INFLUENCE OF RELIGIOSITY ON SHOPPING ORIENTATION OF CONSUMERS IN GUJARAT

A Thesis submitted to Gujarat Technological University

for the Award
of

Doctor of Philosophy

In

Management

By

Maheshkumar Kanubhai Patel
[119997392019]

under supervision of

Dr. Jayaashish Sethi

GUJARAT TECHNOLOGICAL UNIVERSITY AHMEDABAD

[September 2017]

[Influence of religiosity on shopping orientation of consumers in Gujarat]

A Thesis submitted to Gujarat Technological
University

for the Award
of

Doctor of Philosophy

In

[Management]

By

[Maheshkumar Kanubhai Patel]

[Enrollment No.- 119997392019]

under supervision of

[Dr. Jayaashish Sethi]

GUJARAT TECHNOLOGICAL
UNIVERSITY AHMEDABAD

[September 2017]

DECLARATION

I declare that the thesis entitled Influence of Religiosity on Shopping Orientation of Consumers in Gujarat submitted by me for the degree of Doctor of Philosophy is the record of research work carried out by me during the period from 2011 to 2016 under the supervision of Dr. Jayaashish Sethi and this has not formed the basis for the award of any degree, diploma, associateship, fellowship, titles in this or any other University or other institution of higher learning.

I further declare that the material obtained from other sources has been duly acknowledged in the thesis. I shall be solely responsible for any plagiarism or other irregularities, if noticed in the thesis.

Signature of the Research Scholar : ……………………………

Date:…………………

Name of Research Scholar: Patel Maheshkumar Kanubhai

Place : …………………………………

CERTIFICATE

I certify that the work incorporated in the thesis Influence of Religiosity on Shopping Orientation of Consumers in Gujarat (Title) submitted by Shri / Smt. / Kumari Maheshkumar Kanubhai Patel was carried out by the candidate under my supervision/guidance. To the best of my knowledge: (i) the candidate has not submitted the same research work to any other institution for any degree/diploma, Associateship, Fellowship or other similar titles (ii) the thesis submitted is a record of original research work done by the Research Scholar during the period of study under my supervision, and (iii) the thesis represents independent research work on the part of the Research Scholar.

Signature of Supervisor: ……………………………… Date: ………………

Name of Supervisor: Dr. JayaAshish Sethi

Place: …………

Originality Report Certificate

It is certified that PhD Thesis titled Influence of Religiosity on Shopping Orientation of Consumers in Gujarat by Maheshkumar Kanubhai Patel has been examined by us. We undertake the following:

a. Thesis has significant new work / knowledge as compared already published or are under consideration to be published elsewhere. No sentence, equation, diagram, table, paragraph or section has been copied verbatim from previous work unless it is placed under quotation marks and duly referenced.

b. The work presented is original and own work of the author (i.e. there is no plagiarism). No ideas, processes, results or words of others have been presented as Author own work.

c. There is no fabrication of data or results which have been compiled / nalysed.

d. There is no falsification by manipulating research materials, equipment or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

e. The thesis has been checked using **<Turnitin software>** (copy of originality report attached) and found within limits as per GTU Plagiarism Policy and instructions issued from time to time (i.e. permitted similarity index <=25%).

Signature of the Research Scholar :   Date: ….………

Name of Research Scholar: Maheshkumar Kanubhai Patel

Place : Kadi

Signature of Supervisor: Date: ………………

Name of Supervisor: Dr. Jaya Ashish Sethi

Place: Kadi

Turnitin Originality Report

Mahesh   by Mahesh Patel

From Rushil Paper (M Nikunj)

- Processed on 15-Sep-2016 22:19 IST
- ID: 705751321
- Word Count: 87937

Similarity Index
12%
Similarity by Source

Internet Sources:
    10%
Publications:
    3%
Student Papers:
    7%

sources:

1	3% match (Internet from 01-Jun-2012) http://mmj.uum.edu.my/index.php/joomla-forums/category/6-mmj-vol.-11-no.-1-2-june-december-2007?download=21%3Aconsumer-religiosity-and-shopping-behaviour-in-kuala-lumpur
2	2% match (student papers from 27-Sep-2011) Submitted to Universiti Sains Malaysia on 2011-09-27
3	2% match (Internet from 18-Dec-2015) http://wrap.warwick.ac.uk/36415/1/WRAP_THESIS_Essoo_2001.pdf
4	2% match (student papers from 22-Jul-2011) Submitted to University of Strathclyde on 2011-07-22
5	2% match (Internet from 01-Apr-2014) http://www.mppg-nsu.org/attachments/396_Taifa.pdf
6	2% match (Internet from 06-Apr-2012) http://www.jimsjournal.org/9%20Safiek%20Mokhlis.pdf

paper text:

CHAPTER 1 INTRODUCTION 1.0 Preamble In this first chapter, total six main sections of interest will be discussed. The first area point is setting the agenda of the study. The second section consists of the purpose and objectives of the study. Hypotheses to be tested are outlined in the third section. The fourth section of the chapter talks about the conduct of the study, describing an overview of the study undertaken. The second last section will present the significance of the study followed by the outlines of the structure of

PhD THESIS Non-Exclusive License to
GUJARAT TECHNOLOGICAL UNIVERSITY

In consideration of being a PhD Research Scholar at GTU and in the interests of the facilitation of research at GTU and elsewhere, I, Maheshkumar Kanubhai Patel (Full Name of the Research Scholar) having (Enrollment No.) 119997392019 hereby grant a non-exclusive, royalty free and perpetual license to GTU on the following terms:

a) GTU is permitted to archive, reproduce and distribute my thesis, in whole or in part, and/or my abstract, in whole or in part (referred to collectively as the "Work") anywhere in the world, for non-commercial purposes, in all forms of media;

b) GTU is permitted to authorize, sub-lease, sub-contract or procure any of the acts mentioned in paragraph (a);

c) GTU is authorized to submit the Work at any National / International Library, under the authority of their "Thesis Non-Exclusive License";

d) The Universal Copyright Notice (©) shall appear on all copies made under the authority of this license;

e) I undertake to submit my thesis, through my University, to any Library and Archives. Any abstract submitted with the thesis will be considered to form part of the thesis.

f) I represent that my thesis is my original work, does not infringe any rights of others, including privacy rights, and that I have the right to make the grant conferred by this non-exclusive license.

g) If third party copyrighted material was included in my thesis for which, under the terms of the Copyright Act, written permission from the copyright owners is

required, I have obtained such permission from the copyright owners to do the acts mentioned in paragraph (a) above for the full term of copyright protection.

h) I retain copyright ownership and moral rights in my thesis, and may deal with the copyright in my thesis, in any way consistent with rights granted by me to my University in this non-exclusive license.

i) I further promise to inform any person to whom I may hereafter assign or license my copyright in my thesis of the rights granted by me to my University in this non- exclusive license.

j) I am aware of and agree to accept the conditions and regulations of PhD including all policy matters related to authorship and plagiarism.

Signature of the Research Scholar: _____

Name of Research Scholar: Patel Maheshkumar Kanubhai

Date: _____   Place: _____

Signature of Supervisor: _____

Name of Supervisor: _____

Date: _____   Place: _____

Seal:

Thesis Approval Form

The viva-voce of the PhD Thesis submitted by Shri/Smt./Kum.Maheshkumar Kanubhai Patel (Enrollment No. 119997392019) entitled Influence of Religiosity on Shopping Orientation of Consumers in Gujarat was conducted on ……………….………… (day and date) at Gujarat Technological University.

(Please tick any one of the following option)

☐   The performance of the candidate was satisfactory. We recommend that he/she be awarded the PhD degree.

☐   Any further modifications in research work recommended by the panel after 3 months from the date of first viva-voce upon request of the Supervisor or request of Independent Research Scholar after which viva-voce can be re-conducted by the same panel again.

> (briefly specify the modifications suggested by the panel)

☐   The performance of the candidate was unsatisfactory. We recommend that he/she should not be awarded the PhD degree.

> (The panel must give justifications for rejecting the research work)

-- Name and Signature of Supervisor with Seal

----
1) (External Examiner 1) Name and Signature

---
2) (External Examiner 2) Name and Signature

----
3) (External Examiner 3) Name and Signature

ABSTRACT

Research in social psychology provides a strong foundation and framework for understanding the complex relationship between culture and human behaviour. Research has consistently revealed link between culture and consumer behavior. Since culture influences consumer behavior, being a component of culture, religion would also have an influence on certain aspects of consumer behavior. A close review of literature revealed that there were very few consumer behavior researches which have focus of religious influences on consumption behavior. Also, the examination of literature on religious influences on consumer behaviour reveals that most prior studies on this topic have been conducted among American population who are predominantly Jews, Catholics or Protestants and little can be said about the robustness of previous findings in other religious contexts and cultural settings. It is also evident that influence of religion on consumer behavior as a component of culture varies from one culture to another or from one country to another.

The purpose of this study is to examine the influence of religiosity on shopping orientation of consumers in Gujarat. Religious influences on consumer use of information sources and shopping orientation is examined in this study. Religious influences are viewed from the perspective of religious affiliation and religiosity consistent with past study. Religious affiliation is viewed as an individual adherence to a particular religion or religious group (Hindu, Muslim, Jain and Christian) while religiosity is viewed as intensity or degree with which an individual hold or practice religious belief in their daily life. In this study religiosity is measured from the perspective of cognitive religiosity, behavioral religiosity, consequential religiosity and experiential religiosity.

The study is undertaken in Gujarat where population contains large number of people who practice four major religions namely Hinduism, Islam, Jainism and Christianity. A structured questionnaire is designed to collect primary research data which is administered by employing survey as a research approach and personal interview as a contact method. Seven hundred fifty questionnaires are found appropriate for the statistical analysis out of nine hundred targeted. Exploratory factor analysis, analysis of variance (ANOVA), Multivariate analysis of variance (MANOVA) and multiple linear regression analysis is used as statistical techniques for the

purpose of data analysis using statistical package for social science (SPSS) version 20.

The findings revealed that consumer shopping orientation and use of information sources are influenced by consumer religious affiliation and consumer religiosity. More specifically, findings suggest that Muslim uses more media information sources than Hindu. Also, the people of the Islamic faith, as compared to Hindu and Jain, are found to be more impulsive and fashion conscious, price conscious and brand loyal and enjoy shopping. Muslims are also more convenience seeker than Hindu and brand conscious than Hindu, Jain and Christian. Also the people who are more cognitively religious are found to be more price conscious and brand loyal while behaviourally religious consumers are found to be more prices conscious and brand loyal, convenience seeker, brand conscious and having more shopping enjoyment orientation. Also consequentially religious consumers are found to be more impulsive and fashion conscious and brand conscious while experimentally religious consumers uses less media as a source of information. It is found that Muslims are more religious than Hindu, Jain and Christian. Also religiosity is associated with Gender, Marital Status, education and age.

Acknowledgement and / or Dedication

There are number of people who have contributed a lot in the completion of my doctoral research which I think would not be possible without their contributions. I express my thanks to my friends, colleagues and students of N.P College of Computer Studies & Management, Kadi and my relatives and family members.

In particular, I wish to express my gratitude to my guide Dr. Jayaashish Sethi, Professor, Pratap University, Jaipur, Rajasthan, for his guidance and motivation. He generously offered me valuable guidance and support, on numerous occasions at the expense of his valuable time. His vital knowledge of research and humble approach has not only helped me in the preparation of this dissertation but also makes me learn some valuable lessons of personal and professional life. Working under Dr. Jayaashish Sethi was a pleasure and I hope his blessings will be with me forever.

I would like to thank Prof. Damijan Mumel, my foreign co-supervisior who has guided me in my research. His nature to give a prompt reply whenever I need their advice is always motivating and inspiring. I thank him for extending his support from the beginning to the end of my research work.

I wish to thank my DPC members Prof. Bhavin Pandya and Prof. Tejas Dave who have reviewed the progress of my work and offering invaluable advice that helped me to direct my research and keep it on track. I would also like to thank Prof. Harishchandrasingh Rathod, Prof. Nikunj Patel, Prof. S.O Junare, Prof. P.G.K Murthy, Prof. Mitesh Jayswal and other eminent researcher and academicians who helped me by providing their valuable suggestions and guidance.

I would also like to thank all my faculty members, my peon Jagdishbhai, students, my principal, Director and all other members of the institute who have indirectly contributed by extending their help.

I also thank my wife Smita and my family members who have given me a moral support in the completion of this research work. I would like to express my thanks to

Table of Content

List of Figures

List of Tables

List of Appendices

CHAPTER 1

Introduction

1.0 Overview

In this chapter, total six main sections will be discussed. The first area point is introduction which is a cause of study. The second unit consists of the purpose and objectives of the study. The third unit deals with the hypotheses to be tested. The fourth unit of the chapter talks about the conduct of the study, describing an overview of the study undertaken. The second last unit will present the significance of the study followed by the outlines of thesis in the last section.

1.1 Introduction

Socio psychological research has built a strong foundation and provides framework for understanding the complex relationship between culture and human behaviour. One of the key finding of the field is that variation in the culture has vital impact on the way people evaluate the world and that these views ultimately affect their behaviour (Shweder 1991; Manstead 1997). In consensus with this recognition, the last two decades or so have witnessed an increasing amount of consumer behaviour research across cultures (Sojka and Tansuhaj 1995). More prominently, various studies on national and international ground have successfully established a strong link between cultures and various aspects of consumer behaviours. In the words of de Mooij (2004), "culture forms personality as the all-encompassing force which in turn is the key determinant of consumer behaviours. She had further clarified that culture and consumer behaviour are just like a rope, intimately knotted together and it is like an impossible task of "untying the rope".

Since cultural background is believed to be the one of the most significant determinants of consumer behaviour, "a marketer with a defective knowledge of culture is doomed"

(Engel, Blackwell and Miniard 1995, p. 145). Indeed, research by Bristow and Asquith (1999), Gurhan-Canli and Maheswaran (2000), Chudry and Pallister (2002)and de Mooij and Hofstede (2002), to name a few, all found that there exist significant differences among consumers of different cultural backgrounds which requires different marketing strategy. From the managerial perspective, it is imperative to have a clear understanding of culture and its influence on consumers' attitudes and behaviour is very much required for designing effective strategies for marketing to consumers of diverse cultural backgrounds. Because of differences in race, nationality, religious values, geography and customs, it becomes more difficult for marketers to apply the same marketing mix strategies for all consumer groups across the culture (Cui 1997). Cultural diversity requires marketers to understand the consumption and behavioural pattern of each consumers group including their basic demographics, media usage, store patronage and shopping behaviour and also require the knowledge of different marketing strategies to reach them. Failure to tailor their offerings to cultural variations would also result in the failure of marketing programmes directed to a specific market segment.

Despite the acknowledgement of the importance of the concept of culture and its marketing practicality, it is evident that empirical studies of consumer behaviour focusing on cultures influences are disproportionately under-represented. A survey of recently published articles showed that the preponderance of consumer research on culture has focused on either general values (Burgess and Steenkamp 1999; Gregory, Munch and Peterson 2002; Sun, Horn and Merritt 2004) or specific subcultural factors such as ethnicity (Kim and Kang 2001; Lindridge and Dibb 2003) and nationality (Cheron and Hayashi 2001; Moss and Vinten 2001) as the primary dimension or behavioural differentiation with far less attention is given to some other similar areas of influence[1].

Religion is a cultural based predicator which has drawn relatively very less attention of consumer behaviour researcher in contemporary consumer behaviour research. Though religion has paramount effect on international marketing decision, as recognised in many of the marketing text, (Griffin and Pustay 1996; Kotabe and Helsen 1998; Jain 1996;

---

[1] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

2

Cateora and Graham 1999; Terpstra and Sarathy 2000), religion, a construct possessing a potential research value in consumer behaviour research is relatively under-researched. As Delener (1994) has pointed, "Although religion has been a significant force in the lives of many individuals, its role in consumer choice can be characterised as unclear or fuzzy" (p. 36). Religion and religiosity (i.e. the intensity of belief in specific values and ideals are held, practiced and become a symbol of identity) had received a very less research attention over the past twenty five years. If the study was conducted, the focus was on religious variation in consumer behaviour without its marketing implications. This is remarkable given the long recognition that religion plays an important role in moulding human attitudes and behaviours and the realisation that the current trend is towards the global resurgence of organised religiosity (Armstrong 2001; Arnould, Price and Zikhan 2004).

An analysis conducted by Cutler (1991) showed that papers on religion published in the academic marketing literature prior to 1990 were found very less in frequency and numbers and papers having religious focus are only thirty and only six of them were particularly identified as articles within the consumer behaviour discipline. There are certain problems which have deterred consumer researchers from conducting an extensive study on this topic. Some problems cited include the sensitivity of the subject (Hirschman 1983; Bailey and Sood 1993), measurement problem (Wilkes, Burnett and Howell 1986; Clark 1992), gender of participants (Khraim, Mohamad and Jantan 1999) and difficulties in methodology of obtaining valid and reliable data (Bailey and Sood 1993; Sood and Nasu 1995). Though these problems may be partly explained, why religion is marginalised as a research problem in the past consumer behaviour research, they provide strong motivation to some marketing scholars to uncover the potential of this construct in explaining consumption phenomena. Of the voluminous research that has been done (Hirschman 1983; McDaniel and Burnett 1990; Delener 1990a, 1990b, 1994; Sood and Nasu 1995; Fam, Waller and Erdogan 2004; Essoo and Dibb 2004), findings indicated that religion can be a significant factor in explaining media usage; purchase risk aversion; how advertising messages are perceived; consumption patterns; innovativeness; family decision-making; and selected retail store patronage behaviour.

A relatively very less use of religion as a potential segmentation variable and as for other marketing action variable is a result of current limited amount of empirical research. Without knowing the consistently changing nature of consumer demographic variables such discretionary income, employment status and chronological age, marketer very often uses them to segment their target market (McDaniel and Burnett 1990). Even the frequent use of an ethnic-based approach to segment the market (Cui 1997), which has proven to be practical in a multicultural market, sometimes it can be proved impractical and misleading especially when the target population is broadly grouped according to their skin colour or continent of origin; without considering the fact that one ethnic group can actually have several different ethnic as well as religious subgroups (Venkatesh 1995; Chudry and Pallister 2002). Such reality makes it even more difficult to pin down the concept of ethnicity than in the case of the other concepts such as nationality race, and religion (Venkatesh 1995; Pirez and Stanton 2004). It, therefore, envisages that it is better to consider different subcultural groups as unique segments instead of grouping them broadly. So, it is evident from the preceding discussion that religion can better be used by marketers as a tool to achieve greater precision and effectiveness in market segmentation.

There are minimum three reasons appear to exist for studying the potential relationship between religion and consumer behaviour. First, religion is at the heart of life value which is often developed at an early age and therefore it plays a vital role in establishing consumption prescriptions and proscriptions for many individuals (Sheikh and Thomas 1994; Berkman, Lindquist and Sirgy 1997). Second, religion is the most basic element of the individual's cognitive world. It is an inherent human value which guides to define the ways to do things (i.e. established practices) and to provide a series of tools and techniques for social behaviour (Delener 1994). As such, it is expected that individuals who are more religious are prone to translate their internal religious beliefs into external consumer behavioural activities. Thirdly, potentiality of religion as a socio-psychological segmentation variable lies with its stability over time and the observable nature of many of its element (Delener 1994, p. 38). The basic demographics indicators such as age and level of income which are in constant flux have limited behavioural implications, religion as a personal characteristic is more stable and might improve predictive value (McDaniel and Burnett 1990).

It can logically be assumed that it is practical for the marketer to define their target markets and direct efforts toward those target markets if diversity exists among the various religious segments. However, if there no behavioural and consumption related differences among the consumers across the diverse religious groups, more efficient marketing strategies can be developed by focusing on common needs across consumer segments. Therefore, it is critical to understand whether religion influencing consumer shopping orientation; an antecedent of consumer shopping behaviour.

This research examines the influence of religion on consumer's shopping orientation and is based on the proposition that adherence to a particular religious faith significantly influences shopping orientation among the consumer in Gujarat. Religious commitment, often termed religiosity, is intensity to which beliefs in specific religious values and ideals are held and practiced by an individual. This perspective is a key feature of this research looking into the influence of religion on shopping orientation. On the other hand, shopping orientation represents a cognitive and affective aspect of consumer behaviour and it is closely linked with various personality traits, similar to the concept of personality in psychology (Sproles and Kendall, 1986). In essence, it is suggested by sociologists that personality traits as one of the general factors that have a profound impact on various human behaviours.

Potentiality of religious variables as explanatory constructs of consumer behaviour as well as segmentation tools very attractive to marketing community, there is, indeed, a pressing need to study its application in predicting consumer behaviour. The study reported in this thesis will extend the current, scant knowledge base by empirically investigating the role played by religiosity in influencing aspects of consumer shopping orientation and behaviour. The aim is to contribute to current stock of understanding of this relationship as well as to provide a basis for further investigation in this promising research area.

1.2 Research objectives

Consumer behaviour is a study of human behaviour which emphasis the role of consumer in all phases of decision making. According to Engel et al. (1995), consumer behaviour includes all the activities which lead to the acquisition, consumption and disposition of a product or service. They further have the opinion that there exist external or environmental

factors such as cultural norms and values that partially explain behavioural differences between different segments of consumers apart from internal factors such as motives, personality traits, emotions and attitudes.

In order to understand which external factors contribute to consumer activities, the consumer behaviour model should be segregated and studied in parts. The acquisition aspect of consumer activity that is to investigate the cultural influences on one aspect of consumer activities forms the basis of this thesis More specifically, the objective of this study is to examine the influence of religion as a component of culture on shopping orientation as one specific facet of consumers' acquisition behaviour. The objectives of studies are to assess the effects of religious affiliation and religiosity on shopping orientations.

The purpose of this study is to examine the influence of religion and religiosity as a component of culture on consumer shopping orientation and behaviour. The specific objectives of the study are enumerated as below.

- To examine the influence of religiosity on shopping orientations of consumers in Gujarat
- To examine the influence of demographic variables on religiosity
- To assess whether strength of religiosity and shopping orientation differs among Muslims, Hindu Jain and Christians domiciles of Gujarat.

1.3 Hypotheses

Based on the objectives of the current study, the following exploratory hypotheses are developed:

H1a: There is a significant difference in the use of information source among consumers affiliated with different religions.

H1b: There is a significant difference in shopping orientation among consumers affiliated with different religions.

H2a: There is a significant difference in the use of information source among consumers with different levels of religiosity.

H2b: There is significant difference in shopping orientation among consumers with different levels of religiosity.

H3a: There is no significant religious difference among consumers with different marital status

H3b: There is significant religious difference among consumers with different Age.

H3c: There is no significant difference in level of religiosity among consumers affiliated with different religions.

H3d: There is a significant religious difference among consumers with different Education.

H3e: There is no significant religious difference among consumers with different Occupation.

H3f: There is no significant religious difference among consumers with different area of Residence.

H3g: There is significant religious difference among consumers with different Income.

H3h: There is significant religious difference among consumers with different Gender.

H4a: Holding all other predictors constant, there is a significant impact of religious affiliation on use of information sources.

H4b: Holding all other predictors constant, there is a significant impact of religious affiliation on shopping orientation.

H5a: Holding all other predictors constant, there is a significant impact of consumer religiosity on use of information source.

H5b: Holding all other predictors constant, there is a significant impact of consumer religiosity on shopping orientation.

1.4 The Conduct of the Study

This four year study was actually started in 2011. Hypotheses are developed on the basis of detailed literature review for its testing. A structured questionnaire is prepared for use in the field survey. The questionnaire is prepared in two versions, Gujarati and English by using back translation procedure. After making revisions in the questionnaire on the basis of expert opinion and pilot testing, it is distributed to nine hundred respondents in Gujarat, India. Gujarat is believed to be an appropriate for this study since the population of Gujarat a follower of four of the world's major religions namely Hinduism, Islam, Jainism, and Christianity in sizeable numbers. From the fieldwork, seven hundred fifty usable questionnaires are secured for analysis. For the statistical data analysis SPSS programme version 20 is used. The main statistical techniques used in this study are analysis of variance (ANOVA), factor analysis, multivariate analysis of variance (MANOVA) and multiple linear regression analysis. These techniques explore the univariate and multivariate relationships among the data. The resulting information formed the basis for conclusions.

1.5 Significance of the study

From the view point of consumer behaviour, consumption has been largely understood as a cultural phenomenon because consumption of material objects such as dress, food and housing often expresses behavioural patterns and characteristics of a particular culture. (McCracken 1990). The findings of Lee (2000), Ackennan and Tellis (2001), Kacen and Lee (2002) and Chung (1998), among others, have rightly investigated that consumers' buying patterns are highly influenced by cultural values. Thus, cultural analysis should be considered as a logical starting point for the examination of consumer behaviour.

Though there is emerging interest is reflected in the marketing literature for the topic, unfortunately, the evidences on the study of religion and religiosity as cultural-based predictors explaining fundamental consumer behaviour are rarely found in the current consumer behaviour literature. Also the studies which were conducted, all of them are in United States where Judeo-Christian culture is predominant. This study is therefore undertaken as a first step in understanding from a cultural perspective the influence of religion and religiosity on consumer shopping orientation and behaviour in a Gujarat.

Thus, the findings of this study further add knowledge in existing body of literature by explaining the influential role of religiosity as a construct in explaining consumer behaviour.

This study would have significant marketing implications apart from strengthening existing consumer behaviour literature. This study helps the marketer to determine whether religiosity is justifiable base for segmenting consumers. If religious profiles would be used to identify larger market segments of the society, the marketing programmes and policies could be developed by the strategists that would maximally enhance the importance values of the consumers in each religious market. In addition, findings of this study should contribute to niche marketing strategies by providing a framework within which religious consumer groups in Gujarat may be better understood and targeted by local marketers. An understanding of consumers' religious background and its influences on their shopping behaviours would be essential for international marketer to compare and leverage their experience of countries when they enter for the first time in Gujarat.

1.6 Scope of the research

The selection of an appropriate shopping product is particularly important for this study because it would exhibit the clear characteristics necessary to examine the research area. The specified product category is desirable for studying marketplace behaviour, as it was reported earlier that religion influences on consumption behaviour tend to varies by product classes (Delener 1990a). Such product focus would facilitate the discussion and consequently the marketing implications derived from the findings, which is more narrow and definable to a specific product market.

However, considerable care is required for the selection of an appropriate product for this research. Previous Research shows that for conducting such kind of research, products chosen should not be bound to a particular culture and it should be purchased by all people in the population. Literature on the similar kind of research shows that product choosen for similar kind of research was limited to the purchase of a single, high-involvement product. Delener (1990b) has used microwave oven, Delener (1994) has used an automobile, Rodriguez (1993), Bailey and Sood (1993) and Sood and Nasu (1995) have used an

expensive radio set and Essoo and Dibb (2004) have used a television set while Mokhlis (2006) has used apparel products.

In this study, the apparel shopping context is selected because consumption of this apparel product is made irrespective of individual cultural backgrounds because of its high visibility; it is believed that one's ethnic identity is manifested by the apparel product category (Jain 1989). Hence, if the influence of religious factors on shopping orientation can be identified, it would be logical for us to assume that similar effects might be observed in consumer behaviour for other consumer products.

So this study is limited to influence of religiosity on shopping orientation of apparel products in Gujarat.

1.7 Outline of the Thesis

To a brief outline the chapters is useful for understanding the organisation of the thesis. The thesis consists of eight different chapters which compile the total research work. This chapter talks about the background of the study and investigation of major themes within the context under examination. The remainder of this thesis is organised as follows.

Chapter Two is a literature review-1 in which theoretical and conceptual framework of the study is discussed. In this chapter, conceptual foundation for religion, religious affiliation, religiosity, basic religions and their philosophy, shopping orientation and basic models of consumer behavious which lays foundation of religion as a construct of study is discussed.

Chapter three presents literature review-II in which literature on religion and consumer behaviour was studied thoroughly. In this chapter, an attempt is made to address the following matters:, the study of religion in the social sciences, the study of religion in marketing, religion and consumer behaviour, religious affiliation and consumer behaviour, religiosity and consumer behaviour, religiosity and consumer shopping orientation, and measurement of religion in consumer research.

Fourth chapter discusses   step-by-step detailed procedural study of the research methodology used to obtain the necessary information for the conduct of this empirical

study. The chapter is divided in five different sections as follows: choice of research approach, method of data collection, research instrument, sampling process, the conduct of fieldwork survey and ethical considerations.

Chapter five presents the main quantitative techniques used in this study. the choice of statistical software to analyse the survey data is presented in the first part, while in the second part the factors influencing the choice of statistical techniques are discussed. In the next part of the chapter, three types of statistical analysis are discussed: univariate analysis of descriptive statistics, bivariate analysis in the form of one-way analysis of variance (ANOVA), and exploratory factor analysis, multivariate analysis of variance (MANOVA) and multiple linear regression analysis are discussed in the form of multivariate data analysis techniques.

The empirical result of the study is presented Chapters six and seven. The sequence of the presentation of the chapters follows the sequence of the hypotheses developed in this study.

The writing of this thesis by summarising the earlier discussions and empirical findings are presented in the final chapter by the researcher and eventually the salient implications of this study are highlighted. The results are discussed in the context of consumer shopping orientation and research implications consumer behaviour theory and marketing practices. The limitation of the study in the form of various difficulties experienced by the researcher in conducting the study will then be discussed. At last, insights of for future research conclude the thesis.

Lastly, the questionnaire used in the study, descriptive statistics and diagnostic tests for multiple linear regression analysis is compiled in the appendices.

```
                          ┌─────────────────────┐
                          │    CHAPTER ONE      │
                          │    Introduction     │
                          └─────────────────────┘
                                    │
┌──────────────────────┐  ┌─────────────────────┐  ┌──────────────────────┐
│   CHAPTER TWO        │  │   REVIEW OF         │  │   CHAPTER THREE      │
│  Literature Review-I │──│   LITERATURE        │──│  Literature Review-II│
│  Theoretical and     │  │                     │  │  Religiosity and     │
│ Conceptual Framework │  └─────────────────────┘  │  Consumer Behavior   │
└──────────────────────┘            │              └──────────────────────┘
                          ┌─────────────────────┐
                          │   CHAPTER FOUR      │
                          │ Research Methodology│
                          └─────────────────────┘
                                    │
                          ┌─────────────────────┐
                          │   CHAPTER FIVE      │
                          │ Methods of Data     │
                          │     Analysis        │
                          └─────────────────────┘
                                    │
┌──────────────────────┐  ┌─────────────────────┐  ┌──────────────────────┐
│   CHAPTER SIX        │  │  DATA ANALYSIS      │  │  CHAPTER SEVEN       │
│  Data Analysis and   │──│  AND FINDINGS       │──│  Data Analysis and   │
│     Result I         │  │                     │  │     Result II        │
└──────────────────────┘  └─────────────────────┘  └──────────────────────┘
                                    │
                          ┌─────────────────────┐
                          │   CHAPTER EIGHT     │
                          │ Summary, Discussions│
                          │   and Implications  │
                          └─────────────────────┘
```

FIGURE 1.1 Presentation flow of the thesis

CHAPTER 2

Literature Review I: Theoretical and Conceptual Foundation

2.0 Overview

In any research it is mandatory for any researcher to have a clear understanding of the subject under study. So it appears logical for every researcher to start with conceptual and theoretical understanding of the construct under study. The discussion of this chapter is directed to provide conceptual framework of the construct and whether the construct supported by previous theory. The chapter starts with discussion on religion as a cultural subsystem followed by conceptual understanding of religion, religious affiliation and religiosity. The next topic of discussion is an overview of the various religions followed by the discussion on shopping orientation. At last, various models of consumer's behaviour are examined from shopping orientation perspective and specifically, Darden (1980) and Sheth (1983) are models are discussed to provide the framework for this study.

2.1 Religion as a cultural subsystem

According to Assael (1992), Culture refers to "the norms, beliefs and customs that are learned from society and lead to common patterns of behaviour" (p. 319). It is deeply rooted in the values and its values are commonly shared by its group members. The culture of any country is manifested by religion, education, geography, language and formative experiences and national childhood pattern. This pattern may be expressed in terms of attitudes, fundamental rights, traditions, beliefs customs; mode of life and value system (Shweder 1991) and it is the difference in the composition and relationship among these elements which makes the culture of each society, state and country unique and different. (de Mooij 2004).

The foundation of any culture is the commonly shares values, ideals and assumptions of its members about the life. These values transformed from one culture to another not by genetic process but by learning and interaction with one's environment (Ferraro 1994). The members of the society behave and act in a socially acceptable manner by using this learned values. In the view of Slowikowski and Jarratt (1997), the structure of social organisation, habits and conventions, the communication system and roles and status positions for members of that society are determined by these values.

The culture and its impact on various aspects of consumer behaviour had been widely researched. (Dichter, 1962, Sheth and Sethi, 1977, Wills, Samli and Jacobs, 1991, McCort and Malhotra, 1993, Samli, 1995, Usunier, 1996, Manrai and Manrai, 1996, Engel, Blackwell and Miniard, 1995, Luna and Gupta, 2001)[2]. But, there are very limited examples which have a focus on the influence of religion on consumer behaviour as a component of culture. Instead, the focus of culture base researcher is on ethnicity, nationality and values as important predictors of consumer behaviour.

At both, individual and societal levels, people's attitudes, values and behaviors are influenced by religion as it is a universal and influential social institutions and it forces to undertake its study. Religious values and beliefs affect human behavior by working directly through taboos and obligation or through its influence on the culture and society. Many aspects of everyday life like births, marriages and funeral rites, moral values of right and wrong, cohabitation, premarital sex, family planning, organ donation, restriction on eating and drinking are significantly influenced by religion and its associated practices. These values differ among different religious faiths and it is the degree of adherence that determine to what extent these norms are kept.

Religion influences people's values, habits and attitudes as an important component of culture (Belzen 1999). In the context of culture, Religion, the cognitive or ideological elements of a country's culture, is a unified system of beliefs and practices that permeates the value structure of a society. Religion syndicates the groups in general and nation in

---

[2] Soares A.M. (2004). *The influence of culture on consumers: Exploratory and risk taking behaviour (*Doctoral dissertation, University of Minho,2004)

particular by its value system (Geertz 1993). Religion acts as a major cohesive force, if not the only one in some societies like India, Israel, Iran, and Saudi Arabia. In the view of Berkman, Lindquist and Sirgy (1997), sacred nature of religion makes it acceptable without any questions and it pervades all aspects of life, from family to education to the workplace to government.

Schwartz and Huismans (1995) states that religion is regarded as a way of life that encourages people to strive for other values as a part of culture and a value in itself. Religious values acts as an important guiding principles in one's daily life apart from formation of one's attitudes and behaviour. Since different theorists have different opinion on specific values that can be linked to religion, all agreed that differ with regard to the specific values they link to religion, almost all agree that religions influences the value system of its advocate by transmitting religious creeds, norms, moral prescriptions, ritual requirements and taboos through the process of socialisation (Crystal 1993; Wulff 1997; Berkman et al. 1997). Such sacred values of religion shape the behaviour and practices of institutions and members of cultures.

Marty and Appleby (1991) has an opinion that in the context of cosmic and metaphysic, religion provides personal and social identity as a part of key human values. It is the expression of one's relationship with god and how that relationship is expressed in the society. Religion determines one's own conception of his/her responsibilities to himself/herself, to others and his/her God. So religion has both internal as well as external orientation. Internally, religion can be expressed in terms of religious identities, religious attitudes, values and beliefs while external dimension can be expressed by means of membership of religious organisation, religious affiliation, attending religious functions and religious affiliation.

Three models were proposed by Greeley (1963) who has described the relationship between religion and cultural subsystem and religion and society. The first model describes that personality of the members of religious group is influenced by their religious values and ultimately their actions are influenced by it which in turn will influence the organisation of the social system. The second model describes that personality is built by social system which will direct the religious belief and activities of an individuals. So

religion is an independent variable in the first model while dependent variable in the second model. A third model envisages that personality of an individual is influenced by religious belief which in turn influences his/her role in the society and vice versa. So the third model sees the religion as a correlate or a predicator variable.

2.2. Defining Religion

It is difficult to find definition of religion which is universally accepted. Because of the personal nature of the religion, its meaning would differ from person to person. In the view of Clarke &Byrne (1993), there are mammoth difficulties to find generally accepted definition of religion. The religion is defined by the scholars in three perspectives historically. Firstly, it is a supernatural power to which individuals must respond; secondly individual feeling for presence of such power and lastly the rituals carried by individual with respect to such power (Wulff, 1997). So social scientific consensus is challenged and thus "it is hard to make any generalization [concerning religion] that is universally valid" (Peterson, 2001, p. 6). As a result, careful analysis of literature reveals diverse theories and definitions of religion. Among others, religion has been defined as:

"A belief in God accompanied by a commitment to follow principles believed to be set forth by God". (McDaniel & Burnett, 1990, p. 110)

"A socially shared set of beliefs, ideas and actions that relate to a reality that cannot be verified empirically yet is believed to affect the course of natural and human events". (Terpstra & David, 1991, p. 73)

"An organised system of beliefs, practices, rituals and symbols designed (a) to facilitate closeness to the sacred or transcendent (God, higher power or ultimate truth/reality), and (b) to foster an understanding of one's relation and responsibility to others in living together in a community". (Koenig, McCullough & Larson, 2000, p. 18)

"A social arrangement designed to provide a shared, collective way of dealing with the unknown and un-knowable aspects of human life, with the mysteries of life, death and the

different dilemmas that arise in the process of making moral decisions". (Johnson, 2000, p. 259)

"A cultural subsystem that refers to a unified system of beliefs and practices relative to a sacred ultimate reality or deity". (Arnould, Price & Zikhan, 2004, p. 517-518)

"A system of beliefs about the supernatural and spiritual world, about God, and about how humans, as God's creatures, are supposed to behave on this earth". (Sheth & Mittal, 2004, p. 65)

From the above discussion, it clear that there is a difference in the understanding and perception of religion among the researcher scholar. Because of different purposes, context of use and historically confused meaning, there is a doubt in getting satisfactory definition of religion.(Clarke and Byrne 1993). Since, it is not possible to define religion in general term, "it must be defined for each research setting" (Wilkes, Burnett & Howell, 1986, p. 48). So for this study, a definition given by McDaniel and Burnett (1990) is adopted: "a belief in God accompanied by a commitment to follow principles believed to be set forth by God" (p. 110). It is appropriate to use this definition since it employs one's degree of religious beliefs as a basis for how to act and live. Individual's decision making is continuously guided by their intensity of religious belief high involvement. Religion can be defined in terms of religious affiliation and religiosity.

2.2.1 Religious affiliation

An individual's observance to a particular religious group is known as religious affiliation. Hirschman (1983) states that the effect of religious affiliation like race and nationality on individual life often preludes birth, determines family size, level of education attained, the amount of wealth accumulated and the type of life decision taken.

Religious affiliation of an individual is measured on the basis of one's denominational membership or faith identification (e.g. Hinduism, Islam, Jainism etc.).

Religious affiliation is viewed as sharing a common cognitive system of beliefs, values, expectations and behaviours (Hirschman 1983).

2.2.2 Religiosity

Religiosity is a complex concept and difficult to define for at least two reasons. The first reason is the uncertainty and imprecise nature of the English language. Colloquially, in *Roget's Thesaurus* (Lewis, 1978), religiosity is found to be synonymous with such terms as religiousness, orthodoxy, faith, belief, piousness, devotion, and holiness. These synonyms reflect what studies of religiosity would term as dimensions of religiosity, rather than terms that are equivalent to religiosity[3].

A second reason for this complexity is that current interest in the concept of religiosity crosses several academic disciplines, each approaching religiosity from different vantage points, and few consulting one another (Cardwell, 1980; Demerath & Hammond, 1969). For example, a theologian would address religiosity from the viewpoint of faith (Groome & Corso, 1999), while religious educators could focus on orthodoxy and belief (Groome, 1998). Psychologists might choose to address the dimensions of devotion, holiness, and piousness, whereas sociologists would consider the concept of religiosity to include church membership, church attendance, belief acceptance, doctrinal knowledge, and living the faith (Cardwell, 1980). This use of different terms across academic disciplines to identify what could be thought of as like dimensions of religiosity makes it difficult to discuss without an explicit definition from the viewpoint of religious education and the application of that knowledge to the lived experience.[4]

In simple term, religiosity may be referred to as the state of one"s belief in God, characterized by his piety and religious zeal. The higher his piety and religious zeal are, hence the stronger his belief in God, the higher his religiosity is. But what seem to be synonymous with religiosity - for instance religiousness, orthodoxy, faith, belief,

---

[3] Holdcroft B. (2006). What is religiosity? *Catholic Education: A Journal of Inquiry and Practice.* Vol. 10, No. 1

[4] Holdcroft B. (2006). What is religiosity? *Catholic Education: A Journal of Inquiry and Practice.* Vol. 10, No. 1

piousness, devotion, and holiness - are actually not exactly equivalent to religiosity. Instead, as rightly argued by Holdcroft (2006:89), they are just the reflections of the dimensions of the religiosity. Because of this, most of the generally cited authors of religiosity such as Lenski (1961), King (1967), and Glock (1972) use the term `dimensions" to measure religiosity. Only Verbit (1970) measures the religiosity in terms of its `components[5].

According to Delener (1990b), religiosity (degree to which individuals are committed to a specific religious group) is one of the most cultural force and key influence in buying behaviour. This is because purchase decision is categorised according how much consumers adhere to a particular faith. The extent to which religion affects one's beliefs and behaviour depends on the individual's level of religiosity and the importance one places on the religion itself (Sood and Nasu, 1995).

The effect of religion on consumer behaviour is dependent on importance of religion on one's life and one's level of commitment because religion is personal in nature.

The degree to which one follows the principles of their doctrines is dependent on how he/she accept the doctrine of their religion, for example, the level of religious commitment and group membership is manifested by how regularly a person attend worship services. If, a person is weak in his religious tenet, they may behave otherwise. In understanding the consumer behaviour, understanding of consumer's commitment to their religion is imperative.

Those individual who are more religious are found to be more committed to their belief system and because of that their behaviour are guided by the principles and norms of their religion. It is rightly pointed by Stark and Glock (1968), "the heart of religion is commitment" (p. 1). According to Delener (1994); those who are rated more on religious commitment are found to be closed-minded or dogmatic. This is consistent with the view of fundamentalist aspect of religiosity in which fundamentalists believe in strict adherence to the doctrines of their faith. It is evident that religious commitment may be expressed

---

[5] Syukri Salleh M. (2012). Religiosity in Development: A Theoretical Construct of an Islamic-Based Development. *International Journal of Humanities and Social Science Vol. 2 No. 14*

beyond religion itself and high commitments are found in many aspects of life like family, relationships and consumption behaviour of many individuals who are more religious. The religiosity is defined as;

The degree to which a person uses adheres to his or her religious values, beliefs and practices and uses them in daily living. The supposition is that a highly religious person will evaluate the world through religious schemas and thus will integrate his or her religion into much of his or her life. (Worthington et al.2003, p. 85)

Religiosity or religious commitment is "the extent to which an individual's committed to the religion he or she professes and its teachings, such as the individual attitudes and behaviours reflect this commitment" (Johnson, Jang, Larson and Li, 1995: p. 25).

Religious commitment has been measured differently by different researcher in the literature of religion. Religiosity is measured on cognitively (ideologically), behaviourally, ritualistic, Intellectual, consequential and experiential dimensions. The cognitive dimension focuses on the individual's belief or personal religious experience while the behavioural dimension concerns the level of activity in organized religious activities. 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.

COGNITIVE RELIGIOSITY: It's a cognitive aspect of religiosity which measures individual's self-beliefs or personal religious experience. The intrapersonal religiosity dimension focuses on religious attitudes or beliefs. An example of cognitive religiosity statement would be "religion is especially important to me because it answers many questions about the meaning of life."

BEHAVIOURAL RELIGIOSITY: It's a behavioural aspect of religiosity express in terms individuals participation in religious groups activity. The interpersonal religiosity measures that seek to evaluate mosque/temple/church attendance or private prayer. Meanwhile, an example of behavioural religiosity statement might be "I enjoy spending time with others of my religious affiliation".

EXPERIENTIAL RELIGIOSITY: Religious and personal mystical experience (experiential religiosity) include conversion events, glossolalia and healing events. It is related with the practicality of religion. An example of experiential religiosity statements are when I face a problem, I pray for God's help and Praying gives me strength when I am upset.

