Investigation of the Relationship between Religiosity and Controversial Product and service Purchase

Mohammad Aghaei  
Management studies and technology development, Faculty of Tarbiat Modares university (TMU), Iran  
Corresponding author :Email:M_aghaei@modares.ac.ir  

Akram Abdolmaleki  
Ph.D Student, Shahr-e-Qods Branch, Islamic Azad University, Iran  
Email: maleki225@yahoo.com

Abstract:  
The purpose of this paper is to study the effects of religiosity on controversial product purchases. To measure the effects of religiosity, we used the Glock model, which consists of ideological dimensions, ritualistic dimensions, intellectual dimensions, experimental dimensions and consequential dimensions. To measure controversial product purchases, Ajzen and Fishbein models were used. Applied method in this paper is descriptive-surveying and samples were selected among 390 students in Iran. Controversial products in this research consist of cigarette, alcoholic drinks, and products for preventing pregnancy. The results indicated that there is a direct relationship between religiosity and consequential dimensions with a tendency toward purchase behavior, and on the other hand, there is no meaningful relationship between ideological dimensions, intellectual dimension, and experimental dimension with tendency toward purchase behavior. Also, there is a direct relationship between tendencies toward purchase behavior, with purpose of purchasing controversial products. This study affects on beliefs of people and is a new and creative study in this respect and could present useful strategies for marketing and advertising managers to be aware of religious beliefs of people. This is the first paper to investigate the relationship between religiosity and controversial products, not only in Iran but also in the entire Islamic market. Moreover, this is a relatively new issue that remains largely undiscovered by researchers worldwide. This paper will help to emphasize its importance and implications to business decisions.  
Key Words: Religiosity, Controversial Products, Islam, Purchase Intention, Structural Equation Model (SEM)
1. Introduction

Most products on the market today provoke little more response from consumers than a decision to purchase or reject, or, perhaps, just ambivalence. However, some products offered for sale can produce strong, negative emotions in consumers, resulting not only in a loss of sales, but also contributing to a hostile business environment complete with pickets, protests, and boycotts. In recent years, consumer groups have organized protest actions against the sale of a wide range of controversial products. Some of the most publicized protests have been against products such as tobacco, irradiated food, pornography, country-of-origin of diamonds, and the use of animals for food, fur, and other wearing apparel or experimentation (Buckley et al., 2000; Davidson, 1996; Seelig, 1989; Span, 1994; Steinberg, 1998; Williams, 2000). New products or processes, whether intended for specialized markets or general consumers, may be immediately perceived as controversial, such as fetal tissue research (King et al., 1995). Older, accepted products, such as diamonds (country-of-origin), may become controversial for some consumer groups as societal norms or cultural perceptions change (Buckley et al., 2000). Capturing, maintaining, or increasing market share for products considered controversial may require different approaches than those used for noncontroversial products. Tactics such as correctly targeting narrowly defined segments of potential consumers with the appropriate marketing mix, the use of carefully designed packaging and higher than normal advertising and promotion budgets to educate consumers have been suggested as effective measures (Davidson, 1996; Seelig, 1989; Steinberg, 1998).

Determining consumers’ attitudes and behavioral intentions are important factors in the development of marketing strategies for any type of product, and even more so for controversial products. Multiple theories have been proposed to explain attitude and behavior. Among them, one of the most widely adopted and used has been the Fishbein and Ajzen (1975) theory of reasoned action (Robertson et al., 1984).

Religious commitment plays an important role in people’s lives through shaping their beliefs, knowledge, and attitudes. Different religious groups such as Muslims, Christians, Buddhists, and others with other religious orientations have differing beliefs. These beliefs cannot be avoided when a society is analyzed (Fam et al., 2002). These religious commitments and beliefs influence the feelings and attitude of people towards consumption (Jamal, 2003). For example, in England, the consumption pattern of the Indian society as compared to the indigenous white British society is different due to commitment to specific communal or religious groups (Lindridge, 2005). Furthermore, it is the religion which specifies prohibited and non-prohibited things that influence the consumer’s consumption decision. For example, beef is prohibited in Hinduism while in Islam it is not forbidden. The consumption of pork is prohibited in both Islam and Judaism but it is allowed in Christianity. In effect, religion influences what consumers believe, what they like, and what they dislike (Fam et al., 2002).

Although religion is one of the most significant forces in the lives of people and despite the fact that religious works are the best sellers of all time, the influence religion has on controversial products (CP) remains under researched. The main purpose of this research is to fill this knowledge gap through collecting evidence from the Iran, through analyzing the impact of consumer religiosity on consumers CP. More specifically, it seeks to answer the question of whether a relationship exists between religiosity and CP among Muslim consumers.

Since the impact of religiosity on CP is a new research topic, especially within the Islamic markets, the results of this study will provide a significant contribution towards a better understanding of the role of religious beliefs on consumer behavior in Iran.
understanding of the Muslim consumer’s attitude in relation the adoption of new products. Such an understanding will help both, marketers in designing their marketing practices according to their Muslim consumers’ convictions, and academicians in their research endeavors.

