.964 p = 0.431	Fail to reject	F = 0.876 p = 0.459	Fail to reject
<u>Hypothesis 12a</u> There is no significant influence of marital status on consumer problems.	F = 0.965 p = 0.43	Fail to reject	F = 1.568 p = 0.213	Fail to reject
<u>Hypothesis 12b</u> There is no significant influence of marital status on consumers' concerns related to price.	F = 2.416 p = 0.054	Fail to reject	F = 1.24 p = 0.298	Fail to reject
<u>Hypothesis 12c</u> There is no significant influence of marital status on consumers' concerns related to quality.	F = 0.568 p = 0.687	Fail to reject	F = 0.498 p = 0.684	Fail to reject
<u>Hypothesis 12d</u> There is no significant influence of marital status on consumers' concerns related to safety.	F = 1.879 p = 0.12	Fail to reject	F = 1.653 p = 0.18	Fail to reject
<u>Hypothesis 12e</u> There is no significant influence of marital status on consumers' concerns related to labeling/information.	F = 1.243 p = 0.298	Fail to reject	F = 0.846 p = 0.471	Fail to reject

(table continues)

Table 49 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 12f</u> There is no significant influence of marital status on consumers' concerns related to environmental effects/packaging.	F = 1.5 p = 0.208	Fail to reject	F = 0.963 p = 0.413	Fail to reject
<u>Hypothesis 13a</u> There is no significant influence of university position on consumer problems.	F = 0.22 p = 0.803	Fail to reject	F = 1.007 p = 0.417	Fail to reject
<u>Hypothesis 13b</u> There is no significant influence of university position on consumers' concerns related to price.	F = 3.335 p = 0.04	Reject	F = 5.134 p = 0.000	Reject
<u>Hypothesis 13c</u> There is no significant influence of university position on consumers' concerns related to quality.	F = 0.118 p = 0.888	Fail to reject	F = 2.375 p = 0.042	Reject
<u>Hypothesis 13d</u> There is no significant influence of university position on consumers' concerns related to safety.	F = 1.442 p = 0.241	Fail to reject	F = 2.099 p = 0.07	Fail to reject
<u>Hypothesis 13e</u> There is no significant influence of university position on consumers' concerns related to labeling/information.	F = 0.113 p = 0.893	Fail to reject	F = 1.536 p = 0.183	Fail to reject
<u>Hypothesis 13f</u> There is no significant influence of university position on consumers' concerns related to environmental effects/packaging.	F = 1.609 p = 0.205	Fail to reject	F = 3.778 p = 0.003	Reject
<u>Hypothesis 14a</u> There is no significant influence of family annual income on consumer problems.	F = 1.07 p = 0.392	Fail to reject	F = 2.768 p = 0.006	Reject
<u>Hypothesis 14b</u> There is no significant influence of family annual income on consumers' concerns related to price.	F = 0.92 p = 0.511	Fail to reject	F = 2.072 p = 0.037	Reject

(table continues)

Table 49 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 14c</u> There is no significant influence of family annual income on consumers' concerns related to quality.	F = 0.697 p = 0.71	Fail to reject	F = 1.221 p = 0.288	Fail to reject
<u>Hypothesis 14d</u> There is no significant influence of family annual income on consumers' concerns related to safety.	F = 1.421 p = 0.19	Fail to reject	F = 1.62 p = 0.117	Fail to reject
<u>Hypothesis 14e</u> There is no significant influence of family annual income on consumers' concerns related to labeling/information.	F = 1.05 p = 0.407	Fail to reject	F = 0.813 p = 0.605	Fail to reject
<u>Hypothesis 14f</u> There is no significant influence of family annual income on consumers' concerns related to environmental effects/packaging.	F = 1.145 p = 0.34	Fail to reject	F = 1.432 p = 0.182	Fail to reject
<u>Hypothesis 15a</u> There is no significant influence of education level on consumer problems.	F = 1.537 p = 0.174	Fail to reject	F = 1.593 p = 0.195	Fail to reject
<u>Hypothesis 15b</u> There is no significant influence of education level on consumers' concerns related to price.	F = 2.12 p = 0.058	Fail to reject	F = 5.768 p = 0.001	Reject
<u>Hypothesis 15c</u> There is no significant influence of education level on consumers' concerns related to quality.	F = 1.971 p = 0.077	Fail to reject	F = 3.609 p = 0.015	Reject
<u>Hypothesis 15d</u> There is no significant influence of education level on consumers' concerns related to safety.	F = 2.26 p = 0.044	Reject	F = 3.643 p = 0.015	Reject
<u>Hypothesis 15e</u> There is no significant influence of education level on consumers' concerns related to labeling/information.	F = 1.499 p = 0.187	Fail to reject	F = 2.648 p = 0.052	Fail to reject

(table continues)

Table 49 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 15f</u> There is no significant influence of education level on consumers' concerns related to environmental effects/packaging.	F= 1.002 p = 0.416	Fail to reject	F = 4.275 p = 0.006	Reject
<u>Hypothesis 16a</u> There is no significant influence of employment status "of the respondent" on consumer problems.	F = 1.914 p = 0.153	Fail to reject	F = 1.123 p = 0.291	Fail to reject
<u>Hypothesis 16b</u> There is no significant influence of employment status of the respondent" on consumers' concerns related to price.	F = 1.026 p = 0.362	Fail to reject	F= 0.498 p = 0.482	Fail to reject
<u>Hypothesis 16c</u> There is no significant influence of employment status "of the respondent" on consumers' concerns related to quality.	F = 0.023 p = 0.977	Fail to reject	F = 0.026 p = 0.871	Fail to reject
<u>Hypothesis 16d</u> There is no significant influence of employment status "of the respondent" on consumers' concerns related to safety.	F = 0.121 p = 0.886	Fail to reject	F = 5.224 p = 0.024	Reject
<u>Hypothesis 16e</u> There is no significant influence of employment status "of the respondent" on consumers' concerns related to labeling/information.	F = 0.076 p = 0.927	Fail to reject	F = 0.015 p = 0.904	Fail to reject
<u>Hypothesis 16f</u> There is no significant influence of employment status "of the respondent" on consumers' concerns related to environmental effects/packaging.	F = 0.208 p = 0.813	Fail to reject	F = 0.134 p = 0.715	Fail to reject
<u>Hypothesis 16g</u> There is no significant influence of employment status "of the respondent's spouse" on consumer problems.	F = 0.499 p = 0.683	Fail to reject	F = 3.226 p = 0.025	Reject

(table continues)

Table 49 (continued)

Null Hypotheses	U.S		Egypt	
	Results of the Statistical Test	Decision	Results of the Statistical Test	Decision
<u>Hypothesis 16h</u> There is no significant influence of employment status “of the respondent’s spouse” on consumers’ concerns related to price.	F = 0.86 p = 0.465	Fail to reject	F = 1.558 p = 0.203	Fail to reject
<u>Hypothesis 16i</u> There is no significant influence of employment status “of the respondent’s spouse” on consumers’ concerns related to quality.	F = 0.858 p = 0.466	Fail to reject	F = 0.26 p = 0.854	Fail to reject
<u>Hypothesis 16j</u> There is no significant influence of employment status “of the respondent’s spouse” on consumers’ concerns related to safety.	F = 2.229 p = 0.089	Fail to reject	F = 0.949 P = 0.419	Fail to reject
<u>Hypothesis 16k</u> There is no significant influence of employment status “of the respondent’s spouse” on consumers’ concerns related to labeling/information.	F = 1.42 p = 0.241	Fail to reject	F = 0.716 p = 0.544	Fail to reject
<u>Hypothesis 16l</u> There is no significant influence of employment status “of the respondent’s spouse” on consumers’ concerns related to environmental effects/packaging.	F = 0.69 p = 0.56	Fail to reject	F = 0.881 p = 0.453	Fail to reject

Summary of Results

This chapter contains a discussion of the validity of the instrument, a description of the subjects, the results of the statistical analysis of the data, and an examination of the hypotheses of the study. The first section presents results of the reliability analysis used to determine construct validity using a Cronbach's alpha of the measures. The second section of this chapter consists of a description of the frequency distribution analysis to describe the demographic characteristics of the sample and the responses to each of the questionnaire items. The third section introduces the chi-square analysis to determine the similarity or dissimilarity of frequency distribution between American and Egyptian responses for each questionnaire item. The fourth section contains the results of the factor analysis defining the dimensions or factors within each scale, and confirming the structuring of the dependent variables.