CONSEQUENTIAL RELIGIOSITY: Religious effects (consequential religion) involve the connection between belief and behaviour, that is, the rewards and responsibilities that accompany religiousness, such as peace of mind, composure, and adoption of morals and principles of behaviour. It is related with importance of religion on has in his life. The examples of consequential religiosity are "rewards of paradise encourage me to do good things" and "Advise others to do good things and avoid sin".

2.3. Major Religion and their Basic Philosophy

2.3.1 Hinduism

Hinduism, one of the oldest living religions, with a history stretching from around the second millennium B.C. to the present, is India's indigenous religious and cultural system. It encompasses broad spectrum of philosophies ranging from pluralistic theism to absolute monism. Hinduism is not a homogeneous, organised system. It has no founder and no single code of beliefs; it has no central headquarters; it never had any religious organisation that wielded temporal power over its followers. Hinduism does not have a single scripture as the source of its various teachings. It is diverse; no single doctrine (or set of beliefs) can represent its numerous traditions. Nonetheless, the various schools share several basic concepts, which help us to understand how most Hindus see and respond to the world. Ekam Satya Viprah Bahuda Vadanti- "Truth is one; people call it by many names" (Rigveda I 164.46).

From fetishism, through polytheism and pantheism to the highest and the noblest concept of Deity and Man in Hinduism the whole gamut of human thought and belief is to be found. Hindu religious life might take the form of devotion to god or gods, the duties of family life or concentrated meditation. Many Hindu call their tradition Santana-dharma,

the eternal law that governs everyone irrespective of belief. It is believed that these truths regarding the universal law were divinely revealed to ancient sages. Hinduism is a synthesis of religion and philosophy; as also a way of life.

SACRED TEXTS OF HINDUISM: Hindu religious literature is divided into two main categories: 'Shruti' and 'Smriti'; Shruti – that which has been heard (revealed truth); and Smriti that which has been remembered (realized truth). Shruti consists of unquestionable truth and is considered eternal. It refers mainly to the Vedas themselves. Smriti is supplementary and may change over time. It is authoritative to the extent that it conforms to the bedrock of Shruti. If Shruti is 'direct experience', Smriti is 'tradition' – the experience remembered.

The Sruti is composed of the four Vedas – the Rig Veda, Yajur Veda, Sarna Veda and Atharva Veda. The Vedas form the oldest sacred texts of Hinduism.The books that appeared after the Vedas were called *Smriti.* Smrti literature includes *Itihasas* (epics like Ramayana, Mahabharata), Puranas (mythological texts), Agamas (theological treatises) and Darshanas (philosophical texts).

IMPORTANT HINDU VIRTUES: Following are some of the important qualities listed in the scriptures:

1) *Ahimsa* (non-violence) – based on the concepts of *a/man* and reincarnation

2) *Sam yam* (control of mind and the senses) – considered essential for any form of morality

3) Tolerance – of different beliefs, opinions, religious traditions and persons.

4) Hospitality – demonstrating magnanimity, and the value of service

5) Compassion – based on notions of atman; an ability to feel for others as we feel for ourselves

6) Protection – giving shelter to others, especially those less fortunate

7) Respect – for all living beings; for sanctity of life

8) Wisdom – knowledge is contrasted with ignorance; ability to sift out right and wrong

9) Austerity – Practical wisdom and discipline in addition to theoretical knowledge

10) Celibacy – important for spiritual life; only one of the four ashramas – grihasthya-permitted sexual gratification

11) Honesty – to avoid self-deception; essential to build trust within relationships.

12) Cleanliness – includes external hygiene and inner purity

13) Charity – "Charity given out of duty, without expectation of return, at the proper time and place, and to a worthy person is considered to be in the quality of goodness." *(Bhagwad Gita, 17.20)*

A Tenfold system of virtuous duties was prescribed by Manu Smriti: (1) "Contentment; (2) Abstention from injury to others, active benevolence, and returning good for evil; (3) Resistance to sensual appetites; (4) Abstinence from theft and illicit gain; (5) Purity, chastity, and cleanliness; (6) Coercion of passions; (7) Acquisition of knowledge; (8) Acquisition of Divine Wisdom; (9) Veracity, honesty and fidelity; and (10) Freedom from wrath and hatred;" – *Manu,* vi, 92.

ACTS OF WORSHIP AND DEVOTION[6]: Two main types of worship are practiced in Hinduism;

- In **Arati,** fire and other items are waved in front of an picture or image of the deity

- In **Puja**, fruit, flowers, and other ingredients are offered to the deity in a more elaborate ritual. (National)

- Acts of devotion, observance of holidays, and enactment of sacred stories build a personal storehouse of merit and cancel sins

- Some sects believe that Vishnu or other gods can directly assist the devotee in attaining union with Brahman (Kramer)

- Through the practice of yoga, the study of sacred texts of the Upanishads, Vedas, and Baghavad Gita, and more esoteric spiritual disciplines the Hindu may also try to realize the soul's reabsorption into Brahman

- Both erotic and ascetic practices increase spiritual knowledge of and union with the divine

---

[6] http://endlink.lurie.northwestern.edu

RELIGIOUS FESTIVALS AND DAYS OF SIGNIFICANCE[7]**:** There are Hindu festivals almost every month. They are based on the Lunar Calender and hence the dates vary from year to year. Some festivals are based on the change of seasons and others celebrate and glorify the great incarnations or prayer campaigns to invoke and realise the divine within.

The main festivals observed in Australia are:

Festival	Date/s
Thaipusam	January
Maha Shivarathiri	March (whole night vigil)
Tamil and Kerala	New Year April
Ramnavmi	April
Hanuman Jayanti	April
Krishna Jeyanthi	September
Ganesh Chaturthi	September
Navarathri	September/October (10 day festival)
Deepavali/Diwali	October/November (2 days)

2.3.2 Islam[8]

Over one billion people are active Muslims throughout the continents of the world. This religion was revealed to mankind by Allah, the Alone God, through the many human messengers-prophets in history. They believe the final revelation was given to the Prophet Muhammad who lived from 570-632 C.E. Attached to his name is a blessing that is often used after the names of honoured prophets—*Salla-Allahu alayhi wa Sallam*/may Allah's blessings and peace be upon him. It is sometimes abbreviated in print to SAAWS or SA. Derived from the root letters *s.l.m.* (Ar. *Sin, Lam, Mim*), Islam means "to be in peace," "to be secure," and "to be integral, whole." Muslims feel at peace because they have consciously submitted their will to the Almighty Alone God and are at
Peace with themselves, all creatures, and God.

---

[7] **Culture and Religion, Information Sheet, Hindu Association of Western Australia (Inc), October 2009**
[8] **World Religions** ©*2005 University Of Metaphysical Sciences*

A Muslim is someone who has surrendered their whole being to God and committed themselves to pattern their life on his divine guidance that he communicated to the human messenger-prophets. Islam is embodied in the Qur'an and in the *Sunnah*, which are the actions, sayings, and approvals of the Prophet Muhammad. In the Qur'an, Islam is described as the primordial or natural religion of the innate nature with which Allah created mankind (Qur'an 30:30), and as the religion which was completed and consummated in the Qur'an, the final definitive Divine Writ from Allah. He created Adam, the first human being, and made him and his offspring inheritors of the earth. He endowed them with the requisite faculties to be His trustees on earth.

The Qur'an, the *Sunnah* and *Hadith*, *Ijma* and the *Ijtihad* are the essential sources for Muslims in all aspects of life. The Qur'an is believed to be the revelation sent verbatim, from Allah. Brought to Muhammad during his prophethood, 610-632 C.E., it comprises 114 *surahs* (chapters) that are designated as Makkan or Madinan according to the place of their decent upon Muhammad. The *Sunnah* is the second universal source of Islam and it comprises actions, sayings, and approvals of the Prophet Muhammad. The *Hadith* is their reportage in narration, six collections are recognized as authentic by the Sunni Muslims; Al-Kulini's collection, entitled: "Al-Kafi" is recognized as the earliest and authentic by the Shi'ah. The *Ijma* is explained here by Dr. Ghulam Haider Aasi: "Sunni Muslims believe in the consensus of the Muslim scholars and the community as the third source of Islamic law whereas the Shi'ah take the teachings and interpretations of the Imams as binding." And finally the Ijtihad, it is the name of the total effort of a religious scholar to find out the correct answer to a new problem in light of the first two material sources call *Nass* (divine text) and the intent of the Islamic law through a certain systematic procedure of *Qiyas* (analogical deduction). There are six articles of faith that Muslims believe in, they are derived from revealed sources, the Qur'an and the *Sunnah*. (Q. 2:285; 4:136, 150–152) these articles of faith are known as *Arkan al Iman* and they are as follows:

1. Belief in One Alone God, Allah. The Unique, Transcendent, Infinite, Creator and Sustainer of all that exists. To only worship Him.
2. Belief in the eternal life of Hereafter (*Al-Akhirah*). There will be an end to the world, a Resurrection of the whole person after death (*al-Ba'th*) and a Day of Judgement (*Yawm al-Hisab*). Muslims believe in eternal Hell and Paradise.

3. Belief in angels as creatures of Allah, always in His service.

4. Belief in Revelations from God, commonly known as belief in the Books from God.

5. Belief in human messengers—prophets of God. These chosen people convey the message   of God and exemplify it for their people.

6. Belief in the Decree and Plan of God. Good and evil alike all happen with the decree of
   God, and nothing can fail His Plan (*Qada wa Qadar*).

THE DUTIES OF MUSLIMS -THE FIVE PILLARS OF ISLAM:

- Recite the shahadah at least once.

- Perform the salat (prayer) 5 times a day while facing the Kaaba in Makkah

- Donate regularly to charity via the zakat, a 2.5% charity tax, and through
  additional donations to the needy.

- Fast during the month of Ramadan, the month that Muhammad received the
  Qur'an from Allah.

- Make pilgrimage to Makkah at least once in life, if economically and
  physically possible.

2.3.3 Jainism

Mahavira serves the religion as an illustration both of spiritual realization and social reconstruction.This religion is also utterly humanistic in its approach, and spiritualistic in its depth. Though humanistic, yet it is wider than humanitarianism, for it embraces all the *sentiments of beings* from one-sense to all the five senses. Jaina formulation of ethical theory is grounded in Jaina metaphysics. It argues that conceptions of bondage and liberation, *punya* and *paap,* heaven and hell, pleasure and pain and the like, lose all their relevance and significance, when we exclusively recognize either their permanence as constituting the nature of substance. Its strong ethical discipline constitutes a distinct importance in Jainism. The Jain ethics tend to translate the fundamental principle of ahimsa into practice.

So far as the Jain community is concerned it is one of the ancient communities of our country. It is scattered throughout the length and breadth of India from hoary antiquity to the present day. Jains are also found in small numbers in various continents. Jainism being

an independent religion, have its own vast sacred literature, distinct philosophy, particular outlook on life and special ethical rules of conduct based on fundamental principles of *Ahimsa.* The Jains principles of Ahimsa was accepted and promoted by several Kings and heads of State throughout Centuries. World leaders of modem times including Mahatma Gandhi and Nelson Mandela promoted Ahimsa and non-violence while fighting for restoring freedom for India and South Africa respectively.

Jain scriptures were written over a long period and the most cited is the Tattvartha Sutra, or Book of Reality written by Umasvati (or Umasvami), the monk-scholar, more than 18 centuries ago. The primary figures in Jainism are Tirthankars. Jainism has two main divisions, which began around the second century BC and was finalized in the first century CE, formed the Digambers ("Sky Clad"), or naked ascetics, and the Svetambaras ("White Clad"), who wear a simple white garment. Both the sects believe in ahimsa (or ahinsa), asceticism, karma, sansar and jiva. Jainism promotes compassion for all human and non human life. Human life is valued as a unique, rare opportunity to reach enlightenment and to kill any person, no matter what crime he/she may have committed, is unimaginably abhorrent. It is the only religion that requires monks and laity, from all its sects and traditions, to be vegetarian. The values for human life promoted by Jainism are very relevant to the discipline of professional social work.

Jains are remarkably welcoming and friendly towards other faiths. Several non-jain temples in India are administered by Jains. The Jain Heggade family has run the Hindu institutions of Dharmasthala, including the Sri Manjunath Temple, for eight centuries. Jains willingly donate money to churches and mosques and usually help with interfaith functions. Jain monks, like Acharya Tulsi and Acharya Sushil Kumar, actively promoted harmony among rival faiths to defuse tension. In fact the great contributions made by Jain Monks down the centuries to promote harmony among different groups of population are lessons for social work profession which is mandated to help people to help themselves in different problem situations.

ETHICAL PRINCIPLES: Jainism has its own philosophy, values and principles that are very much in line with social work values, philosophy, principles and code of ethics. Jain monks practice strict asceticism. On the other hand the laity, who pursues less rigorous practices, strives to attain rational faith and to do as much good as possible in this lifetime.

Following strict Jain ethics, the laity chooses professions that are highly regard and protect life and totally avoid any violent ways of earning a livelihood: The Jain ethical code is taken very seriously. Five vows are followed by both laity and monks/nuns, which are

1) Non-violence (ahimsa, or ahinsa)

2) Truth (Satya)

3) Non-stealing (Asteya)

4) Chastity (Brahma-charya) and

5) Non-possession or Non-possessiveness (Aparigrah).

For laypersons, 'Chastity' means confining sexual relations within marriage. For monks/nuns, it means complete celibacy. Non-violence involves being vegetarian and some choose to be vegetarian. Jains are expected to be non-violent in thought, word and deed, towards humans and every living creature. While performing holy deeds, Svetambara Jains wear cloths over their mouths and noses to avoid spittle falling on texts or revered Images.

Along with five vows, Jains avoid harboring ill will towards others and practice forgiveness. Their belief is that Atma (Soul) can lead one to become Prmatma (liberated soul) and this must come from one's inner self. No Jiv can give another path to salvation, but can only show the way. In social work too, the worker is a guide and philosopher to the client who only shows the way and the final decision/act is left to the choice of the client.

JAIN PHILOSOPHY[9]**:** The Jain system, like the Buddhist, is non-theistic. It does not acknowledge the existence of creator of God. Another important feature is that it is pluralistic system. The souls are many, infinite in number. Moksha is not absorption into the supreme but the attainment of a perfect, luminous and blissed soul which is without body and without actions.

The religious philosophy of Jainism teaches that there are nine truths or realities (Nav-tattva) They are : (1) soul (jiva) (2) non-soul (ajiva) (3) merit (punya) (4) sin or demerit

---

[9] **Jainism – History, Philosophy And Traditions,** Prof. (Dr.) Sohan Raj Tater Former Vice Chancellor, Singhania University Jhunjhunu (Raj.)

(papa) (5) influx of Karma (asrava) (6) stoppage of karmic matter (Samvara) (7) bondage (bandha) (8) shedding of karmic matter (nirjara) and (9) liberation (moksha).

1. Jiva (soul): The principle of Jiva is a conscious substance which is different in different individuals. The number of Jivas (souls) is infinite. The soul is not only the enjoyer of the fruits of karma (bhokta), but also the actor, deeply engaged in wordly affairs and responsible for his act (karma), good or bad. It transmigrates i.e., it takes successive births according to the nature of stock of its deeds. It can attain emancipation (moksha) from the cycle of birth and death by freeing itself from all that is non-soul (ajiva), by destroying accumlated karmas and by stopping their further influx into it.

2. Ajiva (non-soul): Ajiva is the opposite of jiva comprising of dharma, adharma, akash, pudgala and kala substances, of these, the first three (medium of motion, medium of rest, space or medium of accommodation are formless (amurta) and indivisible wholes. The forth substance matter is defined as what is possessed of the qualities of touch, taste, colour and smell. Time is atomic in dimension and the kala atoms pervade the whole cosmic space.

3. Punya (merit): Punya is the consequence of good and religious deeds. There are nine ways to it. They are, in fact, different forms of practicing charity.

4. Papa (sin or demerit): It is called sin or evil, is a major factor in the bondage of jiva. Injury to and killing of living-beings is a heinous sin and results in terrible punishment.

5. Asrava (influx of karma): Asrava denotes the inflow of karmic matter by the soul. Just as water flows into a boat through a hole, so the karmic matter flows through asrava into the soul. The nature of activity is shubha (meritorious) or ashubha (demeritorious). The principle "like causes produce like results" is accepted as a determining feature of the Jain doctrine of karma.

6. Samvara (stoppage of karmic matter): Samvara means stopping, controlling or ceasing of inflow of karmic matter into the soul, smavara is effected through self control (gupti), restrained movement (samiti), virtues (dharma), contemplation (anupreksha), conquest of hardship and monastic conduct.

7. Bandha (bondage): Bandha is the union of jiva with pudgala (matter) or soul with non-soul particles. The matter is determined by five causes, namely wrong belief, attachment, carelessness, passions and activity.

8. Nirjara (shedding the karmic matter) : Nirjara means shedding off, drying up or destruction. Nirjara is to destroy and burnup accumulated karma. Take the example of a tank. By stopping the inflow of water into the tank, we arrest the increase of water in the tank. That is samvara, but there is already some water in the tank. In order to dry up this water, it may be exposed to the heat of the sun for some time. This is nirjara.

9. Moksha (liberation): Moksha is the supreme stage of spiritual attainment when all causes of bondage having been uprooted, the soul is freed from karmic matter. It is a stage of peace, perfect faith, perfect knowledge, and a stage of having achieved siddhi. Moksha is attained though right faith, right knowledge and right conduct. For the perfection of right conduct, five kinds of vows recommended: Non-violence (ahinsa), truthfullness (satya), non-stealing (asteya), chastity (brahmacharya) and no greed (aparigraha).

Amongst Jains, Digambaras hold the view that *women are not entitled to Moksha in this life*. On the contrary *Svetambaras* believe that women can reach *Nirvana* in this life. However, even a small community of Jains is divided into more than 100 castes. Each caste is formed of very small groups. Since all these castes are endogamous, many have necessarily to be constrained to remain unmarried and as such their population seems to be fast declining. There are nearly sixty sub-castes whose population is estimated to be less than 100.

2.3.4 Christianity

Christianity is the name given to that definite system of religious beliefs and practices, which were derived from the teachings of Jesus Christ in the country of Palestine, during the reign of the Roman Emperor, Tiberius. According to the accepted tradition, the day of Pentecost, in A.D. 29, is regarded, as the beginning of the Christian religion. Thus Christianity is a religion of the people who follow Jesus the Christ. In our effort to understand the meaning of Christianity, we examine three aspects: (1) A set of beliefs, (2) a way of life and (3) a community of people. Different Christian groups or denominations place different levels or provide varying degrees of importance on these three aspects, but they always involve all three. All the three aspects are based on the life and teachings of Jesus of Nazareth, who is also known as the Christ. ("Christ" was originally a title. It is the Greek form of the Hebrew word "Messiah", meaning "anointed".)

Christian faith is centered on the life and teachings of Jesus Christ. Christianity, for its first thousand years, was largely confined to the Middle East, North Africa, Europe and parts of India. However, it spread throughout the world during the second millennium mainly due to missionary work and colonization. Christianity is closely linked to Judaism. Jesus was a Jew. He lived 3 BC to 36 AD. He lived and taught in Palestine, (although not exclusively) among fellow Jews.

Christianity separated itself from the main body of Judaism for the reasons that Christianity came to regard Jesus as Son of God who died on a cross and rose from the dead. This was unacceptable to most Jews. The births, death, resurrection of Jesus are historical facts recorded in the Bible. Bible is the religious scripture of Christians. It includes the Hebrew Bible (known to Christians as the Old Testament) and the New Testament (life and teachings of Jesus Christ and some of his disciples). In order to know more about Christianity it is suggested that you may read at least one of the Gospels in the New Testament. The Gospels contain the life and teachings of Jesus. Since Christianity is about following Jesus the Christ, there's really no substitute for knowing about his life and teachings other than the Bible. If you want to read just one of the gospels, it is suggested that you read Luke as it contains very good narrative of Jesus's deeds and teachings. Another book, which will help in understanding Christianity, is the Acts of the Apostles that gives a glimpse into the beginnings of Christianity.

CHRISTIAN DENOMINATIONS: There is a diversity of doctrines and practices among groups calling themselves Christians. These groups are sometimes classified under denominations. Christianity may be broadly divided into four main groupings: Roman Catholic or "Catholic Church," which is in communion with the Pope of Rome; Eastern Orthodox Churches; Protestantism which was separated from Catholic Church in the 16th century under Martin Luther, and the Restorationists comprising of various unrelated Churches that believe they are restoring the "original version" of Christianity

BELIEFS, PRACTICES AND TEACHINGS OF CHRISTIANITY: In order to initiate discussion on Christianity and social work we will briefly discuss the social teachings of Christianity in terms of its values, principles, beliefs and practices. Every religion has social teachings. It gets expressed through a variety of social concerns. The social vision of

Christianity is arising from its scriptures, theology, social teachings and the historical development. The emergence of liberation theology in the latter part of the twentieth century took Christianity to concrete forms of social action for social transformation.

The Christian life is centered on some essential aspects of the Christian religion. Among them the following are key ones:

- Fellowship with God
- Our relationship with others
- Obedience to God's commands
- Discipline

Christianity is built around the value of relationship: with God and with others. When Jesus was asked to summarize his teachings, he said that it was all about "loving God and our neighbour". Everything else is a means to that end. One of the most important terms used in Christianity is "fellowship". This term covers their life together in communion as Christians. This means first of all that they spend time together in family, in worship, work, service to others, and having fun. They hold community as a value; it is in and through community that they desire and achieve their life's ultimate goal of salvation through Jesus Christ. The Bible refers to the Christian community using organic metaphors, such as a vine and a body. It talks about them sharing with each other and supporting each other.

The Christians have their religious rules that are meant to regulate their behaviour and facilitate the modes of worship. Respect for others, regular prayer both individual and communitarian, discipline, self-less service to others and sharing of faith is some aspects of Christian life. As mentioned earlier, Christianity is about relationships: with God as father, with Jesus as the Son of God, with our family and friends, and even with enemies. Relationships are based on communication. Since prayer is the primary means of communication with God, it is the basis for our relationship with him. We are dependent on the all-powerful God and we ask for his blessings in prayer. Receiving God's blessings and mercy is the result of the deep relationship that we build with him in prayer. This is true even when dealing with other people. Often we can see something about a person. But

until they're willing to share with us about it, all that we might do is going to be somewhat impersonal, and not part of our relationship with them.

REPENTANCE: Another major component of Christian life is repentance. The term "repent" means "to turn around". In repentance, Christians evaluate their lives in light of God's message, and take the necessary corrective measures. In different Christian traditions, there are somewhat different ways of doing this. For Catholics, the sacrament of penance (or in more modern language: reconciliation) provides a structured environment where a priest helps the people review their actions and motivations. For Protestants and non-catholic Christians repentance is often done in the context of private reflection and prayer, although many also use small groups or partners to help provide some structure. This includes both things we did that we shouldn't have, and thing we should have done and didn't. As Jesus pointed out, these include not just physical actions, but words and attitudes as well. Avoiding sin in the future requires change. It may be changes in attitude, in approach, in behaviour, or simply avoiding certain kinds of situations where we know we are likely to fall into the old patterns of behavior. Christians are urged to forgive and forget.

THE TEN COMMANDMENTS: Jesus advocated the Ten Commandments which were handed down by God to the Prophet Moses about whom we read in the Old Testament. They are:

1) I am the Lord your God; you shall have no other gods before Me.

2) You shall not take the name of the Lord your God in vain.

3) Remember to keep holy the Lord's Day.

4) Honour your father and your mother.

5) You shall not kill.

6) You shall not commit adultery.

7) You shall not steal.

8) You shall not bear false witness against your neighbour.

9) You shall not covet your neighbour's wife.

10) You shall not covet your neighbour's goods.

The gist of the Ten Commandments is "love of god and love of one's neighbours". Although the first three commandments are related to god and the individual concerned the

remaining seven commandments are very much in tune with the values, principles and ethics expected to be followed by people from every walk of life in the society including the social workers.

2.4 Belief Comparisons of Religions[10]

TABLE 2.1 Belief Comparisons of Religions

	Hinduism	Islam	Jainism	Christianity
Date of origin	Second millennium, B.C.	Sixth Century, A.D.	Sixth Century, B.C.	First Century, A.D.
Dominant Values	Diverse and tolerant; Hereditary caste system, truthfulness, honesty, no irritability, self-control.	Five Pillars: creed, prayer, almsgiving, fasting and pilgrimage; Predestination; Specific rules of conduct.	Non-resistance, nonattachment, truthfulness, honesty, renunciation of sexual pleasure, monastic ideals	Love of God and man; Ten commandments; Service, truth, beauty, goodness, justice, Humility, learning.
Explanation for Evil	Pleasure, wealth and worldly success are illusions, the pursuit of which result in evil.	Satan; Not submitting to the will of Allah; Allah beyond human questioning; Accept life as is.	Attachment to the evil material body	Satan; Fall of man; Imperfection of creation; egocentricity; alienation from God.
Salvation	Path of renunciation; Commitment to Atman-Brahman; Growth toward perfection by reincarnation	Submission to the will of Allah; Living by the Five Pillars	Liberating soul from matter through law of karma and reincarnation; this is possible only by individual effort	Evangelicals: Salvation comes from faith in blood atonement of Jesus; Mainline: Faith in Jesus as mediator-Saviour.
Afterlife	Nirvana; Extinction of personality in Brahman or totally indescribable state	Judgment: heaven and hell; Sensual description of Afterlife.	Nirvana; Extinction of personality or totally indescribable state	Judgment: heaven and hell; Modern: Growth and service in heaven; fading of belief in an eternal hell.
Dominant Emphasis	Divine immanence and spiritual	Submission to God; Teachings	Asceticism; Ahimsa—non-injury	Jesus as Lord; Fatherhood of

---

[10] http://www.ubhistory.org/Documents/EPSSSSSSSS_SprungerM_14.pdf

	growth governed by karma and reincarnation	of Muhammed	to any living thing	God; Brotherhood of man; Kingdom of God; Church
Scripture and Revelation	The Vedas, Upanishads, Code of Manu, Bhagavad-Gita	Quran-Koran; Twenty-eight prophets of Allah (Abraham, Moses, Jesus, others.)	Aganas, Siddhantas	Bible; Roman Catholics also accept church tradition as authoritative
Founder and Origin	Early Aryans from Persia	Muhammed	Mahavira	Jesus of Nazareth; Paul: Expediter of church development.
Ultimate Reality--God	Impersonal Brahman	Allah	Various gods; unimportant Mahavira taught that there is no personal God; Mahavira deified	God as Heavenly Father

2.5. Shopping orientation

Stone (1954) introduced the concept shopping orientation. He referred to shopping lifestyles or shoppers' styles that place emphasis on certain activities in particular. Other researchers added to this definition by pointing out that shopping-specific lifestyles encompass shopping activities, interests, and opinions. The definitions of shopping orientation reflect a view of shopping as a complex personal, economic, social and recreational phenomenon (Darden & Howell, 1987; Hawkins et al, 1989:641; Kwon et al, 1991; Shim & Bickle, 1994; Shim & Kotsiopulos, 1992a; Shim & Kotsiopulos,1993; Shim & Mahoney, 1992).

Some of the authors refer to concepts such as shopping attitudes (Fuller & Blackwell, 1992), shopping behaviour (Bellenger & Korgaonkar, 1980), and shopping motives (Stoltman et al, 1991). One of the major difficulties encountered in the identification of relevant research on shopping orientation is the fact that some researchers use the term shopping orientation in general, while actually referring to other variables such as perceptions of fashion and perceptions of apparel shopping (Summers et al, 1992).

Shoppers with different shopping orientations reveal different consumer characteristics and differences in market behaviour, including different needs and preferences for information sources, store preferences and store attributes (Gutman & Mills, 1982; Lumpkin, 1985; Shim & Kotsiopulos, 1992a & 1992b). Jarboe and McDaniel (1987) emphasise that consumers' shopping orientations refer to their general approach to acquiring goods and services and to the nonpurchase satisfactions derived from shopping at retail stores and shopping centres. It may be a function of a variety of non purchase motives, such as the need for social interaction, diversion from routine activities, the need for sensory stimulation, exercise, and the exertion of social power (Bellenger & Korgaonkar, 1980; Kwon et al, 1991). Shopping orientation therefore varies with regard to individuals and different products, among individuals over time, and with changing situations.

2.5.1 Definitions

Shopping orientation is a complex and multidimensional concept. Defining shopping orientation is extremely difficult, due to numerous interrelated variables. Although the concept shopping orientation is described by researchers from various perspectives, certain major variables (or concepts) are repeated in the different descriptions.

Brown, Pope and Voges (2001) define shopping orientations as related to general predisposition toward the acts of shopping. This predisposition may be demonstrated in different forms such as information search, alternative evaluation, and product selection.

Li, Kuo and Russell (1999) conceptualise the concept of shopping orientations as a specific portion of lifestyle and operationalised by a range of activities, interests and opinion statements that are relevant to the acts of shopping.

Shopping orientations are "mental states that result in various general shopping patterns" (Bellenger & Moschis, 1981).

A shopping specific lifestyle encompassing shopping activities, interests, and opinions and reflecting a view of shopping as a complex social and recreational, as well as economic phenomenon (Howell 1979).

Based on the above, it could be concluded that the concept *shopping orientation* consists of a personal dimension (e.g. activities, interests, opinions, motives, needs and preferences) and a market behaviour dimension or a general approach to acquiring goods and services. This market behaviour dimension reflects the personal dimension and indicates needs and preferences for*, inter alia*, information sources,stores *per se* (patronage behaviour) and store attributes (including store image).

Shopping orientation reflects shopper styles and the consumers' needs for product and services (S Shim & Kotsiopulos, 1993). Therefore, consumers with various characteristics show different shopping orientations, which reflect their unique needs and preferences (Gutman & Mills, 1982; J. R Lumpkin, 1985; S. Shim & Kotsiopulos, 1992a, 1992b).

2.5.2 Types of shopping orientation

Stone (1954) proposed that shopper exhibit unique styles which contribute to their motivations for shopping, identifying four catagories of consumers: economic shoppers, personalising shoppers, ethical shoppers and apathetic shoppers. Economic shoppers approach shopping in a functional manner, with the simple goal of purchasing merchandise and focusing primarily the act of buying on the basis of offering and prices. In contrasts, shopper in the personalising segments, value individualisation as well as intimacy between the customer and store personnel. Ethical shopper feels a moral obligation (Stone, 1954, pp.38) to shop in certain type of stores. Apathetic shoppers have almost no passion for shopping or preference to retail type, as minimising effort in shopping is crucial to them. Stone (1954) propose that shoppers with different shopping orientation would prefer to shop in different types of retailers. Darden and Reynols (1971) studied housewives and were able to confirm Stone's (1954) segments of consumer using psychographic scale.

Bellenger and korgaonkar (1980) added recreational shoppers to Stone's (1954) original orientations and reported that differ from economic shoppers in terms of store patronage. In particular, economic shopper prefers store with low prices while recreational shoppers chose store based on non-price factors such as product assortment and atmosphere. Thus recreational shoppers view shopping as a leisure activity.

Lunpkin (1985) conducted a national survey among elderly consumers, using shopping orientation to identify three shopping groups among the elderly. The first orientation was similar to economic shopper as identified by Stone (1954) and consisted of shoppers primarily concerned with trade-off between quality and price, and was not particularly optimistic toward shopping. The second group was very concerned with finances, using credit card frequently and shopping more often at speciality retailers as oppose to discounters. The third and final group consisted of shoppers who were socially active, demonstrated strong interest in apparel and were fashion forward in terms of attitude. Interestingly, the auther reported no significant differences between the groups in terms of retail format choice.

Gutman and Mills (1982) studied apparel shopping among female adults in the U.S., segmenting the respondents into seven groups: leaders, followers, independents, neutrals, involved, negatives and rejectors. Respondents are classified based on a continuum, with leaders and followers being the most interested and involved with fashion products and negatives and rejectors being the opposite. Leaders and followers enjoyed shopping and were not price conscious, while negatives and rejectors were less likely to enjoy shopping, were extremely price conscious and very practical in their approach to apparel shopping. In terms of store choice, leaders and followers were likely to shop at department stores or speciality stores, while negative and rejectors heavily patronised discounters.

Shim and Kotsiopulos (1992) conducted an apparel shopping behaviour survey among U.S adult females, identifying eleven shopping orientations: confident, brand conscious, convenience/time conscious, mall shopper, local store shopper, apathetic toward made in the U.S.A, catalog shopper, appearance manager, credit user, economic shopper and fashion conscious. Confident shoppers are secure in their ability to make shopping decisions, whereas brand conscious shopper seeks well-known brands. Convenience/time conscious shoppers seek the most convenient store, while mall shopper prefers to shop at shopping malls. Local store shoppers are drawn to locally owned, small stores, while apathetic towards "made in U.S.A" shoppers are not concerned that their apparel is made domestically. Catalog shoppers prefer to purchase from catalogues, whereas appearance managers believe that their choice of apparel affects their reputation among others. Credit users were identified as shoppers who most often purchase with credit card. Economic shoppers are concerned with saving money, while fashion conscious shoppers report

purchasing fashion items earlier in the season than their less fashion conscious counterparts.

Moye and Kincade (2003) investigated the apparel shopping behaviour of adult females, identifying four shopping orientation groups: decisive apparel shopper, confident apparel shoppers, bargain apparel shoppers and appearance conscious apparel shoppers. Decisive apparel shoppers are those who purchase whatever they like without hesitation. Confident apparel shoppers show confidence in shopping and choosing apparel for themselves. Highly involved apparel shoppers were described as those who enjoy shopping for bargains and receiving promotional information through advertisements. Extremely involved apparel shoppers held the opinion that being well dressed was essential and could reflect upontheir reputation and fashion sense. However, the authors reported no statistically significant differences among the shopping orientation groups with regard to patronage frequency of different retail formats.

Backwell and Mitchell (2003) studied consumer decision making style among Gen Y females in the U.K., identifying five shopping segments: recreational quality seekers, recreational discount seekers, trend setting loyal, shopping and fashion uninterested and confuse time/money conserving. Recreational quality seekers were described as those who enjoyed shopping, desired quality products and well known brands, were fashion conscious and found low prices undesirable. While recreational discount seekers also enjoyed shopping, they are less interested in brands and more price conscious. Trend setting loyals were extremely fashion conscious yet price conscious, and exhibited considerable levels of brands and store loyalty. Shoppers in the shopping and fashion uninterested category displayed shopping confidence, but were both price and time conscious. In addition, this group enjoyed shopping less than the recreational shoppers and was less fashion conscious. Confused/time money conserving shoppers were price conscious and were not drawn to high-end stores, and tended to patronise stores with lower prices.

Carpenter and Moore (2005) compared retail format choice for apparel among the four major generational cohorts in the U.S (Senions, Baby Boomers, Gen X and Gen Y). The report that Gen Y apparel shoppers more often prefer to shop for apparel in speciality stores and off- price retailors than other generations. However, shopping orientaions of Gen Y were not explored.

Seock and Bailey (2008) conducted a study to indentify the shopping orientations of Gen Y consumers, identifying seven shopping orientation segments: shopping enjoyment, brand/fashion consciousness, price consciousness, shopping confidence, convenience/time conscious, in home shopping tendency, and brand/store loyalty. The shopping enjoyment segment enjoys shopping not only for the product purchased, but for the sake of experience itself, while brand and fashion conscious shoppers seek well-known brands and trendy products. Price conscious shoppers seek low prices, while those in the shopping confidence group believe in their ability to make wise decision when shopping. Convenience/ time conscious shopper seek convenient retailers, while in home shopping respondents prefer to use non-brick and mortar retail formats. Respondents in the brand/store loyalty segments exhibit loyalty to specific brands and retailers. While Seock and Bailey (2008) examined the effect of shopping orientations on online information searches and apparel purchase behaviours, the authors did not examine differences in patronage frequency of retail formats based on shopping orientation.

CLASSIFICATION OF SHOPPING ORIENTATIONS[11]:

(Category	Researchers
Enjoyment	Lumpkin and Greenberg, 1982
	Lumpkin, 1985
	Gutman and Mills, 1982
	Shim and Bickle, 1994
Interest and activities	Lumpkin and Greenberg, 1982
	Lumpkin, 1985
	Shim and Kotsiopulos, 1992a and b
	Shim and Kotsiopulos, 1993
	Shim and Chen, 1996

---

[11] Visser E.M and Du Preez R. (2001). Apparel shopping orientation: Two decades of research. Journal of Family Ecology and Consumer Sciences, Vol 29

Confidence vs Confusion orientation Lumpkin and Greenberg, 1982

Lumpkin, 1985

Shim and Kotsiopulos, 1992a and b

Shim and Bickle, 1994

Shim and Chen, 1996

Opinion leadership   Lumpkin and Greenberg, 1982

Lumpkin, 1985

Fashion orientation   Gutman and Mills, 1982

Lumpkin, 1985

Shim and Kotsiopulos, 1992a and b

Shim and Kotsiopulos, 1993

Shim and Bickle, 1994

Shopping convenience   Lumpkin and Greenberg, 1982

Lumpkin, 1985

Gutman and Mills, 1985

Time convenience   Lumpkin and Greenberg, 1982

Gutman and Mills, 1982

Lumpkin, 1985

Shim and Kotsiopulos, 1992a and b

Shim and Kotsiopulos, 1993

Shim and Chen, 1996

Finance and credit orientation Lumpkin and Greenberg, 1982

Lumpkin, 1985

Gutman and Mills, 1982

Shim and Kotsiopulos, 1992a and b

Shim and Kotsiopulos, 1993

Shim and Bickle, 1994

Shim and Chen 1996

Brand conscious   Shim and Kotsiopulos, 1992a and b

Shim and Kotsiopulos, 1993

Patronage   Shim and Kotsiopulos, 1992a and b

Shim and Kotsiopulos, 1993

Shim and Bickle, 1994

2.6 Models of consumer buying behaviour

In the literature, many consumer buying behaviour were discussed over a period of time. (Monroe and Guiltinan 1975; Darden 1980; Moller and van den Heuvel 1981; Lusch 1981; Bellenger and Moschis 1982; Falk and Julander 1983; Paltschik and Strandvik 1983; Sheth 1983; Laaksonen 1987; Spiggle and Sewall 1987; Lusch, Dunne and Gable 1990; Osman 1993).

To build the theoretical foundation for this study, two models are specifically important to examine namely Darden's (1980) patronage model of consumer behaviour and Sheth's (1983) integrative theory of patronage preference and behaviour. These two models are important to study because they were initial efforts to explain the consumer behaviour theoretically in more detailed way (Darden and Dorsch 1989). The purpose of examining these models is to know which factors are important explanation of consumer behaviour and to stress whether among them, religious factor have any direct or indirect association on shopping orientation of consumers.

2.6.1 Darden's Model of patronage Behaviour

On the basis of research work of a number of past researchers and "from the observation of a number of seemingly inconsistent phenomena in marketing" (Darden 1980, p. 43), Darden (1980) has developed multi-attribute attitude theories model which demonstrate the consumer patronage intention.

There are important elements in the Darden model: (1) shopping orientations, (2) experience and (3) patronage behaviour. First, Darden has a view that in determination of consumer behaviour, shopping orientation is a key factor. The major influencing factor of consumer shopping orientation is a personal characteristic which includes terminal and instrumental values, lifestyle, and life experience, stage in family lifecycle, social class and media habits.
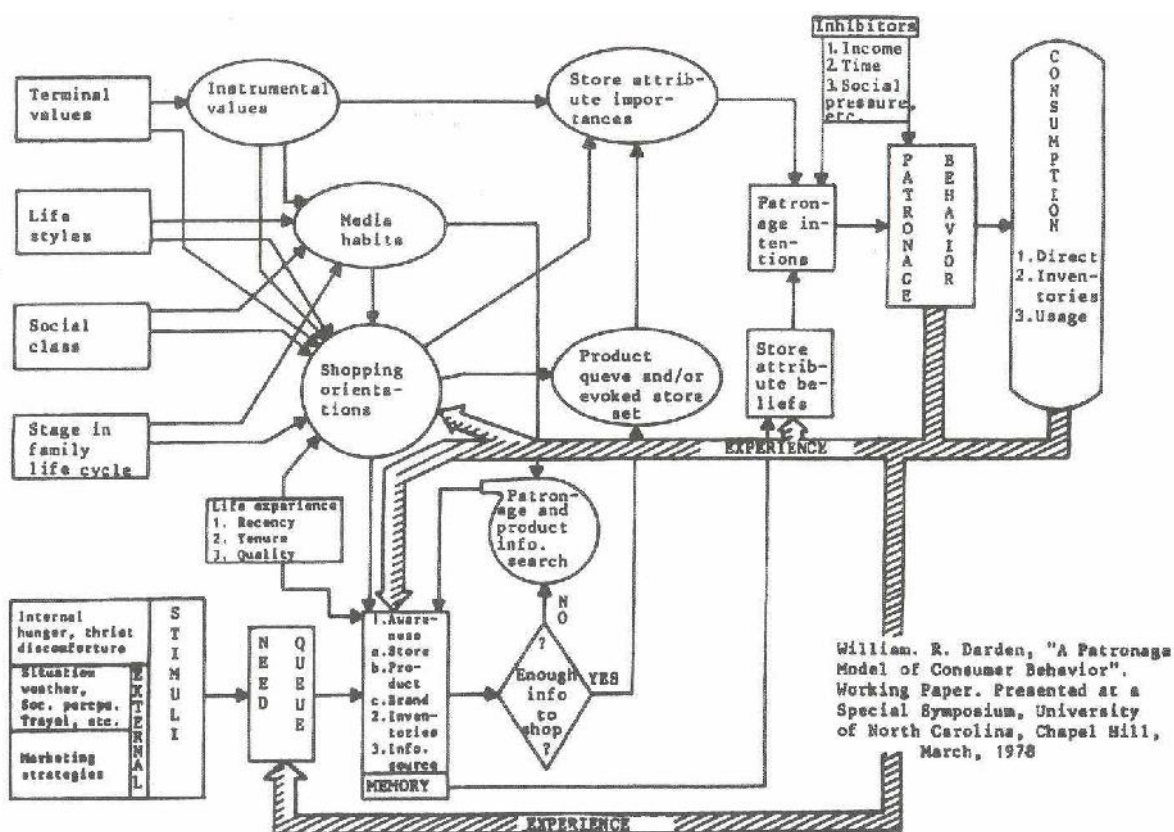
FIGURE 2.1 Darden's (1980) patronage model of consumer behaviour

Attempts were made in the literature to partially verify Darden model with regards to consumer shopping orientation. Howell (1979) was the first one who has studied influences of antecedent variables on shopping orientations by partially testing Darden's model in his unpublished doctoral dissertation. In his study, he found that shopping orientations were influenced by instrumental values, general lifestyles, sex, social class and family life cycle while shopping orientation was not influenced by terminal values directly. This part of the model was then revised (see Figure 2.2).
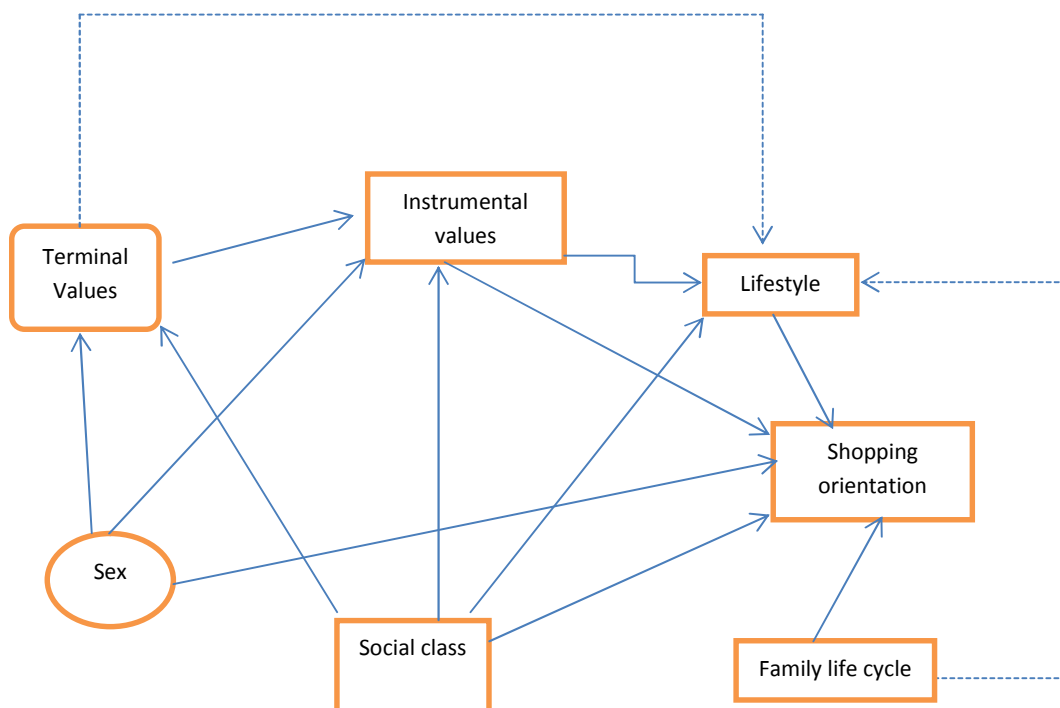
FIGURE 2.2 Howell's (1979, p. 142) model of shopping orientations

A second attempt was made by Powell (1980) to test Darden's model. He has emphasis the influence of media habits apart from personal characteristics as tested by Howell (1979) in the Darden model. He found that terminal value is a determinant of both both instrumental values and shopping orientation, as proposed by Darden (1980). He further found that instrumental values, generalised lifestyle, social class and age of the head of the household correlated with shopping orientation. However, the relationship of lifestyle to media habits, in this case magazine readership, and media habits to shopping orientations suggested minor revision of the Darden's model.