The studies to date regarding controversial products and religious have primarily looked at mainly a few or one large grouping. There has been little research on grouping these controversial products.

2. Literature Review

2.1 Islam

“Islam” is an Arabic word which means absolute surrender to Allah (God). In Islam the source of power is Allah and all the creation (matter, energy, and life) obeys his laws. The Islamic system of life is called Shari’ah. There are basic foundational keys of Islam (submission to the will of God): Iman (believe), Salat (Prayer), Fasting, Zakat (alms giving), and Hajj (pilgrimage to Macca). In Islam, forbidden things are named Haram while permissible things are called Halal. According to Malik (2001) the Prophet presents himself as practical man, giving guidance in every situation related to the human social life. He gives the practical shape of Adal (Justice),

Honesty and Ibadah (Worship) are elaborated by his actions. The source of the Muslim’s knowledge is the Quran, Prophet’s acts and, Irma (accepted under the Shariah laws by consensus of opinion). Violating Islamic values is named a crime while earning through Halal (Shariah-compliant) is considered an act of worship. Riba (interests) is prohibited in Islam and Muslims should not earn through

Charging interests. In addition, Islam prohibits earning abnormal profit from business transactions and forbids the accumulation of wealth. Halal products are those that are Shariah compliant, i.e. do not involve: the use of Haram (prohibited) ingredients, exploitation of labor or environment, and are not harmful or intended for harmful use. Muslims are obliged by religion to clearly scrutinize products to make sure they are Halal. And, they are strongly encouraged by the Islamic teachings to shy away from consumables that are controversial products.

2.2 Religiosity

Religion can be described as:

. . . The habitual expression of an interpretation of life, which deals with ultimate concerns and values. Institutional religion formalizes these into a system which can be taught to each generation (Cloud, 2000).

Religion defines the ideals for life, which in turn are reflected in the values and attitudes of societies and individuals. Such values and attitudes shape the behavior and practices of institutions and members of cultures. For example, several public holidays are often tied to religion. The holy days for each religion differ not only in number, but also in significance. Buddhists regard the birthday of Buddha as the most important day in their calendar; Christians view Easter Friday and Christmas Day as two important dates; Muslims regard Ramadan their holiest month and they usually fast from dawn to dusk; and Taoist and Confucian followers celebrate a number of festivals within the year.
Generally, religiosity can be defined as a strong belief in a supernormal power that controls human destiny or an institution to express belief in a divine power. However, a more precise definition was needed in order to carry out this study. Therefore, the model used to operationalized religiosity was that in accordance with Glock (1972) in which religiosity has been operationally defined as having five dimensions: ideological, ritualistic, intellectual, consequential, and experimental (Glock, 1972). The ideological dimensions include the overall beliefs associated with a religion. For example, beliefs about God, Prophet, fate, etc. ritualistic dimensions include the actions prescribed by religion such as: prayer, fasting, pilgrimage, etc. Intellectual dimensions refer to an individual’s knowledge about religion. Consequential dimensions refer to the importance of religion while experimental dimensions describe the practicality of the religion.

2.3 Controversial Products

The impact of religion on various human aspects has been investigated by many researchers in the social sciences (Jackson, 1995; Bonne, 2007; Yun et al., 2008; Montgomery, 2002; Anderson et al., 2000). Such literature shows the importance of religion in the social life of human beings. Religious commitment impacts consumers’ likes and dislikes. Consumers consider buying new products if these products do not violate or contradict their consecrated ideas (Yun et al., 2008). Religious commitment affects consumers’ orientations regarding consumption patterns, as well as their social behavior.

Various types of products, both goods and services, have been suggested by past studies as being controversial when advertised, including cigarettes, alcohol, contraceptives, underwear, and political advertising. Academic research in this area has described these products as: “unmentionables”, “socially sensitive products”, “decent products”, or “controversial products” described them as:

[...] products, services, or concepts that for reasons of delicacy, decency, morality, or even fear tend to elicit reactions of distaste, disgust, offence, or outrage when mentioned or when openly presented (Wilson and West, 1981; Rehman and Brooks, 1987; Shao, 1993; Shao and Hill, 1994; Fahy et al., 1995; Barnes and Dotson, 1990; Waller, 1999; Waller and Fam, 2000). Wilson and West (1981, p. 92)

They presented a number of examples, including: “products” (for personal hygiene, birth control, warfare, and drugs for terminal illness), “services” (for abortion, sterilization, VD, mental illness, funeral directors, and artificial insemination), and “concepts” (for political ideas, palliative care, unconventional sexual practices, racial/religious prejudice). While revisiting this issue, Wilson and West (1995) suggested how the AIDS issue had changed what was previously thought of as “unmentionable” (Wilson and West, 1995).