In the fifth section, results of the two-sample independent t-test are presented to determine: (1) differences between American and Egyptian consumers' perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging, and (2) differences between the independent variables in each country. The independent variables are: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts. The sixth section contains results of the correlation and the stepwise multiple regression analysis that are used to determine relationships between two or more independent variables and an interval-scaled dependent variable.

The seventh section presents results of the Analysis of Variance (ANOVA) used to investigate influence of selected demographic variables (i.e., gender, age, marital status, presence of children, education level, university position, and employment status) on the dependent variables (i.e., perception of consumer problems and concerns). The eighth section consists of results of the discriminant analysis used to isolate or discriminate among characteristics of American and Egyptian consumers. In the last section, an examination of the null hypotheses of the study was presented.

Results of the t-test revealed that the perception of consumer problems and concerns for quality, safety, and labeling and information were significantly different between American and Egyptian consumers. Consumer concerns for price and environmental effects of products and their packaging were not significantly different. Also, results of the t-test showed that perceived adequacy of income, perceived improvement in living situations, attitudes toward consumer protection efforts by government, attitudes toward consumer protection efforts by business, and attitudes toward consumer education efforts were significantly different between the two countries. Consumer expectations and experiences with products were not significantly different.

Results of the stepwise regression analysis revealed that:

- Consumer expectations and experiences with products, perceived adequacy of income, and attitudes toward consumer education efforts were the variables that had a significant relationship with the perception of consumer problems in the U.S. Perceived improvement in living situations, attitudes toward consumer protection efforts by business, and perceived adequacy of income were the variables that had a significant relationship with the perception of consumer problems in Egypt.
- Attitudes toward consumer education efforts and attitudes toward consumer protection efforts by business were the variables that had a significant relationship with the consumer concerns for price in the U.S. Perceived adequacy of income was the only variable that had a significant relationship with the consumer concerns for price in Egypt.
- No variable had a significant relationship with consumer concerns for quality in either the U.S. or Egypt.
- No variable had a significant relationship with consumer concerns for safety in the U.S. However, consumer expectations and experiences with products and perceived improvement in living situations had a significant relationship with the consumer concerns for safety in Egypt.
- There were significant relationships between attitudes toward consumer protection efforts by business and attitudes toward consumer education efforts, and consumer concerns for

labeling and information in the U.S. No variable had a significant relationship with consumer concerns for labeling and information in Egypt.

- Attitudes toward consumer education efforts had a significant relationship with consumer concerns for environmental effects of products and their packaging in both the U.S. and Egypt.

Results of the one-way ANOVA showed that:

- Presence of children in the age groups of 1-5 years old, 13-17 years old, and 18 years old or over had a significant influence on the perception of consumer problems in the U.S. The employment status of the respondent's spouse, family annual income, and the presence of children in the age groups of less than 1 year old, 6-12 years old, and 18 years old or over had significant influence on the perception of consumer problems in Egypt.
- University position was the only variable that had a significant influence on consumer concerns for price in the U.S. Education level, university position, family annual income, and presence of children in the age groups of 1-5 years old and 18 years old or over had significant influence on the consumer concerns for price in Egypt.
- No demographic variable had a significant influence on consumer concerns for quality in the U.S. Education level and the university position had significant influence on the consumer concerns for quality in Egypt.
- Education level and the presence of children in the age groups of 1-5 years old and 18 years old or over had a significant influence on the consumer concerns for safety in the U.S. Education level, employment status, and presence of children in the age group of 18 years old or over had significant influence on the consumer concerns for safety in Egypt.
- No demographic variable had a significant influence on consumer concerns for labeling and information in the U.S. The presence of children in the age group of less than 1 year old had significant influence on the consumer concerns for labeling and information in Egypt.
- No demographic variable had a significant influence on consumer concerns for environmental effects of products and their packaging in the U.S. Education level and

university position had significant influence on the consumer concerns for environmental effects of products and their packaging in Egypt.

Chapter V

DISCUSSION

This chapter discusses the findings of the study that explored differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of problems. Results presented in the preceding chapter revealed significant differences between American and Egyptian respondents' perception of consumer problems. Also, results showed significant differences between American and Egyptian respondents' concerns related to quality, safety, and labeling and information. They indicated that there are no significant differences between American and Egyptian respondents' concerns related to price, and environmental effect of products and their packaging. The investigations also indicated significant relationship between perception of consumer problems as well as concerns and several independent variables. This chapter contains the discussion and the implications of those findings.

Perception of Consumer Problems

According to the t-test analysis results, there were significant differences between American and Egyptian consumers' perception of consumer problems. The results revealed that the Egyptians exhibited a higher group mean for perception of consumer problems than that of the Americans. However, the canonical discriminant analysis chose the consumers' perception of problems to be the most important variable in differentiating between American and Egyptian respondents. In fact, results of chi-square analysis indicated significant differences in the specific areas of perception of consumer problems since there was only one questionnaire item (i.e., Q1) among the 21 questionnaire items that form the perception of consumer problems scale that was not significant. The frequency distribution revealed that the majority of the American respondents exhibited higher perceptions of problems related to untrue, deceptive, and misleading advertising, while the majority of the Egyptian respondents perceived problems in all aspects, except Q14 that deals with the manufacturer/dealer did not live up to warranty. Egyptian consumers are generally not aware of warranties and their rights as consumers that, if they buy a certain product or service that later fails to function properly, they have the right to get the problem corrected by returning it to the seller to repair it or to replace the defective

product or service. Also, there is almost no effective law that provides a protection for the consumer legal right related to warranty rights.

The factor analysis results showed that consumer problems related to untrue, deceptive, and misleading advertising were the most important specific problems that determine the perception of consumer problems in the U.S., while consumer problems related to the environmental and health effects of products were the most important specific problems that determine the perception of consumer problems in Egypt.

The results of the stepwise regression analysis indicated that the most important interval-scale independent variables that determine the perception of consumer problems in Egypt were: the perceived adequacy of living situations, attitudes toward consumer protection efforts by business, and perceived adequacy of income. In the U.S., expectations and experiences with products, perceived adequacy of income, and education level were the independent variables that determine the perception of consumer problems.

The one-way ANOVA results showed that three demographic variables (family annual income, employment status of the respondent's spouse, and some age groups in the presence of children (i.e., less than 1 year old, 6-12 years old, and 18 years or over) exhibited significant influence on the perception of consumer problems in Egypt, while only some age groups in the presence of children (i.e., 1-5 years old, 13-17 years old, and 18 years or over) had a significant influence on the perception of consumer problems in the U.S.

These findings tend to support the contention that the consumer-related problems people have depend mainly on whether the consumer lives in a first world country or a third world country (Thorelli, 1990). Consumers from the third world nations (i.e., Egypt) do perceive more problems than those in the western industrialized nations (i.e., the U.S.). The significance of these results, however, pertains to the differences in specific problem areas confronting consumers from different countries.

Consumers in poorer countries have an exceptionally high degree of risk to be faced when trying to make prudent consumer decisions. The risk arises from a lack of standards, predatory practices of certain sellers, food adulteration, etc. Information is scarce and therefore extremely valuable. Many Egyptian consumers do not complain because they think complaining will not be worth their time, because they think that complaining will not do any good, and because they do not know how or where to complain. Many consumers do not complain because they believe the

benefits of complaining will not exceed the costs. The global market offers many opportunities for some of the worst aspects of capitalism: profiteering, selling of unsafe products, and a general disregard of any generally accepted standards of consumer protection. Such selling is often from the industrialized countries (the north) to consumers in the developing countries (the south). The results of some of the marketing of products to consumers in developing countries include misinformation about the products, endangerment of consumers, unnecessary injuries and death, suffering, neglect, exploitation, cynicism, distrust, and fear. These specific problems need to be addressed by both public and private organizations in order to improve consumer welfare within their respective environments.

The analysis also indicated that the presence of children was important for both Americans and Egyptians. For Egyptians, annual family income and employment of the spouse were also important. These are all indicators of stage in the lifecycle influence. Families have different responsibilities when they have children. Young children and college age children bring especially large financial obligations. It is logical that these demographic variables influence perception of consumer problems. (Schiffman & Kanuk, 1994; Stampfl, 1978; Murphy & Staples, 1979).

Consumer Concerns for Price

Results showed that Egyptian respondents exhibited a higher group mean on the consumer concerns related to price than the American respondents. However, t-test analysis results indicated that the difference between American and Egyptian consumer concerns related to price was not significant. Also, the results of discriminant analysis showed that the consumer concerns related to price was the least important variable in discriminating between the Egyptian and the American respondents.