Mason, Durand and Taylor (1983) has investigated the influence of terminal and instrumental values on lifestyle, shopping orientation and store attribute importance as as antecedent variables to partially test the Darden Model. Both values were hypothesised to affect shopping orientation directly and indirectly through lifestyles.
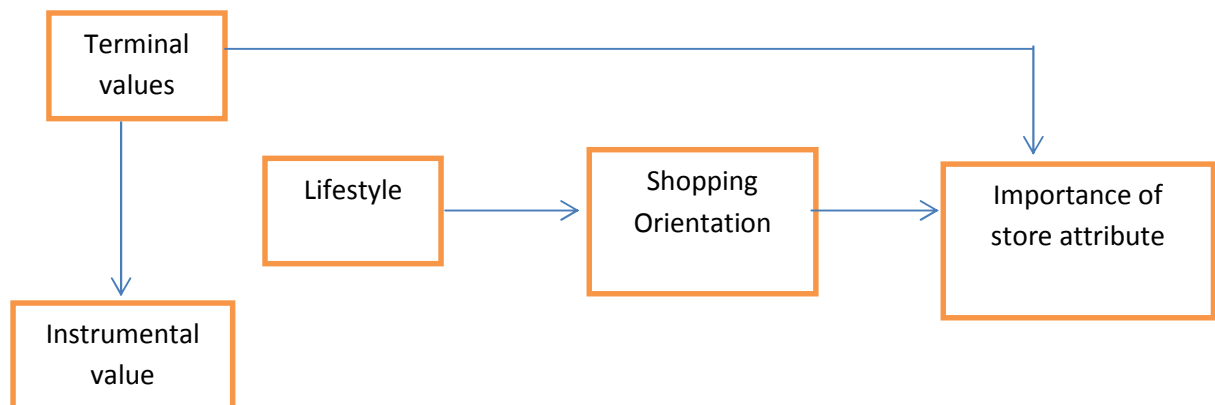
FIGURE 2.3 Mason, Durand and Taylor's (1983, p. 350) patronage model

Another attempt was made by Welker (2004) to test the Darden model recently, in her doctoral dissertation. He has tested propose model with conveniently selected 147 female shoppers at five small, retail apparel stores. He has used Structural Equation Modelling (SEM) to test the relationship. He found that terminal values have an effect on information sources and shopping orientation. Figure 2.4 displays the final structural equation model of patronage behaviour developed by Welker (note: dotted lines are not significant; solid lines are significant).
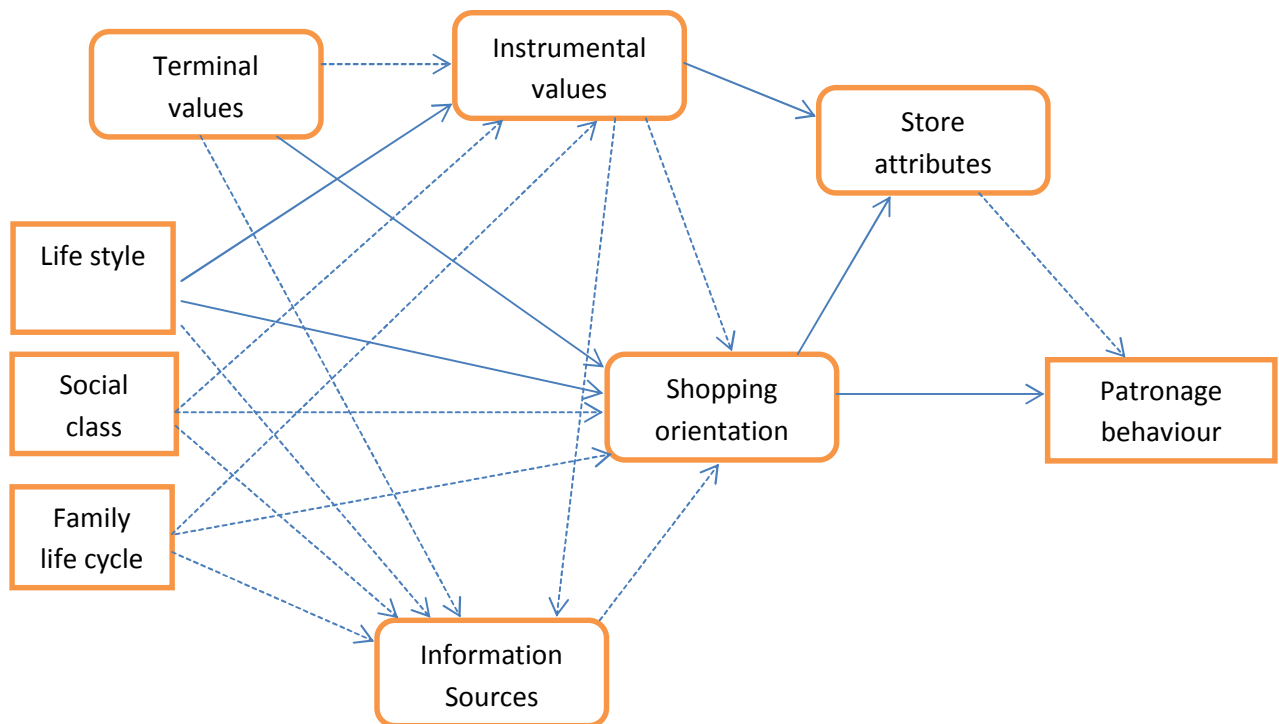
FIGURE 2.4 Welker's (2004, p. 63) structural equation model of patronage behaviour of small, retail apparel firms

RELIGIOUS FACTORS IN DARDEN'S PATRONAGE MODEL: From the above discussion, it seems clear that religion or religious values are not depicted in the model directly but shown as a part of consumer values. In the model, two types of values are included: instrumental and terminal given by Rokeach's (1973). Rokeach stated that terminal values are related with the end-states of existence such as inner harmony (freedom from inner conflict) and belief in salvation (saved, eternal life), that is, of a religious nature. In Darden's model, it is shown that terminal values have direct influence on shopping orientations and indirect influence on shopping orientation and media habits through instrumental values.

2.6.2 Sheth's Model of shopping preference theory

Sheth (1983) has proposed a shopping preference theory which postulates that there are two distinct stages of consumer behaviour: the first is related to shopping preference and the second one is based on actual buying behaviour from that outlet. This is based on

description and explanation of behaviour from psychological point of view and earlier theories of retail preference. Sheth (1983, p. 11) contended the theoretical reasons for keeping these two processes separate as follows:

"It is argued that the two processes and their determinants are significantly different and therefore cannot be combined into a single conceptual framework with a common set of constructs. This is a radical departure from traditional thinking in social psychology, which holds that attitudes lead to behaviour. In fact, we shall focus on the shopping-buying discrepancy in the development of the patronage behaviour subsystem".

This assumption is in consensus with the theoretical base of Darden's (1980) which describes shopping and buying are two separate activities. For providing a theoretical ground for examining the religious variable in a shopping context for this study, shopping preference is of particular interest. The shopping preference subsystem consists of four basic constructs, together with their determinants and is illustrated in Figure 2.5.

Shopping predisposition refers to the relative shopping preference for a specific product class, such as shopping for clothing. Shopping predisposition is affected by individual choice calculus (choice decision rules) which itself is affected by shopping motives and shopping options.

Choice calculus refers to the decision rules or heuristics utilised by the individual in establishing shopping predispositions toward certain product. These choice rules entail matching shopping motives and shopping options.

Shopping motives refer to an individual's needs and wants related to the choice of product. These motives are may be functional need and non-functional wants. Functional are related with time, place or possession requirement such as cost and availability of needed products, convenience in parking, shopping and accessibility to the outlets; while non-functional are related with the association of shopping with certain social, emotional and epistemic values.. Sheth posited shopping motives to be influenced by demand size determinants, both personal and product characteristics.

Shopping motives are determined by both supply and demand size determinants. Supply side determinants includes location, retail institutions, positioning and image as a market factors while merchandise selection, service, advertising and promotion are company factors which determines the shopping motives. Demand size determinants are of two types; personal and product factors. The product determinants include product typology, usage typology and brand predisposition which guides the shopping motives of consumers. On the other hand, the important determinants of consumer shopping motive and also of our interest are personal determinant suggested by Sheth (1983). Personal determinants include personal values, social values and epistemic values which has significant influence on individual's shopping motives. Sheth's (1983) model of shopping preference theory is presented in the Figure 2.5
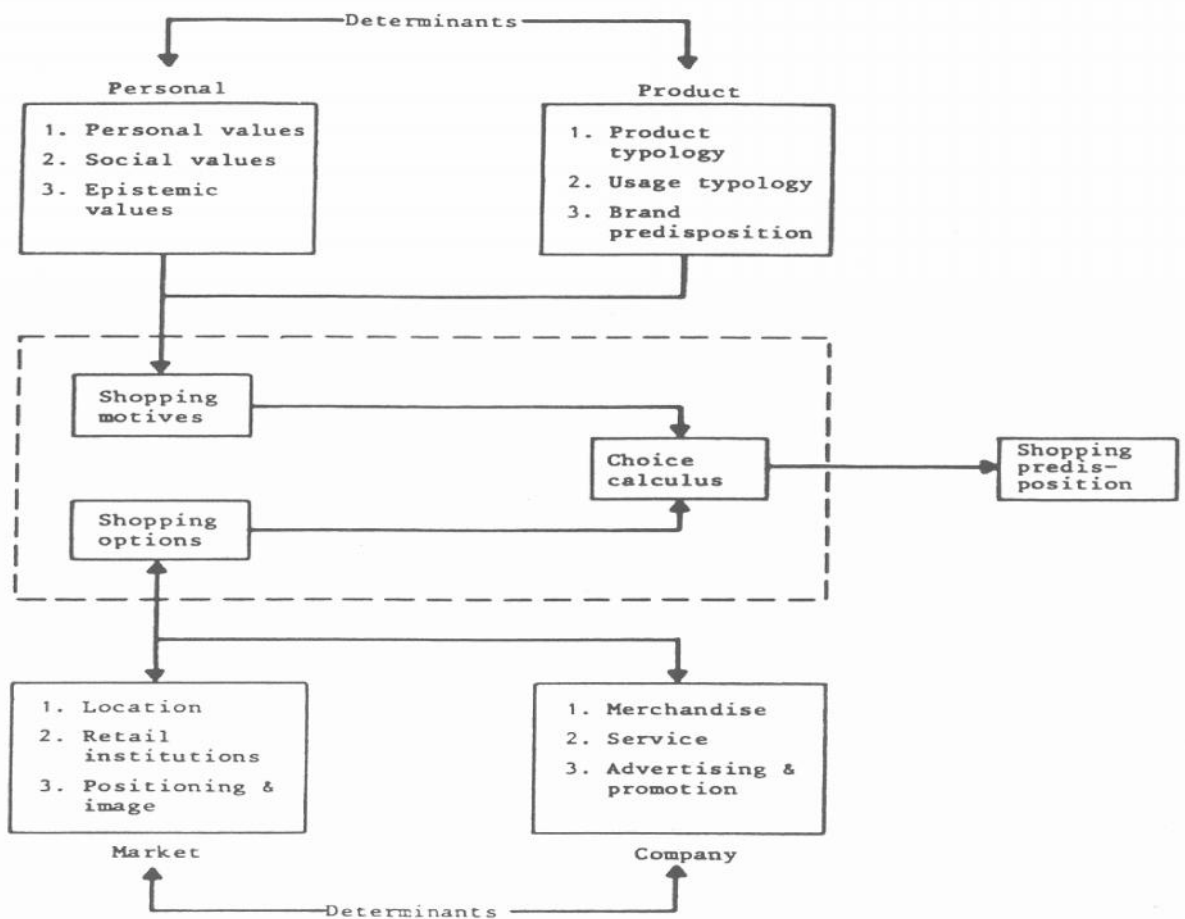
FIGURE 2.5 Sheth's (1983) model of shopping preference theory

RELIGIOUS FACTORS IN SHETH'S PATRONAGE MODEL: The discussion of Sheth's shopping preference theory makes it clear that consumer shopping motives are influences by demand side determinants- personal values. Since religious values are highly personal, they are a part of consumer personal characteristics which affect shopping predisposition of consumers or shopping motive which is also known as shopping orientation. Personal determinants (personal, social and epistemic values) shape an individual's shopping motives and religious variables are personal variable. Sheth's predicted that personal values are directly and indirectly related to religion and religiosity. According to Sheth (1983, p. 23):

"An individual's personal values and beliefs about what to look for when shopping for various products and services reflect that shopper's personality and may be determined by such personal traits as sex, age, race and *religion*" (emphasis added).

On the other hand, in Sheth's has also proposed that social values (family, friends, reference group and society at large) would also affect shopping motives as a personal determinant. The social value here means various reference groups which affect formation of attitude, behaviour and values of consumers as a source of information. A religious group is a one type of social group which affect the value system of members and act as a as a frame of reference for individuals. As Siguaw and Simpson (1997, p. 25) comment:

"Church affiliation can serve as a reference group and as a source of friends, allowing religion to comprise a significant portion of the social values factor as well as the personal values factor as noted by Sheth." Additionally, Sheth's theory speculates the possible effect of personal values (e.g. religion) on consumers' general predisposition towards the act of shopping (i.e. shopping orientations). In his words, Sheth (1983, p. 22-23) explains:

"In some ways, we might say that personal determinants are manifested in a customer's shopping style, which be that an economic shopper, personalising shopper, ethical shopper or apathetic shopper (Stone, 1954). Alternatively, we might say that a customer is a convenience shopper, bargain shopper, compulsive shopper or store loyal shopper (Stephenson and Willet, 1969)."

Sheth's theory proposes that religion influences shopping motives through personal determinants and through the path of shopping motives to choice calculus, it affects shopping predisposition (Shopping orientation). In addition to these, religion and religiosity may also have a direct influence by affecting acceptable shopping options or alternatives. So from Sheth's theory, we can understand that religious values influence shopping behaviour in two ways. First, religious values as a part of individuals personal value and religious affiliation or religious group membership as a social value influencing one's shopping motives.

So from the above discussion it becomes clear that there is sufficient evidence in the past theory to study religiosity as a construct of consumer shopping orientation. Both models which are prominent in consumer behaviour theory have stressed religious values as a construct of study. In Darden model, religious values are expressed in terms of terminal and instrumental values while in case of Sheth's theory, religious values are expressed as a personal and social values determining consumer shopping orientation. So on the ground of above discussion; it is clear that religious values can be studied in understanding consumer shopping orientation.

2.7 Summary

The above-mention review provides theoretically sufficient evidence and confidence to examine religion as determinants of consumer shopping orientation. Previous literature has Likewise, Religion; a constituent of a culture would also affect consumer behaviour by influencing the one's belief and value system.

Darden model stresses that shopping orientation is directly influenced by terminal values and indirectly by instrumental values and media habits. Terminal values which are religious in nature and vary among different group of people in different culture are related to the desirable end states of existence such as inner harmony (freedom from inner conflicts) and belief in salvation (saved, eternal life). Instrumental values are related with preferable modes of behaviour through which terminal values can be achieved.[12]

---

[12] *Rokeach, M. (1968). Beliefs, attitudes, and values: A theory of organization and change. San Francisco, CA: Jossey-Bass.*

In Sheth's shopping preference theory, shopping motives (shopping orientation) is directly affected by personal determinants (personal values, social values and epistemic value). The shopper personality is the manifestation of Individual personal values and it is determined by personal traits such as sex, age, race and religion. The social values components consist of family, friends, reference groups (religious groups) and society at large. Individual shopping attitude or behaviour is determined by religious group to which a person is associated with which can serve as a frame of reference for shopping.

CHAPTER 3

Literature Review II: Religion and Consumer Behaviour

3.1. Overview

Discussion on religion has long been identified in different discipline. It is well defined and discussed by various researchers across different discipline. It is imperative to undertake a close look at various studies which indicate the relationship between religion and various aspects of consumer behaviour and allied disciplines to get the clear idea about the religion and religiosity and its associated influence on consumer behaviour. This chapter encompasses the discussion on past religious studies in the context of social sciences, marketing in general and consumer behaviour in particular. This chapter, particularly focus its discussion on association of religion and consumer behaviour in general and religiosity in particular to get the insights for the present study.

3.2 The Study of Religion in the Social Sciences

Social sciences have a very rich history on the role and stature of religion. Since religion is central to socioeconomic structure, it has played a vital role in the development of early social science and it has been studied from theoretical perspectives.

The religion has origins in psychology in the form of prior scientific approaches to religion. Although the normative study of religious doctrines and practices are found in liberal arts (i.e. historical, philosophical, theological and aesthetic approaches), the scientific study of religion is related with the study of its causes and impacts in various aspects of social life. The study of religion got the focus over the last 150 or so years with the separation of the individual social sciences from philosophy. Now it is studied as a

subfield within all the other social sciences. In anthropology, it is studied in terms of stages of its development while in sociology; it is studied in terms of the role of religious institutions in sustaining order in society. The contribution of psychology to the scientific study of religion focuses on the *individual* and its thought processes (Spilka *et al.,* 2003). The cultural mechanisms could not be explained entirely the similarities between religions which was uncovered by previous comparative studies in anthropology (Spinks, 1963, p. 3, 11, 35). The reason behind the development of religion is universal human psychological features such as the need for explanation and for social order (Spilka *et al.,* 2003, pp. 46–47). Religion may be the result of cultural evolution in response to mental adaptations (e.g. Boyer, 2001). It is religious groups and doctrines which fulfils these human needs.

The psychological approach to religion can find different aspects of study. The psychoanalysis (or psychopathology) of religious individuals which attempts to explain *religious* behaviour (such as sudden conversion and mystical experiences) through individual thought processes is perhaps the first, lies outside social science. Parallel to a comparative religious psychology, A second strand, deals with differences in the members of different religious denominations on the basis of socio-economic and political attitudes, personality and demographic. Such work reveals the links to the sociology of religion and reveals the social trends in particular societies. Neuro-theology which examines the roots of religious experience in inherited traits and neurological processes is a third strand which has developed recently. The fourth and final strand is the social psychology of religion (Argyle and Beit-Hallahmi 1975, p. 1–2; Argyle 2000, p. 11; Spilka *et al.* 2003, p. 2which deals with the causes and effects of individual religion on behaviour in religious as well as secular spheres.

According to Marx (1912), religion is perceived as a painkilling phenomenon used by the ruling class to conquer and mollify the proletariat. Contrary to Marx, Weber (1930) pointed that one of the fundamental elements of social behaviour is religion which has caused the rise of capitalism and industrial revolution in Europe and the United States.

However, religion was perceived as a taboo subject for scientific inquiry for most social theories of the 20th century. The reason is that scholars believed that secularisation was an inevitable outgrowth of modernisation (Ebaugh 2002). This belief proved incorrect, as

religion has maintained a firm foothold in the lives of many modern inhabitants of secular industrialised societies (Wuthnow 1998)[13].

Thus after decades of being treated with "general indifference" (Zelinksi 2001), the study of religion appears to be in revival across a broad swathe of academic disciplines. For example, quality of life researchers consistently find that religiosity is positively related to psychological well-being (Levin and Chatters 1998; Swinyard, Kau and Phua 2001; Francis and Kaldor 2002; Eungi-Kim 2003; Suhail and Chaudhry 2004). Management scholars propose that religiosity shapes the ethical decision making of corporate executives (Van Buren and Agle 1998; Weaver and Agle 2002). Tourism researchers have found the impact of religion on college students' spring break and health-risk behaviour (Mattila et al. 2001). Political scientists have discovered that religious beliefs have a strong influence on the voting behaviour of general publics in Western Europe (Knutsen 2004) and the voting behaviour of members of the U.S. House of Representatives (Fastnow, Grant and Rudolph 1999). Religion has even become a focus among medical researchers who are currently investigating the potential healing effects of prayer (Ellison and Levin 1998; Sloan et al. 1999; Woods et al. 1999). In short, the growing and impressive body of research suggests that "religious variables are central in explanations of human behaviour" (Ebaugh 2002, p. 388)[14].

3.3. The Study of Religion in Marketing

Marketing researcher has paid a very less attention to religion despite its enormous social and cultural impact, as well as its resurgence in several other scholarly disciplines. Lovelock and Weinberg (1978) have identified only two marketing articles on religion when they have reviewed the national proceedings literature. Review process was further extended by Cutler (1991) who has reviewed the academic marketing literature from 1978 to 1989 to determine the publications on religion and marketing. For the period from 1956

---

[13] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[14] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

to 1989, only thirty five religious articles on marketing were identified and nearly 80% of these articles were published in the 1980s. These articles are grouped into six different categories as summarised in Table 3.1 to 3.6.

TABLE 3.1 Attitudes toward the use of marketing[15]

Author(s)	Subject/purpose of study
Dunlap, Gaynor & Rountree (1983)	Survey of clergies use of marketing techniques
Gazda, Anderson & Sciglimpaglia (1981)	Survey of attitudes of the clergy toward use of marketing activities in religion
McDaniel (1986)	Survey of attitudes on use of marketing
Moncrief, Lamb & Hart (1986)	Survey of clergy to assess the knowledge and use of marketing concept

TABLE 3.2 Application of marketing techniques[16]

Author(s)	Subject/purpose of study
Healey & Delozier (1978)	Proposes a model of the religious system within a marketing context
Dunlap & Rountree (1981)	Development of a marketing model for religious organisations
Dunlap & Rountree (1982)	Applying marketing to religious organisations
Anderson, Rountree & Dunlap (1984)	Survey of student attitudes toward religion and test of marketing model of religion
Anderson & Rountree (1985)	Marketing model used to predict attendance
Carman (1987)	Economic model optimises and expenditures

TABLE 3.3 Religion's influence on marketing practices[17]

Author(s)	Subject/purpose of study
Sethi (1980)	Discusses church/business conflict on social issues and distribution of wealth
Fugate (1982)	Discusses religious organisation involvement in the business world
Saches (1985)	Discusses 1984 Catholic Bishops Letter and implications for marketing education
Lantos (1984)	Biblical philosophy and the marketing concept
Lantos (1986)	Religion is a basis for ethical decisions
Klein (1987)	Discusses marketing implications of the 1984 Catholic Bishop's Economic Letter

---

[15] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[16] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[17] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

TABLE 3.4 Religion and consumer behaviour[18]

Author(s)	Subject/purpose of study
Engel (1976)	Empirical study contrasting psychographic profiles of denominations in Brazil
Hirschman (1983)	Religious affiliation influences consumer behaviour
Wilkes et al. (1986)	Discusses measurement of religiosity
LaBarbera (1987)	The Born Again Christianity movement and consumer behaviour
Delener & Schiffman (1988)	Empirical study of religion's effect on family decision making
Delener (1989)	Relationship between religious background and information search

TABLE 3.5 Case studies on religion and marketing[19]

Author(s)	Subject/purpose of study
Engel (1974)	Billy Graham's crusade activities in Asia
Sweeney & Anderson (1981)	Market segmentation within a local church
Young (1987)	Utilisation of marketing concepts

TABLE 3.6 Miscellaneous marketing articles on religion[20]

Author(s)	Subject/purpose of study
Culliton (1959)	Applying the 4's to religion
Burger (1970)	Application of marketing research to a religious organisation
Hempel & McEwen (1975)	Survey of church members, church leaders and newcomers to a community regarding attitudes toward religion
Kotler (1980)	Recommends marketing principles to churches
Cooper & McIlvain (1981)	Discusses suitability of religious organisations for marketing research
Miller & Niffenegger (1982)	Discussion of marketing techniques used by TV evangelists
Stutts & Gourley (1982)	Discussion of advertising practices of Christian churches
Young (1986)	Applying marketing research to religion
Walle (1988)	Christian Gospels as marketing communication
O'Guinn & Belk (1989)	Materialism and the consumption ethnic within a TV evangelism

---

[18] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[19] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[20] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

Cutler and Winans (1999) have conducted similar analysis of articles on marketing published in the religion journals and periodicals. Analysis of religion literature from 1976 to 1995 revealed 17 articles on marketing issues. Consequently, after reviewing the articles, they have categorised them in four broad areas: (1) utilising or analysing marketing techniques (7 articles); (2) the usefulness of marketing techniques (3 articles); (3) the impact of marketing on religion (4 articles) and (4) relation of church and culture (3 articles). Table 3.7 to 3.10 summarise the purpose of these studies, organised under their topic areas.

TABLE 3.7 Utilising or analysing marketing techniques[21]

Author(s)	Subject/purpose of study
McDaniel (1989)	Associates a church's growth or decline with the marketing techniques used by that church to determine which activities are associated with church growth
Wrenn & Kotler (1981)	Examines the marketing of Parochial Schools as an exchanges process, discussing what both parties gain from the exchange of educational services
Pilgrim (1991/1992)	Describes the marketing strategies utilised by televangelist Lester Sumrall in fundraising
Kane (1993)	Examines challenges to Christian Bible Colleges based on their place in the product life cycle, which the author considers to be late maturity
Fewster (1980)	Considers how a seminary utilises marketing and recruitment techniques without appearing unholy
Ross (1984)	How public relations can affect the administration and effectiveness of pastoral counselling programmes
Lageman (1984)	Studied pastoral counselling centres, found four approaches to marketing pastoral counselling; most centres use all four

TABLE 3.8 The usefulness of marketing techniques[22]

---

[21] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

Author(s)	Subject/purpose of study
Ogletree (1995/96)	Marketing has much to offer and can spread the good news. Market thinking can also foster self-indulgence and short-term advantages at the expense of long-term well being
Wrenn (1993a)	There are major criticisms of marketing, but marketing practices can benefit the church when fully understood and properly used. Religion can't be marketed, but religious institutions can
Traber (1987)	Mass media for marketing the church will not be as effective as many leaders think

TABLE 3.9 Impact of marketing on religion[23]

Author(s)	Subject/purpose of study
Kenneson (1993)	Question if the act of marketing the church makes it less religious, less committed to God
Wrenn (1993a)	Church needs to be theology-centred, marketing could cause the church to centre on nonreligious people, thus losing its effectiveness. Adapting the faith to consumer wants poses a great danger
Long (1995)	A world market could mean a very small place for God. Theology must be the centre of religion, not the market, even a world market
Iannaccone (1992)	Examines consumers' rational choice behaviour in religious commitment, finding commitment increases with open markets in religion

TABLE 3.10 Relation of church and culture[24]

Author(s)	Subject/purpose of study
Mauss (1996)	Examines the church in a cost benefit analysis. The cost of joining a new religion may be too high or too low. If too low, potential members may assume the product is of little value
Samuel & Sugden (1983)	Examines the relationship between the host country church and the international mission agency. Funds international agencies are similar to multi-national corporations. The internationals have greater resources and dominate the relationship
Luidens et al. (1994)	Studied 500 Baby Boomers confirmed in Presbyterian Churches, finding they have great

---

[22] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[23] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

[24] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

	tolerance for differing opinions and beliefs

A close review of these articles suggested that religious marketing research can be broadly categorised in two major parts depending on its focus and perspective. The first approach, considers religion as a commodity that can be marketed as revealed from majority of such studies in this area. An independent entity like religious institutions such as churches operates within an open market, competing among themselves and with other cultural institutions to attract potential customers for membership and support. The decision process of joining a religious group or of choosing a church is termed as a consumer choice. It is the interactions between producers of social products (i.e. religious organisations) and consumers of formal religions (i.e. general publics) which are viewed as a marketing problem within this context.

The second approach is related with the analysis of the effects of religion on consumer behaviour (see Table 3.4) which is the main focus of the present study. Religion is conceptualized as a consumer subculture within this approach. Subculture is defined as a group of people who share some traits in common with the surrounding culture (e.g. language) and may be differentiated from it by their beliefs, symbols and/or material artefact (Schiffman and Kanuk 2000). Though the Members of a subculture are identified as a member to general culture, their additional characteristics by which they may be classified into a distinct category. As a subculture group, religious groups constitute differentiable consumer segments. As a result, religious groups have distinct patterns of consumption characteristics. The purpose of this study is to examine the influence of religion as a subcultural variable on consumer shopping orientation.

3.4. Religion and Consumer Behaviour

There have been various researches in the last three decades which has established a link between cultural and subcultural values and aspects of consumer behaviour. Because of its obvious nature, has received scant attention from consumer researchers. The reason for little research is partly attributed to initial assumption by a smaller number of consumer writers who believed that the religious influences on consumption process are indirect and that the topic of religion had no place in theories of consumer behaviour. In favour of this argument, Hawkins, Coney and Best (1980) have felt that differences in consumption

processes related to religious affiliation were more closely related to social class or ethnic variations than to religion. The summarization of Hawkins et al. (1980) thought on the role of religion in consumer choice is as follows:

"…religious differences in the United States related to the consumption process are more apparent than real…, are indirect, and are often more closely associated with social class or ethnic variations than with the religion itself."

If the pervasive nature of religion is considered in influencing many aspects of social life, including consumption behaviour, the above argument however seems overly restrictive. In general, the religions practiced in a society influence the material life and the attitudes toward owning and using goods and services. The use of certain goods and services may be prohibited by religious traditions; for example, the followers of Islam are forbidden by Islamic teachings to drink liquor and to eat pork while the Hindus are forbidden to consume beef because of veneration of the cow. The sanctity of different acts and rituals are affected by Religion, for example, by officially prohibiting the use of certain method of contraception. The consumption of goods and services that are not directly restricted by religious laws are less obviously influenced by religion. In such a case, the consumption choices of consumers are affected by an individual's emotional experience, cognition and psychological well-being which are shaped by religious values.

Three reasons have been given by Hirschman (1983) to explain why religion per se has not been adequately examined in the consumer behaviour literature. Unawareness of the consumers of the possible links between religion and consumption patterns is the first reason for the slow development of literature in this area. The perceived prejudice against "religion" within the research community; once being a "taboo" subject and too sensitive to be submitted for investigation (i.e. the potential for inadvertent offence and the legal protection afforded freedom of religion) is the second reason and pervasive nature of the religion i.e. Religion is everywhere in our life and therefore may have been overlooked by consumer researchers.

Although it was claimed by Hirschman some years ago, it is still true today. To date, religions as a predictor of consumption patterns has been investigated in few studies even

though there have been calls for such research in the literature. Though research in psychology has abundant evidence of the study of religion with a development of special branch of the psychology of religion, there is a very slow incorporation of religion in their research by marketing scholar. An extensive literature search by the researcher was resulted in identification of a handful of studies on this topic of religion in the consumer behaviour literature. The identified studies are categorised into two broad groups based on their common theme, namely studies of culture and consumption in particular religious settings, and studies of the influence of religious affiliation and religiosity on specific consumption-related behaviours. In the next section, these studies are reviewed with a particular attention given to the second group of studies as it provides a particularly relevant theoretical background for the present study.

3.4.1 Religious influences on consumption behaviours

Researchers are also concerned with forging the link between religious variables and the attitude and behaviour of consumers. Within this approach, religion is considered a socio-economic segmentation variable like gender and race. In general, these studies have viewed religion from one of two perspectives: (1) religious affiliation or (2) religiosity. Religious affiliation was typically been measured relative to denominational membership or religious identification of the individuals. Religiosity, or religious commitment, has been measured both cognitively (e.g. the degree to which an individual holds religious beliefs) and behaviourally (e.g. frequency of church attendance). The following discussion of the literature in this area is presented relative to these two perspectives.

RELIGIOUS AFFILIATION AND CONSUMER BEHAVIOUR: The adherence of individuals to religious groups or religious affiliation has been termed an ascribed status has a recognised status in the consumer behaviour research. The reason behind this is that it affects individual life, determines family size, the level of education attained, the amount of wealth accumulated and the type of life decision taken (Hirschman 1983) like race and nationality. It is suggested that one's religious identity or affiliation is a result of its born in a religious tradition and the action of its institutional influences (i.e. Sunday school, church attendance).

It is therefore believed that religious affiliations are a "cognitive systems" of the society. So it is common among the believers of same religious affiliation to share common cognitive system of beliefs, values, expectations and behaviours (Hirschman 1983). In fact, the attitude and behaviour of people are different within the same ethnic group because of their religious subculture. For example, depending upon whether one is Irish Catholic or Irish Protestant, Irish ethnicity may be exhibited quite differently. So in absence of religious differences, there are no distinct ethnic differences.

The empirical evidences found within the consumer behaviour literature, though scarce, stresses that religious affiliation has the potential to be valuable predictor of consumer behaviour. Among the earlier studies conducted in the marketing, Engel (1976) has investigated the influence of religious affiliation on consumer behaviour and noted that there is a sharp differences in the psychographic profiles between Lutheran Church and Assembly of God denominations in Brazil. The result of his study shows that the Lutheran Church members are more secular and have relatively minimal interest in spiritual growth while the lifestyle of the Assembly of God members has been greatly influenced by Christianity. Though the findings of Engel's are limited to the consumers of Brazil, it has left an empirical foundation for religious affiliation and denomination as an important variable for consumer segmentation.

Thompson and Raine (1976) in their study on religious affiliation and store location has investigated whether religious affiliation was a significant determinant of furniture purchases at the store. The results were not satisfactory as religious affiliation showed no significant relationship to furniture sales. Nevertheless, they found that the store had a greater amount of sales coming from "a middle range of fundamentalist Protestant religious denominations" (p. 72).

Hirschman has carried out a series of work concerning religious affiliation and consumer behaviour in the early 1980s. She has undertaken the study of consumers affiliated with Catholicism, Protestantism and Judaism religions study to investigate the similarities and differences in consumption-related activities. Among her studies, Hirschman (1981) has examined the differences between Jewish and non-Jewish in information seeking and processing in her earliest work. Her findings shows that compare to non-Jews, a person of

Jewish ethnicity would exert a stronger effect on fellow Jew's behaviour. It was found that the Jewish subculture differed significantly from non-Jewish subculture on information seeking from mass media, innovativeness and transfer of information to others about products and these three characteristics are positively related with the Jewish ethnicity. In her successive study, Hirschman (1982a) has examined the difference between Catholic, Jewish and Protestant consumers in their self perceptions regarding inherent novelty seeking and information transfer. The result of the study indicated that compared to Protestants and Catholics, Jews indicate a higher level of inherent novelty seeking and compared to Protestant consumers, Jews and Catholics have a higher level of information transfer. On the basis of her studies, she concluded that religious affiliation as an ethnic group may serve as a potentially useful predictor and determinant of consumption patterns.

In her later studies, Hirschman (1982b) has examined the effect of religious affiliation on motives for engaging in leisure activities. From her study, she has drawn two important conclusions. First, leisure consumption patterns are directly and/or indirectly linked to religious affiliation. This linkage was present for both in the types of leisure activities preferred and the reasons for engaging in them. Second, one cause of the observed variation in leisure behaviour attributable to ethnicity may be religious differences in certain characteristics such as sensation seeking. She has concluded that "consumer ethnicity, because it affects product choice and motivational values, may serve as a potent segmentation device for a wide range of consumption behaviours" (p. 97).

In her subsequent study, Hirschman (1982c) analysed the religious variation in hedonic consumption patterns among Catholic, Jewish and Protestant consumers. She found that compared to Protestants and Catholics, Jews had the greatest level of enthusiasm for engaging in their preferred physical activities, originated stimulation within them and exhibited a tendency toward higher levels of imagery behaviour than their counterparts. In Hirschman's study, compare to Catholic, both Protestant and Jewish subjects cited more the fun and pleasure which reflect the religious differences in the purposive use of leisure time, as well as the types of activities they engaged in.

In a similar study, Hirschman (1983) has studied the criteria and solution to weekend entertainment, transportation, housing and family pet decisions among Jews, Catholics and

Protestants. She sound that price is considered less important criterion for entertainment selection by Catholics as compared to Protestants, but more likely than either Protestants or Jews to consider price an important criterion for transportation or family pet selection. Also, compared to Jews, Catholics were found to be more likely to consider "residence conditions" an important criterion for residence selection, Catholic were more likely than Jews or Protestants to attend sporting events, and less likely than Jews to drink at bars or go to a night club. So it is concluded that Jews, Catholics and Protestants use different evaluation criteria in making consumption choices.

In her study on linkage between religious subcultures and media content preferences among college students, Hirschman's (1985) found distinct differences between Protestants, Jewish and Catholics in several types of content preferences including television programmes, books and motion picture. The result of the study gave support to the general hypothesis that religious ethnicity are related to media content preference though the sample characteristics do not allow for drawing generalisations on the basis of the findings. Even when the major demographic factors of age, education and occupational status were explicitly controlled, religious differences emerged in a majority of content categories in her study.

In his research, to explore the differences in value structure of the Catholic and Jewish consumers, Delener (1987) has adopted the Rokeach's dimension of values. He found significant differences between Catholic and Jewish with regard to terminal and instrumental values. One terminal value, salvation, and one instrumental value, forgiving, emerge as the values that are most distinctively Christian if magnitude of the value difference and statistical significance are taken into account.

People's media usage and preferences are also affected by their religious affiliation. In their study on the major media habits of evangelical (born-again) and non-evangelical consumers , McDaniel and Burnett's (1991) have found some differences between these two market segments. Their findings indicated that evangelical consumers were generally lower in their newspaper readership, less likely to read business and skin magazines, less likely to listen to heavy rock or popular music and less likely to watch adult comedies or adventure dramas than as compared to their non-evangelical counterparts. However,

compared to non-evangelicals, evangelicals were found to read more religious magazines and use more religious broadcast media.

In his study on the dimensions and marketing implications of religious contrasts in consumer decision behaviour pattern, Delener (1994) found that religious group membership has resulted differences in consumptions differences pattern. Additionally, He found that Hindus and Muslims also differ in their purchasing behaviour.

In their study in Malaysia on bank patronage factors of Muslim and non-Muslim customers Haron, Ahmad and Planisek (1994) noted that Muslim and non-Muslim have many similarities in their perception of commercial banks and utilisation of products or services. The study showed that about 39 per cent of the Muslim respondents believe that religion is the only reason that motivates people to patronise the Islamic bank in terms of their perception of why people patronised the Islamic bank.

The religious differences in cognitions regarding novelty seeking and information has been examined by Hirschman (2001) and found that self-perceptions regarding inherent novelty seeking and information transfer differ depending on religious affiliation. Compared to Protestants and Catholics, Jewish consumers have a higher level of inherent novelty seeking and compared to Protestants, Jewish and Catholic consumers have a higher level of information transfer.

With a national sample of 600 respondents, Essoo and Dibb (2004) have conducted a similar study in the island of Mauritius from three different religions: Hinduism, Islam and Catholicism. A television set was chosen as a product for study since it is not to be particularly religiously sensitive. The result indicated that Hindus and Muslims differ for all seven types of shopper: the demanding, practical, trendy, traditional, economic, thoughtful and innovative shopper. Except for the demanding shopper, Muslims and Catholics were also found to be significantly different for these shopper types. The significant differences are also noted between Hindus and Catholics for the demanding, practical and traditional shopper types.

Nix and Gibson (1989) has conducted their study on hospitals and noted that religious affiliation of a hospital is important in influencing hospital selection and contributes to overall patient satisfaction. A study conducted by Andaleeb (1993) supported the findings of Nix and Gibson (1989) who found that people of a particular religious affiliation recall, prefer and select the hospitals of a same religious affiliation. He further noted that hospital's quality-of-care evaluation such as the competency of doctors, helpfulness of administration staffs, friendliness of nursing staff as well as overall quality of services are influenced by religious affiliation. Though religious affiliation has been found to influence hospital selection, the same findings cannot be applied in case for bank patronage.

Using student participants recruited from Christian, Muslim and other faiths, Siala, O'Keefe and Hone (2004) has investigated the role of subcultural variables as antecedents to trust with focus on religious affiliation in the context of electronic commerce. Their pseudo-experiment revealed that the religious affiliation displayed on the web-site resulted differences in trust in e-commerce web sites and that this difference is related to religious affiliation of the users. They found that compared to Christian site, the Muslim group expressed more trust in the Muslim site.

A large-scale study on the influence of religion and intensity of religious belief on attitudes towards the advertising of four controversial product groups was conducted by Fam, Waller and Erdogan (2004) in which gender/sex related products (e.g. female and male underwear), social/political products (e.g. guns and funeral services), health and care products (e.g. weight-loss programmes) and addictive products (e.g. cigarettes and alcohol) were included. The study has included student samples from four main religious groups namely Buddhism, Islam, Christianity and non-religious believers (mainly Taoism and Confucianism) across six different countries. The findings revealed that there were different attitudes towards the four controversial product groups for four religious groups. The result of the study indicated that relative to other three groups, the followers of Islamic faith were more likely to find advertising of all four product groups most offensive. They further found that the religiously devout followers were more likely to find advertising of gender/sex related products, health and care products and addictive products more offensive than the less devout followers.

Sheth and Mittal (2004) have stated that consumer behaviour is affected by religious affiliation principally by influencing the consumer's personality structure – his or her beliefs, values and behavioural tendencies and in turn, it affects consumers' marketplace behaviours. There exist two generalisations concerning the role of religion in consumer choice suggested by current consumer behaviour and international marketing texts. First, religion functions as a macro-level transmitter of values. From this perspective, religion assists in the socialisation process by mediating the effects of other institutions and by encouraging consumers to embrace certain values and precepts. Thus religion is seen as an important part of the socialisation process whereby parents condition their children to fit into the cultural pattern of their society (Moschis 1987; Terpstra and David 1991). Second, religious affiliations (e.g. Islam, Judaism and Hinduism) may influence various aspects of the choice behaviour of its members by the rules and taboos it inspires. Obvious examples are the importance of fasting and feasting to patterns of food purchases, belief in taboos on clothing styles and activities of women, practices of personal hygiene related to purchases of toiletries and cosmetics and influences on housing and entertainment patterns (Jain 1996; Jeannet and Hennessey 1998; Schutte and Ciarlante 1998; Schiffman and Kanuk 2000; Terpstra and Sarathy 2000; Solomon 2002; Arnould et al. 2004). For these reasons, scholars argue that religions of the world have deeply influenced consumer behaviour because of their significant effects on attitudes toward consumption and choices.[25]

Mokhlis (2009) has done a study of Malaysian consumer to know difference in consumer behaviour by their religious affiliation. Using area sampling procedure, the research data was collected from three hundred respondents from five residential areas in Kuala Lumpur were randomly sampled for this study. The result of the data analysis revealed that compared to their Christian counterparts, the people of the Islamic faith were reported to be more ethnic conscious, to place greater emphasis on traditional family values and display greater fashion conservatism. He further noted that compared to Christian, Hindus were more likely to be ethnic conscious whilst compared to Muslims; Buddhists were less likely to display fashion conservatism.

---

[25] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia* (Doctoral dissertation, University of Stirling

Choi (2010) did a study on religion, religiosity and South Korean consumer switching behaviours. He had surveyed 496 respondents whose age is more than 18 years having discretionary income. Three different denominational groups; Buddhism, Catholicism, and Protestantism, non-religious affiliated respondents, and among persons exhibiting different levels of religiosity were studied to compare their switching behaviour. It was found that switching behaviour is not significantly associated with Religious affiliation, including non-affiliation but compared to lower level of religiosity, consumers reporting high levels of religiosity were found to be significantly less likely to engage in product purchase and store-switching behaviors. Compared to non-religious affiliated consumers (i.e., no religiosity consumers), highly religious consumers are engaged less in product purchase switching behaviour. Switching behavior of consumers reporting low levels of religiosity and those respondents who expressed no religious affiliation were not found statistically significant.