Feminine hygiene products has been mentioned in several industry articles as having advertisements that are in “poor taste”, “irritating” and “most hated” (Alter, 1982; Hume, 1988; Rickard, 1994). Feminine hygiene products was the main focus of Rehman and Brooks (1987), but also included undergarments, alcohol, pregnancy tests, contraceptives, medications, and VD services, as examples of controversial products (Rehman and Brooks, 1987). The products which were in their list include condoms, female hygiene products, female undergarments, and male undergarments.
3. Conceptual Framework

Consumers are influenced by different factors when trying to decide on whether or not to acquire a controversial product. Although many of these factors have been thoroughly studied, religion, as an influential factor in consumers’ lives, remains largely neglected in this particular area.

To investigate the relationship between these two variables religiosity was treated as the independent variable while CP was treated as the dependent variable, i.e. supposed to be influenced by religion. Figure 1 shows the model that was constructed to explain the hypothesized relationship between the study variables.

![Conceptual Framework (Conceptual Model)](image)

Source: Rehman and Shabbir (2010)

4. Theoretical framework of Research

1962 Glock proposed that "all of the many and diverse manifestations of religiosity prescribed by the different religions of the world" can be organized within five dimensions of religious commitment. The ideological dimension has to do with the beliefs religious adherents are expected to maintain. The ritualistic dimension encompasses the various ways in which religious adherents are expected to practice their religion. The experiential dimension pertains to the more or less intimate and emotional relationships religious adherents are expected to have with a supernatural being. The intellectual dimension has to do with "the expectation that the religious person will be informed and knowledgeable about the basic tenets of his faith and its sacred scripture." Finally, the consequential dimension includes "the secular effects of religious belief, practice, experience, and knowledge" (Glock and Stark, 1965:20-21).
Glock indicated two types of research which could be done utilizing this scheme. One type of research focuses on the specification of components within each dimension. Glock proposed some tentative components within the various dimensions but emphasized that a great deal of work remained to be done on this matter of intra-dimensional differentiation. The other type of research focuses on the matter of inter-dimensional independence. Glock hoped his multi-dimensional scheme would foster research on the extent to which people might be religious along some dimensions but not along others.

4.1 Ideological Dimension

Ideological dimension discuss inside beliefs such as believing in God, life after death, and ideological dimension of religious. These dimensions include vertical and horizontal beliefs. Vertical beliefs are related to relation of human to law and regulations and supernatural events, and horizontal beliefs are about social activities of human in social organizations (Glock, 1962). In this research, James D. Davidson tested ideological dimension in 2011, with the title of Glock Model of religious commitment and these results were achieved:

Vertical belief and horizontal belief were negatively related. Vertical belief was positively related to private practice, public practice, religious knowledge, experiential desirability, religious experience, and personal consequences, and negatively related to intellectual scrutiny and social consequences. Horizontal belief, on the other hand, was positively related to intellectual scrutiny and social consequences; negatively related to private practice, public practice, religious knowledge, religious experience, and personal consequences; and virtually unrelated to experiential desirability (Davidson and Quinn, 1973).

Attitude toward purchase behavior was measured in a 5 items scale which consists of perception of product quality, durability, price, accessibility, attractiveness, Fashion ability and social prestige (Nowlin, 1999; Shim et al., 1989). In this research, we investigated the relationship of ideological dimension and its effects on attitude toward purchase of behavior and we used Glock, Ajzen, and Fishbein’s model. Thus:

**H 1:** by increasing ideological dimension, the attitude of people toward purchase behavior increases.

4.2 Ritualistic Dimension

Ritualistic dimension is about repeating praying god, and reading Quran. This dimension consisted on private and public practice (Glock, 1962). In this research, James D. Davidson tested Ritualistic dimension in 2011, with the title of Glock Model of religious commitment and these results were achieved:

There was a positive relationship between private practice and public practice. Private practice also was positively related to vertical belief, religious knowledge, experiential desirability, religious experience, and personal consequences, and negatively related to horizontal belief, intellectual scrutiny, and social consequences. Public practice was positively related to vertical belief, religious knowledge, experiential desirability, religious experience, personal consequences, and social consequences, and negatively related to horizontal belief and intellectual scrutiny (Davidson and Quinn, 1973).
Attitude toward purchase behavior was measured in a 5 items scale which consists of perception of product quality, durability, price, accessibility, attractiveness, Fashion ability and social prestige (Nowlin, 1999; Shim et al., 1989). In this research, we investigated the relationship of ritualistic dimension and its effects on attitude people toward purchase of behavior and we used Glock, Ajzen, and Fishbein’s model. Thus:

**H 2: by increasing religious ritualistic behavior, the likelihood of people toward purchasing increases.**

### 4.3 Intellectual Dimension

Intellectual dimension is about earning in the right way, preventing sin, having basic and necessary information about religion and Islamic relations. This dimension consists of religion knowledge and intellectual security (Glock, 1962). In this research, James D. Davidson tested intellectual dimension in 2011, with the title of Glock Model of religious commitment and these results were achieved:

Religious knowledge and intellectual scrutiny were negatively related to one another. Religious knowledge also was positively related to vertical belief, private practice, public practice, experiential desirability, religious experience, and personal consequences, and negatively related to horizontal belief and social consequences. Intellectual scrutiny was positively related to horizontal belief and social consequences, and negatively to all the other components the researcher examined (Davidson and Quinn, 1973).