These findings tend to support the contention that consumer concerns related to price are indeed global. Consumers from the third world nations do not necessarily perceive more concerns related to price than those in the western industrialized nations.

The frequency distribution revealed that the majority of the Egyptian respondents expressed a great concern for the price of many products such as food, clothing, automobiles, furniture/furnishings, and household appliances. Meanwhile, the majority of the Egyptian respondents convey less concern for the price of health related products. Their lower level of

concern may be due to the highly subsidized health related products by the government. In the U.S., the majority of the American respondents expressed an average concern for the price of food, household appliances, and health related products. They had an above average concern for the price of clothing, automobiles, and furniture/furnishings.

The factor analysis results showed that the six specified items of the detailed concerns (i.e., food, clothing, automobiles, household appliances, furniture/furnishings, and health related products) represented the most important aspects that determine the consumer concerns for price in the U.S. While five specified items of the detailed concerns (i.e., food, clothing, automobiles, household appliances, and furniture/furnishings) represented the most important aspects that determine the consumer concerns for price in Egypt. In fact, this was another outcome that indicated the compatibility of the consumer concerns for price in the two countries.

The results of the stepwise regression analysis revealed that two interval-scale independent variables (the education level, and the attitudes toward consumer protection efforts by business) exhibited a strong relationship with consumer concerns for price in the U.S., while the adequacy of income was the only independent variable that had a strong relationship with the consumer concerns for price in Egypt. According to the one-way ANOVA, the demographic variables that had a significant influence on the consumer concerns for price in Egypt were: university position, family annual income, education level, and some age groups in the presence of children (i.e., 1-5 years old, and 18 years old or over). In the U.S., the university position was the only demographic variable that has a significant influence on the consumer concerns for price.

These results are logical and consistent with findings from research conducted in other developed and less developed countries. Researchers (Allahlh & Sahbl, 1998; Gergis, 1995; Thorelli, 1988; Zeithaml, 1988; Warland et. al., 1984) have found that concerns of Egyptians for price are influenced by the perceived adequacy of income, the family annual income, the presence of children, and education level.

Consumer Concerns for Quality

Results showed that Egyptian respondents exhibited a higher group mean on the consumer concerns related to quality than did the American respondents. Also, the t-test indicated that this difference was significant. Results of the discriminant analysis showed that

the consumer concerns related to quality was the second most important variable, after the perception of consumer problems variable, in differentiating between the American and the Egyptian respondents. In fact, the group mean of the consumer concern related to quality, in both the U.S. and Egypt was the highest group mean among the other consumer concerns group means.

The frequency distribution demonstrated that the majority of the Egyptian respondents had a great concern for the quality of food, clothing, and furniture/furnishings, while they had an above average concern for the quality of automobiles, household appliances, and health related products. Meanwhile, the majority of the American respondents had a great concern for only the quality of furniture/furnishings, while they had an above average concern for the other five specified items of the detailed concerns (food, clothing, automobiles, household appliances, health related products). The results of the factor analysis indicated that the quality of the six specified items of the detailed concerns (i.e., food, clothing, automobiles, household appliances, furniture/furnishings, health related products) is the most important aspect of consumer concerns for quality in both the U.S. and Egypt. These results correspond with findings of previous research conducted in other developed and less developed countries (Abu Zaid, 1993; Thorelli, 1988; Barksdale et. al., 1982)

Results of this study are consistent with the findings revealed in a recent article published in *Consumer Reports* (February, 2001) "Your top gripes" about the American consumer complaints. The article revealed that consumer complaints about household goods – mainly big-ticket items such as computers, electronics, appliances, and furniture – are way up, so much so that the category is now among the top three that consumers gripe about. It even edges out car repairs, a traditional sore spot. Home improvements and car sales still get the most complaints, according to the Consumer Federation of America and the National Association of Consumer Agency Administrators, which compile the gripe list by surveying 49 government agencies that consumers complain to. The date, issued last year, cover 1999. Chief complaints for household goods include defective products, deceptive advertising, and manufacturers that do not honor warranties and refunds. The biggest jump in the survey: problems with internet service providers, online purchases, and online auctions. But the numbers are still too small to make the top-ten list.

Results of the stepwise regression revealed that there was no interval-scale independent variable that had a strong relationship with the consumer concerns for quality in the U.S. and in Egypt. The one-way ANOVA results indicated that there was no demographic variable that had a significant influence on the consumer concerns for quality in the U.S., while education level, and university position were shown to exhibit significant influence on the consumer concerns for quality in Egypt.

These findings suggest the need for more regulatory measures by various government agencies to improve the quality standards of many products in Egypt. Businesses, including manufacturers, exporters, importers, distributors and retailers, should be responsible for compliance with quality requirements. Consumers, through consumer education programs, need to be informed of how to look for possible dangers of products sold in the market.

Consumer Concerns for Safety

Respondents from the U.S. were not as concerned as respondents from Egypt about safety of products. This was reflected by the higher group means of the consumer concerns related to safety in Egypt than that in the U.S. However, the t-test analysis showed significant differences between the two groups in the safety concerns. Also, the results of the discriminant analysis asserted that the consumer concerns for safety was the fourth important dependent variable (after the perception of consumer problems, and consumer concerns related to quality and labeling/information), in differentiating between the American and the Egyptian respondents. The high concern for safety among Egyptians seems to be consistent with earlier findings from research conducted on Egypt and other less developed countries (Allhalh & Sahbl, 1998; Thorelli, 1990).

The frequency distribution revealed that the majority of the American respondents had average safety concerns for five specified items of the detailed concerns (i.e., food, clothing, automobiles, household appliances, and furniture/furnishings), while they asserted a great concern for the health related products. The majority of the Egyptian respondents had average safety concerns for five specified items of the detailed concerns (i.e., clothing, automobiles, household appliances, furniture/furnishings, and health related products), while they had above average concerns for the safety of food.

Results of factor analysis showed that the most important aspects in determining the consumer concerns for safety were related to clothing, automobiles, and health related products, while the most important aspects in determining consumer concerns for safety in Egypt were related to food, clothing, automobiles, household appliances, furniture/furnishings, and health related products.

Egypt is still far behind many western countries in efforts to protect consumer safety. Many product safety standards that are observed in the U.S. are not currently observed in Egypt. There is no Consumer Product Safety Commission, for example, which has this responsibility in the U.S. (Meier et al, 1998). As Egyptians are able to enjoy the consumption of both local and imported products, continuous efforts need to be directed toward establishing and improving safety standards for those products.

Results of the stepwise regression analysis had revealed that, in Egypt, there were two interval-scale independent variables (i.e., expectations and experiences with products, and perceived improvement in living situations) that exhibited a strong relationship with the consumer concerns for safety. In the U.S., there was no variable that had a relationship with the consumer concerns for safety. In Egypt, consumers' experiences, both local and abroad, related to the hazards of using unsafe products such as electrical appliances, gas/kerosene stoves, children's toys, and chemicals in foods to name a few, are urgent warnings that implementing of safety standards for such items are past due.

According to the one-way ANOVA, three demographic variables were shown to have a significant influence on the consumer concerns for safety in Egypt. These variables are: the education level, the employment status of the respondent, and the one age group in the presence of children variable (18 years old or over). In the U.S., only two demographic variables were shown to have significant influence on the consumer concerns for safety. These variables were: education level, and presence of children in the age group of 1-5 years old, and 18 years old or over.

These findings suggest the Egyptians' need for more regulatory measures by various government agencies to improve the safety standards of many products. Businesses, including manufacturers, exporters, importers, distributors and retailers, should be responsible for compliance with safety requirements. Consumers, through consumer education programs, need to be informed of possible dangers of products sold in the market.

Concerns for Labeling and Information

Results revealed a higher group mean of the consumer concerns for labeling and information in Egypt than in the U.S. The results of the t-test asserted that there was a significant difference between American and Egyptian consumers' concerns for labeling and information. The discriminant analysis chose this concern to be the third important variable (after the perception of consumer problems and the consumer concerns for quality) in differentiating between the American and the Egyptian respondents. These findings seem to relate to Egyptians' concerns for safety of products since in many cases adequate and accurate information on product label is crucial in prevention of life threatening accidents.