A study on a difference of information source usage by the level of religiosity and a different shopping orientation depending on each religious value was conducted by Shin et. al. (2011). The result revealed that religious consumers have high tendency to use information source and they are dependent on it. Their further analysis revealed that Buddhism has a greater Utilitarian approach tendency; Catholicism has a greater Social/Hedonic approach tendency and Protestantism has a greater Overpowered approach tendency.

Wilson and Liu (2011) have investigated the challenges of Islamic branding by navigating emotions and halal with the purpose to understand how halal-conscious consumers behave and what it takes to maintain an emotive, credible and authentic brand proposition. They have employed interpretive phenomenological analysis and syllogisms, as a basis for conceptual metaphor theory and critical discourse analysis for the study. They have found that halal-conscious consumers are risk averse, which drives discerning and high-involvement behavioural traits. Furthermore, in the face of this, brand managers are still unclear how far they can push more emotionally led brand messages.

Wilson and Hollensen (2013) have examined the performance implication of customer lifetime value calculations alignment with religious faith groups and afterlifetime values by

adopting a Socratic elenchus approach. Here authors have attempted to refine customer lifetime value (CLV) with customer afterlife time value (CALV) which has religious perspectives: reincarnation, heaven, and enlightenment, amongst others. A particular focus has been given to Islamic schools of thought and practices, as a test case and in response to market growth and interest trends. The method adopted uses a conceptual Socratic elenchus approach – drawing from interpretive phenomenological analysis and syllogisms, building on allegorical anecdotal evidence. The has proposed a four-step managerial decision model that may reformulate branding strategies, based upon maximising the sum of CLV and customer afterlife time value (CALV).

Wilson et.al. (2013) have studied Crescent marketing, Muslim geographies and brand Islam with the purpose to bring together the thoughts and opinions of key members of the Journal of Islamic Marketing's (JIMA) Editorial Team, regarding the recently branded phenomenon of Islamic marketing – in the interests of stimulating further erudition. The authors have adopted an "eagle eye" approach where in attempts were made to frame general principles and observations; alongside a swooping view of key anecdotal observations – in order to ground and enrich the study. The authors have the opinion that scholarship on Islamic marketing has become essential that given the size of Muslim populations globally. Western commerce and scholarship has been conducted to a limited extent, and some evidence exists that research is occurring globally. The authors believe it is vital for "Islamic marketing" scholarship to move beyond simply raising the flag of "Brand Islam" and the consideration of Muslim geographies to a point where Islam – as a way of life, a system of beliefs and practices, and religious and social imperatives – is amply explored.

It is clear from the previous review that consumer behaviour differs depending on one's religious affiliation. These differences in the consumer behaviour are attributed to divergent values and beliefs concerning consumption held by different religious ideologies. The effect of religious affiliation on consumption behaviour may be direct as a function of the tenets held by the religious traditions or may be indirect as a function of differences in psychological constructs such as personality and values.

RELIGIOSITY AND CONSUMER BEHAVIOUR: The effect of religion on consumer behaviour is dependent on individuals' level of religious commitment or the importance of

religion they have in their life because it is believed that religion is highly personal in nature. Religious commitment, often labelled as religiosity, is defined by Worthington et al. (2003, p. 85) as: "the degree to which a person uses adheres to his or her religious values, beliefs and practices and uses them in daily living. The supposition is that a highly religious person will evaluate the world through religious schemas and thus will integrate his or her religion into much of his or her life."

The similar definition was given by Johnson et al. (2001) who refers religiosity as "the extent to which an individual's committed to the religion he or she professes and its teachings, such as the individual's attitudes and behaviours reflect this commitment" (p. 25). The followers strictly follow the rule and conduct of their religious doctrine if they accept the doctrine of their religion firmly. For example, they attend the worship services on a regular basis without fail. On the other side, if they are weak in their religious belief, their behaviour may not be guided by their religious tenet and they may behave freely. Therefore, to understand the nature of consumer behaviour, their commitment to religion or religious belief should be considered. Those who are more religious, they have a strong sense of commitment to their belief system and thus religious norms guide their behaviour. Stark and Glock (1968) have righty said that "the heart of religion is commitment" (p. 1). Delener (1994) has the opinion that sometimes, religious individuals are so committed to their religious values that they are characterise as characterised as being closed-minded or dogmatic. Alternatively, these individuals could be more positively viewed as having the courage of their convictions. This notion of commitment is strongly represented in the fundamentalist aspect of religiosity, as fundamentalists believe in strict adherence to the doctrines of their faith. There is evidence that the expression of religious commitment may extend beyond religion itself, with highly religious individuals exhibiting commitment in many aspects of their life, including family, relationships and consumption behaviour.

There have been several investigations of the relationship between religiosity and consumer behaviour with the general conclusion that the association is real. In an empirical study of religiosity and consumer behaviour among 602 mostly Protestant consumers, Wilkes, Burnett and Howell (1986) reached a significant conclusion that religiosity influences several aspects of consumer's lifestyle, which eventually may affect choices and/or choice behaviour. When age, income and sex were controlled, the researchers found

that people with a higher degree of religious commitment tend to be satisfied with their lives, have a more traditional sex-role orientation and are more likely to be opinion leaders. Although additional findings were not statistically significant, results from their study also provided indication that consumers with greater religious commitment were less likely to use credit and more likely to prefer national brands of products.

In a review of "Consumer Behaviour and Born-Again Christianity", LaBarbera (1987) pointed out that the born-again Christians are characterised by lifestyle market behaviour and attitudes that are biblically based and are distinct in several aspects from other consumers. She noted that conservative born-again consumers were more favourable toward advertising than other consumers, that they tend to use Christian broadcast media and that they had an increased demand for Christian targeted goods and services. LaBarbera (1987) further asserted that their spiritual qualities, rather than their economic accomplishments, determine their fundamental behaviour. These spiritual qualities are often translated into differences in their purchasing behaviour.

A study on the relationship between religiosity and the role structure of husbands and wives in family decision-making process was conducted by Delener and Schiffman (1988) and found that husbands have dominance in most of the purchase decisions for major durable goods in Catholic households while husbands and wives shared equally in making most purchase decision in Jewish households. The dominance of husband in purchasing major durable goods, as the decision making process progressed from problem recognition to final decision would found to be higher in pro-religious households while husbands and wives in non-religious households, were substantially more likely to make purchasing decisions jointly as compared to their counterparts in non-religious households.

Delener (1989) has examined the influence of religiosity on differences in external search information and media usage patterns of Catholics and Jews. He found that Catholics searched for information less than Jews and that the difference was larger for non-religious consumers. Media usage was also found to be different based on the religiosity of consumers in each religious group.

Delener (1990a) has studied religious influences on consumer innovativeness in which he has used two types of measures of innovativeness: willingness to try new brands and a direct measure of innovativeness and noted that Jews were more willing to try new movies, new books and new magazine than Catholics. He further asserted that religious Catholics were more brand innovative than non-religious Catholics while contradictory results were found for Jews. Non-religious Jews were found to be more brand innovative than religious Jews. These findings are in line with Hirschman (1981) who found that Jews were more innovative and less store and brand loyal than non-Jews. There have been a few empirical studies that examined the relationship between religiosity and perceived risk and uncertainty. The relationship between religiosity and willingness to try new products and perceived risk was found in the study done by John et al. (1986). Gentry et al. (1988) in his study on geographic subcultures in the U.S. reported that residents in areas with higher levels of religiosity perceive higher levels of risk with new products.

Delener (1990b) has examined the effects of religiosity on perceived risks and uncertainty in durable good purchase decision on affluent Catholics and Jewish households in the Northeast of United States for the purchase of new cars and microwave ovens. The research conclusion suggests that Catholics were more likely to be sensitive to any potentially negative consequences of their purchase decisions and consumers with a high degree of religiosity were apparently more sensitive. This is a result of less secure and low in self-confident attitude of religious individuals as compared to less religious individuals.

McDaniel and Burnett (1990) have examined religious influences on the importance of various retail department store attributes held by consumers. The religiosity was viewed from the perspectives of religious commitment and religious affiliation. Religiosity was viewed as religious commitment, particularly measured by cognitive religiosity and behavioural religiosity, measured by religious contribution and both are significant in predicting the importance individuals place on certain retail evaluative criteria. Those Consumers who are high on cognitive religiosity, relies more on sales personnel friendliness, shopping efficiency, and product quality as being of greater importance in selecting a retail store than did those low in cognitive religiosity. Also, behavioural component of religious commitment was positively and significantly associated with sales personnel friendliness/assistance and credit availability.

The impact of religiosity on repeat purchase behaviour was explored by LaBarbera and Stern (1990 who have investigated repeat purchase behaviour of higher level of intensity religious Jews engage as compared to their non-intensity religious Jewish counterparts. Proportion of total purchases of a particular brand, individual's reaction to the absence of their favourite brand and the size of price incentive to induce brand switching were used to measure repeat purchase behaviour. They have used six non-durable products as the items of investigation The result of the study indicate that Orthodox and non-Orthodox Jews were differed significantly in their repeat purchase behaviour for detergent, orange juice, aluminium foil and toilet tissue for one of the three measures.

The study conducted by Smith and Frankenberger (1991) revealed that the level of religiosity was positively related to age and that it affects quality sought in a product, the social risk involved with a purchase and price sensitivity but it is not evident that religiosity is not associated with brand loyalty. It was also evident that the level of religiosity was related only to product quality and price sensitivity if the effect of religious affiliation was controlled.

The effect of religiosity on the purchasing patterns of consumers was investigated by Rodriguez (1993) in Peru. The results show that the purchasing patterns of the middle and lower socioeconomic groups of the Peruvian population were influenced by the degree of religiosity. The influence of religiosity on the purchase behaviour was found to be indecisive in the upper class group even though this group was considered the most religious.

The impact of religion on consumer behaviour can differ from one culture or country to another. In their study on cross-cultural comparison of the effects of religiosity on general purchasing behaviour for a sample of Japanese and American consumers, Sood and Nasu (1995) found that devout and casually religious Japanese individuals were not differ in their purchase behaviour and the reason for this is that religion is not an important element in the overall Japanese culture. On the other hand, in the U.S., devout Protestants were found to be more economic, buying product on sale, shopping in stores with lower prices, being open to buying foreign-made goods.

Similar to Sood and Nasu (1995), Essoo and Dibb (2004) conducted a study in the island of Mauritius involving Hindu, Muslim and Catholic consumers. They found that shopping behaviour differs notably with different level of religiosity. In particular, devout Hindus were found to differ in four shopper types: the demanding, practical, thoughtful and innovative shopper from their casually religious counterparts while except for the trendy shopper type, devout and casually religious Muslim consumers do not differ in their shopping behaviour. On the other hand, devout Catholics were found to differ from their casually religious counterparts in four types of shopper: the demanding, practical, trendy and innovative.

A comparative study of the effects of religiosity on Sunday shopping behaviour for the U.S. and New Zealand samples were conducted by Siguaw, Simpson and Joseph (1995). In the U.S., in comparison with their less religious counterpart, individuals with high spiritual religiosity were found to be more satisfied with local shopping conditions and less likely to shop outside their local trading area. More religious shoppers were also more likely to shop fewer Sundays during the year and to believe that non-essential businesses should close on Sundays. The only significant effects of religiosity on shopping behaviours of the New Zealanders were on the belief that non-essential businesses close on Sunday and satisfaction with local shopping. The shoppers in the U.S were more likely to believe that non-essential businesses should close on Sundays, to spend a greater percentage of retail expenditures on Sunday shopping and to be more satisfied with local shopping than New Zealanders because shoppers in the U.S. were much more religious than those in New Zealand.

Siguaw and Simpson (1997) have investigated the effect of consumers' religiosity on their Sunday shopping and outshopping behaviours studied in five small towns centring around Ruston, Lousiana. Their findings indicate a negative effect of religiosity on the propensity to shop on Sunday because of high levels of giving to their church (monetarily and of their time) were found to spend fewer Sundays shopping per year and to spend significantly less of their total retail purchasing dollars on Sundays. Additionally, those consumers who are high on spiritual and devotional values were found to spend significantly less of their

money for outshopping and to believe that non-essential business should be closed on Sundays.

In their study, LaBarbera and Gurhan (1997) demonstrated significant differences between born-again (evangelical) and non-born-again Christians regarding the role of income and materialistic attitudes in predicting their subjective well-being. Income and some facets of materialism have a negative relationship with the subjective well-being of born-again Christians compared to non born-again consumers. The effect of religiosity was also evident on consumers' attitudes toward advertising messages.

Michell and Al-Mossawi (1995) conducted an experiment among British Christians and Muslims and tested the mediating effect of religiosity on advertising effectiveness. They found that the attitudes towards the contentious message were found to be less favourable in both Christians and Muslims respondents and recall scores of conservative Muslims were much lower than liberals.

Michell and Al-Mossawi (1999) has done an experimental study on influence of religiosity message contentiousness among Bahraini Muslims and found a significantly lower recall among religiously stricter Muslims and they have negative attitude towards messages perceived as contentious. Nevertheless, for non-contentious advertisement messages their recall and attitude scores are similar to those of subjects with lower levels of religiosity. These findings imply that devout and a liberal Muslim differs in perceived controversial elements in television commercials.

Using multiple regression analysis to analyse the data and to test the hypothesis, Vitell, PaoUllo and Jatinder (2005) have studied the influence of religiosity in predicting consumer ethical behaviour in their exploratory study. Religiosity was taken as an independent variable and viewed from intrinsic and extrinsic religiousness while the four dimensions of the consumer ethics scale was taken as the dependent variables. The findings revealed that consumer ethical beliefs are determined by an intrinsic religiousness while extrinsic religiousness was not related to those beliefs.

In an empirical study on the relationship between religion and consumer ethical behaviour, Parboteeah, Hoegl, and Cullen (2008) had found negative relationship of the cognitive, one affective, and the behavioural component of religion with ethics. Three of four measures of religion considered in our empirical analysis show the expected negative relationship with individual's willingness to justify unethical behaviors. The degree to which people believe in church authorities (cognitive component) and their emotional attachment to religious beings, objects, or institutions (affective component) are related to individuals being less likely to justify unethical behaviors such as cheating on taxes or using public transport without paying. Results also provide support for our predictions regarding the behavioral aspect of religion. Specifically, attendance of religious services and praying is negatively related to justifications of ethically suspect behaviors.

Mokhlis (2008) has studied the influence of religiosity on importance of store attribute. The research data was collected by means of a survey. Using area sampling procedure, three hundred respondents across five residential areas in Kuala Lumpur were randomly sampled for this study. Using MANOVA to analyse the data, he has found that religious consumers tend to place a higher level of importance on merchandise related attributes such as quality, brand and variety of selection. It was found that store reputation was given greater importance by consumers who were higher in their interpersonal religiosity. Also, both intrapersonal and interpersonal aspects of religiosity were related to the importance individuals attach to the attractiveness of the retail store.

Rehman and Shabbir (2010) have studied the relationship between religiosity and new product adoption from Islamic perspective. They have measured religiosity using five dimensions: ideological, ritualistic, intellectual, consequential and experimental dimensions. NPA represented the dependent variable. The data were subjected to regression and correlation analysis. The results indicated that religiosity affects new product adoption among Muslim consumers; their beliefs influence how and what products they adopt.

Choi (2010) did a study on religion, religiosity and South Korean consumer switching behaviours. He has taken 496 respondents whose age is more than 18 years having discretionary income. Three different denominational groups prevalent in South Korea

(Buddhism, Catholicism, and Protestantism), non-religious affiliated respondents, and among persons exhibiting different levels of religiosity were compared for switching behaviour. Switching behaviour was not significantly affected by religious affiliation including non-affiliation. However, product purchase and store-switching behaviors were found to be significantly less among consumers reporting high levels of religiosity than those reporting lower levels of religiosity. Also, product purchase switching behavior was found to be less with consumers reporting high levels of religiosity than non-religious affiliated consumers (i.e., no religiosity consumers). Differences in switching behavior were not found statistically significant between consumers reporting low levels of religiosity and those respondents who expressed no religious affiliation.

Choi, Kale and Shin (2010) did an exploratory study to know the relationship among Korean consumer's level of religiosity and use of various information sources. They studied 215 male and 294 female respondents whose age is more than 18 years. A series of analysis of variances (ANOVA) revealed that when they look for product information, highly religious Korean consumers are more likely to choose members of their same religious group than those consumers who are less religious. If consumers are more religiously devoted, they are more likely to hear opinions or thoughts about products from those who believe and practise the same religion. To get product information, highly religious Korean consumers are less likely to be dependent on external sources (i.e. the Internet, TV, radio, newspapers, magazines or impartial sources) than are non-religious people. No difference in the media advertisements and impartial sources was found among highly religious and low religious consumers.

Taylor, Halstead, and Haynes (2010) explored consumer reactions to the use of a Christian religious symbol in advertising. They found that consumers have varied reactions to Christian messages in the secular marketplace depending on their religiosity levels. Study 1 was conducted on adult consumers as a follow-up field experiment, while Study 2 was conducted on young adults a lab experiment. The findings of Study 1 revealed a significant Christian symbol by evangelical religiosity interaction on perceived quality and purchase intentions such that the Christian symbol enhanced consumer evaluations and the effects were stronger as evangelical religiosity increased. Consumers' source perceptions of the marketer in terms of attitude similarity, trustworthiness, expertise, and skepticism mediated

these interaction effects. The findings of Study 2 indicated an unusual backlash effect of the Christian symbol on purchase intentions for some consumers and contrasting mediation results.

Parameshwaran M.G. and Srivastava R.K. (2010) had undertaken an exploratory study on whether marketer should consider religiosity in understanding consumer purchase behaviour and had found that religion and religious belief is explanatory in understanding consumer behaviour for durable goods and need to be investigated.

A study on 645 adults age 50 and older living in different regions of Malaysia was conducted by Moschis and Sim Ong (2011) to investigate the effects of religiosity on well-being and changes in consumer preferences. The respondents were surveyed via personal interviews and analysis of variance, correlation, and partial correlation analysis were used to analyse the data. The findings of the study indicated that religiosity had a significant positive relationship with life satisfaction self-esteem, and a significant negative relationship with health. The results also indicated that the well-being is positively associated with religiosity but show differences across the three main ethnic subcultures of Malaysia (Malays, Indians, and Chinese), and they provide little support for the hypotheses that the religious values influences consistency of consumer brand and store preferences.

Siguaw and Simpson (2011) examined the Effects of religiousness on Sunday shopping and outshopping behaviours: a study of shopper attitudes and behaviours in the American South by MANCOVA and Results of a random telephone survey of 338 participating found that Religiousness also has a significant effect on outshopping and Sunday shopping. The higher the religiousness, the less likely the individual go for out shopping and Sunday shopping. Individuals scoring high on the spiritual and devotional dimensions spent significantly fewer of their retail dollars outshopping than their less religious counterparts.

Swimberghe, Sharma, Flurry (2011) had examined the influence of consumer religious commitment and a Christian consumer's conservative beliefs in the United States on store loyalty when retailers make business decisions which are potentially religious objectionable. This study uses structural equation modeling and applies Anderson and Gerbing's (Psychol Bull 103(3):411–423, 1988) two-step approach to examine data

obtained from a national sample of 531 consumers. Both the ''spiritual'' and ''organizational'' dimension of consumer religious commitment help to determine a consumer's moral judgment of a seller's potentially religious objectionable business decision. Consumer's moral judgments of a seller's potentially religious objectionable business decision are a predictor of store loyalty. These results confirm that in a sample of Christian consumers, it is not necessarily the simple cognitive or behavioral adherence to Christian norms and values which influence the moral evaluation of a potentially religious objectionable business decision, but rather the level of orthodoxy or conservatism of these Christian values.

John Krieger and Bayraktar (2011) have studied the impact of intrinsic religiosity on consumer ethical behaviour by their religion. Researchers have used ANOVA and MANOVA to analyse the data and found a strong positive correlations of all three dimensions of ethical convictions and intrinsic religiosity. Consumers increasingly reject unethical behaviour with increasing intrinsic religiosity. All three ethical convictions are significantly influenced by the extent of intrinsic religiosity in the Moslem subsample from Turkey. Among the Christian, German subgroup, we find a significantly positive connection only for passive benefiting. It indicates that Christian and Moslem subsamples varied with regard to the extent of intrinsic religiosity and ethical convictions. It is concluded that Moslems generally possess more intrinsic religiosity than Christians and reject unethical consumer behavior more than Christians.

Khraim et. al (2011) has studied the effect of religiosity on Jordanian Consumer's Evaluation of Retail Store Attributes. Data collected in the survey have included retail stores attributes, religiosity and demographic characteristics of respondents. Data from 800 respondents were collected randomly in several shopping centres in Amman. Different methods of statistical analysis have been used such as mean differences, one way ANOVA, percentile, and factor analysis. The findings revealed the most important factor for consumers has been merchandise, which includes four items with cheaper price scoring the highest mean among all items that among the six factors considered (locational convenience, service, post purchase services, merchandise, kinship and local goods). The findings of the study indicated that there was a difference between high, moderate and low consumers' religiosity in evaluating the importance of all retail store factors.

Hess (2012) has studied the impact of religiosity on personal financial decision and found that individuals resides in areas of strong religious norms will be more risk averse and ethical in their personal financial matters and thus have higher credit scores, carry less card debt, and have fewer foreclosures and bankruptcies.

The above discussion revealed that the several aspects of consumer behaviour are influenced by religiosity. It is cleared from the above discussion that religiosity affects one's makeup and lifestyle, information search, purchase risk aversion, attitude towards advertising, Sunday shopping behaviour, purchasing behaviour of major durables and selected aspects of retail store patronage behaviour. Thus, it provides a base to study religiosity as a construct in understanding consumer behaviour.

3.5 Religiosity and Consumer Shopping orientation

In their study on the effects of religious affiliation on consumer behaviour of six religious groups in Washington DC: Buddhism, Hinduism, Islam, Judaism, Catholic and Protestant, Bailey and Sood (1993) have examined how the minority religious groups' behaviour (i.e. Buddhism, Hinduism and Islam) differed from those in the majority (i.e. Judaism, Catholic and Protestant). The product taken for the study was a relatively expensive stereo sound system. The study revealed statistically significant differences in the consumer behaviour of different religious groups. Muslim consumers were found relatively more impetuous shoppers but less likely to be informed or risky shoppers while Hindus appeared to be in rational shopper group and Catholics were found to be informed shoppers. Buddhists revealed consumer behaviour similar to the societal norms as minority religious members in the sample. In addition, the effect of religious affiliation on shopping behaviour was moderated by the demographics of the consumers which reveals:
• Older Buddhists are more reluctant than younger
• More educated Buddhists are less risky shoppers
• More educated Muslims are less risky shoppers
• Muslim men are less informed than women
• More educated Jewish are less risky shoppers and
• Protestant men are more reluctant shoppers

The influence of religion on consumer choice and is based on the preposition that adherence to a particular religious faith significantly influences shopping behaviour has been examined by Essoo and Dibb (2004). They found that in comparison to their devout counterparts, casually religious respondents were found to differ in their shopping. In general, casually religious respondents were found to be trendier (attaching more importance to brand names, availability of well-known brands in retail stores and always buying up-market brands) and more innovative (trying any new product once and not favouring a particular brand) in their shopping behaviour. It is also found that casually religious consumers attach more importance to price deals and credit availability and are more practical in their shopping behaviour than devout consumers. In comparison with devout consumers, casually religious consumers were also found to be more demanding in their shopping behaviour, attaching more importance to product quality, nutritional value of products and the quality of service. In comparison with Hindus and Catholics, Muslim consumers were found to be more practical and innovative in their shopping behaviour. The practical element of their behaviour was viewed from the perspective of price deals, promotions and store credit facilities.

Mokhlis (2006) has done exploratory research to study the influence of religiosity on shopping orientation of Malaysian consumers using analysis of variance. The results indicated that three shopping orientation factors, namely price conscious, quality conscious and impulsive shopping, were found to be consistently related to religiosity. Religious individuals are price conscious (i.e. prone to look for deals), look for quality in product when they shop and are less likely to make impulsive purchase decision. The findings revealed that three shopping orientation factors, namely quality conscious, impulsive shopping and price conscious were consistently related to religiosity which suggest that religiosity should be considered as a possible determinant of shopping orientations in consumer behavior model.

Rahadian (2008) has studied the moderating effect of religiosity and types of product to measure the effect of consumer perception on consumer decision making style and found that religiosity is positively related with consumer decision making style and purchase intention. The result also indicated that consumer who were more religious, were found to

be more economic, buying product on sale and shopping in stores with lower prices. It was also found that consumers are more interesting in purchasing utilitarian product than hedonic product if they are religious.

Mokhlis (2009) has studied the relevance and measurement of religiosity in consumer behaviour using area sampling procedure in which three hundred respondents across five residential areas in Kuala Lumpur were randomly sampled for this study. The results of the study revealed significant differences in shopping orientation among consumers with different levels of religiosity. Three shopping orientation factors, namely price conscious, quality conscious and impulsive shopping, were found to be consistently related to religiosity.

Mokhlis (2010) has studies the religious contrasts in consumer shopping style of 477 respondents who were classified into three groups based on their religious affiliations: Muslim, Buddhist and Hindu. Exploratory factor analysis was used to compare the shopping styles of these three religious groups. The result revealed that the five shopping styles appear to be "common" across the three samples are (1) Fashion Conscious, (2) Quality Conscious, (3) Careless, (4) Recreational and (5) Confused by Overchoice. Muslim and Buddhist are Brand Conscious while Brand loyal and value conscious were associated to Muslim sub-sample only. Buddhists we found to be Shopping Avoidance (F6) and Price Conscious while Hindu were associated with Satisfying (F5) which consists of three items; two of which from the High Quality Conscious and one from the Recreational constructs developed by Sproles and Kendall (1986). This factor is best described by one item: "A product doesn't have to be perfect or best to satisfy me".

The influence of religiosity on consumer socialisation agent and shopping orientation was examined by Shin et. al. (2011) investigated. In their study, they have surveyed 205 respondents and used MANOVA and ANOVA as an analysis to verifying a difference of information source usage by the level of religiosity and a different shopping orientation depending on each religious value. The findings of the study revealed that tendency to use information source is high with overall high religious consumers. It is also found that there is a greater tendency toward the Utilitarian approach in Buddhism, a greater tendency

toward the Social/Hedonic approach in Catholicism and a greater tendency toward Overpowered approach in Protestantism.

From the above discussion and review, it is cleared that intensity of consumer religious belief has an influence on various aspects of consumer shopping orientation like quality, price, convenience, recreation; fashion etc. in non-Indian context and provide the basis for exploring this relationship further in Indian context as the religiousness differ from one culture to another and from one country to another.

3.6 Religiosity and Demographic Variables

In their study on religious influences on consumer behaviour, Smith and Frankenberger (1991) has found a positive association of religiosity with age and that it affects quality sought in a product, the social risk involved with a purchase and price sensitivity.

Loewenthal K. M. (2002) has conducted a study on Are women more religious than men? In his study, he has examined gender differences in religious activity among different religious groups in the U.K. among volunteers who were self defined as Christian, Hindu, Jewis and Muslim and found that women were significantly less religious than did men.

Miller & Stark (2002) has examined the relationship between traditional gender attitudes and gender differences in religious beliefs and behavior using the American General Social Surveys and the World Values Survey. Results indicate that women are more religious than men to the extent that being irreligious constitutes risk-taking behavior.

In their study on the effect of age, period, and family life course events on a measure of religious influence on daily life, Argue, Johnsont, & Whitet (1999) have used pooled time series with random and fixed effects regression models in a panel of 1,339 adults interviewed three times between 1980 and 1992. The results revealed a significant, non-linear increase in religiosity with age, with the greatest increase occurring between ages 18 and 30. Between age of 1980 and 1988, there is a significant decline in religiosity. The age effect was significantly stronger for Catholics than Protestants and the lower religiosity of males was also significantly stronger for Catholics.

A study on association between religions, religiosity and educational attainment of new lawful immigrants to the U.S. was conducted using using data from the New Immigrant Survey (2003) by Mukhopadhyay (2009). The results shows that affiliation with religion is not necessarily associated with an increase in educational attainment. Muslim and "Other religion" immigrants have less education compared to the immigrants who are not affiliated with any religion but Jewish religion is associated with higher educational attainment for males. In case of religiosity, the results revealed that high religiosity is associated with lower educational attainment, especially for females.

Brown & Taylor (2003) has studied the determinants of one aspect of religious behaviour – church attendance – at the individual level using British data derived from the *National Child Development Study* (*NCDS*) to examine the relationship between education and church attendance. The findings from cross-section and panel data analysis revealed a positive association between education and church attendance.

Sacerdote and Glaeser (2002) has investigated an interesting puzzle related to religious attendance in the U.S. where religious attendance increases sharply with education across individuals yet declines sharply with education across denominations with the more highly educated denominations being characterized by the lowest rates of church attendance. The existence of omitted variables is the key to explaining this puzzle which differ across denominations. Furthermore, in the view of Sacerdote and Glaeser, the most likely omitted variable is the degree of religious beliefs and they provide evidence that measures of religious beliefs are strongly correlated with church attendance yet negatively correlated with education for a number of countries including the U.S. and Great Britain. Moreover, they provide some evidence of a causal link that education moderates religious beliefs. They also provide evidence supporting the hypothesis that the positive association between education and church attendance is due to omitted variables related to social skills and propensity to engage in formal social activities. The reasoning behind this is that schooling and church attendance are both formal social group activities – hence we would predict a positive correlation between the two activities.

One of the rare studies focusing on British data, Sawkins *et al.* (1997) found that church attendance is positively correlated with educational attainment when attendance equations are estimated separately for males and females using cross-section data derived from the first wave of the *British Household Panel Survey*. Similarly, estimating separate equations for males and females, Brañas Garza and Neuman (2003) report a marginally significant positive relationship between schooling and religiosity among Spanish Catholics. The level of religiosity was measured by beliefs, prayer and church attendance. One of the important features of this study is that the data allows the authors to distinguish between private and public religious activity. To be specific, the positive relationship is statistically significant for women for both participation in mass (i.e. a public activity) and prayer (i.e. the private activity) yet only significant for men in the case of participation in mass.

Neuman (1986) is one exception in the literature who reports an inverse relationship between schooling and time spent on religious activities among Jewish males in Israel. One of the defining features of this study is that unlike the majority of studies in this area, which rely on an index of church attendance, religiosity is measured by the total number of hours spent on religious activities.

Herzer & Strulik (2013) has done a study on long-run relationship between religiosity and income using retrospective data on church attendance rates for a panel of countries from 1925 to 1990 by employing panel co integration and causality techniques to control for omitted variable and endogeneity bias and to test for the direction of causality. The result of the study indicate that there exists a negative long-run relationship between the level of religiosity, measured by church attendance, and the level of income, measured by the log of GDP per capita. The result is robust to alternative estimation methods, potential outliers, sample selection, different measures of church attendance, and alternative specifications of the income variable. Long-run causality runs in both directions, higher income leads to declining religiosity and declining religiosity leads to higher income.

Using General Social Survey (GSS) data from 1983 to 1987, Iannaccone (1990) found no correlation between family income and frequency of prayer. In the similar way, Branas-Garza and Neumann (2004) also found no correlation using 1998 data on Catholics in Spain from the Center for Sociological Research. As a general finding, Iannaconne (1998)

contends that while income strongly predicts religious contributions, it is a poor predictor of other measures of religious activity such as church attendance, church membership, and rates of religious belief. Findings he presents using 1990 General Social Survey data on family income substantiate his claims that income is a weak correlate of religious attendance. Brown (2009), meanwhile, with GSS data from 1996 to 2004, finds a statistically significant negative correlation between wages and frequency of prayer.

3.7 Measurement of Religiosity in Consumer Research

It is important to review earlier study made to measure religiosity in consumer behaviour studies to study the religiosity as a one of the most important antecedent and construct of consumer behaviour.

There have been different approaches described by Johnstone (1975) for the measurement of religion. These approaches were classified in three categories:[26]

1) The Organizational Approach. This approach includes;
   o The member/nonmember dichotomy
   o Major religious families
   o Denominational affiliation

2) The Individual Approach. This approach includes
   o Measures of individual ritual participation
   o Measures of individual prayer life
   o Measures of importance of religion to individuals

3) Multidimensional measures. This includes using all the different dimensions which may be used in the measurement of religion, because there are many ways to "be religious" and therefore much too complex to measure in only one way.

---

[26] Kharim H. (2010). Measuring Religiosity in Consumer Research from Islamic Perspective. *International Journal of Marketing Studies Vol. 2,* No. 2

So, the religious dimensions are considered as an unresolved problem. Religion, by its nature is a complex and variegated human phenomenon, and may include behaviors, attitudes, values, beliefs, feelings, experiences. Some researcher's has used single measure and considered it as unidimensional while others have used multidimensional measures. The "resolution" writes Gorsuch (1984) "could be both/and rather than either/or" (p.232). According to Bergin (1991, p.31, "one finding that most scholars in this area agree on is that religious phenomena are multidimensional."

Religion was measured as religious affiliation or denominational membership in early research on the relationship between religion and consumer behavior (Delener, 1987; Hirschman 1981, 1982, 1983; Thompson and Raine, 1976). Nevertheless, they have assumed the strength of religious affiliation constant across religious groups. The one problem associated with the use of this organisational approach is with differentiating the effects of characteristics of religious affiliation from those of actual religiousness. Besides this, some people may be affiliated to some religious denomination but have a preference for another (Roof, 1980).

The concept of religiosity was introduced by Wilkes et al. (1986) to resolve this problem. They have supported their argument stating that the effect of religion on consumer behaviour varies depending on individuals' levels of religious intensity or the importance placed on religion in their life, not only on a particular affiliation since religion is personal in nature. In the opinion of McDaniel and Burnett (1990) and Worthington et al. (2003), religious commitment or ''the degree to which a person adheres to his or her religious values, beliefs, and practices, and uses them in daily living'' (Worthington et al., 2003, p. 85), is essential to explaining the effect of religion on behavior.

Since there is no consensus on definition of religiosity and its measure (e.g., Wilkes et al., 1986), concept of religiosity needs to be differentiated from religion and spirituality. Religion is related with one's beliefs about the absolute definitiveness and inherent truth qualities of a religion's teachings and scriptures (Stark and Glock, 1968; Rindfleisch et al., 2004), while spirituality related to ''spiritually-related beliefs and experiences common to most religions'' (Rindfleisch et al., 2004, p.13), such as belief in life after death and self-preservation (Myers, 1992). Contrary to these, religiosity is a non-denomination specific

construct which includes as many as six dimensions (e.g., DeJong et al., 1976; Burroughs and Rindfleisch, 2002).

However, most of the definitions related to religiosity mark the difference in religious beliefs or attitudes and religious ritual activities, and they capture the strength of these orientations (e.g., Koenig et al., 1988; LaBarbera and Gurhan, 1997). Wilkes et al. (1986) and Koenig et al. (1988) have reviewed the literature on religiosity approximately for two decades and concluded that religiosity is a multi-dimensional concept.

In early empirical studies on religion and consumer behaviour, religiosity was measured in terms of religious affiliation or denomination (Engel 1976; Thompson and Raine 1976; Hirschman 1981, 1982a, 1982b, 1982c, 1983, 1985; Delener 1987). Denominational membership or faith identification of the individual (e.g. Hinduism, Islam, and Jainism) was used to measure the religiosity. Strength of religious affiliation was similarly measured and assumed constant across religious groups. Unfortunately, the difficulties lies in the use of this approach are how to distinguish the effects of characteristics of religious affiliation from those of actual religiousness. Thus, the studies carried out in the later part have used religious commitment or religiosity in addition to religious affiliation as a measure of the degree to which beliefs in specific religious values and ideals are held and practiced by an individual as a religious construct (Wilkes et al. 1986; LaBarbera and Stern 1990; McDaniel and Burnett 1990, Smith and Frankenberger 1991; Delener 1990a, 1990b, 1994; Rodriguez 1993; Sood and Nasu 1995; Siguaw and Simpson 1997; Essoo and Dibb 2004).

Wilkes et al. (1986) have the argument that in academic research religiosity cannot be viewed as a single, all-encompassing phenomenon and thus it is not satisfactory to use church attendance alone as a measure of religiosity. In their study, they have used four items to assess the dimensionality of religiosity construct: church attendance, confidence in religious values, importance of religious values and self-perceived religiousness. A six point interval scale ranging from a "strongly agree" to "strongly disagree" was used to measure the frequency of church attendance by making use of a statement "I go to church regularly". By using the same response category, the perceived importance of religious values was measured using the statement "Spiritual values are more important than

material things". "If Americans were more religious this would be a better country" was used to measure confidence in religious values using similar procedure. Finally, the respondents evaluation of their feelings of religiousness and to characterise themselves as being either very religious, moderately, slightly, not at all or antireligious was used as a measure of self-perceived religiousness.

McDaniel and Burnett (1990) have used cognitive and behavioural measures of religiosity as a measure of religiosity in consumer behaviour research. The cognitive dimension is defined as the "degree to which an individual holds religious beliefs" (McDaniel and Burnett 1990, p. 103). Cognitive dimension consisted of three summated items designed to evaluate the importance of religion with no report of internal scale reliability. The first item includes self-ascribed religiousness (i.e. "Indicate how religious you view yourself to be") which is measured on five response categories ranging from "very religious" to "anti-religious". Other two items include AIO-related questions: "My religion is very important to me" and "I believe in God" which are measured on six-point scale of agreement/disagreement. Two separate factors were used to assess and analyse the behavioural dimension. The first one includes church/synagogue attendance (i.e. "how often do you attend services/meetings?"), measured on three levels of attendance: rarely/never (less than one time a year or never), moderate (once a year to three times a month) and frequent (four or more times a month). The other factor is related with amount of monetary donations given to religious organisations, also measured on three levels of donations (no donations or 0% of after-tax income, moderate donations or 1 to 5% of after-tax income and high donations or over 6% of after-tax income).

Another popular approach which is frequently used to measure religiosity in consumer research intrinsic-extrinsic Religious Orientation Scale (ROS) developed by Allport and Ross (1967). Allport and Ross (1967) have stated that faith commitment is found to be higher in intrinsically religious people while extrinsically religious people are more self-serving. They have further stated that, "the extrinsically-motivated person uses his religion, whereas the intrinsically-motivated lives his religion" (p. 434).

The ROS developed by Allport and Ross is presented in Table 3.11. It has acceptable reliability and has greater applicability for marketing in general and consumer research in

particular (Delener and Schiffman 1988; Delener 1989, 1990a, 1990b, 1994; Essoo and Dibb 2004). However, some researchers have raised their concern against direct use of the scale in marketing research. For example, Singhapakdi et al. (2000) has stated that the scale is developed with an intention to differentiate those who view their practice of religion as a goal in itself (intrinsic orientation) from those who view it instrumentally (extrinsic orientation). They have further clarified that "it is difficult to imagine any research in marketing that would need this distinction; only the degree of religiosity that results in behaviour is of interest in marketing, and only intrinsic translate their religiosity into behaviour" (p. 311).

TABLE 3.11 The religious orientation scale (I-E scale)[27]

	Statements	SA	A	N	DA	SD
1	I enjoy reading about my religion.	1	2	3	4	5
2	I go to church because it helps me make friends.	5	4	3	2	1
3	It does not matter what I believe so long as I am good	5	4	3	2	1
4	Sometimes I have to ignore my religious beliefs because of what people might think of me.	5	4	3	2	1
5	It is important for me to spend time in private thought and prayer.	1	2	3	4	5
6	I would prefer to go to church: A few times a year. 5 Once every month or two. 4 Two or three times a month. 3 About once a week. 2 More than once a week. 1					
7	I have often had a strong sense of God presence.	1	2	3	4	5
8	I pray mainly to get relief and protection.	5	4	3	2	1
9	I try hard to live all my life according to my religious beliefs.	1	2	3	4	5
10	What religion offers me most is the comfort in times of trouble and sorrow.	5	4	3	2	1
11	My religion is important because it answers many questions about the meaning of life.	1	2	3	4	5
12	I would rather join a Bible study group than a church social group.	1	2	3	4	5
13	Prayer is for peace and happiness.	5	4	3	2	1
14	Although I am religious I don't let it affect my daily life.	5	4	3	2	1
15	I go to church mostly to spend time with my friends.	5	4	3	2	1
16	My whole approach to life is based on my religion.	1	2	3	4	5
17	I enjoy going to church because I enjoy seeing people I know there.	5	4	3	2	1
18	I pray chiefly because I have been taught to pray.	5	4	3	2	1
19	Prayers I say when I am alone are as important to me as those I say in church.	1	2	3	4	5
20	Although I believe in my religion, many other things are more important in life.	5	4	3	2	1

---

[27] *Allport **and** Ross, Journal of Personality and Social Psychology 1967,5,**4,** (432-443*

The ROS was specifically designed for use with Christian or Judeo-Christian subjects and it is its biggest shortcoming. Thus, it is not advisable to adopt this scale directly as a measure of religiosity other than Judeo-Christian religions, although it was used in one study involving Muslim and Hindu subjects in Mauritius (Essoo and Dibb 2004). Genia (1993) has recommended that the item measuring frequency of worship attendance be dropped, because it "presents theoretical as well as methodological problems" (p. 287) on the basis of his psychometric evaluation of the ROS. The scale has also been shown lack of internal consistency in the intrinsic items and it has questionable value for other than Christian religions (e.g. Genia 1993).

The more adequate measure of religious commitment is five dimensions of religiosity as proposed by Glock (1982) than a narrower focus on belief and practice. Glock's classification scheme includes these elements: religious belief (the ideological dimension), religious practice (the ritualistic dimension), religious feeling (the experiential dimension), religious knowledge (the intellectual dimension), and religious effects (the consequential dimension)[28]

LaBarbera and Stern (1990) have used two different measures of religious intensity; one for Orthodox Jews and the other for non-Orthodox Jews in their study on the relationship between Jewish religious intensity and repeat purchase behaviour. Michell and Al-Mossawi (1995) have also used two different sets of religiosity measures in their experiment to test the mediating effect of religiosity on advertising effectiveness among British Christians and Muslims.

Sood and Nasu (1995) have similarly developed two different measures of religiosity in their cross-cultural study of consumer behaviour in Japan and the U.S. (see Table 3.12). The responses to nine questions related to belief in the religious practice or activity, the moral consequences and experience dimension or self-rating of one's religiosity were measured. The degree of religiosity of the respondents is calculated by averaging the score on the nine questions. The internal consistency coefficient for these nine items ranged from

---

[28] William Kulp(1982), Sociology of Religion: A Bibliographic Essay, Collection Building, Vol. 4 Iss: 3 pp. 6- 23)

0.59 to 0.65 for the Japanese Shinto sample and from 0.79 to 0.82 for the American Protestant sample.

TABLE 3.12 Measurement of Shinto and Protestant religiosity[29]

Japanese Shinto	
1. I go to a place of worship regularly.	SD-SA
2. Spiritual values are more important than material gains.	SD-SA
3. Religious people are better citizens.	SD-SA
4. How do you characterise yourself?	NR-VR
5. Supreme reality is beyond the comprehension of the human mind.	SD-SA
6. Religion is self-education in conquering pain, sorrow and suffering.	SD-SA
7. A person has an indefinite number of lives.	SD-SA
8. The individual person is not important.	SD-SA
9. One should strive for inner purity through contemplation and ceremonial acts.	SD-SA
American Protestant	
1. I go to a place of worship regularly.	SD-SA
2. Spiritual values are more important than material gains.	SD-SA
3. Religious people are better citizens.	SD-SA
4. How do you characterise yourself?	NR-VR
5. Jesus Christ is the Son of God.	SD-SA
6. Individuals are free to approach the Lord for themselves.	SD-SA
7. The Bible is the word of God.	SD-SA
8. Man is responsible in his freedom to exercise his will for good.	SD-SA
9. The soul of man is immortal.	SD-SA

More recently, Khraim et al. (1999) have used four dimensions for measuring Islamic religiosity in the Malaysian context. The dimensions used were of more practical orientation. The dimensions were: Islamic financial services, seeking religious education, current Islamic issues and sensitive products. In the opinion of researchers, the rationale behind the use of four dimensions was "to encompass as many issues as possible so that the dimensions reflect the tenet that Islam is a complete way of life rather than as a bundle of rituals in the narrow religious sense" (p. 655). Seven factors were extracted by factor analysis. Three dimensions (current Islamic issues, religious education and sensitive products) yield the best results among the four dimensions on the basis of corelation.

Mokhlis (2009) has examined the influence of religiosity on one aspect of consumer behavior - shopping orientation. He has measured religiosity on both religious affiliation

---

[29] Sood, J. and Nasu, Y. (1995). Religiosity and nationality: an exploratory study of their effect on consumer behaviour in Japan and the United States. *Journal of Business Research,* 34 (1): 1-9

and religious commitment. The results indicated religiosity is a potentially powerful predictor and determinant of consumer behavior.