Attitude toward purchase behavior was measured in a 5 items scale which consists of perception of product quality, durability, price, accessibility, attractiveness, Fashion ability and social prestige (Nowlin, 1999; Shim et al., 1989). In this research, we investigated the relationship of intellectual dimension and its effects on attitude toward purchase of behavior and we used. Thus:

**H 3: by increasing intellectual dimension, the attitude of people toward purchase behavior increases.**

### 4.4 Experiential Dimension

Experiential dimension is about worrying everything which is in contrast with religion and its feeling such as afraid of God, temptation of devil. It focused on pleasure of remembering religious practices. This dimension consists of normative context and religious experience (Glock, 1962). In this research, James D. Davidson tested experiential dimension in 2011, with the title of Glock Model of religious commitment and these results were achieved:

There was a positive relationship between experiential desirability and religious experience. Both components of the experiential dimension were positively related to vertical belief, private practice, public practice, religious knowledge, and personal consequences. Experiential desirability was unrelated to horizontal belief and social consequences and negatively related to intellectual scrutiny. Religious experience was negatively related to horizontal belief and intellectual scrutiny and unrelated to social consequences (Davidson and Quinn, 1973).
Attitude toward purchase behavior was measured in a 5 items scale which consists of perception of product quality, durability, price, accessibility, attractiveness, Fashion ability and social prestige (Nowlin, 1999; Shim et al., 1989). In this research, we investigated the relationship of experimental dimension and its effects on attitude toward purchase of behavior and we used. Thus:

**H 4:** by increasing experimental dimension, the attitude of people toward purchase behavior increases.

**4.5 Consequential Dimension**

The consequential dimension is about responsibility toward respecting others based on religious practices, and refraining any activity which bother the other people, helping the people, truthfulness and equity in encountering others based on religious practices and refraining humiliating others. This dimension consists of personal consequence, and social consequence (Glock, 1962). In this research, James D. Davidson tested consequential dimension in 2011, with the title of Glock Model of religious commitment and these results were achieved:

There was virtually no relationship between personal and social consequences. Personal consequences was positively related to vertical belief, private practice, public practice, religious knowledge, experiential desirability, and religious experiences, and negatively related to horizontal belief and intellectual scrutiny. Social consequences was positively related to horizontal belief, public practice, and intellectual scrutiny; negatively related to vertical belief, private practice, and religious knowledge; and unrelated to experiential desirability and religious experience (Davidson and Quinn, 1973).

Attitude toward purchase behavior was measured in a 5 items scale which consists of perception of product quality, durability, price, accessibility, attractiveness, Fashion ability and social prestige (Nowlin, 1999; Shim et al., 1989). In this research, we investigated the relationship of consequential dimension and its effects on attitude toward purchase of behavior and we used. Thus:

**H 5:** by increasing consequential dimension, the attitude of people toward purchase behavior increases.

**4.6 Purchase Intention and Controversial Products**

Purchase intention influence on consumer behavior or behavioral intention. Consumers’ perception of products as controversial can affect purchase behavior (Davidson, 1996; Seelig, 1989; Steinberg, 1998). Ehrenberg et al. (1997) noted that consumers have their individual price perceptions and will buy products that are priced within their portfolios of prices that they are willing to pay for products (Ehrenberg et al., 1997). Among the studies we reviewed that used the Fishbein and Ajzen model, most researchers focused only on the central variables, attitude, and subjective norm, though some researchers did also include the influence of external variables. However, many of the studies that examined the influences of external variables used t tests or ANOVA (Elliott et al., 1995; Shim et al., 1989; Shim and Drake, 1990a, b).

Attitude toward purchase behavior was measured in a 5 items scale which consists of perception of product quality, durability, price, accessibility, attractiveness, Fashion ability and social prestige (Nowlin, 1999; Shim et al., 1989). In this research, we investigated the
relationship of purchase intention and its effects on attitude toward purchase of controversial products and we used. Thus:

H 6: by increasing attitude toward purchase behavior, intention of purchasing increases.

H 7: by increasing intention of purchase, purchasing controversial products increases.

5. Materials and Method

Applied method in this paper is descriptive-surveying and samples were selected among 390 students of Islamic Azad University in Iran. Controversial product in this research consists of cigarette, alcoholic drinks, and products for preventing pregnancy.

This research based on applied goals and collecting information is a correlation research. In this research, statistical description and descriptive subject were used. Statistical population – according to many researchers– including all real or presumptive members that we are interested in extent their research findings (Delaware, A, 2006); collection of individuals is called Society which they have one or more traits in common and this trait or traits is researchers favorite.