The frequency distribution showed that the majority of the Egyptian respondents had a low concern for the labeling and information on products. Also, the majority of the American respondents had a low concern for the labeling and information on products (except for their concerns for labeling and information on automobiles on which they had no concern at all). Factor analysis results revealed that the most important concerns in determining the labeling and information concern in the U.S. and in Egypt were the specific products (i.e., food, clothing, automobiles, household appliances, furniture/furnishings, and health related products).

The stepwise regression results showed that, in the U.S., two independent variables (attitudes toward consumer protection efforts by business and attitudes toward consumer education efforts) were shown to exhibit a strong relationship with the consumer concerns for labeling and information, while in Egypt there was no variable that had a relationship with the consumer concerns for labeling and information.

According to the one-way ANOVA, there was no demographic variable that had a significant influence on the consumer concerns for labeling and information in the U.S., while the presence of children in the age group of less than 1 year old was the only demographic variable that had a significant influence on the consumer concerns for labeling and information in Egypt.

These findings support the contention that the American consumers have a rising expectations and demands from the business and the government agencies. As Garman (2000) stated, "many Americans now believe that consumerism is synonymous with *free-market democracy* in that it gives people a voice in the economic and political decisions that affect them

as consumers. Informed consumers encourage the competition that disciplines the marketplace” (Garman 2000, p.38).

Egypt is still far behind many western countries in efforts to protect consumers’ right to have knowledge about the products they consume. Today, Egyptians are more concerned with the price, quality, and safety of products than labeling and information. Thus, for them, the important issues should come first. However, improvement in the present Labeling Act in Egypt is strongly recommended, and compliance with the regulations should be made mandatory. Consumer educators in Egypt need to get involved in providing guidelines and suggestions for improvement in labeling. Consumers, through consumer education, have to develop a critical look at the present product labels. Their voices, when heard, would help improve present labeling weaknesses.

Concerns for Environmental Effects of Products and their Packaging

Although the Americans had higher group means than the Egyptians, results asserted that there was no significant difference between American and Egyptian respondents’ concerns for environmental effects of products and their packaging. Also, the discriminant analysis results affirmed that by eliminating the environmental concern from the discriminating variables. These findings tend to support the contention that consumer concerns related to environmental effects of products and their packaging are indeed global. Consumers from the third world nations do not necessarily perceive more concerns related to environmental effects of products and their packaging than do those in the western industrialized nations.

Results of the frequency distribution showed that the majority of the American and the Egyptian respondents had the least concern for the six specified items of the detailed concerns (i.e., food, clothing, automobiles, household appliances, furniture/furnishings, and health related products). However, the majority of the Egyptians (56%) disagreed that government regulations currently require manufacturers to put information on their packages indicating whether the package is recyclable.

Results of factor analysis revealed that the most important concerns for determining the consumer concerns for the environmental effects of products and their packaging in the U.S. and in Egypt were the six specified items of the detailed concerns (i.e., food, clothing, automobiles, household appliances, furniture/furnishings, and health related products). The results of the

stepwise regression analysis showed that education level was the only variable that had a strong relationship with the environmental concerns of products and their packaging in the U.S. and in Egypt. Results of the ANOVA demonstrated that, in Egypt, only two demographic variables that had a significant influence on the consumer concerns of products and their packaging, while there was no demographic variable that had a significant influence on the consumer concerns of products and their packaging in the U.S.

Since other researchers have found growing public concern in the U.S. for environmental issues (Drumwright, 1994; Kangun, Carlson & Grove, 1991; Roper Starch Wroldwide, 1996), these results are not consistent with previous findings. However, other researchers have also found that actual consumer purchasing has not shown as strong interest in the environment as consumers have indicated (Mayer, Scammon & Gray-Lee, 1993; Shrum, McCarty & Lowery, 1995). Thus these results may actually be indicative of how consumers actually feel.

Perceived Adequacy of Income

A significant difference was observed between the American and the Egyptian respondents' needs fulfillment related to perceived adequacy of income. The high score in the perceived adequacy of income scale among the Americans may be directly related to their earning more annual income than the Egyptian sample.

The results of frequency distribution revealed that the majority of the Egyptian respondents conveyed that their income is usually adequate for all types of needs except for insurance and recreation/travel needs. The majority of the American respondents indicated that their income is usually adequate for all types of needs.

These results are consistent with the actual average incomes in each country. Also, the groups surveyed are in positions to have relatively comfortable incomes.

Perceived Improvement in Living Situations

Results showed that the Egyptian respondents had a group mean of perceived improvement in living situations that was less than that of the American respondents. This difference was shown by the t-test to be significant. Results of the frequency distribution indicted that the majority of the Americans (80%) and the Egyptians (47%) perceived their living situations as better today compared to five years ago. Perceived improvement in living situations

was highly correlated with perceived adequacy of income. Hence, those who perceived their income as adequate also felt that their living situations had improved. This overall feeling of improvement in living situations seemed to support previous American research (Garman, 2000). It is also consistent with the fact that Egyptians have comparatively lower incomes.

Expectations and Experiences with Products

Results revealed that the group mean of the consumer expectations and experiences with products in the U.S. was slightly higher than that in Egypt. However, the t-test results asserted that there was no significant difference in the expectations and experiences with products between American and Egyptian respondents. Results of the frequency distribution revealed that the majority of the American respondents felt that the products usually meet their expectations except for the products' performance as expected, and their easiness to operate/handle as expected, while the majority of the Egyptian respondents felt that the products usually meet their expectations except for warranties. These results indicate that the American people today demand and expect refunds for products that do not live up to their expectations. They want "somebody" to fix their problems "right now" and they want a "good buy" (Garman, 2000; Schiffman & Kanuk, 1994). However, the Egyptian people today know the merchandise and try to avoid shoddy products. They have a little protection against merchants who raise prices needlessly, and they can do little to stop frauds, such as misbranding and adulteration. Let the buyer beware is the prevailing consumer motto, and that might explain their level of satisfaction with what they get and how they deal with problems.

Attitudes toward Consumer Protection Efforts by Government

The group mean of the Egyptian respondents' attitudes toward consumer protection efforts by government is lower than that of the American respondents. However, this difference was found to be significant by the t-test. Results of the frequency distribution revealed that the majority of the American respondents felt that government regulations were adequate, while the majority of the Egyptian respondents felt that the government regulations were not adequate.

These findings seem to support the contention that American consumers do not favor further regulations from government (Jacobson, 1993). Several researchers have stressed the lack of government regulations in the less developed countries (Ibrahim, 1991; Thorelli, 1988;

Gomaa, 1982). Thorelli (1982) emphasized the importance of first providing consumer protection in developing countries. The concept of consumer protection has been defined in Egypt and research documents its importance (Abdel Galeel, 1982; Hamudah, 1981). The majority of the American respondents agreed that the enforcement of consumer laws by government is satisfactory, while the majority the Egyptian respondents strongly disagreed that the enforcement of consumer laws by government is satisfactory. Other researchers have documented the need for better consumer protection in Egypt (Allahl & Sahbl, 1998; Afifi, 1996; Al Desouki, 1993; Abdel Hadi; 1989) and since law number 113 was enacted, there has been some improvement in punishing those guilty of commercial fraud (ElDarghamy, 1979; Farhat, 1982).

Attitudes toward Consumer Protection Efforts by Business

Results revealed that American and Egyptian respondents' attitudes toward consumer protection by business were significantly different. Americans showed more favorable attitudes toward business than Egyptians. The majority of the American respondents (60%) agreed that the businessmen, in general, satisfy their customers, while only 44% of the Egyptian respondents agreed with that. Also, the majority of the American respondents (67%) agreed that, in general, most companies and stores handle consumer complaints well, while only 34% and the Egyptian respondents agreed with that.

The favorable attitudes toward business among the Americans tend to support findings by Sheth et. al., 1999, while the unfavorable attitudes toward business among the Egyptians seem to correspond with findings conducted on Egypt and on other developing countries (El Kareem, 1996; El Morsy, 1996; Ibrahim, 1991, Mahmoud, 1992; Metawaa, 1985, Farahat, 1993). These results tend to separate the American from the Egyptian consumers in that American consumers felt that they are protected by both government and business. Hence, when problems arise, consumers may solve them through exercising their rights.

This situation is different in Egypt. While government was perceived as not protecting consumers in the marketplace, business was perceived as being totally detached from the responsibilities of protecting consumer rights. In fact, business is considered to be more concerned with economic motives and not completely devoted to responsibilities to consumers (Mahmoud, 1992; Metawaa, 1985; Farahat, 1993). Therefore, there is a need to develop positive

communication between business and government, business and consumers, and consumers and government, in order to improve consumer welfare.