The empirical evidence of several important dimensions of religiosity are summarised in Table 3.13 on the basis of the review of previous studies. Review of these studies indicates that religiosity can be measured from various perspectives. Though there is disagreement in the literature regarding the precise number of dimensions to be used in measuring religiosity, most researchers agree that religiosity is multidimensional in nature. Further, specification of dimensions of religiosity was from a Christian perspective and developed with Christian subjects.

TABLE 3.13 Dimensions of religiosity in consumer research[30]

Author(s) and year	Name of dimensions
Wilkes, Burnett and Howell (1986)	Church attendance, importance of religious values, confidence in religious values, self-perceived religiousness
Delener and Schiffman (1988)	Intrinsic orientation, extrinsic orientation
LaBarbera and Stern (1990)	Jewish religious intensity (dimensions not specified)
Delener (1989, 1990a, 1990b, 1994)	Intrinsic orientation, extrinsic orientation
Esoo and Dibb (2004)	Intrinsic orientation, extrinsic orientation
McDaniel and Burnett (1990)	Cognitive commitment, behavioural commitment
Rodriguez (1993)	Church attendance, importance and confidence in religious values, self-perceived religiousness, religious beliefs, experience and practices
Sood and Nasu (1995)	Personal activity in one's religion, importance and confidence in religious values, belief in the basic tenets of one's religion, self-evaluation of one's religiosity
Siguaw, Simpson and Joseph (1995)	Cognitive commitment
Turley (1995)	Traditional Christian beliefs, religiosity, confidence in the Church, permissiveness, civic morality
Michell and Al-Mossawi (1995, 1999)	Religious commitment (dimensions not specified)
Siguaw and Simpson (1997)	Spiritualism, devotion
Khraim, Mohamad and Jantan (1999)	Banking and insurance, public Islamic issues, individual Islamic issues, sensitive products, food consumption, religious education, ethics
Essoo and Dibb (2004)	Intrinsic and Extrinsic religiosity (ROS)
Parboteeah, Hoegl, and Cullen (2008)	Cognitive, affective and behaviour components
Mungki Rahadian (2008)	Intra-personal and inter personal

---

[30] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

Mokhlis (2009)	Intra-personal and inter personal
Rehman, and Shabbir (2010)	Consequentional dimensions, Experienceional dimensions, Ideological dimensions, Intellectual dimensions
Choi (2010)	intrinsic religiosity
Helmut and Bayraktar (2011),	Intrinsic Religiosity
Swimberghe, Sharma, and Flurry (2011)	Internal personal, intra-personal, Christian conservatism
Rao_, Ball and Hampton	External, Internal and Interactional
Judy A. Siguaw & Penny M. Simpson	spiritualism (cognitive), devotion (behavioural)
Swimberghe, Sharma and Flurry (2011),	Intra-personal and inter personal
Dan W. Hess (2012)	(1) Are you affiliated with a particular religion?; (2) is religion important in your daily life?; and (3) Do you attend religious services weekly?

3.8 Summary

There are significant differences in the consumption behaviour of consumers based on their cultural background as examined by Bristow and Asquith (1999), Gurhan-Canli and Maheswaran (2000), Chudry and Pallister (2002) and de Mooij and Hofstede (2002) and many other researchers. Religion, being important component of culture, has also had varying impact on consumer behaviour from one culture or country to another. (Sood and Nasu 1995, Siguaw, Simpson and Joseph 1995)

It has been proven practical to segment consumers in a multicultural market by using ethnic-based approach (Cui 1997), sometimes it becomes misleading to group the target population according to their skin colour or continent of origin without considering the fact that one ethnic group can actually embody several different ethnic as well as religious subgroups (Venkatesh 1995; Chudry and Pallister 2002).

It is better to consider subcultural groups separately rather than broadly grouping them. So it is evident that marketer can use religion as a tool to achieve greater precision and effectiveness in market segmentation.

Religion is one of the most important contributors of culture, personal identity and values, all of which have consumption implications. Religion is a key determinant of one's individual and social behaviour and it influences an entire way of life through socialisation.

It emphasises the cultural and institutional sides of human encounters with God and/or transcendent reality. This metaphysical belief brings sacred values embodied in a society to personality systems. Religious values provide the individual not only with a certain form of acts and spiritual rituals but also with standards of behaviour and a general worldview. Thus religion can form the basis of how an Individual chooses to lead his/her life.[31]

The examination of findings in this chapter reveals a causal link between religion and consumption. Findings suggest that various religious group have intangible differences and have distinct religious customs, rituals, material artefacts and consumption. Also, the findings revealed the effect of religiosity on several aspects of consumer behaviour.

Also, the examination of literature on religious influences on consumer behaviour reveals that most prior studies on this topic have been conducted among American population who are predominantly Jews, Catholics or Protestants and little can be said about the robustness of previous findings in other religious contexts and cultural settings. Furthermore, earlier studies have examined religious influences on consumer behaviour using relatively high involvement item such as a television and stereo system which indicates a need to identify whether religious influences the purchasing behaviour of other product classes.

Above discussion revealed that religiosity is of vital importance in determining several aspects of consumer behaviour. The findings of the previous research indicates that religiosity influences one's makeup and lifestyle, information search, Sunday shopping behaviour, ethical behaviour, purchase risk aversion, attitude towards advertising, purchasing behaviour of major durables and selected aspects of retail store patronage behaviour which is indicative of use of religiosity in explaining consumer behaviour.

---

[31] Mohklis S. (2006). *Influence of religion on Retail patronage behaviour in Malaysia.* Doctoral dissertation. University of Stirling

CHAPTER 4

Research Methodology

4.0 Overview

This chapter presents various methodological consideration documented in this study. Methodology or method - the semantic meaning of these two terms might lead to debate and even disagreement. Methodology is viewed as procedural aspect of the research by the researcher while method is the actual technique used in the research for data analysis. Holloway (1997, p. 105) defines methodology as:

"Methodology refers to the principles and philosophy on which researchers base their procedures and strategies, and to the assumptions that they hold about the nature of the research they carry out. It consists of ideas underlying data collection and analysis. Methodology is more than method. The latter merely involves the procedures and techniques adopted by the researcher."

Research described as a multi-step process of investigating the solution of a specific problem in a systematic and organized manner (Sekaran 1992). A framework of research (Nunamaker et al. 1991, p. 92), illustrated in Figure 4.1, is a relationship between a body of knowledge (i.e. research domains and research methodologies) and a research process. When processes, methods and tools of research are combined in conducting research in a research domain, it is known as methodology of the research. A research process requires a clear understanding of the research domains, asking meaningful research questions and valid research methodologies to address these questions in a correct manner. Contribution of the findings and results of the study to the existing body of knowledge promote clear understanding and enhance knowledge horizon in a given research domain (Nunamaker, Chen and Purdin 1991).
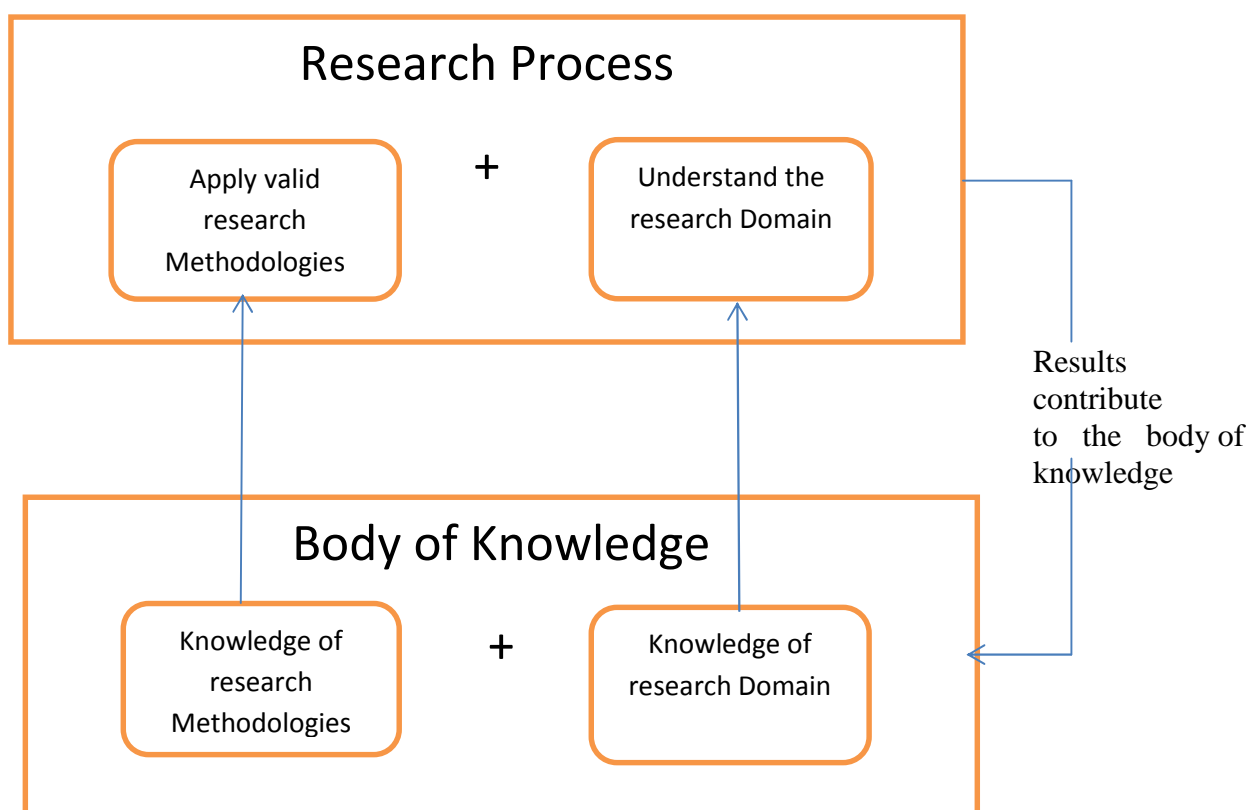
FIGURE 4.1 A framework of research

Acknowledgement of the significance of a systematic research methodology from above discussion, various issues relating to the paradigm of research will first be discussed and justified in this chapter. Discussion of selection process of the data collection method would follow the paradigm of research. Before the mode of communication for the survey is presented, various methods of empirical data collection are evaluated and compared. Construction of the survey instrument followed the discussion queue which discusses the measurement format, context of questionnaire, composition of questionnaire, translation process, evaluation of the measurements and pilot testing. After the discussion of survey instrument, the sampling process is described. Finally chapter ends with the discussion on the conduct of fieldwork survey, the ethical considerations of the study and a summary of the methodology employed.

4.1 Options in Research Paradigm

Discussion of the research paradigm is at the heart of any research and it is incomplete to discuss research methods without addressing the fundamental issues relating to the research paradigm. The main purpose of such discussion is to know how the collection of data and the overall research process are facilitated by the use of specific research paradigm by the researcher. To begin with the methodological discussion is a logical way because implications for what, how and why research is carried out is guided by the choice of a research position (Carson, Gilmore, Perry and Gronhaug 2001). Easterby-Smith, Thorpe and Lowe (1991) pointed out three reasons for the usefulness of an understanding of "philosophical issues" of a research. Firstly, it broadens the understanding of the overall components and procedures of research to be undertaken. Secondly, researcher can know which design will work more appropriately for getting the solution of the research problem. Thirdly, the researcher can identify and devise designs which are beyond his or her past experience by using the knowledge of research philosophy.

If we discuss the issues related to the philosophy of research, "what is paradigm?" is the first question which comes in our mind. The term paradigm is a concept made famous by Thomas Kuhn, the philosopher of science through his works in the early 1960s has made the concept of paradigm famous which means "a basic orientation to theory and research" (Neuman 1994, p. 57). It would also mean to "a whole way of thinking about something" (Holliday 2002, p. 5). Sarantakos (1998, p. 31-32) had provided another definition that sees a paradigm as:

"a set of propositions that explain how the world is perceived; it contains a world view, a way of breaking down the complexity of the real world, telling researchers and social scientist in general "what important, what is legitimate, what is reasonable". According to Hollis (1994, p. 85), there are two aspects of a paradigm. One aspect a set of guiding rules about the character of the world and the way it is to be studied and also envisages the kind of social situation in which it exists. Gill and Johnson (1997) defined it as a perspective from which distinctive conceptualisations and explanations of phenomenon are proposed. A paradigm thus helps the researcher to understand which problems needs to be studied and kind of methods appropriate for studying the problem.

The one side of the continuum of social science philosophical research is anchored by the interpretivism position and the other side is anchored by the positivism position , with others lying on a point on a continuum between the two (Ticehurst and Veal 2000; Carson et al. 2001). These two paradigms are differentiated on the basis of one's personal philosophy concerning how research is being conducted. The positivists approach the establishment and explanation of behavioural pattern is explained by the use of inductive or hypothetico-deductive procedure while motivations and actions that lead to these patterns of behaviour can be rightly explained by interpretivists (Baker 2001). There is nothing like one position is better than other, but rather they are different ways of "…telling a story about society or the social world…" (Denzin and Lincoln 1998, p. 10). The interpretive paradigm is defined as:"the systematic analysis of socially meaningful action through the direct detailed observation of people in natural settings in order to arrive at understandings and interpretations of how people create and maintain their social worlds" ((Neuman 1994, p. 62).

Interpretivists approach consists of a wide range of philosophical and sociological ideas including reflective, hermeneutics, phenomenological, qualitative, relativism, humanism, inductive, naturalism, action research or ethnographic (Ticehurst and Veal 2000; Carson et al. 2001). These approaches reflect the symbolic interactionist or old Chicago school theoretical framework in sociology. The researchers who apply this paradigm are known as interpretivists, experientialists or postmodernists (Neuman 1994).

According to Neuman (1994), the focus of interpretive approach is on issues of social integration and a practical orientation (p. 62). Interpretive researchers have an opinion about the world as socially constructed and subjective, and assume that there is an absence of reality outside of people's perceptions (Ticehurst and Veal 2000). Hence, to understand individual experiences for their everyday lives and what is going on in a given situation, researchers must learn to consider things from the view point of the people being studied. The various considerations which need to consider by the researcher are researcher involvement, the contexts of the phenomena under study, multiple realities, different actors' perspectives, and the contextual understanding and interpretation of data (Neuman 1994).

The other position which is rooted in physical science and that has been put forward as an alternative to interpretivism is known as the positivism approach. This position is also alternatively known as scientific, experimenttal, empiricist, quantitative or deductive and each of these terms has slightly different meaning depending on its use (Ticehurst and Veal 2000). Neuman (1994, p. 58) defines positivism as:

"An organised method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity."

The positivist research is related to the facts or causes of social phenomena and it attempts to establish causal relationships by means of objective facts (Carson et al. 2001). This approach is based on description, explanation and uncovering facts, where the thought is endorsed by explicitly stated theories and hypotheses (Neuman 1994). The positivist research assumes that science independent facts are quantitatively measured by science on a single reality (Guba and Lincoln 1994). Its epistemology is based on the belief that researchers are independent and that science is value-free (Ticehurst and Veal 2000; Carson et al. 2001). In other words, the data and its analysis are value-free and therefore the data do not change because they are being observed.

Carson et al. (2001) summarises the key criteria differentiating the two paradigms as follows:

• In positivism, the researcher is independent while in interpretivist research, the researcher is involved;
• In positivism, researcher may use large samples while in interpretivist research small numbers of samples may   be used;
• In positivism, the aim may be to test theories while in interpretivist-type research, theories generation or   'theory building' is the focus.

The broad definition and explanation of the positivist and interpretivist ontologies and epistemologies and the characteristics of relevant methodologies for both philosophies are

presented in Table 4.1. The next discussion will be on qualitative and quantitative paradigm of research.

TABLE 4.1 Broad definitions/explanations of positivism, interpretivism, ontology, epistemology and methodology[32]

	INTERPRETIVISM	POSITIVISM
Ontology Nature of 'being'/ nature of the world Reality	No direct access to real world No single external reality	Have direct access to real world Single external reality
Epistemology 'Grounds' of knowledge/ relationship between reality and research	Understood through 'perceived' Knowledge Research focuses on the specific and Concrete Seeking to understand specific Context	Possible to obtain hard, secure objective knowledge Research focuses on generalisation and abstraction Thought governed by hypotheses and stated theories
Methodology Focus of research Role of researcher	Concentrates on understanding and interpretation Researchers want to experience what they are studying Allow feelings and reason to govern actions Partially create what is studied, the meaning of the phenomena Use of pre-understanding is Important Distinction between facts and value judgements less clear Accept influence from both science and personal experience	Concentrates on description and explanation Detached, external observer Clear distinction between reason and feeling Aim to discover external reality rather than creating the object of study Strive to use rational, consistent, verbal, logical approach Seek to maintain clear distinction between facts and value judgements Distinction between science and personal experience

---

[32] Carson, D., Gilmore, A., Perry. C. and Gronhaug, K. (2001). *Qualitative Marketing Research*. London: Sage

Techniques used by researcher	Primarily non-qualitative	Formalised statistical and Mathematical methods predominant

Source: Carson, Gilmore, Perry and Gronhaug (2001, p. 6)

4.1.1 Qualitative and Quantitative

Some researcher uses the terms qualitative and quantitative paradigms instead of positivism and interpretivism, (e.g. Leedy 1993; Creswell 1994; Punch 1998). The nature of qualitative paradigm is inductive, holistic and subjective. It has a process orientation which highlights social and anthropological worldviews. On the other hand, the quantitative paradigm is heavily based on the assumptions from the positivist approach to social science. Although a position is often taken on the use of one approach or the other, it has been recognised that these two paradigms are not contradictory but complementary to each other (Preece 1994; Newman and Benz 1998). Thus when objectives of the research are theory building and theory testing, combinations of both approaches may even be used in the same study by the researcher. The following section highlights some important features of qualitative research.

QUALITATIVE RESEARCH: The objective of qualitative research is to understand human behaviour and yields descriptive data. Denzin and Lincoln (1994, p. 2) has described qualitative research as:

"Qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials - case study, personal experience, introspective, life story, interview, observational, historical, interactions and visual texts - the described routine and problematic moments and meanings in individuals' live."

Qualitative research is more concerned with explanations for complex phenomena, operations or processes and is less related to get a specific outcome. According to Yin (1994), qualitative methods would help the researchers who want to deeply understand

complex social phenomena. When objective of the researcher is to seek the knowledge about the fundamental characteristics of a phenomena being studied as an adjunct to theorising about the phenomenon, qualitative approach is most appropriate. This knowledge is often accumulated through close contact with subjects of a study which allow the researchers to experience the phenomena and to understand their point of view about phenomena. As Denzin and Lincoln (1994, p. 4) state:

"….qualitative implies an emphasis on processes and meaning that are not rigorously examined or measure (if measured at all) in term of quantity, amount, intensity, or frequency. Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied… They seek answers to questions that stress how social experience is created and given meaning."

The use of inductive, hypothesis-generating research methodologies is preferred by qualitative researchers. They find answers to creation of social experiences and the way meaning is given to it. Ontologically, most qualitative researchers believe that individuals create reality and so they believe that their purpose is to understand the way people senses their lives and in particular settings, how people come to understand and manage their day to day situations (Miles and Huberman 1994). More precisely, probing scientific situations in a bid to provide understanding much greater depth rather than predicting the subject under investigation, through soliciting data which provides detailed descriptions of events, situations and interactions between people and things is in the nature of qualitative research (Donnellan 1995).

QUANTITATIVE RESEARCH: Quantitative research is a research method which is contrary to qualitative research. It is not related to process rather it emphasises on the measurement and analysis of causal relationships between variables (Denzin and Lincoln 1994). According to the definition given by Creswell (1994, p. 2):

"A quantitative study, consistent with the quantitative paradigm, is an inquiry into social or human problem, based on testing a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true."

Quantitative research is a methodological principle which is based on positivism about the nature of social reality and the methods by which it can be 'known' (Herbert 1990). Quantitative research emphasis controlled measurement; it is verification-oriented, confirmatory, reductionist, inferential and hypothetico-deductive. Reliability is critical and data is hard and the results are expected to be replicable without having any bearing on who conducts the research (Bryman 2001). Quantitative research attempts to analyse the situation at hand and because of that it is known as particularistic. Quantitative research attempt quantify the data by using some form of statistical measures and control procedures which reduce bias and confounding variables as much as possible. The aim of quantitative research is to identify potentially strong, non-random, correlations between explanatory (or independent) variable and effects (or dependant variables) by employing a relatively large number of cross sectional or longitudinal observations. Rubin and Babbie (1993, p. 30) describe:

"Quantitative research methods emphasise the production of precise and generalizable statistical findings. They believe that there is certain objectivity about reality which is quantifiable. The data which are collected by positivists tend to be numerical and are open to interpretation by use of statistics; thus the data are said to be quantitative. When we want to verify whether a cause produces an effect, we are likely to use quantitative methods." Because quantitative research involves the application of statistical analysis, a theoretical model is typically developed by the researcher to illustrate the hypothesised relationships between two or more attributes under investigation.

The phenomena that vary by level or degree are known as variables which are a set of linkages of attributes of cases. In quantitative analysis, there are two most important variables, called independent (or causal) variables which a cause variable, and dependent (or outcome) variables, which may be described as effects in a given analysis. The phenomenon the researcher wants to explain is a dependent variable while the factors that account for the variation in the dependent variables are known as the independent variables (Ragin 1998).

Thus the differences between qualitative and quantitative approaches to empirical research can be marked easily. However, it is unusual consider these two against one another in a

competing sense. Both approaches have their peculiarities to research but "neither one is markedly superior to the other in all aspects" (Ackroyd and Hughes 1992, p. 30). Patton (1990, p. 39) has an opinion that a "paradigm of choices" that seeks "methodological appropriateness as the primary criterion for judging methodological quality." This will allow for a "situational responsiveness" rather than strict adherence to one paradigm or another. Some researchers have an opinion that effective combination of qualitative and quantitative research in the same research project will improve the reliability further. Donnellan (1995) has a view that the ideal position to take in a qualitative-versus-quantitative debate is to view both types of research as playing a legitimate and important role in marketing research. Therefore, whenever and wherever possible, both alternatives can be used in order to supplement each other. However, the use of combination of these two methodologies is rarely evident because of technological and expense barriers within any one research study. Table 4.2 list out the differences in assumptions between qualitative and quantitative approaches.

TABLE 4.2 Qualitative and quantitative paradigm assumptions[33]

Assumption	Question	Qualitative	Quantitative
Ontological assumption	What is the nature of reality?	Reality is subjective and multiple as seen by participants in a study	Reality is objective and singular, apart from the researcher
Epistemological assumption	What is the relationship of the researcher to that researched?	Researcher interacts with that being researched	Researcher is independent from that being researched
Axiological assumption	What is the role of values?	Value-laden and biased	Value-free and unbiased
Rhetorical assumption	What is the language of research?	Informal Evolving decisions Personal voice Accepted qualitative words	Formal Based on set definitions Impersonal voice Use of accepted quantitative words
Methodological assumption	What is the process of research?	Inductive process Mutual simultaneous	Deductive process Cause and effect

---

[33] Creswell, J. W. (1994). *Research Design: Qualitative & Quantitative Approaches*. Thousand Oaks, CA: Sage

		shaping of factors	
		Emerging design – categories identified during research process	Static design - categories isolated before study
		Context-bound Patterns, theories developed for understanding	Context-free Generalisations leading to prediction, explanation and understanding
		Accurate and reliable through verification	Accurate and reliable through validity and reliability

4.1.2 Justifications for the Chosen Paradigm and Approach

The preceding discussion has revealed many important aspects of principles and philosophies in qualitative and quantitative paradigms. It is suggested (Patton 1990; Creswell 1994; Maxwell 1996) that there are number of factors to be considered including the degree of understanding of the problem provided by the method, the thinking of researcher about the appropriate way to study human behaviour, the questions of the research, the rigour of the research which includes both the universality and verifiability of results; the extent of generalizability of research to other settings and persons; and the usefulness of the findings in deciding about whether to use one or the other, or both of these paradigms,

The next discussion will be on the description and justification of the chosen paradigm and approach used for conduction research in present study. From the preceding review it is evident that the positivist paradigm would fits best with the research question and in turn shapes the methodology used. Perry, Riege and Brown (1999, p. 16-17) best summed up the paradigm as follows:

"Positivists assume that natural and social sciences measure independent facts about a single apprehensible reality composed of discrete element whose nature can be known and categorised. The objectives of the research enquiry often include the measurement and analysis across time and context. The primary data collection techniques include controlled experiment and simple surveys, which are outcome orientated and assume natural lows and

mechanisms, with the primary mode of research enquiry being theory testing or deduction."

Perry et al. (1999) has discussed structured way the data are collected in which there is no interference of researcher in the subject of interest which results into a value free testing where the meaning of data do not change as they are being tested. Such conditions can be established by positivistic inquiry through a framework of "regulatory ideals" (Guba and Lincoln 1994, p. 110). Quantifiable method supports this framework further to verify of falsify hypothetical propositions. Predictive nature is the key methodological characteristic of the inquiry by verifiable truths are confirmed. The application of positivistic inquiry helps the researcher to use quantitative research approach. The decision on the use of the approach is guided by the nature of research inquiry, the concepts to be investigated and the purpose of the study. As stated at the outset, the purpose of this study is to examine explanatory nature of the possible relationship between religious variables and shopping orientation. The aim of this research is to establish causal relationship between two or more variables; the quantitative approach is well-suited to addressing this research goal. Detailed descriptions of the phenomenon under investigation is provided by qualitative methodology (Patton 1990; Denzin and Lincoln 1994), it would less be considered for testing hypothesis about relationship among variables and generalising the result. Because of that for hypotheses testing and generalisation, it is most viable and appropriate to use. When the effects of an independent variable on dependent variables are required to be statistically assessed, researcher personally believes that quantitative research would be more appropriate and a reliable way to understand the nature of relationships among variables as well as to provide a rich contextual basis for interpreting and validating the results. The logic behind this is that the quantitative research uses quantities rather than impression for drawing findings and impressions (Denscombe 1998). The literature review in Chapter three illustrates that there exist a substantial body of existing consumer literature on religion which conceptualizes the nature of the relationships between religious variables and shopping orientation aspects of consumer behaviour. So the use of quantitative research approach in this study follows the tradition which has been developed in the literature. Therefore, in this study, the relationships between religious variables and elements of consumer shopping orientation are examined by applying the same principles outlined in previous literature.

The use of quantitative approach further gives additional credibility to the researcher in terms of the confidence he has in his findings and interpretations he makes. The applications of statistical techniques such as bivariate and multivariate give an advantage to the researcher by allowing the researcher to measure and control variables (Edwards 1998). To achieve researcher goal, these statistical techniques plays two important roles (Cowan 1990). Firstly, it describes a relationship in a way that makes understanding easier (i.e. the modelling role) and it assesses the strength and validity of any relationship defined (i.e. the testing role).

Whether particular measurement is significant and the findings from the studies can be held true for the whole of their target segment can be known to the researcher by the application of statistical tests.. Moreover, objectivity and neutrality is maximised by the logical positivist approach (Carson et al. 2001; Grey 2004). Quantitative approach introduces both testability and context into the research is another reason relates to the capability of the approach. The real picture of the entities and phenomena under study can be obtained because of wide coverage by collecting large amount of data from a structured questionnaire survey. As commented on by Ragin (1998), it makes possible to average out the characteristics of individual cases by looking across many cases and the construction of an overall picture that is purified of phenomena that are specific to any case or to a small group of cases. So, it is well suited with objectives of the study. These include measurement of the relationships between specific variables and making predictions and the objectives of describing general patterns.

After having completing the discussion on the empirical approach of this study, the next section describes the method of data collection. On the basis of the specific problem investigated and the situation faced by the researcher, each alternative will be evaluated.

4.2 Choice of Data Collection Method

As discussed in the previously, in this study quantitative approach will be used. For collecting primary data in marketing research, experiment, observation and survey are the most widely used methods of data collection (Baker 2001). The subsequent sections will

discuss the appropriateness of each of these methods for collecting the required data for this study.

4.2.1 Experiment

Why do some events occur under certain circumstances and not under others? The answer given to this question by research methods is called causal methods. To determine if there is a causal relationship between the variables under investigation, experiments are used. An experiment method allows the researcher to change the value of the variables of interest systematically and observe what changes follow. The experiment may be true experiment in which subjects are assigned to the treatment randomly and quasi experiment in which non-random assignment of the subject to the treatment is followed. (Keppel 1991). In this kind of setting, two or more groups are selected having matched characteristics. One group is known as an experimental group and the other as control group. The experimental group is subject to an intervention and the control group is not. Both the groups are compared and contrasted before and after the intervention on the results obtained. If the measurement of the result indicates difference behaviour of experimental group in comparison with control group then the researcher can draw the conclusion that changes in behaviour are because of the intervention.

In term of reliability and applicability, for establishing the cause-and-effect relationship, experimentation is more effective but in order to establish the causation, the nature of this study will not allow the researcher to manipulate any presumed causal variables and to control other relevant variables. Furthermore, due to the possibility to control, random assignment of the treatment to the subject and manipulate any presumed causal variables, experimental research generally allows high levels of internal validity (Tabachnick and Fidell 2001), but its lower external validity and artificial environment are considered to be weaker elements (Dillon et al. 1990; Churchill 1995; Malhotra and Birks 1999). The aim of this study is the generalisation of consumer behaviour result over larger population, external validity is very important. Consequently, the use of non-experimental research is considered suitable for this purpose.

Kerlinger (1986) defined non-experimental research as "systematic, empirical inquiry in which the scientist does not have direct control of independent variables because their

manifestations have already occurred or because they are inherently not manipulable" (p. 348). Non-experimental research can consist of observation as well as survey methods of data collection, as discussed in the subsequent sections.

4.2.2 Observation

To produce numerical, in quantitative research, data the observation method is used. This method is termed by Kumar (1999) as a systematic and selective way of watching and listening to an interaction or phenomenon as it takes place. In his discussion of observation method, Baker (2001, p. 378) describes: "Observation consists of the systematic gathering, recording and analysis of data in situations. The appropriateness of this method is based on objectivity and reliability - and ability to yield concrete results (e.g. the flow of persons in a shopping centre) or provide formal hypotheses about relationships which can then be tested by experimentation or survey analysis."

A researcher can use the observation method alone or it can be used in conjunction with other forms of research to supplement the data collected (Chisnall 1997). Though observation is used to know what people do and how it is done, it cannot probe anything about the motivations, attitudes and knowledge that underlie the respondent's behaviour (Kinnear and Taylor 1996). Moreover, researchers' subjectivity would have profound effect on interpreting observed behaviour which leads to biases (Churchill 1995; Malhotra and Birks 1999). Since measurement of causal relationships is the main motto of this research and since there is no existing facts or established patterns of action to check, the observational method is deemed to be appropriate in the context of this study and some form of direct questioning of respondents is deemed more appropriate.

4.2.3 Survey

Surveys are known to be a better source of primary data collection in marketing and social sciences in comparison with observation and experiments (Baker 2001). They have their origins in the positivistic tradition and are regarded as being inherently quantitative (May 2001). According to Robson (2002), surveys are utilised in conjunction with a cross sectional design in which the information from any given sample of the population is

collected only once. Using questionnaires or structured interviews, data are collected with the object of generalizing from a sample to a population to determine attitudes and opinions and to help understand and predict behaviour (Baker 2001).

Descriptive and explanatory are two major forms of survey (Burns 2000, p. 566). The nature of existing conditions, attributes or the parameters of the population can be precisely estimated by the descriptive survey while cause and effect relationships can be established using the explanatory survey without experimental manipulation. There are four categories in which the information collected from the survey can be classified in: people's physical condition, behaviour, social and economic circumstances and their attitudes and opinions (McCrossan 1991).

The abovementioned discussion makes it clear that the only viable method and logical choice for the study to be undertaken is a survey. The succeeding section provides the justifications for the utilization of survey method.

JUSTIFICATIONS FOR THE SURVEY METHOD: For quantitative hypothesis testing the usefulness of survey methodology has been extensively considered (Babbie 1992; de Vaus 2001; Burton 2000; Robson 2002). Survey method can provide data on past and intended behaviours, beliefs, attitudes, feelings, ownership, personal characteristics, knowledge and other descriptive items (Tull and Hawkins 1990). Data collection for the wider generalisations to population is the basic aim of survey and data so collected can be aggregated across cases in a meaningful fashion (Baker 2001). It is also possible with the survey method that a researcher can contact more subjects in a limited time then other methods would have permitted**.** To further demonstrate the strength of the survey method, Babbie (1992) provides an explanation by citing "one person's religiosity is quite different from another's" (p. 278). As Babbie (1992) further clarifies, although researchers must be able to define this concept in ways most relevant to their research goals, it is not easy to apply the same definition uniformly to all subjects. The survey is certain to this requirement by asking exactly the same questions to all subjects and expecting all respondents giving a particular response.   Improved reliability is the advantage of this standardisation. Surveys can eliminate the researchers unreliability or bias in observations by representing respondents with a standardised stimulus, May (2001), in his argument on the logic of the survey method, also supports that a survey is a rigorous approach which

removes as much bias from research process as possible and produce results that are replicable by following the same methods.

Both in terms of the number of cases included and in the manner of their selection, survey methods attempt to be representative to some known universe, Random sampling, that is, the procedure of selecting sample members would be emphasis by survey. Characteristics of the population can be estimated from a small representative sample group drawn at random by using statistical techniques. This allows the determination of sampling error associated with the statistics, which is generated from the sample but used to describe the universe (Churchill 1995). In addition, the reason for the use of survey method is it does not require control over behavioural actions and mainly focuses on contemporary events (Yin 1994). With the survey method, it is possible for the researcher to measure the statistical reliability of results obtained from the sample. Meaning that, the differences between results from the sample and the result if the entire target population is canvassed can be measured by the researcher. The reliability of the result is greater if the difference is smaller, and the researcher has more confidence in making generalisations based on the survey. Table 4.3 illustrates the relevant situations which are best suited for different research strategies.

TABLE 4.3 Relevant situations for different research strategies[34]

Strategy	Form of research questions	Requires control over behavioural events?	Focuses on contemporary events?
Experiment	How, why	Yes	Yes
Survey	Who, what, where, how many, how much	No	Yes
Archival analysis	Who, what, where, how many, how much	No	Yes/no
History	How, why	No	No
Case study	How, why	No	Yes

---

[34] Yin, R. K. (1994). *Case Study Research: Design and Methods*, 2nd ed. Thousand Oaks, CA: Sage

MODE OF COMMUNICATION FOR SURVEY: The subsequent question to pose here is how to conduct the survey? By asking set of questions to members of a population who are expected to possess the required information survey data are collected. For conducting the survey, the researcher has potentially three relevant options of communication method available: (i) personal interview, (ii) mail surveys and (iii) telephone survey (Dillon et al. 1990; Churchill 1995; Kinnear and Taylor 1996; Malhotra and Birks 1999; de Vaus 2002). In personal interview the questionnaire is administered by the interviewer to the respondents in a face-to-face situation. The answers are recorded and coded as the interview proceeds. In a mail survey, questionnaire is sent to the respondent by mail and the respondent mail the complete questionnaire back to the researcher. In telephonic interview, on the other hand, involves making a phone call to selected sample members and asking them questions over the phone. Among these three available methods, the personal method with self-administered questionnaire appeared as the most popular and frequently used mode of survey in investigating the influence of religion on consumer behaviour (Delener 1990a, 1990b, 1994; Rodriguez 1993; Loroz 2003; Bailey and Sood 1993; Sood and Nasu 1995; LaBarbera and Gurhan 1997 ;). Also past researcher has used telephone interviews (Siguaw, Simpson and Joseph 1995; Andaleeb 1993; Siguaw and Simpson 1997) and mail survey (Essoo and Dibb 2004; McDaniel and Burnett 1990, 1991 ;) as a method communication.

According to van der Zouwen and de Leeuw (1990), survey methods is selected on the basis of the importance of response rates, the nature of the survey, the sample, the types of questions, and time and cost constraints. De Vaus (2002) emphasized five broad considerations in evaluating the relative merits of survey methods over other methods, which are response rates, obtaining representative samples, effects on questionnaire design, quality of answers and survey implementation. An overview of the main advantages and disadvantages of three different survey methods: personal, telephone and mail surveys are provided in Table 4.4.

Certainly, as shown in the Table 4.4, all three methods have several advantages and disadvantages, and therefore, it can be concluded that there is no survey methods which neither is superior in all research situations nor can claim to be the best on all criteria. So it cannot be concluded which method is best on little information; rather, it should be based

on the needs of the specific survey as well as time, cost and resource constraints (Forza 2002). For example, in terms of flexibility, versatility and accuracy personal interview might be the best but it is not viable method on the ground of expense and time constrains. Similarly, the least expensive; wider geographical coverage; anonymity of response and reduction of interviewer bias mail survey is superior over other method but on the ground of subjective selection of the sample and time consumption in obtaining responses due to respondent's refusal to participate in the survey make it less appropriate. For these reasons, the personal interview method is best suited for this research because it meets need for data collection and is the trade-off between several criteria.

The telephone interviewing method is inappropriate for this kind of study because: (i) the design of the scale (i.e. Likert type) would make it difficult to administer over the telephone (ii) the questionnaire appeared to be too long, and (iii) some of the questions such as religious commitment and respondents' background might be too personal in nature to ask over the phone. The mail survey approach will be also set aside due to (i) lack of control over sample and interviewing process; (ii) its natural weakness of low response rate; and (iii) unavailability of complete mailing list for the purpose of sampling. This process of choice is left over the personal interviewing method as a most viable option having several advantages over the other methods of data collection. These advantages are briefly discussed in the ensuing paragraph.

The most important consideration for the selection of personal interviews is the quality of the data sought. By comparison, personal interview method offers the best control over the sample and its flexibility of data collection than telephone or mail interviews. The response rate is normally assumed to be higher because of the face-to-face relationship nature between the interviewer and respondents, than in the other methods. Mail and telephone interviews would yield the similar result, but the fact is that the interviewer has the opportunity to introduce the research topic and motivate the respondents to give their honest answers, administer complex questionnaires and clarify difficult questions by personally administering the questionnaire,. This should yield both the largest quantity and highest quality of survey data. According to Burns (2000), properly designed and executed interview surveys should produce response rates of at least 80-85 percent.

Despite these advantages, it is generally agreed that in comparison to mail survey and telephone interviews, personal interviews are the most expensive and more time consuming method (Malhotra and Birks 1999; de Vaus 2002; Grey 2004). These two problems are impossible to avoid and becomes the major limitations for the present study, but by concentrating on a small sample size, the severity of the problems could be mitigated (Burns 2000). To balance the time and financial constrains self-administered questionnaire seems a practical approach in completing the study with the need for including a large sample to establish the representativeness of the sample for generalizability, inclusion of large sample generate a low response rate and a poor quality of survey data (May 2002).

Further, because religious issues are sensitive to many individuals, the only way left to ensure the accuracy of information required and large participation of respondents is by personal contact. It also needs to consider that collecting reliable and valid data concerning religious issues by means of the survey method is very difficult to as cautioned by previous researchers (Bailey and Sood 1993; Sood and Nasu 1995). When the respondent became aware of the religious content of the research instrument it is very likely that individuals are reluctant to participate in the study. So the only remedy left is personally interviewing the individuals and explaining them the purpose of the study very carefully to ensure that they will not get the wrong idea about the study.

TABLE 4.4 Comparisons of personal, telephone and mail surveys[35]

Mode of Delivery	Personal	Telephone	Mail
Response rates			
General samples	Good	Good	Good
Specialised samples	Good	Good	Good
Representative samples			
Avoidance of refusal bias	Good	Good	Poor
Control over who completes questionnaire	Good	Satisfactory	Satisfactory

---

[35] de Vaus, D. (2002). *Surveys in Social Research*, 5th ed. London: Routledge

Gaining access of selected person			
Locating selected person	Satisfactory	Good	Good
	Satisfactory	Good	Good
Effects on questionnaire design			
Ability to handle:			
Long questionnaire	Good	Satisfactory	Satisfactory
Complex questionnaire	Satisfactory	Good	Poor
Boring questionnaire	Good	Satisfactory	Poor
Item non-response	Good	Good	Poor
Filter questions	Good	Good	Satisfactory
Question sequence control	Good	Good	Poor
Open-ended questions	Good	Good	Poor
Quality of answers			
Minimise social desirability	Poor	Satisfactory	Good
Make question order random	Poor	Good	Poor
Ability to minimise distortion due to:			
Interviewer characteristics	Poor	Satisfactory	Good
Interviewer opinions	Poor	Satisfactory	Good
Influence of other people	Satisfactory	Good	Poor
Allows opportunities to consult	Satisfactory	Poor	Good
Avoids interviewer subversion	Poor	Good	Good
Implementing the survey			
Ease of obtaining suitable staff	Poor	Satisfactory	Good
Speed	Poor	Good	Poor
Cost	Poor	Satisfactory	Good

4.3 The Survey Instrument

To satisfy research objectives through the measurement of independent and dependent variables of interest is the objective of a research instrument is (Churchill 1995). It gives an idea about people's beliefs, attitudes, values and behaviour. For study, a structured questionnaire is prepared for use in the field survey.

To meet research objectives and to answer research questions is the main purpose of questionnaire and because of that design of the questionnaire can be viewed as an important facet of the research process as the quality of the data collected is directly affected by design of the questionnaire. (Sommer and Sommer 1991; de Vaus 2001). However, there is no theory of questionnaire design which is widely accepted with some researchers admitting that questionnaire design process is an art rather than a science (Churchill 1995).

The base of previous similar studies is taken to develop the questionnaire and scale. It is suggested that instrument developed in other previous studies should be used and it is decided in accordance with de Vaus (2001), who suggested that ideally, researchers should first evaluate available measures developed in previous research before developing indicators and scales for their own research. In the opinion of de Vaus (2001), there are plethora of well-established and tested scales available which cannot be ignored. Updating or rewording of most of the items from previous measures may be needed to fit a particular context or a particular sample. A cumulative body of knowledge can be build up by use of well establish use of indicator rather than each researcher carrying out their own idiosyncratic research with idiosyncratic measures (de Vaus 2001). if items or scales which have previously appeared in the literature is used, it enhanced the construct validity (i.e. do items measure hypothetical concepts.) Mitchell and Bates (1998) state that "replications and extensions of existing scales help guard against the perpetuation of erroneous and questionable results, as well as assessing the generalisability of findings from marketing studies" (p. 200).

However, it is decided to use most relevant items that subjectively fit the research context from various versions of measurement scales currently available for each concept. The reason behind this is that more the number of items included in the questionnaire, the more

it becomes lengthy and time consuming to complete the survey, which in turn might adversely affect respondents' willingness to participate in the interviewing process. The ensuing sections will describe in detail the process followed in developing the survey instrument.

4.3.1 Measurement Format of Items

To determine the format of individual items is the first step in the development of measurement instrument. There are two types of response format; open ended and close ended which can be used in measurement format. According to Sommer and Sommer (1991), it is desirable to use closed ended questions when the researcher wants the participants to choose from a set of alternative answer category. In other words, the researcher wants confirmation of the answers in a specific scale for a measurement. On the other hand, open-ended questions give freedom to the respondent to answer the questions on their own way. In the present study, the close-ended questions format is employed for the survey instrument, in which the respondent will have to select any one answer category that best suit the response. The main reasons for the frequent use of close-ended questions are easy to ask, provide a greater uniformity of responses, more easily processed, reduce interviewer bias, and are faster to administer (Kinnear and Taylor 1996). In addition, the use close-questions type is the only mechanism in motivating the respondents to respond if we consider the differences in their literacy and level of exposure to survey practices. The reason is that the respondents do not require having a high level of comprehension on the topic.

In this study to assess the attitude of the respondents, the self-report technique is used which is consistent with common practice,. Respondents are asked directly to express their attitude or feelings by responding to one or more questions in the questionnaire. Graphic and itemised rating scales are two possible approaches that can be used for these techniques (Sekaran 1992; Churchill 1995). In this study Itemised rating scales is used since it is the most frequently used scales in consumer research. This approach requires the respondents to indicate their position by selecting among a limited number of categories. An itemised rating scale is easily grasped by respondents, requires little additional explanation and it is quick to administer.

A 5-point Likert-rating scale is used to measure all variables in the questionnaire except questions on total spending on clothing and demography. The Likert scale is a type of itemised rating scale because each category of the scale is numbered and/or briefly described (Churchill 1995; Malhotra and Birks 1999). The Likert scale is routinely treated at an interval level though the output from a pure technical standpoint is no stronger than an ordinal scale (Malhotra and Birks 1999). Rensis Likert has given the scale in 1932 and it has wider acceptability in consumer research.