The statistical population can be finite or infinite. In both cases, study of one by one persons of population, due to high cost and short time or lack of adequate facilities, is often impossible. Therefore we consider a part of society instead of all part of it. This part of society which has been selected according to certain and acceptable criteria, and study of it is possible instead of whole society, is called an Example of the society. Sampling in this study is stratified random sampling. We use the Kerjsy and Morgan table to determine volume of the samples. Number of samples in this study is 390 persons.

5.1 Data Collection Tolls

To measure the effects of Religiosity and on Controversial Products, in the research was used the 31-items questionnaire developed by (Rehman and Shabbir, 2010; Xu & et al., 2004). Consequently, These items scale was taken into account for Ideological Dimension (2-items), Ritualistic Dimension (3-items), Intellectual Dimension (4-items), Experiential Dimension (5-items), Consequential Dimension (5-items), Attitude toward purchasing behavior (6-items), Purchase Intention (2-items) and Purchase of controversial products (4-items) construct with a five point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Table1. Variables and Questions in Research

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Questions</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideological Dimension</td>
<td>2</td>
<td>1-7</td>
</tr>
<tr>
<td>Ritualistic Dimension</td>
<td>3</td>
<td>2-8-13</td>
</tr>
<tr>
<td>Intellectual Dimension</td>
<td>4</td>
<td>3-6-9-15</td>
</tr>
<tr>
<td>Experiential Dimension</td>
<td>5</td>
<td>16-18-19-23-29</td>
</tr>
<tr>
<td>Consequential Dimension</td>
<td>5</td>
<td>4-10-11-21-27</td>
</tr>
</tbody>
</table>
5.2 Validity
In this study, four validity (face validity, content validity, convergent validity) were evaluated to assess the accuracy of the results of these four funds is detailed below.

2.2.1 Face Validity
In this study face validity by the test subjects were studied in and after the reform, the face validity of the tool was confirmed.

5.2.2 Content Validity
A widely used method to measure the content validity of C.H Lawshe coined. This level of agreement among the assessors or jury "or a fundamental right to be" one of the items specific measures. Lawshe (1975) suggested that all buoy or a series of questions the assessors or jury will be asked whether they intended to measure the buoy structure of "essential or useful" or not? According Lawshe, if more than half of the evaluators or judges stated that it "is essential or beneficial, At least some of the items have content validity. The evaluators agree with the amount of certain items or benefits of a higher level of content validity are also higher. Lawshe using this formula is devised to measure the content validity of the content validity ratio (CVR) is called (Mirzaei, 2010).

Content validity of the formula: \[ CVR = \frac{(ne - \frac{N}{2})}{\frac{N}{2}} \]

It should be noted that the questionnaire was given to 20 experienced the least amount acceptable to the 0/42 is. The following table is summarizes the content validity:

<table>
<thead>
<tr>
<th>Questions</th>
<th>CVR Calculate</th>
<th>Questions</th>
<th>CVR Calculate</th>
<th>Questions</th>
<th>CVR Calculate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>%100</td>
<td>14</td>
<td>%50</td>
<td>27</td>
<td>%60</td>
</tr>
<tr>
<td>2</td>
<td>%100</td>
<td>15</td>
<td>%40</td>
<td>28</td>
<td>%100</td>
</tr>
<tr>
<td>3</td>
<td>%50</td>
<td>16</td>
<td>%80</td>
<td>29</td>
<td>%40</td>
</tr>
</tbody>
</table>
Eliminating the 7 questions we reached a 31-item questionnaire, we were given a questionnaire of 31 questions that the CVR in the table 2 the questionnaire was distributed to the separation of variables and assumptions to be examined separately.

5.2.3 Convergent Validity

In this study to examine the convergent validity of the method using the average variance extracted and composite reliability the results of these two methods are used in the table 3 is shown.

Table3. AVE and CR Calculate

<table>
<thead>
<tr>
<th>Number</th>
<th>Variable</th>
<th>Questions</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ideological Dimension</td>
<td>2</td>
<td>0/705</td>
<td>0/823</td>
</tr>
<tr>
<td>2</td>
<td>Ritualistic Dimension</td>
<td>3</td>
<td>0/644</td>
<td>0/811</td>
</tr>
<tr>
<td>3</td>
<td>Intellectual Dimension</td>
<td>4</td>
<td>0/707</td>
<td>0/814</td>
</tr>
<tr>
<td>4</td>
<td>Experiential Dimension</td>
<td>5</td>
<td>0/791</td>
<td>0/879</td>
</tr>
<tr>
<td>5</td>
<td>Consequential Dimension</td>
<td>6</td>
<td>0/675</td>
<td>0/763</td>
</tr>
<tr>
<td>6</td>
<td>Attitude toward</td>
<td></td>
<td>0/724</td>
<td>0/845</td>
</tr>
</tbody>
</table>
Given the composite reliability of all combinations of 0/7 and average variance extracted by the top 0/5 convergent validity can be confirmed.

5.3 Reliability

In this study to examine the reliability of two methods of internal consistency reliability and test-retest reliability have benefited from the results in detail below.