Attitudes toward Consumer Education Efforts

Results revealed higher group mean on the attitudes toward consumer education efforts in Egypt than that in the U.S. The results of the t-test asserted that there was a significant difference between American and Egyptian attitudes toward consumer education efforts. The frequency distribution showed that the majority of the Egyptian respondents ranked “decision making” as their most important aspect that they need more information about, while they ranked their need for information regarding “consumer representation and consumer organization” as their least important aspect. In the U.S., the majority of the American respondents ranked “decision making and financial planning” as the most important aspects they need more information about, while they ranked their need for information regarding “consumer representation and consumer organization” as the least important aspect.

The majority of the Egyptian respondents ranked “mass media (i.e., TV and Radio) and advice from friends, family, and relatives” as the most helpful channels to get information from about consumer protection and consumer education, while they ranked “school education program” as the least helpful way to get information about consumer protection and consumer education. In the U.S., the majority of the American respondents ranked “mass media (i.e., TV and Radio)” as the way they usually get information about consumer protection and consumer education, while they ranked “school education program” as the least helpful channel to get information about consumer protection and consumer education. The majority of the American and the Egyptian respondents agreed that consumer education should include information about buying goods and services, decision making, financial planning, conserving resources, consumer laws, consumer rights and responsibilities, and consumer organizations.

This overall feeling of the need for consumer education seemed consistent with previous American research (Garman, 2000; Mandell, 2000; Mandell, 1998; Consumer Federation of America and American Express, 1991). Many schools fail to include a consumer education course in their curricula. Consumer education needs to be taught in all schools. Current programs of study in consumer fields need to review curricula so as not only to better educate citizens, in terms of consumer information and issues, but also to prepare students to become

global consumers as well as employees with international companies. Curricula should provide a solid base for assessing international consumer issues and related policy options (Martin, 2000). Classroom exposure to professionals from other countries, on-site experiences through study abroad programs, or international internships ideally should be a major part of the curriculum. These experiences will help provide students with an opportunity to gain more a meaningful understanding of global issues (Marlowe & Santibanez, 2000; McGregor, 1996; Crawford, 1993). They also should reflect the changing world economy (Swagler, 1993).

The findings of this study support the research done by Thorelli in 1983 that described the urgent need for consumer education in the less developed countries. Consumer education needs to be required in all schools to strengthen the capacity of independent thinking and critical evaluation so that consumers can learn to exercise their rights (Thorelli, 1983).

Consumers tend generally to be willing to accept and fight for their rights more than to accept and be committed to their responsibilities (Davis, 1979; Crawford, Lawrence & Prawitz, 1995). Consumers' unfamiliarity with their rights and responsibilities does not only open the door wide for market malpractices, but also limits their abilities to make free and satisfactory choices. Consumer education is fundamental in the process of consumer protection. It is essential to increase consumer knowledge. Accumulated consumer knowledge can, in turn, be very effective in determining the types of evaluation process that mediates the final value judgments for consumer decisions.

Summary of Discussion

This chapter discussed the findings of the study that explored differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of problems and concerns. The chapter included the discussion of the results of the dependent variables and the independent variables tested in this study. The dependent variables were: perception of consumer problems, and consumer concerns relate to price, quality, safety, labeling and information, and environmental effects of products and their packaging. The independent variables were: needs fulfillment related to perceived adequacy of income, needs fulfillment related to perceived improvement in living situations, expectations and experiences with products, attitudes toward consumer protection efforts by government, attitudes

toward consumer protection efforts by business, and attitudes toward consumer education efforts. Discussion of the implications of the research findings also was included.

Chapter VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes a summary of the research findings of this study. In addition, conclusions and recommendations for future research are presented.

Summary of Research

As a result of today's global market system, there have been concerns over the rights of international consumers, especially those from the less developed countries. However, research in the areas of consumer problems and concerns related to protection and education of international consumers is limited. The present study was, therefore, conducted to compare consumer problems and concerns related to protection and education perceived by consumers living in an industrialized country with consumers living in a less developed country.

The purpose of this study was to explore differences in the perceived consumer problems and concerns between American and Egyptian consumers, as measured by a composite score for perception of problems. The conceptual base for this research was the socio-psychological determinants of perception as proposed by Bruner and Postman (1948). Bruner and Postman (1948) categorized the determinants of perception theories into formal or structural and informal or behavioral. The formal or structural determinants are related to central nervous system biochemical functions such as sensory activities, and the effects of stimulation on these sensory receptors. The informal or behavioral determinants are concerned with socio-psychological factors such as needs, tensions, past experiences, and emotions. Perception of consumer problems is more closely related to informal behavioral determinants of perception. The present study, therefore, utilized the socio-psychological determinants of perception of problems as the basis for selection of the independent variables.

The relationships between fourteen independent variables and perceived consumer problems of American and Egyptian consumers also were examined. The independent variables that were studied include the following: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward government, attitudes toward business as consumer protection agencies, attitudes toward consumer education

efforts, and demographic variables of gender, age, marital status, presence of children, family annual income, education level, employment status, and university position.

Specific objectives of this study were: (1) To determine if there are differences between American and Egyptian consumers in the following areas: perception of consumer problems; concerns related to price, quality, safety, labeling and information, and concerns about the environmental effects of products and their packaging; needs fulfillment related to perceived adequacy of income, and perceived improvement in living situations; expectations and experiences with products; attitudes toward consumer protection efforts by government; attitudes toward consumer protection efforts by business; attitudes toward consumer education efforts. (2) To analyze relationships between perception of consumer problems and concerns and the following: needs fulfillment related to perceived income adequacy and perceived improvement in living situations; expectations and experiences with products; attitudes toward consumer protection efforts by government; attitudes toward consumer protection efforts by business; attitudes toward consumer education efforts. (3) To investigate the influence of demographic variables of gender, age, marital status, presence of children, family annual income, education level, university position, and employment status on the perception of consumer problems and concerns.

Data were obtained through a questionnaire developed by the researcher. The questionnaire was first developed in English, and then translated into Arabic with a back translation check. The reliability of the instrument was tested with a test-retest procedure. A questionnaire, an explanatory cover letter, and a stamped self-addressed envelope, were mailed to 180 randomly selected respondents at Virginia Tech and Radford University. Graduate students assigned at Ain Shams University and Sadat Academy delivered the questionnaires personally to the 180 randomly selected respondents in both universities in Cairo. The completed questionnaires were collected within three weeks after delivery. There were 112 questionnaires returned from Virginia Tech and Radford University, of which 108 were acceptable for analysis (60%). There were 154 questionnaires returned from Egypt, of which 142 were acceptable for analysis (78.8%). Hence, a total of 250 responses were used in the data analysis for an overall return rate of 69.4%.

The procedure for data analysis was divided into two segments, pre-analysis and analysis. During the pre-analysis, such activities as coding, data entry and cleaning were performed. Data

coding, and data entry were performed by the researcher and were revised by two Egyptian students who were attending Virginia Tech, Blacksburg, Virginia. The study used the Excel software program for data entry.

In the analysis segment, the researcher performed statistical analysis by using the SAS computer package version 8.1. Procedures for statistical analysis involved eight phases as follows: the reliability analysis was first utilized to determine construct validity by using Cronbach's alpha of the measures. In the second phase, frequency distribution analysis was computed to describe the demographic characteristics of the sample and the responses to each of the questionnaire items. The third phase involved the use of chi-square analysis to determine the similarity or dissimilarity of frequency distribution between American and Egyptian responses for each questionnaire item. In the fourth phase, factor analysis was used to define the dimensions or factors within each scale, and to confirm the structuring of the dependent variables.

The fifth phase involved the use of the two-sample independent t-test to determine: (1) differences between American and Egyptian consumers' perception of consumer problems and concerns for price, quality, safety, labeling and information, and environmental effects of products and their packaging, and (2) differences between the independent variables in each country. The independent variables are: perceived adequacy of income, perceived improvement in living situations, expectations and experiences with products, attitudes toward government, attitudes toward business, and attitudes toward consumer education efforts. Stepwise multiple regression analysis was utilized in the sixth phase to determine relationships between two or more independent variables and an interval-scaled dependent variable. In the seventh phase, Analysis of Variance (ANOVA) was used to investigate the influence of selected demographic variables on the dependent variables. Finally, in the eighth phase, a discriminant analysis was computed to isolate or discriminate among characteristics of American and Egyptian consumers.