The selection of Likert scale is based on the following advantages. Firstly, it is beneficial to use Likert scale over other scale because it overcomes the criticisms of other scales by allowing the respondents to express the intensity of their feelings (DeVellis 1991; Kinnear and Taylor 1996; Burns 2000; Zikmund 2000). Instead of subjective opinions of judges, it is based entirely on empirical data regarding subjects' responses n. Secondly, it produces more homogeneous scales and increases the probability that a unitary attitude is being measured, and therefore that validity (construct and concurrent) and reliability are reasonably high (Burns 2000). Finally, the advantages of the Likert scale are its ease of construction and the simplicity of respondent directions (Malhotra and Birks 1999).

4.3.2 Product Class

The selection of an appropriate shopping product is important to this study is that would exhibit the clear characteristics necessary to examine the research area. It has been decided that the context of the questionnaire will strictly focus on a single shopping product due to the desirability of studying marketplace behaviour with respect to specified product categories. other than time and cost constrains, the most important reason for restricting to one type of product, is to control for product variation as it is reported earlier that the influence of religion on consumption behaviour tend to varies by product classes (Delener 1990a). To facilitate the discussion and consequently the marketing implications derived from the findings, which is more narrow and definable to a specific product market, concentration on a single product is desirable.

However, considerable care is required for the selection of a product for the study. The product chosen for the study should be purchased by all individuals in the population and

should not be restricted to a particular culture. In this context, it is evident that purchase of a single, high-involvement product is used in the previous research. Delener (1990b) used products such as a microwave oven, Delener (1994) used an automobile, Rodriguez (1993), Bailey and Sood (1993) and Sood and Nasu (1995) used an expensive radio set while Essoo and Dibb (2004) used a television set.

In this study, the apparel shopping context is selected since this product is consumed by the people irrespective of cultural backgrounds. It is believed that the apparel product category is a label of one's ethnic identity because it is highly visibility (Jain 1989). Hence, if the influence of religious factors on shopping orientation and behaviour can be identified, it would logical for us to assume that similar effects are at work in producing the same behaviour for other consumer products. This assumption would need to be tested in the future.

4.3.3 Composition of the Questionnaire

Close-ended questionnaire is used as a survey instrument. To explain the purpose of the study and to request the respondent's co-operation regarding the interview a covering letter is placed in the first page of the questionnaire. Related questions are grouped together within the construct while preparing the questionnaire because it enables easier variable connection for data analysis and will be simpler for participants to have one question flow to another (Foddy 1993). It is agreed by many researchers that questions on major theme of the study should be placed first in the questionnaire and specific demographic question should appeared at the last. Demographic questions are considered easier to answer and therefore putting them at the end of a questionnaire will allows participants to answer the least difficult questions when they are most fatigued and bored with the survey session. Table 4.5 summarises the four sections of questionnaire.

TABLE 4.5 Structure of the questionnaire

Section	Variables	No. of items	Scale	Main source
1	Religiosity Strength of religious affiliation	30 1	5-point Likert-type 6-point scale	Worthington et al. (2003) , Allport and Ross (1967), Mokhlis (2008), Rohbaugh J. & jessor R. (1975), Swimberghe K.R et. al. (2011), Youngtae Choi (2010), (Hill and Hood 1999).
2	Shopping orientation	33	5-point Likert-type	Shamdasani, Hean and Lee (2001), Welker (2004), Moye and Kincade (2003), Zhang, Carpenter and Brosdahl (2011) and Sinha (2003) and Garnett (2010)
3	Information sources	7	5-point Likert-type	Eckman, Kotsiopulos and Bickle (1997
4	Demographics	8	Categorical format (multiple choice)	Author

RELIGION: Religious constructs have generally been operationalised by researcher designed items or by behavioural measures in the relevant literature. Two facets of religious conceptualisation have been identified: religious affiliation and religiosity from the literature review. In this study, religiosity is conceptualised from these two perspectives. It is believed that both perspective are important and appropriate for consumer behaviour research because to assess the existence of differences between two or more religious groups, religious affiliation is useful as a predictor variable but not within a specific religious group. Further, although there is an advantage of objectivity in the use of religious affiliation classification, it suffers a limitation as one may or may not identify oneself strongly with one's religiosity.

Religious affiliation

The specific type of religious community a person can identify him/herself with or into which an individual is integrated is termed as religious affiliation (Ellison, Gay and Glass 1989) and the relevance of the dimension in affecting behaviour substantiated in the research (Hirschman 1981, 1982a, 1982b, 1983; Bailey and Sood 1993).

Religious affiliation is measured by asking respondents about the religions with which they identified themselves (Hindu, Muslim, Jain, or Christian or other). This nature of this approach is regarded as "emic" that is, it allows the respondent to label themselves and to ensure that those who are "born into" a particular religious tradition but no longer felt tied to it are not judgementally labelled by the researcher (Hirschman 1982a). Cross-cultural behavioural researchers, especially those in cultural anthropology and sub-cultural psychology considered this method of measuring religious affiliation the most appropriate one.

Religiosity

With church attendance and denomination being the primary measure, traditionally religiosity has been conceptualised as a unidimensional concept (Bergan 2001). Though this unitary measure may be simple in terms of cost validity and remains a frequently used measure within the literature (e.g. Schwartz and Huismans 1995), many researchers contended that frequent use does not make such a unidimensional assessment cannot be made an acceptable research practice on the basis of its frequent use in the literature. As Bergan (2001) very appositely pointed out that measurement of religiosity on the basis of religious attendance as a sole measure may be inadequate and lead to improper conclusions. There is a difficulty in equating greater attendance of worship in congregation and increased religious commitment if unidimentional view of the religiosity is considered. There are many reasons for a person to attend prayer. It may to avoid social isolation, to please their colleagues, or it can be a form of prestigious action to dominate over others. Thus we cannot conclude that a person who is high in religious practice is high in religiosity because this practice could be a routine action more than devotional (Mokhlis 2006).

The recognition of the multidimensional nature of religiosity allows for a more thorough understanding of the potential importance of different dimensions or forms of religiosity. There are plethora of scales to measure a wide variety of religious phenomena including attitudes, beliefs and values in psychometric research conducted in the area of psychology (Hill and Hood 1999). Most research has classified religiosity in terms of intrinsic (religion as an end), extrinsic (religion as a means) and quest (religion as a search) dimensions. But still there is no agreement among the researcher for exact number of dimensions. Religiosity is a mirror of behaviours, attitudes, beliefs, feelings and experiences. There is no agreement among religious scholars and sociologists on development of individual religiosity measure and because of that researcher can devise the measure on its own to fit the research objective.

Thus, there is a considerable difference in the content and number of religious dimensions varies depending on the nature of the research, purpose and context. This study views religiosity as a multidimensional concept which is consistent with the past researches. It is argued that a better understanding of the true nature of religiosity can be provided by measuring the religiosity on multi-dimensional basis and "may achieve high validity at the cost of sheer impracticality for almost all consumer research" (Wilkes et al. 1986, p. 49). Measuring the religiosity from multidimensional way is also consistent with those in the areas of psychology (e.g. Worthington et al. 2003; King and Crowther 2004) and consumer behaviour research (Wilkes et al. 1986; Delener 1990a, 1990b, 1994; LaBarbera and Stern 1990; McDaniel and Burnett 1990; Sood and Nasu 1995; Siguaw and Simpson 1997; Essoo and Dibb 2004, Mokhlis 2006).

Psychology research witnesses a vast number of existing measures of religiosity created and/or used. 125 measures of religiosity and spirituality were compiled by Hill and Hood (1999) in their edited book on religious instruments. It is difficult to make the choice of appropriate measure for this research because the majority of the existing measures are designed from a Christian perspective and developed with Christian or Judeo-Christian subjects. Thus, after thoroughly evaluating the different measure of religiosity and keeping in mind the multidimensionality of religious a scale is developed to measure the various aspects of religiosity like religious knowledge,experiences, feelings, belief, rituals and

practices along with the Religious Commitment Inventory (RCI-10) and religious orientation scale are instrumental in the development of the scale.

SHOPPING ORIENTATIONS: Shopping orientation items is adopted from previous studies of Shamdasani, Hean and Lee (2001), Welker (2004), Moye and Kincade (2003), Zhang, Carpenter and Brosdahl (2011) and Sinha (2003) and Garnett (2010). A 5-point Likert scale is used to measure the shopping orientation of respondents, ranging from strongly disagree (1) to strongly agree (5).

INFORMATION SOURCES: Information sources, such as print publications (magazine/newspaper), commercial broadcast (television) and personal influences (family/friends) are generally used to ascertain information about merchandise. Seven items with a 5-point Likert-type scale ranging from never (1) to always (5) are used to measure how frequently consumers used the following sources of information when selecting a store to buy clothes: (i) television advertising, (ii) catalogues/brochures, (iii) magazine advertising, (iv) newspaper advertising, (v) friend's opinion, (vi) family opinion's and (vii) salesperson advice (viii) internet. These items are adapted from Eckman et al. (1997).

DEMOGRAPHICS: Because of personal and threatening nature of demographic by at least some respondents (Dillon, Madden and Firtle 1990), they are asked at the end of the questionnaire. This final part of the questionnaire consisted of a fairly standard list of demographic and socio-economic questions with seven questions in total, including gender, marital status, age, educational attainment, occupation, religious affiliation, household's monthly income and area of residence all of which have been noted as important variables in the examination of religious influences on consumer behaviour.

Marital status will be classified as: "single", "married" and "divorced/widowed". Age groups included are: "21-30", "31-40", "41-50", "51-60", and "61 or older". For education achievement, the categories included are: "Illiterate", "Literate but no formal Schooling", "Up to p Standard", "SSC/HSC", "College/Diploma", "Graduation/Post Graduation (General Stream)", and "Graduation/Post Graduation (Professional". Employment categories that are covered in the study included: "Self-employed", "Public sector employee", "Private sector employee" and "Housewife/retired/unemployed". For

household annual income, income brackets of "Less than Rs. 90000", Rs. 91000-200000,Rs. 200001-500000, Rs. 500001-1000000, and more than Rs. 1000000 are included with the highest bracket of "Rs.1000000 and above".

The response format used for all demographic variables is presented in categorical format for the ease of administration, that is, the respondents have to mark the appropriate box provided. Generally, in the research, a researcher faces a problem in the collection of demographic data because respondents are reluctant to reveal their demographics. Generally, they refuse to provide age; hence age has to be classified into different age groups in order to encourage them to answer. Income is another sensitive question because the respondents would not like to expose their income. However, the refusal to answer the income question will not affect responses to other questions since income is the last question asked in the questionnaire (Dillon et al. 1990).

4.3.4 Evaluation of the Measurements

A multi-item instrument should be evaluated for accuracy and applicability (Greenleaf 1992). For evaluating the research instrument, its validity and reliability needs to be assessed.

VALIDITY: validity is a one of the criterion used to assess the soundness of the research instrument. It is defined as the extent to which an instrument measure what it is supposed to measure. It is required to point out that reliability and validity are closely related to each other but they are not perfectly independent of one another. Reliability, which is require for validity, would not guarantee validity, and vice versa (Rose and Sullivan 1996; Hair et al. 1998). This means that a construct may be consistent (reliable) but not accurate (valid), or otherwise, it may be accurate but not consistent. A measuring instrument is valid only if it does "what it is purported to measure" (Rust and Golombok 1999, p. 64). According to the description of validity given by Diamantopoulos and Schlegelmilch (1997, p. 33):

"The extent to which a particular measure is free from both systematic and random error indicates the validity of the measure; a perfectly valid measure implies O=T (i.e. the measurement obtained reflects only the true score on the characteristic of interest)."

Empirical investigations are required to validate the instrument, with the nature of the evidence required depending on the type of validity (Nunnally and Bernstein 1994). Social science literature suggests several types of validation procedures (Nunnally and Bernstein 1994; Diamantopoulos and Schlegelmilch 1997; Malhotra and Birks 1999; Rust and Golombok 1999; Zikmund 2000). There are two types of validity which is of interest for this study: (1) content validity, the degree of correspondence between the items selected to constitute a summated scale and its conceptual definition and (2) construct validity, the ability of a measure to confirm a network of related hypotheses generated from a theory based on constructs.

Content validity

It is also called a validity which is judgemental evaluation of how the measure is represented by the content of the scale. Content validity of the measure cannot be measured statistically. Since the evaluation of selected item of the construct is judgemental, content validity is highly subjective in nature. In this connection, Zikmund (2000) suggested detailed examination of the scale items is required to be verified by the expert that the entire domain of construct is measured or not..

The content validity for this study is assessed by asking a few experts to examine measurement instrument and provide feedback for revision. The expert panel included active researchers in the field of consumer behaviour research are selected as an expert. After they review the questionnaire, their recommendation for the changes is well incorporated suitably. Also, during the translation and pilot test, each item statement is examined for its clarity and relevance to the purpose of the research, which resulted in some modifications to the questions.

Construct validity

Determination of what construct, concept or trait the instrument in fact is measuring is called the construct validity (Churchill 1995). Construct validity has two types, both of which are of interest in this study: convergent validity and discriminant validity. Convergent validity refers homogeneity of the items within the same construct which

means how the items are correlated to form a construct. On the other hand, discriminant validity shows heterogeneity between different constructs (Malhotra and Birks 1999) which extent to which a measure is distinct from other measures. Ideally, we expect to see the items that measure the same constructs should be related with each other (convergent validity), but to differ from items which measure different constructs (discriminant validity). Both types of validity in this study will be assessed by using factor analysis (section 6.2). Such analysis provides an empirical assessment of the relationships among items in a variable in forming the conceptual and empirical foundation of a summated scale.

RELIABILITY: To draw valid inferences from the research it is required that construct should be reliable. Reliability is described as "the attribute of consistency in measurement" (Gregory 1996, p. 84). Gregory (1996, p. 84) describes reliability as "best viewed as a continuum ranging from minimal consistency of measurement (e.g. simple reaction time) to near perfect reliability of results (e.g. weight)". According to Malhotra and Birks (1999, p. 305), systematic sources of error do not have an adverse impact on reliability because they "affect the measurement in a constant way and do not lead to inconsistency". However, random error would results in inconsistency and leads to lower reliability. Therefore reliability is defined as "the extent to which measures are free from random error" (Malhotra and Birks 1999, p. 305).

Mitchell (1996) deliberates three main ways for assessing reliability: test retest, alternative forms and internal consistency methods. The test-retest approach involves the administration of identical sets of instruments to the same set of respondents under as nearly equivalent conditions as possible on two different occasions. To determine the degree of similarity between the two measurements, a correlation coefficient is then calculated to - the reliability is higher if the correlation coefficient is higher. On both test occasions, a perfectly reliable test produces identical responses for all respondents. The score of correlation between the first administration and that of second administration is a perfect correlation (r = 1.00).

However, there are several problems associated with this approach (Kinnear and Taylor 1996; Malhotra and Birks 1999). The time interval between testing - the longer the time interval between the measurements, the lower the reliability is the first problem associated

with this method. The second problem is the confounding effect of first measurement on subjects' responses to the subsequent measurement – learning from the first measurement would affect the score of the second measurement. The carry-over effect is the third problem in which respondent will try to confirm their answer in the subsequent measurement.

The alternative-forms approach requires that the same respondents should be measured at two different times with two equivalents, but not identical, instruments. The reliability is assessed by correlating the score of two separate instruments. However, this approach is not also free from the problems. Firstly, it is time consuming and expensive to construct an equivalent version of the instrument. Secondly, it is very hard to prepare two equivalent set of instrument.

The third approach, internal consistency reliability, "is used to assess the reliability of a summated scale where several items are summed to form a total score" (Malhotra and Birks 1999, p. 306). Forza (2002) noted that "the internal consistency method uses various algorithms to estimate the reliability of a measure from measure administration at one point in time" (p. 177). The assumption behind this approach is that the items of a measure work together as a set and should be capable of independently measuring the same construct. The items should be consistent in what they indicate about the concept being measured.

One of the simple measures of internal consistency is a split-half reliability of an instrument that is presented to respondents only once. In this approach, two equivalent halves are created by splitting the multi-item instrument and the scores of two halves are correlated to know the reliability. The success of this method is dependent on how the items are divided. The remedy to this approach is the use of Cronbach's alpha. Cronbach's alpha (also referred to as the coefficient alpha) is the average of all possible split-half coefficients resulting from the different ways of splitting the instrument items (Cronbach 1990).

An important feature of Cronbach's alpha is that when the number of items is increased, its value would also get raised. The value of Cronbach's alpha is inflated by the inclusion of

redundant items (Peterson 1994). Cronbach's alpha is a reasonably a good indicator of the internal consistency of instruments and can be used for both essay questions as well as questionnaires using scales such as rating or Likert (Oppenheim 1993). This method is used in this study to assess the reliability. Several researchers have used this approach to measure the realibility in consumer behaviour research (e.g. Delener 1994; LaBarbera and Gurhan 1997; Essoo and Dibb 2004, Mokhlis 2006).

The value of would ranges from 0 to 1. The greater reliability can be achieved if the value of is nearer to one. However, it is a debatable issue that what should be the acceptable level of reliability. Kerlinger and Lee (2000) have suggested that it is acceptable to have value of 0.5 to 0.6 for . On the other hand, Hair et al. (1998) have a contrasting view and delineated that for exploratory research, reliability level between 0.6 and 0.7 is the lower limit of acceptability. Hinkin et al. (1997) has satisfied with 0.7 and above, for which they considered this level as "an indication of strong item covariance or homogeneity and suggests that the sampling domain has adequately been captured" (p. 113).

So from the above discussion, it is cleared that the value of reliability coefficient above 0.6 is acceptable and because of that 0.6 is set as a lower limit for the acceptance of measure for this study.

4.3.5 Piloting the Questionnaire

Improving the clarity of questions and to validate the items and the whole scale it is required to conduct pilot testing. If the researcher is unable to clarify the meaning of various terms used in questionnaire, the effectiveness of the questionnaire will reduce substantially (Sommer and Sommer 1991). So the pilot testing is believed to be the final step to improve the questionnaire further.

According to Reynolds et al. (1993), pilot testing calls for administering the questionnaire among small group of respondents who assimilate the samples of the actual survey. Pilot study helps the researcher to determine further revision in the questionnaire if needed and its effectiveness. It also helps the researcher overall relevance of the questionnaire, sequence of the questions and its validity for the final survey.

For getting the better result of the pilot testing, it should be conducted by employing personal interview so that respondent's behaviour is observed by the researcher personally (Churchill 1995). For this study, the pilot testing is conducted with one hundred fifty respondents conveniently selected from local area. Respondents are encouraged to express their opinion freely, to give the suggestions if any and any difficulty that they encountered while filling up the questionnaire. Respondent's opinion for clarity of questions and the instructions are solicited and the relative changes are incorporated in the final questionnaire.

4.4 Sampling Process

Selection of the representative elements from the population for study having the similar characteristics as depicted by the population is called the process of Sampling. Sampling is only solution over population study because it is impractical or unreasonable to study the entire population in terms of time, costs and other human resources (Forza 2002). The sampling process is deliberated here from the three different perspective as follows: (1) defining the target population, (2) determining the sample size, (3) sampling procedure.

4.4.1 Target Population

The logical first step in the sampling process is the true identification of population from which samples are drawn. By studying the properties of samples, a researcher can draw a conclusion for entire population. According to Fink (1995, p. 1): "A sample is a portion or a subset of a larger group called a population. The population is the universe to be sampled. … A good sample is a miniature version of the population - just like it, only smaller." So it is required that the sample selected should explore the characteristics as envisaged by characteristics of the population.

In Gujarat, the duration of formal education is twelve years, which begins at the age of seven. The university level education normally takes at least three years to complete. Thus, those who are having an age more than 21 have a purchasing power. So for this study, having an age of 21 years and above and professing any of the four major religion of

Gujarat (Hinduism, Islam, Jainism and Christianity) are considered as a sample for this study.

4.4.2 Sample Size

Once the population of interest has been defined, the next logical step in the sampling process is to determine the size of the sample. The size of the sample is determined on the basis of research relationship, level of significance and statistical power to the test (Forza 2002). Conversely, there exists a contrasting view that in designing survey, the sample size is not necessarily the most important consideration (Burns 2000; May 2001). In fact, quantitative research does not always mean involving very large samples. Since better accuracy can be achieved by taking large sample size in research findings (Kumar 1999; Burns 2000), chances of occurring non-sampling errors would also increase.

One way to determine the sample size is the use of statistical formulas. But determining the sample size on the basis of statistical formula is not easy and straight forward because it requires population standard deviation which is available from similar research done previously. According to Kinnear and Taylor (1996, p. 443):

"The troublesome thing about our calculations of required sample size is that we need a value of s [standard deviation] for absolute precision and a value of s/X or relative precision. If we do have these values, in all likelihood we already know what we want to know about a particular variable. There is no one sample size that is statistically optimal for any study."

Yamane (1967) provides a simplified formula to calculate sample sizes[36].

$$n = \frac{N}{1 + N e^2}$$

Where n is the sample size, N is the population size, and e is the level of precision.

$$= \frac{60439692}{1 + 60439692 (0.05^2)}$$

---

[36] Yamane, Taro. 1967. *Statistics, An Introductory Analysis*, 2nd Ed., New York: Harper and Row.

$$= \frac{60439692}{151100.23}$$

$$= 399.9973$$

$$= 400$$

Another way to determine the sample size is various qualitative and quantitative considerations (Sekaran 1992; Bryman 2001; de Vaus 2002) for the given research. These include time and cost involved, sample size in the previous similar research, methods of data collection and statistical requirement.

The first consideration the determining sample size is time and cost constrains. The larger the sample size, the more the time and cost involved. Since in this research primary data are collected by personally collected from the respondents, very large sample size requires more time and financial resources.

Another consideration with sample size is the number needed for the data analysis. A good general rule of thumb for factor analysis is 300 cases (Tabachnick & Fidell, 1996) or the more lenient 50 participants per factor (Pedhazur & Schmelkin, 1991). Comrey and Lee (1992) (see Tabachnick & Fidell, 1996) give the following guide samples sizes: 50 as very poor; 100 as poor, 200 as fair, 300 as good, 500 as very good and 1000 as excellent. Another consideration for sample size determination is sample size taken in the previous similar researcher. Previous research on religious influences on consumer behaviour have used 500 (Rahadian 2008), 307(Hernandez 2011), 330 (Hirschman), and 300 (Mokhlis 2006) samples in their study.

Another approach to determine sample size is a rough guide provided by various researchers. Denscombe (1998) suggests a sample size in a range of 30 to 250 as appropriate for a small scale study. A sample size exceeding 500 is considered to be too large, however, because it can increase the power of statistical test and results in detecting almost any difference even a very small magnitude to research significance (Huck and Cormier 1996). Tull and Hawkins (1990) provide a typical sample size for the studies of human and institutional populations as shown in Table 4.6. This can be used as an aid in deciding what size of sample to take for this study. According to the authors, depending

upon the number of subgroup analyses to be run, national studies of individuals or households had samples ranging in size from 1,000 to 2,500 or more and regional studies had samples of 200 to 1,000 or more.

TABLE 4.6 Typical sample size for studies of human and institutional populations[37]

Number of Subgroup Analyses	People or households		Institutions	
	National	Regional	National	Regional
None or few	1,000 - 1,500	200 - 500	200 - 500	50 - 200
Average	1,500 - 2,500	500 - 1,000	500 - 1,000	200 - 1,000
Many	2,500 +	1,000 +	1,000 +	1,000 +

So after considering above all aspects, a sample size of 750 is taken for conducting this research. By this size, the sampling error that the researcher is willing to tolerate is five precent (de Vaus 2002). The next section discusses the selection of sample.

4.4.3 Sample Selection

Sampling techniques should be selected objectively to get reliable research findings. Sampling techniques are classified into two parts; probability and nonprobability methods. Probability sampling techniques includes simple random sampling, stratified random sampling, systematic sampling and cluster sampling while nonprobability sampling techniques includes convenience sampling, judgemental sampling, snowball sampling and quota sampling

For this study, quota sampling method is used to collect the necessary data from the respondents. Total population of the study is divided into four different groups on the basis of four major religious group of Gujarat according to census of India-2011 and then on the basis of size of respondents in each group, quota is determined on the basis of proportion

---

[37] Tull, D. S. and Hawkins, D. I. (1990). *Marketing Research: Measurement and Method*, 5th ed. New York: Macmillan

of each group in total population. Representative city of specific region of Gujarat (Rajkot- Saurashtra, Bhuj- Kutch, Palanpur- Banaskantha, Himmatnagar- Sabarkantha, Surat- South Gujarat, Gandhinagar and Ahmedabad- Central Gujarat, Mehasana and Kadi-North Gujarat) is selected for sampling and then after sample of respondents are conveniently selected for collecting necessary information.

TABLE 4.7 Sample selections for the study

Sample	Total Pop.	% in total population.		Samples taken
Hindu	53533988	88.6	340.224	424
Muslim	5846761	9.7	37.248	132
Jain	579654	1	3.84	105
Christian	316178	0.5	1.92	89
Total	60439692		384	750

4.5 Survey Procedure

After determining the sampling plan, the next step in the research is to determine survey procedure to be followed. That is how the survey will be conducted. For the purpose of collecting information, 900 questionnaires are printed. The researcher has administered the questionnaire by personal interview. For getting the better representation from all over the Gujarat, it is necessary to decide the areas from where samples are selected. For this study, samples are taken from Mehsana, Kadi, Himmatnager, Modasa and Idar, Gandhinagar and Ahmedabad, Palanpur, Surat, Bharuch and Chikhali, Bhuj and Gandhidham and Rajkot.

4.6 Summary

This chapter summarise the methodological approach to research which guides the fulfilment of research objectives. Various methodological issues like use of quantitative vs qualitative reseach methodology, construction and format of measurement instrument, evaluation of measurement instrument and sampling plan is discuss with the justification for the use of specific methodology.

Positivist approach is used in this research with the focus to use quantitative research methodology. The reasons for the use of quantitative research methodology are that quantitative data can be measured very easily, more precise, reliable and testable research findings can be obtained, easy to establish hypothetical relationship among the variables and more importantly its ability to generalise the findings to a larger population. For collecting the primary data cross sectional research approach is used.

After determining the research paradigm, the discussion would follow the questionnaire design. The structure of questionnaire requires various aspects to be carefully considered. The design of the questionnaire is based on construct and the relationship to be tested. Measurement items are carefully selected to ensure the validity and reliabity of the research and because of that process of literature review is undertaken to generate relevant measurement items. Later on, English version of the questionnaire is translated in Gujarati version with the help of language expert and research expert. A pilot study is carried out to check the appropriateness of measurement instrument and revision in the questionnaire is done to make it more suitable for the research.

CHAPTER 5

Methods of Data Analysis

5.0 Overview

The main purpose of this chapter is to provide some information on the statistical techniques to be used in this study. The discussion starts with the choice of statistical software to be used for this study and the factors that influence the choice of statistical techniques is next in the discussion. The procedures of statistical techniques used to analyse the survey data, in the form of univariate (descriptive statistics), bivariate (ANOVA) and multivariate (exploratory factor analysis, multivariate ANOVA) analyses are next in the sequence of discussion. The assumptions under the use of each technique applied are also become the part of the discussion.

5.1 Choice of a Statistical Package

The availability of excellent computer packages enhances the effectiveness and efficiency of statistical data analysis. The variety of typical statistical software available includes the Statistical Analysis System (SAS), BMDP, and the Statistical Package for the Social Science (SPSS), Systat and Minitab. These packages do not completely overlap Statistical programmes within and a specific problem can be handled better through one package than other. These programmes are continually being updated although not all improvements are immediately implemented at each facility.

The Statistical Package for the Social Science (SPSS) version 20 for Windows is chosen as the computer programme for data analysis in the present study. It is widely used by SPSS is the social scientists and other professionals for statistical analysis since it is most sophisticated software available among others. The large arrays of programmes for univariate, bivariate and multivariate statistical analysis are given by SPSS (Green and

Salkind 2003). SPSS has been considered as the most widely available and generally used comprehensive statistical computer package available for marketing research (Malhotra and Birks 1999; Zikmund 2000), and because of that it is used in this research as a statistical programme for data analysis.

5.2 Choice of Statistical Techniques

To serve the specific purpose of research, there is a variety of statistical tests available for the use. There are number of factors which need to be considered to determine the use of appropriate statistical test. The objectives of the analysis focus of the analysis, sample type and size, parametric versus non-parametric tests and the level of measurement are important consideration that guides the choice of statistical test (Afifi and Clark 1996; Diamantopoulos and Schlegelmilch 1997; Burns 2000; de Vaus 2002). The discussion on the factors influencing the choice of statistical techniques is presented below.

5.2.1 Objectives of the Analysis

The most critical factor that guides the choice of statistical techniques is the purpose of the analysis. There are three basic roles performed by objectives of the analysis: (i) help to ensure that only relevant analysis to be undertaken; (ii) to provide a check on the comprehensiveness of the analysis and (iii) to avoid redundancy in the analysis (Diamantopoulos and Schlegelmilch 1997).

For the purpose of achievement of the overall purpose of the research, the objective of the analysis should be linked to the overall aim of the research so that achievement of the former should contribute towards the achievement of the latter. It happens because it easier is to derive appropriate objectives of the analysis if the research objectives are better-specified (Diamantopoulos and Schlegelmilch 1997). The focus of this study is to examine the influence of religiosity as predictors of consumer shopping orientation which leads to the selection of appropriate statistical techniques to find out causal relationships between them.

5.2.2 Focus of the Analysis

The analytical stance or orientation to be adopted are better be described by the focus of the analysis. In the view of Diamantopoulos and Schlegelmilch (1997), the focus of the analysis has three basic forms: description; estimation and hypothesis testing. It can take any one of these three foci. The summary picture of the sample in terms of the variables of interest is provided by a descriptive focus, while an estimation focus is used to generalise the sample information on the population as a whole. To test specific propositions regarding the variables of interest and use the evidence to draw conclusions for the whole population is the focus of hypothesis testing.

Hypothesis testing is the main focus of the statistical analysis in this study in which hypothesis related to the influence religiosity on some aspects of consumer shopping orientaion are tested to deduce conclusions based on the empirical findings. There are two types of hypothesis which are used in this study and it includes: (1) difference hypotheses between samples and (2) hypotheses of association between variables. The results obtained from the hypothesis testing are presented in the next two chapters.

5.2.3 Sample Type and Size

The third important consideration in the choice of statistical techniques for the data analysis is the type and size of samples. The use of inferential statistics is not legitimate if the samples are selected by using probability sampling because probability sampling makes use of the sampling error concept which cannot be assessed where nonprobability sampling methods are used (Diamantopoulos and Schlegelmilch 1997, p. 66). If the sample size is not sufficiently large, some statistical procedures do not work. It is recommended to have a sample size of at least 30 for a simple analysis using non-parametric statistics while a minimum sample of 100 is required for parametric statistics (Diamantopoulos and Schlegelmilch 1997). However the use parametric statistics with a sample size of less than 100 is commonly found in many non-experimental consumer research (see, for example, Shim and Kotsiopulos 1991; McDonald 1995; Slowikowski and Jarratt 1997; Emenheiser, Clay and Palakurthi 1998; Chudry and Pallister 2002; Gilbert and Choi 2003; Hu and Jasper 2004; Rajagopalan and Heitmeyer 2005).

In the present study, the requirement for parametric statistics are satisfied since the sample size of 750 is taken. The size of sample used in a particular analysis is another important consideration in the choice of statistical techniques. The use of different statistical procedures require different numbers of participants as presented in Table 5.1 and for the selection of the appropriate statistical techniques it needs to be considered.

TABLE 5.1 Rules of thumb for sample size selection[38]

Statistical analysis	Minimum size
Chi-square	5 per cell
t-test, ANOVA, MANOVA	30 per cell
Factor analysis	50 - 100
Multiple regression analysis	50 - 300

5.2.4 The Level of Measurement

The fourth factor that contributes to the choice analytical technique is the level of measurement of variable. The level of measurement of variables is defined as how the categories of the variable relate to one another (de Vaus 2002). The level of sophistication in data analysis can be determined by the level of measurement. For more sophisticated analysis, the higher level of measurement is required. (Diamantopoulos and Schlegelmilch 1997). There are four main levels of measurement: ratio, interval (also called continuous), ordinal and nominal (also called categorical or qualitative). The application of Parametric statistics is limited to metric data (ratio and interval) while non-parametric statistics can be applied to both metric and non-metric (nominal) data. To analyse the data in the present study, parametric procedures are used because the data collected in this study are largely in the form of metric measurement.

The extent to which the variables differ in terms of their level of measurement and the number of variables to be analysed simultaneously determines the type of analysis to be applied. A method of univariate data analysis is used if only one variable is to be analysed. Bivariate analysis is used if two variables are to be analysed at a time. When multiple dependent and independent variables are to be analysed simultaneously, one can use

---

[38] VanVoorhis, C. W. and Morgan, B. L. (2001). Statistical rules of thumb: what we don't want to forget about sample sizes. *Psi Chi Journal* 6 (4).

Multivariate analysis (Hair et al. 1998; Tabachnick and Fidell 2001). All three types of statistical analysis are used in the present study for the purpose of data analysis.

5.2.5 Distribution Pattern of the Data

The fifth factor that determines the type of statistical test to be used is the distribution pattern of the data. In general statistical test can be grouped in two major categories: parametric and nonparametric. Since data used in parametric tests are derived from interval and ratio measurements, it is considered more when the likelihood model (i.e. the distribution) is known, except for some parameters (Hair et al. 1998). Apart from interval and ratio measurements, non-parametric tests are also used, with nominal and ordinal data (Forza 2002). Experts on non-parametric tests (Hollander and Wolfe 1999) claim that nonparametric tests are as powerful as parametric tests.

The choice between these two is guided by ability of the measurement to fulfil the assumptions of parametric test. In the opinion of Burns (2000, p. 151-152), the use of parametric test is based on fulfilment of three assumptions. The first assumption is equality of interval for data collection, (e.g. Likert scale); second, data should be normally distributed or closely so, and third, the amount of random or error variance should be equally distributed among the different analyses. The non-parametric tests can be used to analyse the data if If these assumptions are not met (Forza 2002). The reason behind this is that application of non-parametric or distribution-free tests do not specify conditions about the shape or character of the distribution of the population from which samples are drawn.

Some statisticians strongly believe that parametric tests are comparatively robust. This means that "it is unlikely that the percentage probability will be very inaccurate unless the data do not meet the assumption at all, i.e. are not on an interval scale and/or are distributed in a very asymmetrical fashion" (Burns 2000, p. 152). In fact, it is common that data do not follow univariate normal distributions or much less multivariate normal distributions in data collected in the behavioural and social sciences (Micceri 1990). Many times the scales used by researchers are "dichotomous or ordered categories" rather than truly continuous is the one of the reason suggested by West, Finch and Curran (1995, p.

57). Therefore, there is a probability of non normal data in the present study because the respondents give reply to items based on a 5-point Likert-type scale. So before applying any test on the data set in the present study, data are checked for normality by running a test of   measures of central tendency (mean and standard deviation) is for each of the variables in the study. Further, to judge the normality of the distribution of the data, the skewness and kurtosis of each variable are also examined

The extent of symmetry of a distribution is described by Skewness and the mean of the skewed variable is not in the centre of the distribution for a given standard distribution (Norusis 1990). If the values for skewness and kurtosis are zero, the observed distribution is exactly normal (Hair et al. 1998; Coakes and Steed 2001) with a measure of skewness of +3.0 is usually regarded as a strong deviation from normality.

5.3 Statistical Tests to be used in this Study

To analyse the survey data in the present study, the types of various statistical analysis applied are summarised In Table 5.2. These are in the form of descriptive statistics as a univariate analysis, analysis of variance (ANOVA) as a bivariate analysis and factor analysis, multivariate analysis of variance (MANOVA) as a multivariate analysis.

The selection of the statistical techniques is consistent with the research aims and objectives, characteristics of the data and properties of the statistical techniques (Malhotra and Birks 1999). The basic purpose behind the use of multiple techniques for data analysis is to achieve the objectivity, rigour and logical reasoning in examining the research problems. The various methodological issues and assumptions associated with each technique are discussed in the following sections.

TABLE 5.2 Summary of statistical tests used for data analysis

Independent variables	Dependent variables Statistical procedures	Statistical procedures
Demographic Characteristics	___	Descriptive
Religiosity Information sources Shopping orientation	___	Exploratory factor analysis
Religious affiliation	Information sources Shopping orientation	MANOVA ANOVA
Religiosity	Information sources Shopping orientation	MANOVA ANOVA
Demographic Variables	Religiosity	MANOVA ANOVA

5.4 Univariate Analysis

If a single variable is analysed without reference to the other variable, it is known as univariate analysis (Tabachnick and Fidell 2001). In this research, univariate descriptive statistics are used to: (a) to know the distribution patterns of the data (e.g. normality of the data); (b) to describe the basic demographic characteristics of the samples obtained from the survey; and (c) to provide a descriptive analysis of responses. The demographic characteristics of the respondents are presented in the succeeding chapter while the Appendix C denotes descriptive analysis of responses.

5.5 Bivariate Analysis

In bivariate data analysis, two variables are analysed simultaneously to study the relationship between the variables (Tabachnick and Fidell 2001). Analysis of variance (ANOVA) is the main bivariate analysis carried out in this study. The subsequent section briefly describes various issues and assumptions related to the application of Analysis of variance (ANOVA).

5.5.1 Analysis of Variance (ANOVA)

Analysis of variance (usually abbreviated as ANOVA) is an extent ion of independent t test and is used to check whether there exist significant differences among two or more means. ANOVA is the most flexible and frequently used quantitative technique in marketing and consumer behaviour research (Malhotra, Peterson and Kleiser 1999). One-way ANOVA is applied in this study to test the hypotheses of mean differences in consumer behaviour (i.e. use of information sources, shopping orientations) among those affiliated to religion and having different levels of religiosity.

The reason behind the use of ANOVA in the present study as the statistical methodology is that the researcher wants to compare mean differences of the constructs among the groups in which the constructs of interest (e.g. use of information sources and shopping orientation) are being measured on an interval scale and the groups (e.g. religious affiliations) are considered as the factors which are categorical. Also, for the purpose of plotting and interpretation, the predicted values of independent variables which are equal to mean values will also be desirable. The use of ANOVA has following advantages. First, it depicts mean differences of three or more groups without the reason for the cause of differences. Second, it provides a more sensitive test of a factor where the error term may be reduced (Cramer and Howitt 2004).

The key statistic use in ANOVA is the variance ratio (F), which measures whether the differences in the means of the groups formed by values of the independent variables (or combinations of values for multiple independent variables) are not occured by chance. ANOVA will give the same results as the t-test for independent samples if only two means are compared (Sirkin 1995).The differences between two estimates of variance is the base of the F-ratio. The first estimate which comes from variability among scores within each group is considered as a random or error variance and the second estimate which comes from variability in group means is considered as a reflection of group differences plus error. The numerator represents variance associated with differences among sample means and the denominator represents the variance associated with error (Tabachnick and Fidell 2001). The larger value of the F-ratio indicates bigger differences between the means of the groups making up a factor in relation to the differences within the groups and there are more chances that it is statistically significant (Cramer and Howitt 2004). On the other

side, if the group means do not differ substantially, one can inferred that the dependent variables are not affected by independent variables. The subsequent section deliberates the assumptions that underlie ANOVA.

ASSUMPTIONS: ANOVA makes certain assumptions as in the case of all other parametric tests about data so that they can be analysed in this way. Application of ANOVA requires three major assumptions to be met (Maxwell and Delaney 1990; Jaccard 1998; Roberts and Russo 1999). These are:

1. Individual differences and errors of measurement are independent from group to group;

2. Individual differences and errors of measurement must be normally or approximately normally distributed within each group; and

3. The size of variance in the distribution of individual differences and random errors is identical within each cell (i.e. homogeneity of variance).

ANOVA is a robust procedure as reported by many writers of statistical texts and that the above assumptions frequently can be violated with relatively minor effects by many researcher (Maxwell and Delaney 1990; Winer, Brown and Michels 1991; Hays 1994; Kirk 1995; Sirkin 1995; Hinton 1995; Diamantopoulos and Schlegelmilch 1997; Howell 1997; Jaccard 1998; Black 1999; Newton and Rudestam 1999; Roberts and Russo 1999; Everitt 2001; Cramer and Howitt 2004; Field 2005). Here the term Robust is used to designate the ability of the statistical method to produce correct results if the assumptions fail to hold.

Robustness of ANOVA is related with sample size. In non-normal distribution, the robustness of ANOVA is proportionate to the sample size; increase in the sample size reduces the influence of non-normality on the F-test (Hays 1994). According to Kirk (1995), when sample sizes are small, Kurtosis (or flatness) tends to have very little effects on Type I errors but can have effects on Type II errors. If the populations defined by the groups are homogeneous in forms, the robustness of the test can be assured, i.e., all groups show the same degree of skewness and kurtosis (Roberts and Russo 1999).

In case of moderate violations of homogeneity of variance, ANOVA is quite robust and because of that, in practice, this assumption is frequently violated (Maxwell and Delaney 1990; Jaccard 1998). If the ratio of largest to smallest group variances is less than 3.0 (Howell 1997; Roberts and Russo 1999) or the sample sizes are fairly close to one another, i.e. the larger group size divided by the smaller group size is less than 1.5 (van der Heijden 2003), then a violation of equal variance assumption has minimal impact. In other words, if the sample sizes are equal, the F-test is highly immune and "strong enough" to withstand a violation of the equal variance assumption (Huck and Cormier 1996).

A number of different types of ANOVA designs are depicted in the Table 5.3. For conduct of this study, this table serves as a guide in selecting the appropriate type of ANOVA. The selection of the ANOVA design is guided by number of independent variable involved. The table shows that as we move from one independent variable to more than one, we change from one-way ANOVA to multiple ANOVA (factorial design). As shown in the table, in case of two independent variables, there are three effects to be evaluated, including one interaction while in case of three independent variables; there are seven effects to be evaluated, including three two-way and one three-way interactions.

TABLE 5.3 Selecting the appropriate method for ANOVA designs[39]

Number of IVs	Number of categories of each IV	Type of design	Type of test	Effects
1	2	Two group (2 means)	t test or oneway ANOVA	1: Between groups
1	3+	Multigroup (3+ means)	One-way ANOVA	1: Between group
2	2	2 x 2 factorial (4 means)	Factorial ANOVA	3: 2 main, 1 interaction
3	3,2,2	3 x 2 x 2 factorial (12 means)	Factorial ANOVA	7: 3 main, 3 two-way, 1 three-way interaction
4	3,3,4,2	3 x 3 x 4 x 2 factorial (72 means)	Factorial ANOVA	15: 4 main, 6 two way, 4 three-way, 1 four-way interaction

[39] Newton, R. R. and Rudestam, K. E. (1999). *Your Statistical Consultant: Answers to Your Data Analysis Questions*. Thousand Oaks: Sage

Note: All these designs assume one dependent variable, continuously distributed.

In the present study, as a follow-up analysis of multivariate analysis of variance (MANOVA) when MANOVA is significant; two types of univariate ANOVA procedures are used, namely one-way and two-way ANOVA. To obtain a simple effect of an independent variable on a dependent variable, one-way ANOVA is used while to test the main and the interaction effects of the multiple independent variables on the dependent variables, two way ANOVA (i.e. factorial design) procedures is used. On obtaining significant ANOVA, Paired multiple comparisons will be conducted to know which pairs of group means significantly differed from one another. The issues related to the applications of univariate ANOVA are discussed in the succeeding paragraphs.

ONE-WAY ANOVA: Also known by various names such as univariate ANOVA, simple ANOVA, single classification ANOVA, or one-factor ANOVA, it is used to test the differences in a single interval dependent variable (for example, shopping orientation) among three or more groups (for example, Hindus, Muslims, Jains and Christians) formed by the categories of a single categorical independent variable (for example, religious affiliation) in the present study. Also, this design tests whether the groups formed by the categories of the independent variable seem similar on pattern of dispersion as measured by comparing estimates of group variances. If the groups differences are significant, then it is concluded that the dependent variable effected by an independent variable. The null hypothesis is that $\mu1 = \mu2 = \ldots = \mu k$ with k equal to the number of means being compared.