5.3.1 Internal Consistency Reliability

One way to measure reliability internal consistency, Cronbach's alpha is used. Between individual items in the tool or test the correlation with the total score is used. In the study of this method is used to calculate the internal consistency reliability. The minimum acceptable reliability for research surveys 0/6 is. The results show that the variables for each of the variables in this study, internal consistency are required. The Cronbach’s alpha results in Table 4 are described.

For internal reliability, Cronbach’s alpha coefficients were calculated for all items of each construct. Results indicated that all the scales were considered to be reliable (Cronbach’s alphas). For determining reliability and validity of the questionnaire in this research, we used Cronbach's alpha. Cronbach’s alpha for constructs that shown in table (4). Ideological Dimension: 0.85, Ritualistic Dimension: 0.84, Intellectual Dimension: 0.90, Experiential Dimension: 0.88, Consequential Dimension: 0.73, Attitude toward purchasing behavior: 0.80, Purchase Intention: 0.70 and Purchase of controversial products: 0.63 so the questionnaire reliability is acceptable.

Table 4. Cronbach’s Alpha Calculate

<table>
<thead>
<tr>
<th>Number</th>
<th>Variables</th>
<th>Questions</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ideological Dimension</td>
<td>2</td>
<td>0/85</td>
</tr>
<tr>
<td>2</td>
<td>Ritualistic Dimension</td>
<td>3</td>
<td>0/84</td>
</tr>
<tr>
<td>3</td>
<td>Intellectual Dimension</td>
<td>4</td>
<td>0/90</td>
</tr>
<tr>
<td>4</td>
<td>Experiential Dimension</td>
<td>5</td>
<td>0/88</td>
</tr>
<tr>
<td>5</td>
<td>Consequential Dimension</td>
<td>5</td>
<td>0/73</td>
</tr>
<tr>
<td>6</td>
<td>Attitude toward</td>
<td>6</td>
<td>0/80</td>
</tr>
</tbody>
</table>
5.3.2 Test-Retest Reliability

Tools for test-retest reliability, a test for the second time, with the previous week on the subject (50) have performed. Pearson's correlation coefficient obtained from the two tests with 0/87 the test-retest reliability of the test will be confirmed.

6. Data Analysis

The coded data was analyzed using the SEM technique, using LISREL 8.8. Following Gerbing and Anderson (1988), confirmatory factor analysis (CFA) was first conducted to test for the quality and adequacy of the measurement model by investigating reliability, convergent validity, and discriminate validity (Gerbing and Anderson, 1988). After a series of purification, three indicators q17, q19 and q28 were deleted. The standard factor loadings for these indicators were below cut-point of 0.5 and so they were deleted to improve the fitness of the measurement model. The purification results of CFA revealed that the goodness-of-fit of the model and the overall statistics both achieved the best appropriateness and could not be further improved. The chi-square value for this measurement model was 826.19 with 349 degrees of freedom (p < 0.0001) and a chi-squared/d.f. ratio of 2.37; generally, chi-squared/d.f. ratio smaller than 3 is considered and acceptable level of fit (Carmines and Zeller, 1979; McIver and Carmines, 1981). The root mean squared error approximation (RMSEA) = 0.059 and Standardized Root Mean Square Residual (SRMR) = 0.042, both lower than 0.08 and within the acceptable level. The goodness-of-fit index (GFI) = 0.87, Normed-fit Index (NFI) = 0.97 and Non-Normed Fit Index (NNFI) = 0.98, all except for GFI which is slightly below the threshold of 0.9, are acceptable. According to Marcoulides and Schumacher’s (1996) standards of model fitting, the results from the CFA indicate a satisfactory fit for the measurement model (Marcoulides and Schumacher, 1996).

The correlation matrix and the Cronbach’s alpha values of the studied constructs are summarized in Table 3. The reliability of the scales in the measurement model is confirmed with the coefficient alpha higher than the recommended level of 0.7 (Nunnally, 1978). As it can be seen in the table below, except for Purchase of controversial products, all the Cronbach’s alphas are acceptable. Hence, overall, the internal consistency of each studied measurement construct is achieved.

Table 3. Correlation Coefficient Matrix

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideological dimension (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ritualistic dimensions (2)</td>
<td>0.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.84)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Anderson and Gerbing (1988) suggested that convergent validity can be assessed from the measurement model by determining whether or not each indicator’s estimated pattern coefficient on its posited underlying construct factor is significant (Garbing and Anderson, 1988). Table 4 reveals that each item’s factor loading for modified measurement model is more than 0.50. Besides, t-values of the completely standardized loadings for these items measuring the same construct are statistically significant at 0.01 levels. Thus, the indicator variables of this study have convergent validity. According to Anderson and Gerbing (1988), the chi-square difference test can be applied to evaluate the discriminate validity of two constructs by calculating the difference of the chi-square statistics for the constrained and unconstrained measurement models (Garbing and Anderson, 1988). Given the control of the experiment-wise error rate (the overall significance level), all chi-square difference statistics for every two constructs are statistically significant; therefore, the discriminate validity among the constructs studied is achieved in this study.