Results of the t-test revealed that the perception of consumer problems and concerns for quality, safety, and labeling and information were significantly different between American and Egyptian consumers. Consumer concerns for price and environmental effects of products and their packaging were not significantly different. Also, results of the t-test showed that perceived adequacy of income, perceived improvement in living situations, attitudes toward consumer protection efforts by government and business, and attitudes toward consumer education efforts

were significantly different between the two countries. Consumer expectations and experiences with products was not significantly different.

Results of the stepwise regression analysis revealed that:

- Consumer expectations and experiences with products, perceived adequacy of income, and attitudes toward consumer education efforts were the only variables that had a significant relationship with the perception of consumer problems in the U.S. While perceived improvement in living situations, attitudes toward consumer protection efforts by business, and perceived adequacy of income were the only variables that had a significant relationship with the perception of consumer problems in Egypt.
- Attitudes toward consumer education efforts and attitudes toward consumer protection by business were the only variables that had a significant relationship with the consumer concerns for price in the U.S. Perceived adequacy of income was the only variable that had a significant relationship with the consumer concerns for price in Egypt.
- No variable had a significant relationship with the consumer concerns for quality in either the U.S. and Egypt.
- No variable had a significant relationship with the consumer concerns for safety in the U.S., but consumer expectations and experiences with products and perceived improvement in living situations had a significant relationship with the consumer concerns for safety in Egypt.
- There were significant relationships between attitudes toward consumer protection efforts by business and attitudes toward consumer education efforts and consumer concerns for labeling and information in the U.S. There was no variable that had a significant relationship with the consumer concerns for labeling and information in Egypt.
- Attitudes toward consumer education efforts had a significant relationship with consumer concerns for environmental effects of products and their packaging in both the U.S. and Egypt.

Results of the one-way ANOVA showed that:

- Presence of children in the age groups of 1-5 years old, 13-17 years old, and 18 years old or over had a significant influence on the perception of consumer problems in the U.S. The employment status of the respondent's spouse, family annual income, and the presence of children in the age groups of less than 1 year old, 6-12 years old, and 18

years old or over had a significant influence on the perception of consumer problems in Egypt.

- University position was the only variable that had a significant influence on consumer concerns for price in the U.S. Education level, university position, family annual income, and presence of children in the age groups of 1-5 years old and 18 years old or over had a significant influence on the consumer concerns for price in Egypt.
- No demographic variable had a significant influence on the consumer concerns for quality in the U.S. The education level and the university position had a significant influence on the consumer concerns for quality in Egypt.
- Education level and the presence of children in the age groups of 1-5 years old and 18 years old or over had a significant influence on the consumer concerns for safety in the U.S. Education level, employment status, and presence of children in the age group of 18 years old or over had a significant influence on the consumer concerns for safety in Egypt.
- There was no demographic variable that had a significant influence on the consumer concerns for labeling and information in the U.S. The presence of children in the age group of less than 1 year old had a significant influence on the consumer concerns for labeling and information in Egypt.
- No demographic variable had a significant influence on the consumer concerns for environmental effects of products and their packaging in the U.S. Education level and university position had a significant influence on the consumer concerns for environmental effects of products and their packaging in Egypt.

Conclusions

The following conclusions were derived from the study:

Differences Between Consumer Problems and Concerns for American and Egyptian Consumers

1. As anticipated, there were significant differences between American and Egyptian consumers in the areas of the perception of consumer problems and concerns for quality, safety, and labeling and information.

2. The consumer concerns for price was anticipated to be non-significantly different between the American and the Egyptian respondents because of the globalization of this concern. The results of this supported this contention.
3. The consumer concerns for environmental effects of products and their packaging was anticipated to be significantly different between American and Egyptian respondents. However, the findings of this study did not support that.
4. Consumers in the U.S. and Egypt expressed different opinions on many areas regarding the perceived adequacy of income, the perceived improvement in living situations, attitudes toward consumer protection efforts by government and business, and attitudes toward consumer education efforts.
5. As it was anticipated, the majority of the Egyptian respondents perceived that they had less adequacy of income and improvement in living situations than the American respondents. Also, the majority of the Egyptian respondents showed negative attitudes toward consumer protection efforts by government and business.
6. Product quality was the most important concern for both American and Egyptian respondents.

Relationships Between Consumer Problems/Concerns and Psychological Determinants of Perception

7. The results revealed that the American respondents had a negative attitude toward advertisement. The majority of American respondents experienced problems related to untrue, deceptive, and misleading advertising.
8. The majority of the Egyptian respondents felt that government regulations and the enforcement of consumer protection laws were inadequate, and that businessmen in general are not trustworthy and do not view consumer satisfaction as a primary goal.
9. Attitudes toward consumer education efforts had a significant relationship with consumer concerns for environmental effects of products and their packaging in both the U.S. and Egypt.

Influences of Demographic Variables on Consumer Problems and Concerns

10. The employment status of the respondent's spouse, family annual income, and the presence of children in the age group of 18 years old or over had a significant influence on the perception of consumer problems in both the U.S. and Egypt.

11. Education level, university position, family annual income, and presence of children in the age groups of 1-5 years old and 18 years old or over had a significant influence on the consumer concerns for price in Egypt.
12. Education level and university position had a significant influence on the consumer concerns for environmental effects of products and their packaging in Egypt.

Recommendations

Based on the findings of the study, the following recommendations are made.

Research

1. Since the present study only included the Cairo and Virginia areas, follow-up studies should consider consumers' concerns from other areas in Egypt and the United States as well as other countries.
2. The consumer concern items of the questionnaire are rather broad; further research should be more specific regarding consumer concerns. For example, instead of asking about overall concerns regarding many products, the questionnaire could ask about concerns regarding specific items such as food-related items, clothing, and health-related items.
3. Since the present study only included academic communities, follow-up studies should also consider consumer problems perceived by other groups, such as those living in rural areas, those with other education levels, and special groups such as the aged.
4. Further research regarding consumer protection programs by government and business should include continuous assessment of consumers' concerns and development of their policy based on the results of the assessment. Consumer protection program planners in the government should consider further research regarding consumers' knowledge about government laws and regulations. Marketing planners also need to engage in continuous research regarding consumer protection through self-monitoring or surveys.

Consumer Education

5. For development of Egyptian consumer education programs, reevaluations of the current programs must be considered. Future consumer programs need to be focused on new issues and on critical views of consumers. Consumer programs also should be provided according to the level of understanding and the needs of consumers. In order to

effectively disseminate consumer programs, follow-up research should identify the preferred information source of Egyptian consumers.

6. Consumers need to be informed of possible dangers of products sold in the market.
7. Consumer educators in Egypt need to get involved in providing guidelines and suggestions for improvement in labeling.
8. Consumer education needs to be taught in all schools in both America and Egypt.
9. Consumer education curricula should educate citizens about consumer information and issues, as well as prepare students to become global consumers and employees of international companies. Classroom exposure to professionals from other countries, on-site experiences through study abroad programs, or international internships ideally should be a major part of the curriculum.

Consumers

10. Egypt should have a mature, well-organized, active, effective, and productive consumer movement. A consumer movement should be primarily concerned with: (a) Fighting consumer problems to protect consumers from such things as dangerous and defective products, extraordinary price, product performance failures, deceptive advertising. (b) Increasing the quantity and quality of objective and useful information about products and services, as well as safety and environmental issues. (c) Improving the effectiveness of existing laws and regulations to protect consumers. (d) Constructing an active government agency, that is vigorously pursuing its mission rather than just existing, to centrally manage consumer affairs. (e) Cultivating strong consumer organizations to more clearly express and support consumer interest. (f) Mobilizing and empowering citizens to effectively participate in political actions.
11. Consumers need to be more aware of their options and be able to act more effectively in their individual interests.
12. Consumers bear the responsibility of utilizing their rights, accepting their responsibilities, being informed of the existing laws and regulations, and being active in updating those rights and responsibilities for the ultimate fairness of all market transactions.
13. Consumers need to take a critical look at the present product labels. Their voices, when heard, would help improve present labeling weaknesses.