To conduct a one-way ANOVA, the assumption of equality of variance among various categories of independent variable should be met. For this purpose, Levene's test of homogeneity of variance is used in the present study. The reason for its use is that it is less impacted by the assumption of normality than most tests (Tabachnick and Fidell 2000). Equality of variance is met if the significance value of Levene statistic exceeds 0.05. if the assumption of equality is not met (i.e. significance value of Levene statistic is less than

0.05), Brown-Forsythe's F ratio is used to compare the groups which does not assume equal variance (Huck and Cormier 1996; Cohen 2001; Field 2005)[40].

In the line with the practice of earlier studies, in the present study, p < 0.1 is set as accepted level of the probability for statistical significance of ANOVA which shows that the probability of occurrence of result by chance is 10%. Because of the exploratory nature of the study and the researcher's desire to reduce the chance of committing a Type II error; that is, assuming no significant difference when a significant difference actually does exist, the researcher has made this choice. It implies that if the analysis reveals a small difference, the results have a good chance of being significant. To avoid committing a Type I error, more conservative probability level is ignored in this analysis. However, it is accepted that this may result in increased probability of detecting effect differences that may have occurred merely by chance (Bryman and Cramer 2001).

TWO-WAY ANOVA: Two-way ANOVA reveals two types of effect: main effects and interaction effects (Dancey and Reidy 2004). Main effect provides an individual effect of each independent variable by controlling for other variables. The combined effect of two or more independent variables on a dependent variable is termed as interaction effects. Present it in another way; when the effect of an independent variable on the dependent variable depends on the level of another independent variable an interaction effect would occur. Nevertheless, without interaction, two variables can both influence a dependent variable (Newton and Rudestam 1999). An interaction effect may be either quantitative or qualitative (Schaffer 1991). In a quantitative interaction, two effect occurs which are in the same direction but differ in strength, resulting a both significant main effect and interaction effect. It is also known as ordinal interaction. In qualitative interaction simple effects is in opposite directions and have a stronger emphasis in the reporting of results. It is sometimes also called a disordinal interaction.

Although ANOVA is robust and most appropriate for this study, major concern of applying this mode of analysis is the requirement of equal sample sizes. Though this is not an assumption of ANOVA, it simplifies calculations of sum of squares (Jaccard 1998).

---

[40] Another alternative version of adjustment procedure for ANOVA with unequal variance is Welch statistic. It is to be noted however that neither procedure is consistently more accurate than the other and that there are no simple rules that suggest which procedure to use for each possible pattern of sample sizes and variances (Cohen 2001; Field 2005).

According to Jaccard (1998), some of the independent variables may be confounded if the sample sizes are not equal. It implies that proportion of variance in dependent variable which is explained by one factor is also explained by one factor may also be explained by other unknown factors.

POST-HOC PROCEDURE: The ANOVA is a method of determining accepting or rejecting null hypothesis on the basis of equality of group means but, but it is not possible to know exactly where the significant difference lies if there are more than two groups (Field 2005). To get the solution of this problem, method use is known as post hoc multiple pair comparison test which is used to ascertain to ascertain whether the means of the different groups that integrate each of the variables are significantly different. There are different types of post hoc test available but consensus on which tests are the most appropriate to use is not found (Cramer and Howitt 2004). Among the more common post hoc tests are the Tukey's HSD method, Bonferroni, Tukey's LSD approach, Newman-Kuels test, Scheffe test and the Duncan Multiple Range Test. Each test is used to identify which comparisons among groups (e.g. group 1 versus groups 2 and 3) have significant differences.

After getting ANOVA significant, to determine where the significant difference(s) lie, multiple comparison tests are conducted. In the present study two types of post hoc test are conducted. When the Levin test of equality of variance is insignificant (i.e equal variance assumption is tenable), Bonferoni post-hoc tests are used to determine the differences existed among the means. This procedure assumes equal variances and is preferred because it adjusts the observed significance level for the fact that multiple comparisons are being made. On the other hand, when the Levin test of equality of variance is significant (i.e equal variance assumption is not tenable), Tamhane's T2 contrast is calculated because is robust against the violation of homogeneity of variance assumption. The significance level is set at $p < 0.05$ for all post-hoc comparisons.

5.6 Multivariate Analysis

It is a statistical procedure which is used to know the statistical significance involving simultaneously many independent variables and/or many dependent variables, all correlated to varying degrees (Hair et al. 1998; Tabachnick and Fidell 2001). It is an extension of univariate and bivariate statistics that analyses complicated datasets. Factor analysis and MANOVA are used as multivariate techniques in this study to analyse the data. The succeeding sections will discuss the relevancy and procedural aspects of these techniques in the context of present study.

5.6.1 Factor Analysis

To develop, interpret and validate the analytical tests, the researchers have to explain or predict behaviour in terms of constructs that are not directly observable. Such constructs are known as hypothetical or latent constructs (Ferguson and Cox 1993). The most common method used for this purpose is factor analysis which is used to identify and measure such construct. The underlying structure in a data matrix is determined by making use of factor analysis (Hair et al. 1998). It is an interdependence multivariate technique in which all variables are simultaneously considered.

In factor analysis, a larger set of variables are reduced to manageable number factors which are formed to explain the whole variable set and thus each factor is predicted by all of the others. In other words, in factor analysis intercorelated variables are grouped or combined together as a factor rather than a series of separate variables. With a minimum loss of information, the data are described by a much smaller number of variables than the original in this process (Hair et al. 1998; Cramer 2003). It is possible that in a matrix of correlation coefficients between a set of measures there are clusters of high correlation coefficients between subsets of the measures (Blaikie 2003). Factor analysis identifies how much variance clusters have in common and the extent to which each measure contributes to this common variance. So, by using this procedure, a small set of factors, or even just one factor can be identified from a large set of measures which explain the maximum amount of common variance in the bivariate correlations between them.

Factor analysis is the obvious choice to interpret the data used in this study since it is used to gain an overall understanding of the main dimensions underlying the variables. In SPSS data reduction command is used to perform factor analysis. In the present study factor analysis is conducted to determine the salient dimensions that make up the constructs of religious commitment, information sources, and shopping orientations. In addition, it also provides construct validity for this study.

In social sciences, factor analysis is used for two purposes. The first purpose is to know the underlying factor structures present in responses to a set of measures, and second purpose is to confirm whether a set of measures in the form specified in a model of their relationships. On the basis of the purpose for which it is used, the factor analysis may be either exploratory or confirmatory (Musil, Jones and Warner 1998). In exploratory factor analysis, it is assumed that "everything is related to everything" and variables are grouped in factors on the basis of their intercorelation. In confirmatory factor analysis (CFA), the researcher knows well in advance the latent variable model and the factors that make up this model. The CFA is used to test the hypothesis, that, in fact, the observed sample correlations are consistent with the factor structure proposed on the basis of hypothesised intercorrelations and the patterns of observed variable relationships to underlying factors (Musil et al. 1998). CFA allows the researcher to specify an exact factor model in advance and examine the goodness-of fit between the hypothesised factor structure and the data and it has strong theoretical foundation. CFA is more of a theory testing procedure than is exploratory factor analysis (Cramer 2003).

In the present study, because of unavailability of exact factor structure, exploratory factor analysis is used. In this study, factor analysis is performed using five step procedure; pre-analysis checks, examination of the correlation matrix, factor extraction, factor rotation and interpretation of factor. The procedure followed in conducting exploratory factor analysis is discussed in the subsequent sections.

PRE-ANALYSIS: The distribution pattern of the data and the sample size are two important considerations in performance of factor analysis and to get robust solution (Hutcheson and Sofroniou 1999). So, it is required to make a pre-analysis check before

using factor analysis to ensure that: (1) a stable population factor structure can emerge from the sample; (2) items are properly scaled and free from biases, and (3) the data set is appropriate for the application of exploratory factor analysis (Ferguson and Cox 1993).

Stable factor structure

To ensuring a stable factor structure in exploratory factor analysis, four types heuristic are proposed by statistician that needs to be satisfied for. These heuristics are outlined in Table 5.4.

TABLE 5.4 Type of heuristic for stable factor structure[41]

Rule	Range	Advocate
Subject-to-variables ratio (N/p ratio)	Between 2:1 and 10:1	Kline (1986); Gorsuch
Absolute minimum number of subjects (N)	100 to 200	(1983); Nunnally (1978)
Relative proportions of: variables to expected factors (p/m ratio), and subjects to expected factors (N/m ratio)	between 2:1 and 6:1	Kline (1986); Comrey (1978); Cattell (1978)

The most important consideration among these four heuristics is sample size is regarded as. According to Hutcheson and Saforinou (1999), factor analysis is based on correlation coefficients, which tend to be most reliable when computed for large samples. Nevertheless, there is no agreement as to what constitutes large (Pedhazur and Schmelkin 1991). The guidelines given by Comrey and Lee (1992) for sample sizes is; samples size of 50 as very poor, 100 as poor, 200 as fair, 300 as good, 500 as very good and 1000 as excellent. In the opinion of Guadagnoli and Velicer (1988), mean factor loadings for a factor (factor saturation) is also a critical parameter and N become irrelevant if four or more items load on each emergent factor >0.6. However, if both the factor saturation and the ratio of variables to expected factors (p/m) are low, the importance of N increases. An N of at least 300 is required in such case (Tabachnick and Fidell 2001).

Contrary to the above argument, in the argument of other writers, smaller Ns might be acceptable. To obtain an accurate solution in exploratory factor analysis, Pedhazur and

---

[41] Ferguson, E. and Cox, T. (1993). Exploratory factor analysis: a users' guide. *International Journal of Selection and Assessment* 1 (2): 84-94

Schmelkin (1991) suggest N = 50; Ferguson and Cox (1993) and Hair et al. (1998) suggest N = 100 while Hinkin, Tracey and Enz (1997) suggest N = 150. When each factor is overdetermined (i.e. at least 3 or 4 variables represent each component) and the communalities are high (average 0.7 or higher), MacCallum et al. (1999) propose samples as small as 100 to obtain accurate estimates of population parameters. If all components are not over determined and communalities are of around 0.5, under such a more moderate conditions, samples of 200 would be more appropriate (Fabrigar et al. 1999). The sample size taken for this study is 750 which fulfil the minimum sample requirement for factor analysis.

The number of variables to be analysed is another important aspects of sample size determination. As a general rule, the observation should be e at least five times as many to the variables to be analysed, and a more acceptable size would have a ten-to-one ratio (Hair et al. 1998, p. 99). In the present study, this requirement is also getting fulfilled since the final sample size of 750 included in the analysis meets this criterion. Specifically, 5 x 30 = 150 for religiosity measure; 5 x 8 = 40 for information sources measure; and 5 x 33 = 165 for shopping orientation measure.

Item scaling

In factor analysis, the Pearson correlation coefficient r is used to determine the factors which require data to be measured on a true continuous scale (i.e. interval or ratio). However, in practice, these requirements are rarely satisfied and Likert-type scales (e.g. five-point scale) are often deemed adequate (Ferguson and Cox 1993). According to Hutcheson and Saforinou (1999), the relaxation of the requirement for continuous data can be justified for EFA since the interpretability of the factors is taken as a base to determine the usefulness of factor analysis. In this study, all variables are measured on 5 point Likert-type scale which is assumed to provide interval-level data (Mitchell 1994; Blaikie 2003) and therefore the variables fit for factor analysis.

Appropriateness of dataset

Another requirement for factor analysis is appropriateness of dataset which requires the variables used should demonstrate univariate normality; that is, it is assumed that each

variable conforms to the normal distribution curve (when the mean is in the centre of the distribution). The univariate normality of each variable can be determined by using the coefficients of skewness and kurtosis. In the opinion of Muthen and Kaplan (1985), some degree of univariate skew and kurtosis is acceptable, for the majority of variables, if neither coefficient exceed +2.0 (where zero indicates no kurtosis). If there are at least 60% low correlations (<0.2) in the initial correlation matrix, then greater skew is acceptable. In this study, the coefficients of skewness and kurtosis of each variable are within the range of 0+2.58 as specified by Hair et al. (1998), suggesting a relatively normal distribution (see Appendix C). Therefore the data sets are deemed appropriate for factor analysis.

EXAMINATION OF THE CORRELATION MATRIX: The suitability of set of variables for the selection in the factor analysis is determined by observing a systematic covariation among the variables under consideration (Ferguson and Cox 1993). The correlation matrix, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy (MSA) is used for this purpose. Some degree of multicollinearity is desirable in factor analysis because the objective of factor analysis is to identify interrelated sets of variables. In the opinion of Hair et al. (1998), factor analysis is appropriate if visual inspection of the correlation matrix reveals a substantial number of correlations greater than 0.30. The partial correlations among variables can be used to analyse the correlations among variables. The values of partial correlation should be small if "true" factors exist in the data.

The presence of correlations among variables is determined by using the Bartlett test. It provides the statistical probability that the correlation matrix has significant correlations among at least some of variables. Thus, a significant Bartlett's test of sphericity is required. The KMO index indicates the degree to which each variable in a set is predicted without error by the other variables which ranges from 0 to 1. Each variable is perfectly predicted by the other variables without error if the KMO index reaches 1. A value below 0.50 is unsatisfactory, a value of 0.70 or more is generally considered sufficiently high, while the value above 0.90 is outstanding (Hair et al. 1998). SPSS provides the overall KMO value as a single statistic, whilst the anti-image correlation matrix gives KMO values for individual variables. The anti-image correlation matrix contains the negative values of the partial correlations among variables; smaller anti-image correlations are indicative of a data matrix suited to factor analysis (Hair et al. 1998).

FACTOR EXTRACTION: After the screening and selection of variables for the factor analysis is done, the factors needed to represent the data can be determined. Factor extraction is performed to identify and retain those factors which are necessary to reproduce adequately the initial correlation matrix (Ferguson and Cox 1993). This subsequent paragraph will describes the choice of extraction method and the rules followed to be followed in obtaining the optimum number of factors to be extracted.

Method of factor extraction

The factor solution can be obtained by making use of either principal component analysis or common factor analysis (Hair et al. 1998). The purpose of using principal component is to summarise most of the original information (variance) in a minimum number of factors for prediction purposes while common factor analysis (CFA) is used primarily to identify underlying factors or dimensions that reflect what the variables share in common. principal component analysis assumed that all variability in an item should be used in the analysis. The objectives of the factor analysis and the amount of prior knowledge the researcher has about the variance in the variables determine the kind of factor model to be used (Mitchell 1994). Regardless of which factor model is used by the researcher, the results of extraction are similar in most of the cases (Fava and Velicer 1992). However, if the purpose of the analysis is data principal component analysis method is preferred but if the purpose to detect structure then common factor analysis is preferred (Jackson 1991).

Since the purpose of this study is to identify the factors which may explain the relationships within the data, principal component (PC) analysis is used in this study which is in conformity with the recommendation made by Ferguson and Cox (1993). To extract the factors in marketing research, principal component analysis is widely used. The principal component (PC) analysis is popular because it leads to unique, reproducible results which are not supported by some of the less structured factor analytical procedures. Principal component analysis relies upon the total variance to derive the factors with small proportions of unique variance. Since the main concern of this study is to predict the minimum number of factors that are required to account for the maximum portion of the variance represented in the original set of variables and there is a priori set of variables

(Mitchell 1994), this method is deemed appropriate for the present analysis. The principal component method extracts a linear combination of variables (a component) that accounts for as much variation in the original variables as possible. Further, It find component the next component that accounts for as much of the remaining variation as possible and it is not correlated with the previous component, continuing in this way until there are as many components as original variables (Hair et al. 1998).

Criteria for selection of factors

The trouble in the use of factor analysis is in taking decision on how many factors to be extracted in the final solutions which account for the greatest amount of the total variance. The most common and widely used method is Keiser's rule of latent root criterion among several other methods available and it is used in this study. The rule is quite simple to apply, but its applicability is dependent on which factor model has been chosen. An eigenvalue of greater than or equal to 1.0 are considered to be significant for the principal component analysis. An eigenvalue gives an estimate of the amount of variance associated with any factor, so that the rule involves retaining those factors which account for above average variance for interpretation (Ferguson and Cox 1993). This criterion is based on theoretical rationales developed using true population correlation coefficients. It is commonly thought to yield about one factor to every three to five variables. It appears to correctly estimate the number of factors when the communalities are high and the number of variables is not too large (Afifi and Clark 1996). Tabachnick and Fidell (2001) suggest that (a) if the number of components with eigenvalues greater than one is a reasonable number of components for the data (i.e. somewhere between the number of variables divided by 3 and the number of variables divided by 5), (b) if the number of variables is 40 or fewer, and (c) if the sample size is large, the number of components indicated by this criterion is probably correct.

FACTOR ROTATION: The initial principal components which explain most of the variance in the variables should be rotated to a simple structure, defined as each variable having a high loading on one of the factors, and zero or small loadings on the others (Ferguson and Cox 1993). Factor rotation simplifies the factor structure and improves the interpretation by removing the ambiguities which often accompany initial unrotated factor solutions (Mitchell 1994). Factor rotation can be done in two ways. In an orthogonal extraction, factors are extracted in such a way that the factor axes are maintained at 90

degrees which results in each factor being completely independent of all other factors. In an oblique extraction, factors are not completely independent and some commonality is maintained. According to Hair et al. (1998), if the objective is to reduce the number of original variables regardless of how meaningful the resulting factors may be, or when the objective is to reduce a large set of variables to a smaller number of uncorrelated variables which can be used in subsequent predictive techniques such as multiple regression, Orthogonal rotation is mathematically simpler to handle and should be used.

There are number of ways to perform factor rotations. The best and most commonly used method is the varimax procedure of orthogonal rotation among the available various methods of rotation (Mitchell 1994; Afifi and Clark 1996; Fabrigar et al. 1999) applied on the principal component solutions. The Varimax procedure gives solution on the basis of a number of the squared loadings for the variables. Thus a rotation position is sought that maximising the sum of variances the squared factor loadings within each factor in the matrix. Further, these factor loadings are adjusted by dividing each of them by the communality of the corresponding variable. This adjustment is known as the Keiser normalisation, which tends to equalise the impact of variables with varying communalities (Afifi and Clark 1996). This means that varimax rotation gets over the problem of a general factor. Thus this procedure is used in this study because it minimises correlation across factors and maximises within the factors. As discussed by Hair et al. (1998), varimax procedure clearly separate the factors and has proved very successful as an analytic approach to obtaining an orthogonal rotation of factors.

INTERPRETATION OF FACTORS: The fifth section factor analysis describes the interpretation of factor loadings and the labelling of factors. The factor loadings represent the correlation between the original variable and its factor. The contribution an item makes to a particular factor is measured by the factor loadings. It is ideal if an item should have a high loading on only one factor. The greater the loading, the more the variable is a pure measure of the factor (Tabachnick and Fidell 2001). However, there is a difference in the opinion of statisticians on what constitutes a high loading. Sample size is an important consideration in determining factor loading. The minimum loading for a sample of 50 is 0.72, for 100 is 0.51, for 200 is 0.36, for 300 is 0.30, for 600 is 0.21 and for 1000 is 0.16

for a level of significance of 0.01 (two-tailed)(Stevens 1992). The more precise and comprehensive specification of loadings is given by Comrey and Lee (1992) and they described that the loading in excess of 0.71 (50% overlapping variance) as excellent, 0.63 (40% overlapping variance) as very good, 0.55 (30% overlapping variance) as good, 0.45 (20% overlapping variance) as fair and 0.32 (10% overlapping variance) as poor. These are merely the guidelines and selection of the "cutoffs" for loadings is a matter of a researcher preference (Tabachnick and Fidell 2001), based on consideration of a theoretically sound solution.

A loading of is 0.30 and above is commonly recommended (Kline 1994; Hair et al. 1998; Tabachnick and Fidell 2001). In the view of Stevens (1992), loadings of 0.4 and above should be taken seriously. A loading of 0.4 indicates 16 percent of the item's variance contributes to the factor (arrived at by squaring the loading and multiplying by 100) while a factor loading of 0.3 indicates an item accounts for 9 percent of an item's variance. Inclusion of such an item in a scale means 91 percent of unrelated variance, thus producing very 'muddy' and imprecise scales (Blaikie 2003). A criterion of 0.4 is adopted as a meaningful factor loading in interpreting the analyses reported in this study which follows Stevens's (1992) recommendation. A factor which has a loading below 0.4 and/or consisted of only one item is dropped. It is practically significant to consider a factor loading of 0.4 as conservative cut-off point as recommended by Hair et al. (1998) when the sample size is 200 or greater.

After the determination of the factors, the next task is assigning a label to each factor in some meaningful way on the basis of what the factors actually represent. The labelling is decided on basis of common properties of the set of statements loaded within each factor. According to Hair et al. (1998), the label given should be the accurate representation of factor. Thus, the past literature should be used as a reference in labelling the factors. Although labelling the factor is a matter of subjective interpretations of the general nature of the construct based on its component items, this step can be regarded as the most important part of factor analysis process. If the selected factors are not interpretable, then the factor analysis presents little value to the researcher is the main reason behind this.

DATA REDUCTION: In all, the process of exploratory factor analysis ends at the factor interpretation stage as discussed in the earlier section but the objective for applying exploratory factor analysis in the present study is to use the factors for further application to other statistical analysis, some form of data reduction must be made. According to Hair et al. (1998), direct measurement of latent variable cannot be possible but it can be represented by one or more indicator variables which represent the theoretical concept in a better way and simultaneously increase the reliability of the measure. According to Hair et al. (1998), data reduction can be done by making use of three different methods, namely (1) selecting surrogate variables, (2) computing factor scores and (3) creating summated scales.

The first method envisages the selection of the variable with the highest factor loading on each factor to act as a surrogate variable to represent that factor. The application of this method is possible only when one variable has a factor that is substantially higher than all other factor loadings. However, if other variable have loadings that are fairly close to the surrogate variable, the process of selection becomes more cumbersome. Also use of this method is risky because the selected surrogate variable may not address the issue of measurement error encountered when using single measures and thus mislead the subsequent analyses (Hair et al. 1998).

Calculation of factor scores is the second method of data reduction. Conceptually, the factor score represents the degree to which each individual score high on the group of items that have high loadings on a factor. Thus, the higher value of variable loading, the higher the factor scores. It represents the total score of different variables loading on a factor. However, the problem of using this method is that that all variables will have some degree of influence in computing the factor scores and make interpretation more difficult (Hair et al. 1998).

To create a smaller set of variables which replace the original set by combining several individual variables into a single composite measure is the third method of data reduction which is known as summated approach. In summated approach, all variables loading highly on a factor are combined and the average score of the variables is used as a

replacement variable. This method has two specific benefits. First, since this method use multiple variables to calculate the replacement variable, to some extent; it overcomes measurement error that might occur in a single question. Second, since it represents the multiple aspects of a concept in a single measure, it facilitates the subsequent analysis (Hair et al. 1998).

Summated scales are created in this study in which scores on the items within each of the factors are summed for every respondent and used as replacement variables for each factor. The sum is then divided by the number of items summed to create the scale in order to retain the original meaning of the numbers and to provide for comparison between scales. Thus this score may range from 1.00 to 5.00 where 1.00 indicates of strong disagreement and 5.00 indicate strong agreement. Since this method is a compromise between the surrogate variable and the factor scoring method, it is chosen in this study. Because this method has the advantage of a composite measure, it reduces measurement error and it considers those variables which have high loadings on each factor and excludes those having little impact (Hair et al. 1998).

Cronbach's coefficient alpha is used to test an internal reliability of the summated scales for each resulting factor. The information about the relationships among individual items and their internal consistency as well as examined the properties of a measurement scale and the questions that make it is provided by reliability analysis procedure.

5.6.2 Multivariate Analysis of Variance (MANOVA)

A technique which test the significance of mean difference the groups of two or more dependent variable is known as Multivariate analysis of variance (MANOVA). It is an extension of the analysis of variance (ANOVA) technique. Univariate ANOVA is used to test the significance of group differences along a single facto whereas MANOVA is used to test the significance of group differences along a combination of factors. According to Tabachnick and Fidell (2001), MANOVA has a number of advantages over univariate analysis of variance (ANOVA). Firstly, the researcher improves the chance of discovering what it is that changes as a result of different treatments and their interactions by measuring several dependent variables at a time instead of only one,. Secondly, the chances of committing Type I error is minimised with the use of MANOVA, i.e. a

significant effect being identified when none exists. Thirdly, some differences that are not shown in separate ANOVAs may be revealed by the use of MANOVA.

ASSUMPTIONS: in order to carry out a meaningful analysis, there are certain assumptions associated with MANOVA which needs to be met. The normal distribution of the dependent variables is the first assumption. MANOVA assumes multivariate normality; that is, the normal distribution of the dependent variables and all linear combinations of them (Tabachnick and Fidell 200; Field 2005). As such, multivariate normality is not directly tested and therefore univariate normality is generally used (Hair et al. 1998). Although it is preferred to have a multivariate normality, it should be noted that "MANOVA is still a valid test even with modest violation of the assumption of multivariate normality, particularly when we have equal sample sizes and a reasonable number of participants in each group" (Dancey and Reidy 2004, p. 488). As noted by Tabachnick and Fidell (2001, p. 329), if the differences are due to skewness, as opposed to outliers, violations of this assumption can be tolerated for larger sample sizes or moderate sample sizes. They have further suggested that a sample size of about 20 in the smallest cell should ensure robustness even if the sample size is unequal.

The second assumption is related with equality variance-covariance matrices of the dependent variables across the groups. To check the equality of variance covariance matrices in this study, The Box's M test is used in this study. If Box's M test reveals significant results, it indicates that the covariance matrices are significantly different and so the assumption of homogeneity would have been violated (Field 2005). However, if the sample sizes across groups are approximately equal, disregard the outcome of Box's M test (Hair et al. 1998; Field 2005). According to Hair et al. (1998), groups are regarded as approximately equal if the ratio of largest group to smallest group is less than 1.5. If Box's M test is significant at $p < 0.001$ and sample sizes are unequal, then robustness cannot be assumed, (Tabachnick and Fidell 2001; Field 2005). The Levene test at $p < 0.05$ is used to assess the equality of variance for a single variable across groups.

CRITERIA FOR SIGNIFICANCE TESTING: To judge multivariate differences across groups, there are four most popular criteria: Roy's greatest characteristic root (gcr); Wilks' lambda (also known as the U statistics); Hotelling's trace and Pillai's criterion (also known

as Pillai-Bartlett trace, V). In making choice from these four statistics, Hair et al. (1998) suggest that "the measure to use is one most immune to violations of the assumptions underlying MANOVA that yet maintains the greatest power" (p. 351). When sample size decreases, unequal cell sizes appear or assumption of homogeneity of covariance is violated, Pillai's criterion is the most powerful to be used (Hair et al. 1998).

Pillai's trace and Wilks' lambda are used in this study as a criterion for significance testing. This is consistent with Essoo and Dibb (2004) and Mokhlis (2006). The significance level for this study is set at $p < 0.1$ level.

FOLLOW-UP ANALYSIS: It is required to examine which dependent variables are responsible for the statistically significant MANOVA results when MANOVA turned out to be significant. To serve this purpose, univariate ANOVA is carried out.

5.6.3 Multiple Linear Regression Analysis

The objective of this study is to examine the influence of religious variables on consumer use of information sources and shopping orientation. The significant differences in consumer behaviour among respondents from different religious groups and having different level of religiosity is determined by using ANOVA procedure but it could not predict the direction and the magnitude of the linear relationship between consumer behaviour variables (dependent variables) and the religious variables (independent variables). So to predict the direction and the magnitude of the linear relationship between consumer behaviour variables (dependent variables) and the religious variables (independent variables), multiple linear regression analysis which is also known as Ordinary Least Square (OLS) regression, has been applied in the present study.

Regression analysis is a statistical technique that explains the change in one variable (dependent variable) as a result of change in a set of other variables (independent or explanatory variables) (Studenmund 2001). It describes the degree of relationship between a single dependent (criterion) variable and several independent (predictor) variables. Thus regression analysis measures the collective influence of the independent variables on a dependent variable. The values of independent variables are known which is used to predict the single dependent values selected by the researcher. It is assumed that all

variables observable and they have no measurement error (i.e. perfect measurement of variables).

Multiple regression analysis is used for two broad categories of research problems: prediction and explanation (Hair et al. 1998). On one end, it is used to predict the dependent variable with a set of independent variables. In doing so, multiple regressions fulfil one of the two objectives (Hair et al. 1998). To maximise the overall predictive power of the independent variables as represented in the variate is the first objective. It is explicitly designed to make errors of prediction as small as possible using the least squares criterion for overall smallness (Allison 1999). To compare two or more sets of independent variables to assess the predictive power of each variate is the second objective. The second purpose of multiple regression analysis is to provide an assessment of the degree and direction (positive or negative) of the linear relationship between independent and dependent variables by forming the variate of independent variables (Hair et al. 1998).

To control the variance, the most powerful method is multiple linear regression analysis. From multiple linear regression analysis, on the basis of analysis of the variable intercorrelations, one is able to estimate the magnitudes of different sources of influence on the dependent variable. It also indicates the dependency of the dependent variable on the independent variables. The combined and individual effect of independent variables on the dependent variable is given by multiple linear regression tests. Thus, multiple linear regression analysis can be used to examine the effects of some independent variables on the dependent variable while "controlling" (i.e. held constant) for other independent variables (Allison 1999).

The regression technique seeks to establish a rectilinear relationship between the variables concerned in order to calculate statistical predictions,. Subsequently, the equation of a straight line is of important value, and is denoted by $Y = bX + a$ where Y = predicted score; b = slope; X = X intercept and a = Y intercept. To predict a criterion variable on the basis of number of predictor variables the following equation is therefore used in multiple linear regressions:

Y = a + b1X1 + b2X2 + … + bkXk + e

where Y represent the predicted value of the dependent variable, a is the Y intercept (the value of Y when all the X values are 0), X represents the various independent variables and b is the coefficients assigned to each of the independent variables during regression (Tabachnick and Fidell 2001).

MEASUREMENT OF VARIABLES: The major concern of multiple regression analysis is the measurement of the dependent and independent variables for the analysis. Only quantitative explanatory variables, measured on an interval or continuous scale is the prerequisite of multiple regression analysis. If the independent variables are categorical (i.e. not interval) and if they have two or more categories, they need be coded into dummy variables. Dummy variables are dichotomous variables which act as replacement independent variables. Indicator or binary coding is the most common form of dummy coding in which the category is represented by either 1 or 0 (Pedhazur 1997). Instead of defining its level, the use of the values of 0 and 1 merely describe the presence or absence of a particular attribute. For example, if gender is coded 1 for male and 2 female, the indicator conversion of the variable into a dummy variable is 1 for male and 0 to female.

However, the use of dummy variables is not straightforward in an OLS regression because the inclusion of all of them at the same time leads to a situation where perfect multicollinearity exists (Hutcheson and Sofroniou 1999). To resolve this problem, one of the categories must be omitted. So, if we have j categories, a maximum of j – 1 dummy variable can be entered into the model. For example, in the case of gender, either the male or the female category must be eliminated, leaving only one dummy variable for the analysis. The dummy variable which is omitted is called the reference category and is the category against which other dummy variables are compared (Hutcheson and Sofroniou 1999). It is to be noted that the model fit is not affected by the choice of reference category as this remains the same no matter which category is designed as the reference.

In this study, dummy variables are created to represent categories of grouped demographic variables for the regression analyses. Five independent variables namely religious affiliation, gender, marital status, occupation, income, area of residence, age and education converted to dummy variables. Gender is represented by a dummy variable with a value of 0 indicating male and a value of 1 indicating female. Marital status is represented by a

dummy variable with a 1 for married and a 0 for not married. Ethnic is represented by two dummy variables with a value of 1 on the first (Ethnic 1) indicating Chinese, a value of 1 on the second (Ethnic 2) indicating Indian and a 0 on both representing Malay. Religious affiliation is represented by three dummy variables with a value of 1 on the first (Religion 1) indicating Buddhist, a value of 1 on the second (Religion 2) indicating Hindu, a value of 1 on the third (Religion 3) indicating Christian and a 0 on the three variables representing Muslim. Work status is represented by a dummy variable with a value of 0 indicating working and a value of 1 indicating non-working. Age, education attainment and monthly income are originally a grouped variable with multiple categories. For the regression analyses, these variables are treated as "ordered categorical data" by using a scoring method (in integer coding, 1, 2, 3…) where the ordered nature of the data is retained (Hutcheson and Sofroniou 1999).

ASSUMPTIONS: Although "it has been demonstrated that regression analysis is generally robust in the face of departures from assumptions" (Pedhazur 1997, p. 34), it is required to the assumptions to build a basic knowledge on how to obtain the best linear unbiased estimators from the regression analysis. The purpose is to point to some of the steps taken to ensure the validity of the results. As Pedhazur (1997) notes, "knowledge and understanding of the situations when violations of assumptions lead to serious biases, and when they are of little consequence, are essential to meaningful data analysis" (p. 33). The assumptions of the regression analysis are discussed below.

The First assumption of regression analysis is of normal distributions. The relationships and significance tests are distorted by the variables which are non-normally distributed (highly skewed or kurtotic variables, or variables with substantial outliers). The normal probability plot of regression residuals is inspected visually to examine the assumption of normality. The normal distribution makes a straight diagonal line and the plotted residuals are compared with the diagonal. If the standardised residual line closely follows the diagonal, it indicates the normal distribution. However, in the statistical literature, it is agreed that if the sample size is sufficiently large, slight departures from this assumption do not appreciably alter our inferences (Afifi and Clark 1996, p. 109).

The linearity of the relationship between the dependent and the independent variables in the model is the second assumption of regression analysis. Linearity implies that this relationship is constant across the range of values for the independent variables. It means that there is similar change in the mean value of the dependent variable as a result of a unit increase in the independent variable. Furthermore, correlation (Pearson's r) can capture only the linear association between variables.

The third assumption of regression analysis is the equality of variance of the residuals (homoscedasticity). Homoscedasticity states that at different levels of the independent variables, the variance of the dependent variable is approximately the same (Hair et al. 1998). Afifi and Clark (1996, p. 109) claim that this assumption is not crucial for the resulting least squares line. This is because the least squares estimates of   and   are unbiased whether or not the assumption is valid. However, violation leads to serious distortion of findings and seriously weakens the analysis which will increase the possibility of a Type I error (Tabachnick and Fidell 2001).

In the present study, to check the assumptions of linearity and homogeneity, a residual scatterplot (plot of the standardised residuals as a function of standardised predicted values) is constructed. Ideally, residuals are randomly scattered around zero (the horizontal line) which indicates a relatively even distribution with no strong tendency to be either greater or less than zero. According to Hair et al. (1998), if the residuals are not evenly scattered around the line, a violation is indicated.

The independence of error term is the fourth assumption of regression analysis. Regression analysis assumes each predicted value to be independent, that is, serially uncorrelated. When the error terms for two or more independent variables are correlated, it is called autocorrelation or serial correlation (Lewis-Beck 1993). However, this problem is found in time-series studies when the errors associated with observations in a given time period carry over into future time periods (Pindyck and Rubinfeld 1991; Lewis-Beck 1993). This assumption is a less serious problem for the present study because this is a cross-sectional study.

Additionally, outliers and multicollinearity are two issues that can arise during the analysis, that strictly speaking are not assumptions of regression, are none the less, of great concern to the researcher.

OUTLIERS: According to Hair et al. (1998), outliers are the observations that are substantially different from the remainder of the data set (i.e. has an extreme value). Hair et al. (1998) has the opinion that if it is not evident that outliers are truly deviant and not representative of any observations in the population, they should be retained to ensure the generalizability to the entire population. The case wise subcommand in the regression procedure is used to identify the outlier in the present study. Cases that proved to have standardised residuals in excess of three are eliminated from the analysis (Hutcheson and Sofroniou 1999).

MULTICOLLINEARITY: The possibility of multicollinearity is existed when large numbers of possibly highly correlated explanatory variables are used. In its simplest form, multicollinearity is defined as a situation where an independent variable is highly correlated to one or more of the other independent variable which leads to unstable model when deleting or adding variables to the model (Hutcheson and Sofroniou 1999). In the opinion of Lehmann, Gupta and Steckel (1998), although multicollinearity does not violate any assumption (the independent variables do not have to be independent of each other), not does it affect the overall predictive capabilities of the model, it does make the estimates of the regression coefficients unreliable because the effect of the predictor variables are mixed or confounded. The regression equation cannot even be formulated If one independent variable can be precisely predicted from one or more of the other independent variables (perfect multicollinearity). When a relationship is strong but not perfect (high multicollinearity), the regression equation can be formulated, but the parameters may be unreliable (Hutcheson and Sofroniou 1999). However, in most research, multicollinearity is present to some degree, but it should be ignored if the correlation coefficient between any two variables is not too large (Pedhazur 1997). As a general rule of thumb, multicollinearity might be present if any of the following situations exists (Mueller 1996; Grapentine 1997):

1. Absolute values of one or more of the zero-order correlation coefficients between independent variables are relatively high

2. One or more of the metric or standardized regression coefficients have theory contradicting signs. For example, the coefficients take on negative values when theory or common sense suggests a positive relationship exists between the independent and dependent variable

3. One or more of the standardized regression weights are very large

4. The standard errors of the beta regression coefficients are unusually large

5. The regression equation has a large overall R2 with several insignificant independent variables.

For the purpose of assessing multicollinearity problem in the present study, in the initial stage, to detect the presence of high correlation, Pearson product-moment correlation matrix among the independent variables is examined. The high correlation values of about 0.8 or higher indicate a level of multicollinearity that may prove to be problematic (Hutcheson and Sofroniou 1999). In the similar line, according to Hair et al. (1998), whilst no limit has been set that defines high correlations, values exceeding 0.9 should always be considered, and many times correlation exceeding 0.8 can be indicative of problems. In the present study, there is an absence of high intercorrelations as can be seen from Appendix D.

Nevertheless, it cannot be decided that there is a lack of collinearity on the basis of the absence of high bivariate correlations because in case of more than two variables, the correlation matrix may not reveal collinear relationships (Mason and Perreault 1991). Therefore, in case of the stepwise regression analyses, it is required to measure the tolerance values and variance of inflation factors (VIF). The amount of variability of the selected independent variable not explained by the other independent variables is represented by Tolerance values. On the other hand, VIF is an indicator of the effect that the other predictor variables have on the variance of a regression coefficient. A very small tolerance values and thus large VIF values denote high collinearity. According to Hair et al. (1998), it is an indication of high multicollinearity if a tolerance value below 0.1, which corresponds to VIF greater than 10. In the present study, to indicate high multicollinearity, these values are used as cut-off thresholds

Condition index is another useful measure which can be used as an indicator of multicollinearity in multiple regressions. Belsley (1991) and Mason and Perreault (1991) has suggested that large condition indices be scrutinised to identify those associated with large variance proportions for two or more coefficients. Specifically, collinearity is indicated for the variables whose coefficients have large variances associated with a given large condition index (Pedhazur 1997). According to Belsley (1991), "weak dependencies are associated with condition indexes around 5-10, whereas moderate to strong relations are associated with condition indexes of 30-100" (p. 56). Hair et al. (1998) stated that when a condition index that exceed the threshold value of 30 accounts for a substantial proportion of variance (0.9 or above) for two or more coefficients, it is an indication of a collinearity. In the present study, tolerance value and VIF values are nearer to 1 and also the condition index does not exceed 20 which indicate there is an absence of multicollinearity problem.

AUTOMATED MODEL SELECTION: Once it is found that variables met the assumptions of regression analysis, the next step is to select the procedure of the independent variables to be included in the model. Forward selection, backward elimination and stepwise selection are three common automated selection procedures which are described by Hutcheson and Sofroniou (1999) that can be used to find the "best" regression model. In forward selection, independent variables are added one at a time provided they meet the statistical criteria entry (usually at p = 0.05) starting with empty equation. The opposite of the forward selection procedure is the backward elimination. In backward elimination, all independent variables are entered in the equation first and if they do not contribute significantly to regression, they are deleted one at a time. The equation is re-calculated and those variables left in the model is re-examined after each variable is removed to see if any contribute less than the criterion level. This process continues until no more variable reach the selection for removal. A compromise between forward and backward elimination is stepwise selection procedure which is one of the most frequently used methods of automated variable selection in marketing research. In the stepwise procedure, mathematical maximisation procedure is used to determine the order in which the predictor variables enter a regression equation. It means the independent variable

which a maximum correlation with the dependent variable is entered first and the second variable which is entered is the predictor with the largest semi-partial correlation, and so on. However, a test is made of the least useful predictor and the importance of each predictor is constantly reassessed at each stage of the stepwise procedure. As a result of this procedure, a predictor becomes superfluous in the later stage that was deemed earlier to be the best entry candidate. This method is advantageous because the order of the independent variables in a regression equation is determined on the basis of their significance for the predicted characteristic. Hair et al. (1998) described stepwise procedure as a method of variable selection in which variables are considered for inclusion in the regression model and it selects the best predictors of the dependent variable. Hutcheson and Sofroniou (1999) described the stepwise procedure as a screening procedure which purifies the target independent variables prior to their entering into the model.

From the preceding review, four important points can be made in favour of the stepwise selection in regression analysis. First, stepwise is a compromise between the other two procedures, that is, forward selection and backward deletion in which the equation starts out empty and independent variables are added one at a time as long as they meet statistical criteria, and deleted at any step if they no longer make a significant contribution to the regression model. Second, it is a screening procedure that skims out the redundant independent variables and selects the best predictors for the dependent variable. Third, it determines whether additional independent variables make any contribution compared to the other variables already included in the equation. Fourth, this procedure helps selection of the best variables where the researcher has selected variables on the basis of a strong grounded theory for the purpose of analysis.

Stepwise selection procedure is used in the current study to find the best regression model without testing all possible regressions. Since there is no theoretical a priori assumption regarding the importance of each variable, the use of this procedure is justified for this study. Additionally, it helps the researcher to examine the contribution of each independent variable to the explained variance of the dependent variable. In this procedure, the independent variable with the greatest contribution is added first and before the main equation is developed, each independent variable is considered for inclusion. Independent

variables are in the equation on the basis of their incremental contribution over the variable(s) already in the equation (Hair et al. 1998). In this study, an alpha level of 0.1 is used as the entry cut-off value because it is believed that some of the variables would be excluded if the lower level of significance is used and the researcher tried to minimise the effect of collinearity as far as possible through variable selection following the advice of Speed (1994).

However, there are some controversies in the use of stepwise selection because the independent variables that are entered into the regression equation are based solely on statistical rather than theoretical or logical considerations (Menard 1995; Polit 1996). In step regression, it is the computer which determines the order of entry of the variables and thus the results obtained are idiosyncratic and difficult to replicate in any sample other than the sample in which they are originally obtained (Menard 1995, p. 54). So in the present study stepwise regression is used as an exploratory regression technique without specifically hypothesising which variables are most predictive of the criterion variable.

COEFFICIENT OF MULTIPLE DETERMINATIONS (R^2): The predictive power of the regression model can be judged on the basis of the coefficient of determination (R^2). R^2 is a measure of the proportion of the total variance of the dependent variable that is "explained" or "accounted for" by the independent variable (Lewis-Beck 1993). The value of R^2 ranges between 0 and 1 and it is the squared product-moment correlation coefficient. Thus, the fit of the model is determined on the basis of how the close the value of R^2 is to 1. The closer the value of R^2 is to 1, the better the fit of the model (i.e. the independent variables accouns for or explain the variation in dependent variable in a better way) because if R^2 is 1 then the regression model is accounting for all the variation in the outcome variable.

In the words of Hair et al. (1998), if the regression model is properly applied and estimated, it can be assumed that the higher the value of R^2, the greater the explanatory power of the regression equation, and therefore the better the prediction of the dependent variable. However, Uncles and Page (1998) stated that there is no hard-and-fast statistical argument for deciding what level of R^2 is "high enough". The value of R^2 value is directly

attributed to the number of variables in the model and it can be improved by adding more variables to the model, though their contribution is very small or accidental.

An alternative to the standard R^2 is adjusted- R^2 which measure the fit considering the number of independent variables and the sample size. Although the value of R^2 rises with the addition of predictor variables, the value of adjusted R^2 may fall if the added predictor variables have little explanatory power and are not statistically significant (Hair et al. 1998; Newton and Rudestam 1999). Hence, adjusted R^2 is used in this study for the interpretations of explanatory power because it is a less biased measure for the variance explained by the model.

It is to be point out that the sample size included in the regression analysis directly influences the predictive power of the regression. Hair et al. (1998) has prepared a table which shows the relationship between the sample size, the significance level chosen and the number of independent variables in detecting a significant R^2 which is presented in Table 5.5. The table indicates that the higher the sample size, the lower the R^2 for a given number of independent variables at a given significance and power levels. This guide is taken into consideration assessing the overall model fit for the regression equations in this study.