Table 6. Standardized Loadings of Indicators and Convergent Validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Indicators</th>
<th>Standardized loadings</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideological dimension</td>
<td>Q1</td>
<td>0.91</td>
<td>19.01</td>
</tr>
<tr>
<td></td>
<td>Q2</td>
<td>0.82</td>
<td>16.98</td>
</tr>
<tr>
<td>Ritualistic dimensions</td>
<td>Q3</td>
<td>0.75</td>
<td>16.64</td>
</tr>
<tr>
<td></td>
<td>Q4</td>
<td>0.84</td>
<td>19.77</td>
</tr>
<tr>
<td></td>
<td>Q5</td>
<td>0.81</td>
<td>18.69</td>
</tr>
<tr>
<td>Intellectual dimensions</td>
<td>Q6</td>
<td>0.79</td>
<td>18.15</td>
</tr>
<tr>
<td></td>
<td>Q7</td>
<td>0.86</td>
<td>20.77</td>
</tr>
<tr>
<td></td>
<td>Q8</td>
<td>0.85</td>
<td>20.31</td>
</tr>
<tr>
<td></td>
<td>Q9</td>
<td>0.80</td>
<td>18.52</td>
</tr>
<tr>
<td>Experimental dimensions</td>
<td>Q10</td>
<td>0.71</td>
<td>15.67</td>
</tr>
</tbody>
</table>

Note: Cronbach’s values are shown in parentheses.
7. Results

The analysis of SEM on the proposed model has generated results which are illustrated in Figure 1 and Figure 2 below.
Fig 2. Structural Model with Standard Path Coefficient

Chi-Square=881.36, df=360, P-value=0.00000, RMSEA=0.061
The model tested subsumed the specified relationships proposed in the hypotheses. The overall fit indices for the structural model revealed a chi-square of 881.36 with 360 degrees of freedom. For this model RMSEA = 0.061 and SRMR = 0.049 both within the acceptable level. The goodness-of-fit index (GFI) = 0.86, NFI = 0.96 and NNFI = 0.98, all except for GFI which is slightly below the threshold of 0.9, are acceptable.

The results show that path from ideological dimensions to attitude toward purchasing behavior has a positive value of 0.08 but since the t-value for this route is below 1.96, this effect is not statistically significant. So, H1 is not supported by the data. H2 concerns the effect of Ritualistic dimensions on attitude toward purchasing behavior. With standard coefficient of 0.46 and t-value of 6.24, it can be said that the findings support H2. H3 and H4 are not supported by the data since the t-value for both routes are not significant at 0.01 levels. But H5 which states a positive effect of consequential dimensions on attitude toward purchasing behavior is supported by the data (β=0.46. t=2.28).

The findings confirm positive effect of attitude toward purchasing behavior on purchase intention. The path coefficient for this path is 0.59 and significant at 0.01 levels. So, H6 is supported by the data. The data also supports H7, which concerns the effect of purchase intention on Purchase of controversial products. The coefficient for this route is 0.73 and t-value equals 6.95.
8. Discussion and Conclusion

The purpose of this paper is to study the effects of religiosity on controversial product purchase. To measure effects of religiosity, we used Glock model consists of ideological dimension, ritualistic dimension, intellectual dimension, experimental dimension and consequential dimension and to study measuring controversial product purchase, Ajzen and Fishbein’s models were used.

While the theory of reasoned behavior has been widely used to predict behavioral intention, no studies were found in an extensive literature search that explored purchase intention of controversial products using the model. In addition, few studies have included all variables in the whole model to predict and understand an individual’s behavioral intention. Findings from this study expand the applicability of the model and contribute to a better understanding of its predictability. By incorporating all variables proposed by Fishbein and Ajzen (1975), including the two most important determinants—personal attitude and subjective norm—along with external variables into one model, the relative importance of each variable in predicting behavioral intention toward a controversial product was effectively determined.

As predicted, the respondent’s attitude toward the product, had the most influence on her purchase intention. The more favorable her attitude, the more likely she was to purchase. Given the importance of product attributes to the purchase process, educating consumers about these attributes could increase their favorable impressions toward purchasing a controversial product.

The subjective norm was the second most significant factor influencing respondents’ purchase intention of the product. This finding was also consistent with the theory. The stronger the perceived subjective norm was in favor of purchasing the product, the more likely the purchase intention. Although respondents, in general, were fairly independent and were less motivated to comply with others, about half of the respondents wanted their behavior to fit their social status. Drake et al. (1992) noted that when the product is conspicuous, the social acceptability of the item is of greater importance to an individual’s purchase behavior.

Among the results it was found that there is a significant difference between the four controversial products. As indicated in tables and charts, 3 dimensions among 5 dimensions of religiosity have not direct relationship with tendency toward purchase behavior. And two dimensions of religious ritualistic and consequential dimension have effects on purchase behavior. Among 7 hypothesis of this research, 4 hypotheses were accepted and 3 hypotheses were rejected.