Government

14. The Egyptian government must increase its efforts in raising the annual incomes of the Egyptian consumers and increase the citizens' awareness of the positive effects of "family birth planning" to face the accumulated increase in products' prices.
15. The Egyptian government should create an effective nationwide *consumer protection agency*, a government agency organized to centrally manage consumer complaints. This government consumer protection agency should be located in Cairo with branch offices that are geographically spread throughout the major cities all over the country. This agency should obtain a system to track consumer issues, and a consumer information and education program. This governmental organization should resolve consumer complaints because it can bring civil and criminal actions to enforce the laws and regulations, and it can compensate consumers for losses.
16. In fostering the economic welfare of consumers, governments should not only regulate the market to discourage or ban undesirable practices, but also they should educate consumers. It should address problems such as misinformation about products, endangerment of consumers, unnecessary injuries and death, suffering, neglect, exploitation, cynicism, distrust, and fear.
17. Government agencies should develop regulations to improve the quality standards of many products in Egypt.
18. Government agencies should establish and improve safety standards for products.
19. The present Labeling Act in Egypt should be improved, and compliance with the regulations should be made mandatory.

Business

20. Business should sponsor *consumer advisory panels* where businesspeople meet regularly with consumer leaders, usually activists and academics, to share concerns and explore ways in which the company can better serve consumers. Cooperation should become a mutually satisfactory action.
21. Business should take steps to avoid providing misinformation about the products, endangerment of consumers, unnecessary injuries and death, suffering, neglect, exploitation, cynicism, distrust, and fear.

22. Businesses, including manufacturers, exporters, importers, distributors and retailers, should be responsible for compliance with quality requirements set by the government.
23. Business should establish and improve product safety standards in Egypt.

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Appendix A
Questionnaire Items of Scaled Variables

Questionnaire Items of Scaled Variables

Concepts	Variables/Hypotheses	Questionnaire Items
Perception of consumer problems	1 Perception of consumer problems	1 thru 21
Consumer concerns	2 Concerns for price	22, 23 32a thru 37a
	3 Concerns for quality	26, 27, 28, 30 32b thru 37b
	4 Concerns for safety	29, 31 32c thru 37c
	5 Concerns for labeling and information	24, 25 32d thru 37d
	6 Concerns about the environmental effects of products and their packaging	47-51 32e thru 37e
	Needs fulfillment	7 Perceived adequacy of income
8 Perceived improvement in living situations		39, 40, 41
Expectations	9 Expectations and experiences with products	42 (a-e)
Attitudes toward consumer protection efforts	10 Attitudes toward government	43, 44
	11 Attitudes toward business	45, 46
Attitudes toward consumer education efforts	12 Consumer information need and source	52 (a-f) 53 (a-d) 54 (a-d)
	13 Opinion toward consumer education	55 (a-g)
Demographic	14 Gender	56
	15 Age	57
	16 Marital status	58
	17 Presence of children	59
	18 Education	60
	19 University position	61
	20 Employment status	62
	21 Family annual income	63

Appendix B

Questionnaire: Perception of Consumer Problems and Concerns

<h2 style="margin: 0;">Perception of Consumer Problems and Concerns Survey</h2>

The first set of questions will ask you about your experience with certain consumer problems within the last five years. Check all that apply.

<u>Consumer Problems</u>	<u>Experienced it myself or family</u>	<u>Know others who did</u>	<u>No/ don't know</u>
1. Store did not have an advertised product	_____	_____	_____
2. Distasteful or offensive advertising	_____	_____	_____
3. Deceptive advertising	_____	_____	_____
4. Salesman misrepresented product/service	_____	_____	_____
5. Deceptive packaging	_____	_____	_____
6. Product had unsatisfactory performance or workmanship	_____	_____	_____
7. Unsatisfactory repair	_____	_____	_____
8. Unsatisfactory service (not related to repair)	_____	_____	_____
9. Failure to receive delivery of ordered product	_____	_____	_____
10. Overcharge or excessive price	_____	_____	_____
11. Goods received in damaged condition	_____	_____	_____
12. Deceptive or fraudulent pricing/billing	_____	_____	_____
13. Incorrect billing	_____	_____	_____
14. Manufacturer/dealer did not live up to warranty	_____	_____	_____
15. Failure to receive refund	_____	_____	_____
16. Product unsafe or caused injury	_____	_____	_____
17. Products, such as foods, were adulterated with other substances	_____	_____	_____
18. Product harmful to health	_____	_____	_____
19. Product harmful to environment	_____	_____	_____
20. Instructions for use unclear/incomplete	_____	_____	_____
21. Refusal of credit	_____	_____	_____

The second set of questions will ask you about some common consumer concerns. Indicate how much they worry you personally.

<u>Consumer Concerns</u>	<u>A great deal</u>	<u>Some</u>	<u>Not much</u>	<u>Not at all</u>
22. High prices of many products	_____	_____	_____	_____
23. High cost of repairs on many products	_____	_____	_____	_____
24. Deceptive and inaccurate labeling/ information on packages	_____	_____	_____	_____
25. Insufficient labeling/information on products	_____	_____	_____	_____
26. Poor quality of many products	_____	_____	_____	_____
27. Poor quality of after sale services/ repairs of products	_____	_____	_____	_____
28. Poor quality of imported products	_____	_____	_____	_____
29. Unsafe/hazardous imported products	_____	_____	_____	_____
30. Poor quality of exported products	_____	_____	_____	_____
31. Unsafe/hazardous exported products	_____	_____	_____	_____

The following are some areas of consumer concerns. For each consumer product, rank the concerns you have in order of importance (5=greatest concern, 1=least concern) in the spaces provided.

32. Foods

- ___ Price
- ___ Quality
- ___ Safety
- ___ Labeling/Information
- ___ Environmental Effects/Packaging

33. Clothing

- ___ Price
- ___ Quality
- ___ Safety
- ___ Labeling/Information
- ___ Environmental Effects/Packaging

34. Automobiles

- ___ Price
- ___ Quality
- ___ Safety
- ___ Labeling/Information
- ___ Environmental Effects/Packaging

35. Household appliances

- ___ Price
- ___ Quality
- ___ Safety
- ___ Labeling/Information
- ___ Environmental Effects/Packaging

36. Furniture/furnishings

- ___ Price
- ___ Quality
- ___ Safety
- ___ Labeling/Information
- ___ Environmental Effects/Packaging

37. Health related products

- ___ Price
- ___ Quality
- ___ Safety
- ___ Labeling/Information
- ___ Environmental Effects/Packaging

The third set of questions will ask you if your family income is generally adequate to meet the following family needs. Check one that best describes each area.

38. <u>Types of Needs</u>	<u>Usually adequate</u>	<u>Sometimes adequate</u>	<u>Rarely adequate</u>
a. Food	_____	_____	_____
b. Clothing	_____	_____	_____
c. Bills: utilities phone credit	_____ _____ _____	_____ _____ _____	_____ _____ _____
d. Mortgage/rent	_____	_____	_____
e. Transportation	_____	_____	_____
f. Insurance	_____	_____	_____
g. Recreation/Travel	_____	_____	_____
h. Health care	_____	_____	_____

Do you think your family is better off or worse off today, compared to five years ago, in these areas?

<u>Consumers' living situations</u>	<u>Better today</u>	<u>Better 5 years ago</u>	<u>No difference</u>
39. Financial well-being	_____	_____	_____
40. Ability to purchase more goods/ services for family members	_____	_____	_____
41. Overall family living conditions	_____	_____	_____

The fourth set of questions: Do the products, generally, meet your expectations?

<u>Expectations of products</u>	<u>Usually</u>	<u>Sometimes</u>	<u>Rarely</u>
42. a. Last as long as I thought they should	_____	_____	_____
b. Perform as well as expected	_____	_____	_____
c. Easy to care for as expected	_____	_____	_____
d. Easy to operate/ handle as expected	_____	_____	_____
e. Warranties meet my expectations	_____	_____	_____

The fifth set of questions will ask you about your opinion.

<u>What is your opinion?</u>	<u>Strongly agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly disagree</u>
43. Government regulations in trying to protect consumers are adequate	_____	_____	_____	_____
44. The enforcement of consumer laws by the government is generally satisfactory	_____	_____	_____	_____
45. Businessmen in general are trustworthy and want to satisfy their customers	_____	_____	_____	_____
46. In general, most companies or stores handle consumer complaints well	_____	_____	_____	_____
47. I know that I buy products and packages that are environmentally safe	_____	_____	_____	_____
48. I know more about recycling than the average person	_____	_____	_____	_____
49. I know how to select products and packages that reduce the amount of waste ending up in landfills	_____	_____	_____	_____
50. I am very knowledgeable about environmental issues	_____	_____	_____	_____
51. Government regulations currently require manufacturers to put information on their packages indicating whether the package is recyclable	_____	_____	_____	_____

The sixth set of questions has “general questions.”