The first hypothesis is about relationship between ideologists with tendency toward purchase behavior. T-value is 1.86 and is less than 1.96. In 0.01 levels this hypothesis is accepted. In other words, inside beliefs to religion (such as believe in God, life after death (eternity), has no effects on tendency toward purchase based on product quality, durability, price, accessibility, attractiveness, fashion ability and social prestige.

In second hypothesis, t-value is 6.24 in 0.01level which is accepted. In other words, repeating praying god, and reading Quran has direct effect on purchase behavior and this is important for marketing and advertising managers to have a proper background in presenting advertising ideas.
In third hypothesis, t-value is about 0.85 and hypothesis is rejected. In other words, earning in the right way, preventing sin, having basic and necessary information about religion and Islamic thoughts has no relation to these view.

In hypothesis 4, t-value is 0.46 in 0.01 levels. This hypothesis is rejected. In other words, afraid of God, temptation of devil has no relation to purchase behavior. Generally, using fear appeals has no effects on purchase or not purchase of consumers.

In hypothesis 5, t-value is 2.28 in 0.01 levels. This hypothesis is accepted. In other words, refraining bothering others and humiliating them, truthfulness and equity has direct effect on purchase behavior. This can be useful for marketing and advertizing manager based on religion of consumers.

In hypothesis 6, t-value is 8.08 in 0.01 levels and thus hypothesis is accepted. It means quality of product, cost, and fashion ability has direct effects on purchase behavior and intention of purchase in future. In hypothesis 7, t-value is 6.95 in 0.01 level and this hypothesis is accepted.

In summary, the results of this study supported the Fishbein and Ajzen (1975) theory of reasoned behavior as a useful tool in predicting purchase intention of a controversial product. In contrast to many previous studies, this study incorporated all variables suggested by Fishbein and Ajzen (1975) into one model and determined the relative importance of each variable in predicting the behavioral intention. Attitude toward purchasing and subjective norm were the two most significant determinants of respondents’ purchase intention of the product. External variables of controversy perception, personality traits, and education also had significant influence on purchase intention. Religion is an element of culture that pervades every aspect of a society. Therefore, its effect on behavior cannot be underestimated by marketers. Cultural dimensions are very dynamic in a society, but religious tenets form a stable and static pillar in the society. Once the fundamentals of a religion have been grasped, the global marketer can be assured they will not be changing all too frequently. Religion is not a fad that can be dismissed by the marketer as a short-term change, but rather it is a long-term phenomenon, and should be an area of further research for marketers. For global marketers it is advisable to devote considerable time and resources on understanding religious beliefs upon entering a new market, particularly where Islam is the faith of the majority. Understanding the impact of religion on the value systems of a society and the effect of value systems on marketing must not be underestimated.

9. Managerial Applications

We believe our findings make a contribution to the literature by verifying an additional use of the Rehman and Shabbir model, predicting purchase intention of a controversial product (Rehman and Shabbir, 2010). Producers of these products or researchers interested in this class of products may find the model to be a useful tool in their exploration of consumer attitudes and behavioral intentions. Researchers may also find the model useful in exploring additional categories of controversial products. More research would contribute to a better understanding of commonalities that may exist among consumers willing to purchase controversial products.
The implications for international advertisers and advertising agency managers are that they need to know their target market very well. Going back to the Muslim religion, one of the Five Pillars of Islam is to remain “pure” during the holy month of Ramadan. Hence, during this ninth month of the Muslim calendar, the best strategy is to avoid antagonizing the Muslim viewers by not showing any advertisements that involved gender/sex related products. If that is not possible, perhaps the use of more discreet media like the Internet, direct mails, and/or specialist magazines could alleviate the problem.

10. Research Limitation

The first limitation of this study is that the type of religion was examined on a broad basis. That is, it was not possible to identify whether the Sunni Muslims or the Shiite Muslims were more offended by the three controversial products groups. A future study may try to identify specific groups within the broad religious denominations. The second limitation of our study is the use of student samples. Although students are often being used as a proxy to what the “real” consumers think, for example in experiments or cross-cultural studies, they may be less fitting when the study involves religious beliefs. Being young there may be some question as to the strength of their religious belief, and how it influences their perceptions. The third limitation is that this study the lack of familiarity with products may have skewed the results that were based on consumers’ knowledge of the products. Lastly, because product attributes contributed differently in building the general attitude toward the product, combining all attributes into a single index may be less effective in determining the significant influential attributes. What people say that they would do when they are at a certain income level might be significantly different than that if they move to the next level. Therefore, a more heterogeneous sample composed of different individuals with different incomes, education, and age will be a better predictor of the strength of the relationship between religiosity and controversial products.

12. Future Research

It is suggested that in future researches, this hypothesis shall be tested on other controversial products. Since in this research, students were used as samples, it is suggested that other statistical community and other personal characteristics and involvement towards product.
References


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