52. More information is needed. Rank according to the order you prefer more information (6=most preferred, 1=least preferred).

- (a) ___ decision making
- (b) ___ financial planning
- (c) ___ purchasing resources
- (d) ___ conserving resources
- (e) ___ information regarding consumer laws,
consumer rights, consumer responsibility,
and consumer assistance
- (f) ___ information regarding consumer representation
and consumer organizations

53. Rank where you usually get information about consumer protection (4=most helpful, 1=least helpful).

- (a) ___ mass media (TV, radio)
- (b) ___ advice from friends, family, and relatives
- (c) ___ consumer organization
- (d) ___ school education program

54. Rank where you usually get information about consumer education (4=most helpful, 1=least helpful).

- (a) ___ mass media (TV, radio)
- (b) ___ advice from friends, family, and relatives
- (c) ___ consumer organization
- (d) ___ school education program

The sixth set of Questions, continued

55. What is your opinion about consumer education? Should it include information about?	<u>Strongly Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
(a) Buying goods and services	_____	_____	_____	_____
(b) Decision making	_____	_____	_____	_____
(c) Financial planning	_____	_____	_____	_____
(d) Conserving resources	_____	_____	_____	_____
(e) Consumer laws	_____	_____	_____	_____
(f) Consumer rights and responsibilities	_____	_____	_____	_____
(g) Consumer organizations	_____	_____	_____	_____

The last set of questions are demographic in nature and are not intended to offend. Responses to these questions will not be used to identify you. Rather they are for analysis purposes only, so that we can better understand how different groups of people perceive their problems and concerns as consumers. Please choose the best answer or answers that apply to you.

56. Gender

Male Female

57. Your age (years)

Under 20 50-59
 20-29 60-69
 30-39 70 or over
 40-49

58. Your marital status

Single
 Married
 Widowed
 Divorced
 Separated

59. Presence of children in
each age group

Less than 1 year old
 1-5 years old
 6-12 years old
 13-17 years old
 18 years old or over
 No children

60. Your highest level of education
that you have completed

Never went to school
 Some grade school (Grades 1-8)
 Some high school (Grades 9-12)
 High school graduate or equivalent
 Some college or vocational school
beyond high school
 Completed a vocational training
program beyond high school
 Completed a 2-year college degree
 Completed a 4-year college degree
 Some graduate work
 Masters' degree
 Doctoral degree

61. Your position in the University

Faculty
 Staff
 Graduate student

62. Employment status

<u>You</u>	<u>Spouse</u>	
___	___	employed full time
___	___	employed part time
___	___	unemployed

63. Approximate family *yearly* income

___ Under \$4,999
___ \$5,000 to \$9,999
___ \$10,000 to \$19,999
___ \$20,000 to \$29,000
___ \$30,000 to \$39,000
___ \$40,000 to \$49,000
___ \$50,000 to \$59,000
___ \$60,000 to \$69,000
___ \$70,000 to \$79,000
___ \$80,000 to \$89,000
___ \$90,000 to \$99,000
___ over \$100,000

Thank you for completing the survey. Your kind cooperation is very much appreciated.

Appendix C

Cover Letter for the Instrument Mailing

Dear Survey Respondent,

I am writing to request your assistance in a study of perception of consumer problems and concerns that I am conducting as part of my doctoral studies at Virginia Polytechnic Institute and State University.

While there is a growing concern about the rights of international consumers, very limited studies have been conducted to compare consumer-related problems between consumers in industrialized and third world countries. This study is designed to determine differences and similarities of consumer-related problems and concerns perceived by American and Egyptian consumers.

As part of my study, I have developed a survey for collecting perceptions of consumer problems and concerns. The results of this survey, available to participants upon request, will provide policy makers with another source of information to reaffirm and supplement those received through complaints. Such information may help improve existing consumer policies and establish new ones. Relevant information derived from this study may also be used by those in consumer education. Business corporations can benefit through positive efforts in improving product quality, safety, and responsible marketing strategies that will improve consumer welfare, not only in the industrialized countries but elsewhere as well.

All data gathered will remain confidential, and will only be used for research purposes. No individuals or projects will be identified by name in reporting the results of this research.

If you have questions or require additional information, please contact me at (540) 953-0660, or my major advisor, Dr. Irene Leech at (540) 231-4191.

Thank you for your time and cooperation.

Sincerely,

Tarek Aly El Badawy, Doctoral Candidate
College of Human Resources and Education
Consumer Economics Program

Appendix D

Cover Letter for the Follow-up Mailing

Dear Survey Respondent,

About two weeks ago we asked you to participate in a study determining differences and similarities of consumer-related problems and concerns perceived by American and Egyptian consumers. If you have already completed and returned that survey to us, please accept our sincerest thanks. If not, we have enclosed another copy of the survey. Please take 10-15 minutes to complete the survey, and return it to us within the next week.

Your feedback will provide policy makers with another source of information to reaffirm and supplement those received through complaints. Such information may help improve existing consumer policies and establish new ones. Business corporations can benefit through positive efforts in improving product quality, safety, and responsible marketing strategies that will improve consumer welfare.

Your participation in this study is voluntary and your answers will remain strictly confidential. All your responses will be placed in a research database with only a study number used for identification.

If you have questions or require additional information, please call us at (540) 231-4191.

Sincerely,

Tarek A. El Badawy

Irene E. Leech

Appendix E

Results of Principal Component Analysis

Appendix E-1

Principal Component Analysis For Question 52

Eigenvalue	2.7843	1.2335	0.9546	0.6646	0.3616	0.0013
Proportion	0.464	0.206	0.159	0.111	0.060	0.000
Cumulative	0.464	0.670	0.829	0.940	1.000	1.000

Questionnaire Item	Components					
	PC1	PC2	PC3	PC4	PC5	PC6
Q52a	0.415	-0.438	-0.295	0.544	-0.116	-0.490
Q52b	0.449	-0.071	-0.129	-0.786	0.121	-0.380
Q52c	0.273	0.209	0.871	0.152	0.027	-0.317
Q52d	-0.025	0.832	-0.361	0.164	0.069	-0.381
Q52e	-0.534	-0.100	0.078	-0.190	-0.671	-0.461
Q52f	-0.515	-0.240	0.048	0.022	0.718	-0.397

Appendix E-2

Principal Component Analysis For Question 53

Eigenvalue	1.6643	1.4333	0.9024	-0.0000
Proportion	0.416	0.358	0.226	-0.000
Cumulative	0.416	0.774	1.000	1.000

Questionnaire Item	Components			
	PC1	PC2	PC3	PC4
Q53a	-0.623	-0.395	0.380	-0.558
Q53b	-0.297	0.664	-0.494	-0.475
Q53c	0.449	-0.536	-0.528	-0.481
Q53d	0.567	0.339	0.577	-0.481

Appendix E-3

Principal Component Analysis For Question 54

Eigenvalue	1.7601	1.3166	0.9221	0.0012
Proportion	0.440	0.329	0.231	0.000
Cumulative	0.440	0.769	1.000	1.000

Questionnaire Item	Components			
	PC1	PC2	PC3	PC4
Q54a	0.554	0.497	-0.382	-0.548
Q54b	0.403	-0.629	0.458	-0.482
Q54c	-0.499	0.456	0.559	-0.480
Q54d	-0.531	-0.387	-0.576	-0.486

VITA

Tarek A. El-Badawy

Personal Data: Born in Cairo, Egypt, on October 7, 1968; the eldest son of Mr. and Mrs. Aly El-Badawy.

Education: Graduated from Saint George College in Cairo in 1986; received Bachelor of Arts in Economics from the American University in Cairo (AUC) in May 1991; received Master of Arts degree in Economics from the American University in Cairo in June 1996; completed the requirements for Doctor of Philosophy degree in Housing, Interior design, and Resource Management at Virginia Polytechnic Institute and State University in April 2001.

Professional Experience: Graduate teaching assistant in the Department of Economics, The American University in Cairo, 1992-1995; graduate teaching assistant in the Department of Housing, Interior Design, and Resource Management, Virginia Polytechnic Institute and State University, 1998-2001.

Professional Organizational Membership: Member of the American Council on Consumer Interests, Association for Financial Counseling and Planning Education, Consumer Education and Information Association of Virginia, and Virginia Citizens Consumer Council.