TABLE 5.5 Minimum R^2 that can be found statistically significant with a power of 0.8 for varying numbers of independent variables and sample sizes[42]

Sample size	Significance level 0.01				Significance level 0.05			
	No. of independent variables				No. of independent variables			
	2	5	10	20	2	5	10	20
20	45	56	71	n.a.	39	48	64	n.a.
50	23	29	36	49	19	23	29	42
100	13	16	20	26	10	12	15	21
250	5	7	8	11	4	5	6	8
500	3	3	4	6	3	4	5	9
1000	1	2	2	3	1	1	2	2

---

[42] Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998). *Multivariate Data Analysis*, 5th ed. New Jersey: Prentice Hall Inc.

n.a. = not applicable

INTERPRETATION OF REGRESSION VARIATE: Once the model is derived and its power is estimated, the final task is to interpret the regression parameter by evaluating the estimated regression coefficients for their explanation of the dependent variable. The regression coefficient captures the effect of one variable while controlling for (i.e. holding constant) the other variables in the model. There are two coefficient values; the unstandardized (b) and standardised regression coefficients (beta) which is of our interest for interpretation purpose. While controlling for all other independent variable, the amount of change in the dependent variable due to a one-unit change in that independent variable is represented by the unstandardised regression coefficients (b-coefficients) (Newton and Rudestam 1999).

Since, the b-coefficient cannot reveal which independent variable is a more important predictor of the dependent variable (Hair et al. 1998; Newton and Rudestam 1999), in this study, a modified b-coefficient, called beta-coefficient, is used for the purpose of variate interpretation which is a standardised regression coefficient that allows for a direct comparison between coefficients as to their relative explanatory power of the dependent variable and it is commonly termed as beta-weight with a symbol. Since b-coefficients are expressed in terms of the units of the associated variable, it makes the comparisons inappropriate while beta coefficients use standardised data which can be directly compared (Hair et al. 1998).

This allow the comparison of two independent variables which are measured on very different scales, for example, education measured on ordered categorical scale and religiosity measured on a 5-point scale. The beta coefficients is interpreted in term of the expected change in the dependent variable, expressed in standard scores, associated with a change of one standard deviation in an independent variable, while holding the remaining independent variables constant (Newton and Rudestam 1999). For example, if an independent variable has a beta weight of 0.3, it means that the dependent variable will increase by 0.3 a standard deviation when other independents are held constant.

5.7 Summary

To conduct a successful data analysis, well-specified statistical procedures are essential prerequisites. A careful attention is required to be paid to determine the suitability of the statistical techniques chosen to conduct a sound empirical analysis.

In this chapter, an attempt is made to shed lights on statistical techniques applied to analyse the data obtained from the survey. The chapter starts with the discussion of the choice of statistical package for the present study and it is decided that the Statistical Package for the Social Science (SPSS) version 20 is the most suitable statistical programme to be used for this study. Subsequently, various factors that guide the choice of statistical techniques are reviewed. The factors include the objectives of the analysis, focus of the analysis, sample type and size, the level of measurement and the distribution pattern of the data. The discussion on the method of statistical analyses used in the present study follows the discussion. There are a variety of statistical analyses available which can be employed to analyse the survey data. These are descriptive statistics in the form of univariate analysis , bivariate analysis which consist of univariate analysis of variance (ANOVA), and finally multivariate analysis which consist of exploratory factor analysis, multivariate analysis of variance (MANOVA) and multiple linear regression analysis.

CHAPTER 6

Data Analysis and Results - I

6.0 Overview

The analytical procedures used in analysing the survey data and the assumptions of each technique used in this research are described well in details in the previous chapter. Such details help the researcher in conducting the statistical analysis. In the present study, the techniques chosen include univariate analysis in the form of descriptive statistics, bivariate techniques in the form of analysis of variance (ANOVA) and multivariate techniques in the form of exploratory factor analysis, multivariate analysis of variance (MANOVA) and multiple linear regression analysis.

In this chapter, the first part of data analysis and hypotheses testing is presented. For the purpose of data analysis, the Statistical Package for the Social Science (SPSS) version 20 software is used. Initially, using the descriptive statistics, a demographic profile of the respondents is obtained. To reduce the dimensionality of religiosity, information source, and shopping orientation variables into more manageable factors, exploratory factor analyses are performed. To examine the internal consistency of the factors, reliability analysis is carried out and 0.5 or higher value of Cronbach's alpha coefficient is considered acceptable.

The analysis of variance procedure is used to test the hypothesis. Initially, to assess overall group differences across dependent variables, multivariate analysis of variance (MANOVA) is initially is used. If MANOVAs is found significant, univariate analysis of variance (ANOVA) is used to see if the constructs of interest showed variations across different response categories of the independent measures. Lastly, to examine paired mean comparisons of the categorical means resulting from the variance analyses, post-hoc tests

are used. p < 0.05 is used as a criterion for significance in each test. The last section of the chapter presents the results and conclusions derive from the analysis.

6.1 Characteristics of the Sample

Before conducting any analysis, it is appropriate to analysis demographic and socioeconomic profiles of the participating respondents to know their characteristics and this is a standard practice used in all most all research because it provides background for further analysis. The important characteristics of the respondents discussed here are gender, age, marital status, religious affiliation, employment, education and household income**.**

The sample consisted of female respondents (36.9) as compared to male respondents (63.1). Respondents age categories are 21 years and above. With the majority (49.1%) of the respondents included in the survey sample are between the ages of 21 – 30, followed by the 31 – 40 age groups at 23.1%. The next largest age group is 41-50 at 18.5%. Respondents are also asked to provide information regarding their marital status. The analysis revealed that more than half of the total sample, or 55.2% of the 750 respondents included are married while 42.7% are single.

When the religious variable is examined, the largest proportion of the respondents is Hindu, accounting for 56.5% of the total sample. This is followed by Muslim (17.6%) and Jainism (14%). Another 11.9 % of the total respondents indicated that they are affiliated with Christianity. By comparison, the state religious distribution is 88.6% Hindu, 9.7% Muslim, 1% Jain and 0.5% Christian (Census Survey 2011).

Statistics on employment showed that a large proportion of the respondents (34.3%) are self employed, 25.9 % are working in the private sector while 16.9 % of the respondents are government employees. Non-working (e.g. students, housewives, retirees and Unemployed) respondents constituted 22.9%.

As far as the educational level is concerned, 24.9% of the respondents possessed secondary education while 30.9% had attained some college diploma. 19.7 % of the respondents are

graduate/postgraduate in general stream while 15.9% are graduate/postgraduate (professional).

The income frequency count showed that 38.8% of the respondents had a total household income of 200001-500000. 29.6% reported figures between 90001-200000 while 14.7% indicated income between 500001-1000000. Further, 10.8% of the respondent's revealed income below 90000 and 6.1% had a total income over 1000000.

Table 6.1 presents the key demographic characteristics of the sample in the study. In summary, the sample included in this study appeared to be younger, more educated and includes more middle-income earners, which are typical characteristics of the urban Gujarat population.

TABLE 6.1 Distribution of respondents by demographic characteristics

Characteristics	Category	Frequency	Percentage
Gender	Male	473	63.1
	Female	277	36.9
Age	21-30	368	49.1
	31-40	173	23.1
	41-50	139	18.5
	51-60	50	6.7
	61 and above	20	2.7
Marital status	Single	320	42.7
	Married	414	55.2
	Divorsed/Widowed	16	2.1
Religious affiliation	Hindu	424	56.5
	Muslim	132	17.6
	Jainism	105	14.0

	Christianity	89	11.9
Occupation	Self Employed	257	34.3
	Government Employee	127	16.9
	Private Sector Employee	194	25.9
	Housewives/Retired/Unemployed/Retired	172	22.9
Education	Illiterate	16	2.1
	Literate but not formal schooling	8	1.1
	School upto 9th standard	40	5.3
	SSC/HSC	187	24.9
	Some college including Diploma but not graduate	232	30.9
	Graduate/Post Graduate(General)	148	19.7
	Graduate/Post graduate (professional)	119	15.9
Household income	<90000	81	10.8
	90001-200000	222	29.6
	200001-500000	291	38.8
	500001-1000000	110	14.7
	>1000000	46	6.1
Area of Residence	Urban	390	52.0
	Suburb/Town	154	20.5
	Rural	206	27.5

6.2 Data Reduction

Multiple items measuring religiosity, information source and shopping orientation are factor analysed to decrease the numerous variables to a manageable number of components before testing the hypotheses. The purpose of factor analysis is to simplify the correlation matrix and reveal a small number of factors which can explain the correlation. According to Hair et al. (1998), factor analysis helps in gaining understanding on the main dimensions that underlie the observed sets of items.

In addition, it is argued that the convergent loadings of various items on a separate factor is a measure of construct validity (DeVellis 1991; Bearden and Netemeyer 1999) and that in general, the validity of the underlying latent constructs being investigated in a research study is represented by factors extracted from a factor analysis (DeVellis 1991). The constituent items representing the different constructs are factor analysised by using exploratory factor analysis to validate empirically the theoretical structure of the scale.

In the present study, all the factors having eigenvalues of greater than one and when a set of factors explained a large percentage of the total variance is achieved are retained. Any variable with a loading of 0.4 or greater as associated with the appropriate factor is regarded as significant for factor interpretation. Cronbach's alpha is calculated to examine the internal consistency of the factors where a coefficient at 0.5 or higher is considered acceptable.

6.2.1 Factor Analysis on Religiosity

In order to identify the interrelationships among these independent variables and to summarise the information in a smaller set of variables, the responses to the 30 religiosity variables are studied by factor analysis. On the basis of the result of Keiser-Meyer-Olkin measure of sampling adequacy test index which is equalled 0.885 and Bartlett's test is significant at $p < 0.0001$, factor analysis is deemed to be appropriate for this construct. On the basis of principal components factor analysis with a varimax rotation, factors with latent roots or eigenvalues greater than 1.0 and items with rotated factor loadings of 0.4 or

greater are retained (Hair et al. 1998). On the basis of the factor analysis, 30 items measuring religiosity are grouped in four factors.

Variables which loads on multiple factors and which do not load on any factor are removed and factor analysis is perform again till all variables clearly load on only one factor. Finally 14 variables load on four factors explaining more than half of the variance observed in the variables (56.464 percent) and Keiser-Meyer-Olkin measure of sampling adequacy test index equalled 0.835 and Bartlett's test is significant at $p < 0.0001$. These factors are named based on items that loaded the highest for each factor. Table 6.2 summarises the results of factor analysis on religiosity variables.

Factor 1 (eigenvalue 3.949) had five variables and accounted for 28.209 percent of the common variance. This factor included the following variables:

1. When i do something wrong, i asked for God's forgiveness
2. When i face a problem, i pray for God's help
3. Praying gives me strength when i am upset
4. I pray mainly to get relief and protection
5. I volunteer to help others based on my religious beliefs

Because all the variables loaded in this factor measure an individual's experience towards his/her religion, this factor is conceptually labelled as the "Experiential religiosity". This factor had a very high internal consistency with an alpha coefficient at 0.726.

Factor 2 (eigenvalue 1.469) had three variables and accounted for 10.494 percent of the common variance. It included the following variables:

1. Religious beliefs influences all my dealings in life
2. My religious beliefs lie behind my whole approach to life
3. I spent time trying to grow in understanding of my religious beliefs

This factor is clearly described the "Cognitive religiosity" since all the three variables loaded in this factor had a similar characteristic relating to an individual's own belief for religion. The internal reliability for this factor is also considered to be acceptable with a Cronbach's alpha coefficient at 0.693.

Factor 3 (eigenvalue 1.323) had three variables and accounted for 9.499 percent of the common variance. It included the following variables:

1. I make financial contribution to religious organisation
2. I look for opportunities to give charity
3. I enjoy participating in the activities of my religious organisation

This factor is clearly described the "Behavioural religiosity" since all the three variables loaded in this factor had a similar characteristic relating to an individual's behaviour for religion. The internal reliability for this factor is also considered to be acceptable with a Cronbach's alpha coefficient at 0.616.

Factor 4 (eigenvalue 1.164) had three variables and accounted for 8.313 percent of the common variance. It included the following variables:

1. Rewards of paradise encourage me to do good things
2. Advise others to do good things and avoid sin
3. Fasting brings closer to god

This factor is clearly described the "Consequential religiosity" since all the three variables loaded in this factor had a similar characteristic relating to an individual's feeling for the presence of God. Religious *effects* (consequential religion) involve the connection between belief and behaviour, that is, the rewards and responsibilities that accompany religiousness the internal reliability for this factor is also considered to be acceptable with a Cronbach's alpha coefficient at 0.6.

There is very little overlap between the four factors which can be observed from the above analysis. The variables so obtained are theoretically pure and the factors are relatively independent of one another. In essence, this analysis corroborates Worthington et al.'s (2003) conceptualisation that religiosity is a multidimensional construct. Thus, the religiosity construct will be viewed from these four dimensions for the purpose of hypotheses testing.

TABLE 6.2 Factor structure of religiosity

Factor and variables	Factor	Alpha	Variance
Factor-1 Experiential Religiosity			
When I do something wrong, i asked for God's forgiveness	0.781	0.726	17.057
When i face a problem, I pray for God's help	0.702		
Praying gives me strength when I am upset	0.698		
I pray mainly to get relief and protection	0.628		
I volunteer to help others based on my religious beliefs	0.475		
Factor-2 Cognitive Religiosity			
Religious beliefs influences all my dealings in life	0.787	0.693	13.968
My religious beliefs lie behind my whole approach to life	0.784		
I spent time trying to grow in understanding of my religious	0.649		
beliefs			
Factor-3 Behavioural Religiosity			
I make financial contribution to religious organisation	0.809	0.616	13.512
I look for opportunities to give charity	0.75		
I enjoy participating in the activities of my religious	0.563		
Organisation			
Factor-4 Consequential Religiosity			
Rewards of paradise encourage me to do good things	0.81	0.6	11.927
Advise others to do good things and avoid sin	0.721		
Fasting brings closer to god	0.587		

Note: Factors are extracted by using principal component method with a varimax rotation

6.2.2 Factor Analysis on Information Sources

In order to identify the interrelationships among these independent variables and to summarise the information in a smaller set of variables, the responses to the 8 items of information sources are studied by factor analysis. On the basis of the result of Keiser-Meyer-Olkin measure of sampling adequacy test index which is equal to 0.804 and Bartlett's test is significant at $p < 0.0001$, factor analysis is deemed to be appropriate for this construct. On the basis of principal components factor analysis with a varimax rotation, factors with latent roots or eigenvalues greater than 1.0 and items with rotated factor loadings of 0.4 or greater are retained (Hair et al. 1998). The results of this analysis are shown in Table 6.3. According to the result, all eight information sources can be grouped into two factors, which explained 54.037 percent of the total variance.

TABLE 6.3 Factor structures of information sources

Factor and variables	Factor Loadings	Alpha	Variance %
Media Source			
Magazine Advertising	0.798	0.788	36.225
Catalogue/Brochure	0.79		
Television Advertising	0.736		
Newspaper Advertising	0.63		
Internet	0.624		
Sales person's advise	0.52		
Personal source			
Family/ Relatives	0.791	0.465	17.812
Friends opinion	0.775		

Note: Factors are extracted by using principal component method with a varimax rotation

The first factor (eigenvalue 3.316) explains 36.225 percent of the total variance and had six sources: newspaper advertising, catalogue/brochures, television advertising, magazine advertising, internet and sales person advice. Thus this factor is labelled "media source". The second factor (eigenvalue 1.187) explains 17.812 percent of the total variance and contained two sources: family/relatives and friend's opinion. Thus this factor is named "personal source". Cronbach's alpha coefficients for "media source" and "personal source" are 0.788 and 0.465 respectively, indicating high internal consistency and reliability for these two factors. Factor scores for the two factors are used in subsequent analyses.

6.2.3 Factor Analysis on Shopping Orientation

In order to identify the interrelationships among these independent variables and to summarise the information in a smaller set of variables, the responses to the 33 items of shopping orientation are studied by factor analysis. On the basis of the result of Keiser-Meyer-Olkin measure of sampling adequacy test index which is equalled 0.875 and Bartlett's test is significant at $p < 0.0001$, factor analysis is deemed to be appropriate for this construct. On the basis of principal components factor analysis with a varimax rotation, factors with latent roots or eigenvalues greater than 1.0 and items with rotated factor loadings of 0.4 or greater are retained (Hair et al. 1998).

Using a minimum eigenvalues of 1.0 as the criterion to control the number of factors extracted, the analysis initially yielded eight factors. However, some of the variables are not loading on any of the factors and some of them are loading on multiple factors which are removed and factor analysis are performed till each variable load properly on factors, finally 23 variables load on seven factors but Factor seven (three variables) are found unreliable with coefficient alphas of 0.38. However, with no possible way to improve the reliability for factors 7, all three variables forming these factors are eliminated. The variables are:

1. The quality of merchandize i buy is more important to me than the prices i have to pay
2. I look for quality in a product and willing to pay extra for it
3. I look carefully to find the best value for the money

The factor model is then respecified by deriving a new factor solution. The Kaiser-Meyer-Olkin MSA test (index: 0.851) and Bartlett's test of sphericity ($p < 0.0001$) indicated that these data are deemed fit for factor analysis.

A new factor solution, derived by principal component factor analysis, produced six factors that yielded eigenvalues greater than one. The factors are subjected to varimax rotation to provide a simpler column structure for interpretation. All variables are considered significant because they are loaded in excess of 0.4 and therefore no variable is eliminated.

Table 6.4 summarises the final solution of factor analysis on shopping orientation measures. These six factors are retained, explaining 57.135 percent of total variance, which satisfies the percentage of variance criterion for social science research (Hair et al. 1998). Factor 1 (eigenvalue 2.866) consists of six variables, which have a Cronbach's alpha of 0.79 and explain 14.238 percent of the variance. It included the following variables:

1. I often buy things which i never intended to buy
2. I consider myself trendy
3. I think I am impulsive buyer
4. I am interested in fashion
5. When I must choose between the two i usually dress for fashion not comfort
6. I usually continued to shop around even after making purchases

It can be seen that this factor is characterised by variables related to consumers' who are inclined to fashion and who did unplanned purchases. This is reminiscent of a shopping orientation identified by Shim & Bickle,1994; Shim & Kotsiopulos,1992 a&b; Shim & Kotsiopolus,1993; Gutman & Mills, 1982; , Lumpkin,1985; Iyer,1989; Rook, 1987.

Factor 2 (eigenvalue 1.884) consists of four variables, which have a Cronbach's alpha of 0.589 and explain 9.418 percent of the variance. This factor included the following variables:

1. I often go to shopping to get ideas even though i have no intention of buying
2. I get a psychological lift from shopping
3. Shopping for clothes puts me in a good mood
4. I like to go shopping with friends

This factor is conceptually labelled "Recreational Shopper" orientation. It is comparable to recreational shopping orientation previously identified by Bellenger and Korgaonkar, 1980; Sproles & Kendall, 1986; Gutman & Mills, 1982; Shim & Bickle, 1994 and is associated with a consumer's tendency to enjoy shopping and browsing activities.

Factor 3 (eigenvalue 1.874) consists of three variables, which explain 9.369 percent of the variance and a Cronbach's alpha of 0.651. The factor included the following variables:

1. The more expensive brands are my choice
2. I try to stick to certain brands and stores
3. I usually watch the advertisements for announcement of sales.

Characteristics identified in this factor are of the consumers who are particularly concerned with announcement of sales and costliness of product. They also believe in purchase a particular brand and stick to it. They read fashion news regularly to know about the latest style.. Thus this factor is labelled "price conscious and brand loyal" shopping orientation, similar to Kopp, Eng, and Tigert, 1989; Sproles and Kendall,1986 of price conscious and Sproles and Kendall's, 1986; Gutman and Mills, Kopp et al,1989; Shim & Kotsiopulos, 1992a as characterisation of fashion conscious shoppers.

Three variables are identified under factor 4 (eigenvalue 1.679) which explain 8.393 percent of the variance. The scale had a Cronbach's coefficient alpha 0.572, indicating sufficient reliability in terms of internal consistency. It included the following variables:

1. I shop where it saves me time
2. I usually buy at the most convenient store
3. I put high value on convenience when shopping for clothes

All three variables loaded in this factor are related to a consumer's preference for convenience and therefore is labelled "convenience seeker" orientation. It is similar to Shim and Kotsiopulos, 1992a; Forsythe and Bailey's, 1996.

The two variables in factor 5 (eigenvalue 1.649) present a Cronbach's alpha of 0.564 and explain 8.245 percent of the variance. This factor comprised the following variables:

1. Shopping wastes my time
2. Shopping is not a pleasant activity for me

Since this factor is dominated by such variables as waste of time and unpleasant activity, this factor is labelled the "shopping enjoyment" orientation. This factor is consistent with Lumpkin, 1995; Lumpkin & Greenberg, 1982; Gutman & Mill, 1982; Shim & Bickle, 1994.

Finally, factor 6 (eigenvalue 1.476), also includes two variables, having a Cronbach's alpha of 0.58 and explaining 7.382 percent of the variance. This factor is conceptually named "brand conscious" and included the following variables:

1. I prefer to buy national brand name clothing
2. Wearing designer clothing gives me a social status

This factor is in accordance with Sproles and Kendall, 1986; Shim & Kotsiopulos, 1992a, Welker, 2004 which focuses on a concern about product brand.

TABLE 6.4 Factor structure of shopping orientation

Factor and variables	Factor Loadings	Alpha	Variance %
Factor-1 Impulsive & Fashion Conscious Buyer			
I often buy things which i never intended to buy	0.726	0.79	14.328

I consider myself trendy	0.716		
I think i am impulsive buyer	0.633		
I am interested in fashion	0.601		
When i must choose between the two i usually dress for fashion not comfort	0.597		
I usually continued to shop around even after making purchases	0.58		
Factor-2 Recreational Shopper			
I often go to shopping to get ideas even though i have no intention of buying	0.689	0.589	9.418
I get a psychological lift from shopping	0.686		
Shopping for clothes puts me in a good mood	0.606		
I like to go shopping with friends	0.413		
Factor-3 Price Conscious and Brand Loyal			
The more expensive brands are my choice	0.769	0.651	9.369
I try to stick to certain brands and stores	0.727		
I usually watch the advertisements for announcement of sales	0.59		
Factor-4 Convenience Seeker			
I shop where it saves me time	0.78	0.572	8.393
I usually buy at the most convenient store	0.679		
I put high value on convenience when shopping for clothes	0.675		
Factor-5 Shopping Enjoyment			
Shopping wastes my time	0.751	0.564	8.245
Shopping is not a pleasant activity for me	0.710		
Factor - 6 Brand Conscious			
I prefer to buy national brand name clothing	0.777	0.58	7.382
Wearing designer clothing gives me a social status	0.760		

6.3 Testing of Hypothesis 1

This section presents the results of testing the following hypotheses:

H1a: There is a significant difference in the use of information source among consumers affiliated with different religions.

H1b: There is a significant difference in shopping orientation among consumers affiliated with different religions.

6.3.1 Hypothesis 1a

Multivariate analysis of variance (MANOVA) is performed using the two information source factors (media and personal) as dependent variables and religious affiliation as an independent variable with four multiple levels:, Hindu, Muslim, Jain and Christian to test Hypothesis 1a. Box's M test is used to check whether the homogeneity of variance covariance assumption is met. The test produced non significant result at 0.1 level (Box's M = 12.906, F = 1.424, p = 0.171), suggesting that the covariance matrices are roughly equal and the homogeneity assumption is met.

TABLE 6.5 MANOVA of information source by religious affiliation

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.018	2.316	6	1492	0.031
Wilks' Lambda	0.982	2.314	6	1490	0.032

To assess the overall multivariate relationship, Pillai's trace and Wilks' lambda are used. The MANOVA results are displayed in Table 6.5. The results indicated that the tests are significant (Pillai's trace = 0.018, F (6, 1492) = 2.316, p < 0.5; Wilks' lambda = 0.982, F (6, 1490) = 2.314, p < 0.5). On the basis of the results, it is concluded that significant differences exist in use of information sources among consumers affiliated with different religions, and further testing is required.

One-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test showed that the Media source is significant at p < 0.05, indicating that the assumption for this variable is not met. Thus, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for this dependent variable.

TABLE 6.6 ANOVA of information sources by religious affiliation

	F	Sig.
Media Information Source	2.81	0.039**
Personal Information Source	1.6	0.188

** p < 0.05; *** p < 0.01, *p<0.1

The results of one-way ANOVA indicates that statistically religious differences existed in Media source (Brown-Forsythe F (3, 408) = 2.810, p < 0.05).

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. Tamhane's T2 method for multiple comparison is used since the variable failed the Levene's F test for homogeneity of variance assumption (i.e. the test is significant at p < 0.05, indicating that the error variance of the variable is unequal across groups).

TABLE 6.7 Descriptive Statistics for information sources by religious affiliation

	Hindu	Muslim	Jain	Christian
Media Information Source	3.2406(-0.95954)	3.53799(1.10795)	3.2952(1.04627)	3.2584(1.00598)
Personal Information Source	4.1863(0.86196)	4.2197(0.9596)	4.019(0.97054)	4.0449(0.98754)

For Media source, significant differences are indicated between Hindu and Muslim (p=0.036). The cell mean indicated that Islamic followers obtained a slightly higher score (M=3.54) than the mean of Hindu Followers (M=3.24)

6.3.2 Hypothesis 1b

Multivariate analysis of variance (MANOVA) is performed using the six shopping orientation factors (Impulsive & Fashion Conscious Buyer, Recreational Shopper, price conscious and brand loyal, Convenience Seeker, shopping enjoyment, brand Conscious) as dependent variables and religious affiliation as an independent variable with four multiple levels: Hindu, Muslim, Jain and Christian to test Hypothesis 1b. Box's M test is used to check whether the homogeneity of variance covariance assumption is met. The test turned out to be insignificant at 0.01 level (Box's M = 93.936, F = 1.460, p = 0.010), indicating that the covariance matrices are roughly equal and the assumption is met.

TABLE 6.8 MANOVA of shopping orientation by religious affiliation

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.081	3.455	18	2229	0.000
Wilks' Lambda	0.92	3.503	18	2096.35	0.000

Pillai's trace and Wilks' lambda are used to test statistical significance of the religious affiliation effect. The results are presented in Table 6.8. Contrary to expectation, the results indicated that the tests are significant (Pillai's trace = 0.081, F (18, 2229) = 3.455, p < 0.001; Wilks' lambda = 0.920, F (18, 2096.350) = 3.503, p < 0.001). Based on these results, decision is made that there are significant differences in shopping orientations among consumers affiliated with different religions. Based on these results, Hypothesis 1b is accepted. Since only significant results are produced by the MANOVA, further testing is made.

One-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test showed that the Brand Conscious is significant at p < 0.05, indicating that the assumption for this variable is not met. Thus, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for this dependent variable.

TABLE 6.9 ANOVA of shopping orientations by religious affiliation

	F	Sig.
Impulsive and Fashion Conscious Shopper	10.298	0.000***
Recreational Shopper	3.807	0.01**
Price conscious and brand loyal	5.895	0.001***
Convenience Seeker	3.598	0.013**
Shopping enjoyment	4.89	0.002***
Brand Conscious	11.773	0.000***

** p < 0.05; *** p < 0.01, *p<0.1

The results of one-way ANOVA indicates that statistically religious differences existed in all six types of shopping orientations; impulsive and fashion conscious shopper (F (3,746)=10.298, p<0.001), recreational shopper (F (3,746)=3.807, p<0.01), price conscious and brand loyal ((F (3,746)=5.895, p<0.01),convenience seeker (F (3,746)=3.598, p<0.05),

shopping enjoyment (F (3,746)=4.89, p<0.01) and brand conscious(Brown-Forsythe F (3, 387.517) = 11.773, p < 0.001).

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. For impulsive and fashion conscious shopper, recreational shopper, price conscious and brand loyal, convenience seeker, shopping enjoyment, the Bonferroni method is employed to perform the post-hoc analysis since Levene's F tests confirmed that the error variance of these dependent variables are relatively equal across groups. For brand conscious, Tamhane's T2 for multiple comparison is used since these variables failed the Levene's F test for homogeneity of variance assumption (i.e. the error variance of the variable is unequal across groups).

TABLE 6.10 Descriptive statistics for shopping orientations by religious affiliation

	Hindu	Muslim	Jain	Christian
Impulsive and Fashion Conscious Shopper	3.076(1.012)	3.636(1.12)	3.095(1.12)	3.326(1.053)
Recreational Shopper	3.943(0.905)	4.167(0.840)	3.791(0.917)	4.045(0.952)
Price conscious and brand loyal	3.384(1.105)	3.772(1.102)	3.267(1.120)	3.629(1.132)
Convenience Seeker	3.906(1.007)	4.212(0.820)	3.886(1.041)	3.966(0.935)
Shopping enjoyment	2.930(1.215)	3.318(1.292)	2.823(1.244)	3.202(1.189)
Brand Conscious	3.243(1.224)	3.884(0.922)	3.210(1.190)	3.236(1.234)

For impulsive and fashion conscious shopper, significant difference are found Hindu and Muslim (p=0.000), Muslim and Jain (p=0.001). Muslims (M=3.636) are more impulsive and fashion conscious than Hindu (M=3.076) and Jain (M=3.095).

For Recreational shopper, significant differences are found between Muslim and Jain (p=0.009). Muslim (M=4.167) Scores more than Jain. (M=3.791)

Significant differences are found among Hindu and Muslim (p=0.003) and Muslim and Jain (p=0.003) for price conscious and brand loyal shoppers. Muslims (M=3.772) shoppers are found to be more price conscious and brand loyal than Hindu (M=3.384) and Jain (M=3.886)

For convenience seeker, significant differences are found Hindu and Muslim (p=0.010). Muslims (M=4.212) are more convenience seeker than Hindu (M= 3.906)

Significant differences are found among Hindu and Muslim (p=0.009) and Muslim and Jain (p=0.014) for shopping enjoyment. Muslims (M=3.318) shoppers are found to be more shopping enjoyment than Hindu (M=2.930) and Jain (M=2.823)

For brand conscious shopper, significant differences are found among Hindu and Muslim (p= 0.000) and Muslim and Jain (p=0.000) and Muslim and Christian (p=0.000). Muslims (M=3.884) are more brand conscious than Hindu (M= 3.243), Jain (M=3.210) and Christian (M=3.236)

6.4 Testing of Hypothesis 2

Having tested the first hypothesis, attention is now turned to Hypothesis 2. This section presents the results of testing the following hypotheses:

H2a: There is significant difference in use of information source among consumers with different levels of religiosity.

H2b: There is significant difference in shopping orientation among consumers with different levels of religiosity.

In testing the above hypotheses, the religiosity construct is viewed from four perspectives: cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity. For the purpose of group comparison, the respondents are classified as low, medium and high for all four types of religiosity. A general rule of 33% (low), 33% (medium) and 33% (high) split is used to classify the scores of each scale into three levels. According to the frequency distributions, cognitive religiosity is classified into low (n =51, 6.8%), medium (n = 139, 18.5%) and high (n = 560, 74.7%), behavioural religiosity is classified into low (n =58, 7.7%), medium (n = 153, 20.4%) and high (n = 539, 71.9%), consequential religiosity is classified into low (n =67, 8.9%), medium (n = 172, 22.9%)

and high (n = 511, 68.1%), and experiential religiosity is classified into low (n =7, 0.9%), medium (n = 168, 22.4%) and high (n = 575, 76.7%).

6.4.1 Hypothesis 2a

A two-way multivariate analysis of variance (MANOVA) is initially performed on two dependent variables: media source and personal source to test Hypothesis 2a. Categorical independent variables are cognitive religiosity (low, medium and high), behavioural religiosity (low, medium and high), consequential religiosity (low, medium and high) and experiential religiosity (low, medium and high). Box's M test is used to check whether the homogeneity of variance covariance assumption is met. The test produced non-significant result at $p < 0.01$ level (Box's M = 164.521, F = 1.341, p = 0.013), indicating that the covariance matrices are roughly equal and the assumption is met.

Pillai's trace and Wilks' lambda are used to test statistical significance of the main and interaction effects. Based on the results displayed in Table, Hypothesis 2a is accepted. The combined dependent variables are significantly affected by Experiential Religiosity (Pillai's trace = 0.020, $F (4, 1388) = 3.475$, $p < 0.05$; Wilks' lambda = 0.980, $F (4, 1386) = 3.487$, $p < 0.05$) only .The interaction effects and other religiosity variables are also not found to be significant.

TABLE 6.11 MANOVA of information source by religiosity

Multivariate Test						
Effect		Value	F	Hypothesis df	Error df	Sig.
Cognitively Religious	Pillai's Trace	.006	1.109	4.000	1388.000	.351
	Wilks' Lambda	.994	1.109b	4.000	1386.000	.351
Behaviourally Religious	Pillai's Trace	.009	1.609	4.000	1388.000	.170
	Wilks' Lambda	.991	1.608b	4.000	1386.000	.170
Consequently Religious	Pillai's Trace	.004	.617	4.000	1388.000	.651
	Wilks' Lambda	.996	.616b	4.000	1386.000	.651
Experientially Religious	Pillai's Trace	.020	3.475	4.000	1388.000	.008

	Wilks' Lambda	.980	3.487b	4.000	1386.000	.008
Cognitively Religious * Behaviourally Religious	Pillai's Trace	.002	.188	8.000	1388.000	.993
	Wilks' Lambda	.998	.188b	8.000	1386.000	.993
Cognitively Religious * Consequently Religious	Pillai's Trace	.011	.977	8.000	1388.000	.452
	Wilks' Lambda	.989	.977b	8.000	1386.000	.452
Cognitively Religious * Experientially Religious	Pillai's Trace	.007	1.266	4.000	1388.000	.281
	Wilks' Lambda	.993	1.265b	4.000	1386.000	.282
Behaviourally Religious * Consequently Religious	Pillai's Trace	.006	.533	8.000	1388.000	.832
	Wilks' Lambda	.994	.533b	8.000	1386.000	.833
Behaviourally Religious * Experientially Religious	Pillai's Trace	.011	1.266	6.000	1388.000	.270
	Wilks' Lambda	.989	1.264b	6.000	1386.000	.271
Consequently Religious * Experientially Religious	Pillai's Trace	.015	1.795	6.000	1388.000	.097
	Wilks' Lambda	.985	1.795b	6.000	1386.000	.097
Cognitively Religious * Behaviourally Religious * Consequently Religious	Pillai's Trace	.024	1.208	14.000	1388.000	.263
	Wilks' Lambda	.976	1.212b	14.000	1386.000	.260
Cognitively Religious * Behaviourally Religious * Experientially Religious	Pillai's Trace	.018	1.613	8.000	1388.000	.116
	Wilks' Lambda	.982	1.611b	8.000	1386.000	.117
Cognitively Religious * Consequently Religious * Experientially Religious	Pillai's Trace	.013	1.132	8.000	1388.000	.339
	Wilks' Lambda	.987	1.133b	8.000	1386.000	.338
Behaviourally Religious * Consequently Religious * Experientially Religious	Pillai's Trace	.007	.647	8.000	1388.000	.738
	Wilks' Lambda	.993	.648b	8.000	1386.000	.738
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	Pillai's Trace	.018	1.232	10.000	1388.000	.266
	Wilks' Lambda	.982	1.230b	10.000	1386.000	.267

Two-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results and it is found to be significant at $p < 0.05$, indicating that the assumptions for these variables are violated. For this reason, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for these two dependent variables.

TABLE 6.12 ANOVA of information sources by experiential religiosity

	F	Sig.
Media information source	4.284	0.019**
Personal information source	1.672	0.23

** p < 0.05; *** p < 0.01, *p<0.1

A summary of the two-way ANOVA results is provided in Table 6.12. For media source, the main effect of experiential religiosity is found to be statistically significant (Brown-Forsythe's F (2, 51.643) = 4.284, p < 0.05); for personal information source, the main effect of experiential religiosity is found to be statistically insignificant (Brown-Forsythe's F (2, 11.685) = 1.672, p >0.05).

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. The Tamhane method is employed to perform the post-hoc analysis since Levene's F tests confirmed that the error variance of the dependent variables is not equal across groups. The means and standard deviations are reported in Table 6.13.

TABLE 6.13 Descriptive statistics for information source by experiential religiosity

	Low	Medium	High
Media information source	4.1429(.69007)	3.3690(.96997)	3.2730(1.01910)
Personal information source	3.5714(1.51186)	4.0417(.96250)	4.1913(.88439)

For media source, A significant difference is indicated between low and medium groups (p = 0.0.072) and low and high (p=0.045) for media source. The low religiosity group (M = 4.1429) uses more media information sources than medium (M=3.3690) and high group. (M= 3.2730)

6.4.2 Hypothesis 2b

A two-way multivariate analysis of variance (MANOVA) is performed on six dependent variables: (Impulsive & Fashion Conscious Buyer, Recreational Shopper, price conscious and brand loyal, Convenience Seeker, shopping enjoyment, brand Conscious to test Hypothesis 2b. Categorical independent variables are cognitive religiosity (low, medium and high), behavioural religiosity (low, medium and high), consequential religiosity (low, medium and high) and experiential religiosity (low, medium and high). Box's M test is used to check whether the homogeneity of variance covariance assumption is met. The test is found to be insignificant at $p < 0.001$ level (Box's M = 627.523, F = 1.211, $p = 0.003$), suggesting that the covariance matrices are equal and the assumption is met.

The two-way MANOVA results are presented in Table 6.14. The results indicated that the combined dependent variables are significantly affected by behavioural religiosity (Pillai's trace = 0.033, F (12, 1380) = 1.924, $p < 0.05$; Wilks' lambda = 0.967, F (12, 1378) = 1.922, $p < 0.05$), consequential religiosity (Pillai's trace = 0.033, F (12, 1380) = 1.901, $p < 0.05$; Wilks' lambda = 1.900, F (12, 1378)= 3.152, $p < 0.05$) and experiential religiosity (Pillai's trace = 0.050, F (12, 1380) = 2.918, $p < 0.001$; Wilks' lambda = 0.951, F (12, 1378)= 2.951, $p < 0.001$), Cognitively Religious * Consequently Religious (Pillai's trace = 0.061, F (24, 2768) = 1.778, $p < 0.05$; Wilks' lambda = 0.940, F (24, 2404.844)= 1.799, $p < 0.05$), Cognitively Religious * Experientially Religious(Pillai's trace = 0.038, F (12, 1380) = 2.218, $p < 0.01$; Wilks' lambda = 0.962, F (12, 1378)= 2.216, $p < 0.01$), Cognitively Religious * Behaviourally Religious * Experientially Religious (Pillai's trace = 0.054, F (24, 2768) = 1.575, $p < 0.05$; Wilks' lambda = 0.947, F (24, 2404.844)= 1.580, $p < 0.05$), Behaviourally Religious * Consequently Religious * Experientially Religious (Pillai's trace = 0.054, F (24, 2768) = 1.583, $p < 0.05$; Wilks' lambda = 0.947, F (24, 2404.844)= 1.582, $p < 0.05$), Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious (Pillai's trace = 0.083, F (34, 3465) = 1.959, $p < 0.01$; Wilks' lambda = 0.919, F (30, 2758)= 1.967, $p < 0.01$) but not affected by Cognitively Religious (Pillai's trace = 0.014, F (12, 1380) = 0.829, $p > 0.1$; Wilks' lambda = 0.0.986, F (12, 1378)= 0.829, $p > 0.1$) Cognitively Religious * Behaviourally Religious (Pillai's trace = 0.041, F (24, 2768) = 1.200, $p > 0.1$; Wilks' lambda = 0.959, F (24, 2404.844)= 1.204, $p > 0.1$) Behaviourally Religious * Consequently Religious (Pillai's trace = 0.046, F (24, 2768) = 1.338, $p > 0.1$; Wilks' lambda = 0.955, F (24, 2404.844)=

1.342, p > 0.1) Behaviourally Religious * Experientially Religious (Pillai's trace = 0.023, F (18, 2073) = 0.900, p > 0.1; Wilks' lambda = 0.977, F (18, 1949.272)= 0.902, p > 0.1), Consequently Religious * Experientially Religious (Pillai's trace = 0.036, F (18, 2073) = 1.397, p > 0.1; Wilks' lambda = 0.964, F (18, 1949.272)= 1.401, p > 0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious ((Pillai's trace = 0.072, F (42,4164) = 1.212, p > 0.1; Wilks' lambda = 0.929, F (42, 3235.149)= 1.217, p > 0.1), Cognitively Religious * Consequently Religious * Experientially Religious (Pillai's trace = 0.043, F (24, 2768) = 1.263, p > 0.1; Wilks' lambda = 0.957, F (24, 2404.844)= 1.264, p > 0.1)

TABLE 6.14 MANOVA of shopping orientation by religiosity

Effect		Multivariate Test				
		Value	F	Hypothesis df	Error df	Sig.
Cognitively Religious	Pillai's Trace	0.014	0.829	12	1380	0.621
	Wilks' Lambda	0.986	.829b	12	1378	0.621
Behaviourally Religious	Pillai's Trace	0.033	1.924	12	1380	0.028
	Wilks' Lambda	0.967	1.922b	12	1378	0.028
Consequently Religious	Pillai's Trace	0.033	1.901	12	1380	0.03
	Wilks' Lambda	0.968	1.900b	12	1378	0.03
Experientially Religious	Pillai's Trace	0.05	2.928	12	1380	000
	Wilks' Lambda	0.951	2.951b	12	1378	000
Cognitively Religious * Behaviourally Religious	Pillai's Trace	0.041	1.2	24	2768	0.229
	Wilks' Lambda	0.959	1.204	24	2404.844	0.225
Cognitively Religious * Consequently Religious	Pillai's Trace	0.061	1.778	24	2768	0.011
	Wilks' Lambda	0.94	1.799	24	2404.844	0.01
Cognitively Religious * Experientially Religious	Pillai's Trace	0.038	2.218	12	1380	0.009
	Wilks' Lambda	0.962	2.216b	12	1378	0.009
Behaviourally Religious * Consequently Religious	Pillai's Trace	0.046	1.338	24	2768	0.126
	Wilks' Lambda	0.955	1.342	24	2404.844	0.124

Behaviourally Religious * Experientially Religious	Pillai's Trace	0.023	0.9	18	2073	0.579
	Wilks' Lambda	0.977	0.902	18	1949.272	0.576
Consequently Religious * Experientially Religious	Pillai's Trace	0.036	1.397	18	2073	0.122
	Wilks' Lambda	0.964	1.401	18	1949.272	0.121
Cognitively Religious * Behaviourally Religious * Consequently Religious	Pillai's Trace	0.072	1.212	42	4164	0.164
	Wilks' Lambda	0.929	1.217	42	3235.149	0.16
Cognitively Religious * Behaviourally Religious * Experientially Religious	Pillai's Trace	0.054	1.575	24	2768	0.037
	Wilks' Lambda	0.947	1.58	24	2404.844	0.036
Cognitively Religious * Consequently Religious * Experientially Religious	Pillai's Trace	0.043	1.263	24	2768	0.176
	Wilks' Lambda	0.957	1.264	24	2404.844	0.176
Behaviourally Religious * Consequently Religious * Experientially Religious	Pillai's Trace	0.054	1.583	24	2768	0.036
	Wilks' Lambda	0.947	1.582	24	2404.844	0.036
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	Pillai's Trace	0.083	1.959	30	3465	0.001
	Wilks' Lambda	0.919	1.967	30	2758	0.001

Two-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test is significant at p < 0.05, indicating that the assumptions for these variables are met.

TABLE 6.15 ANOVA of shopping orientations by religiosity

	Type III Sum of Squares	df	Mean Square	F	Sig.
Impulsive and Fashion Conscious Shopper					
Cognitively Religious	1.470	2	.735	.675	.510
Behaviourally Religious	2.120	2	1.060	.973	.379
Consequently Religious	7.295	2	3.648	3.348	.036**
Experientially Religious	.543	2	.272	.236	.790
Cognitively Religious * Behaviourally Religious	.843	4	.211	.193	.942
Cognitively Religious * Consequently Religious	2.072	4	.518	.476	.754

Cognitively Religious * Experientially Religious	6.955	2	3.477	3.192	.042**
Behaviourally Religious * Consequently Religious	4.945	4	1.236	1.135	.339
Behaviourally Religious * Experientially Religious	1.471	3	.490	.450	.717
Consequently Religious * Experientially Religious	1.434	3	.478	.439	.725
Cognitively Religious * Behaviourally Religious * Consequently Religious	9.572	7	1.367	1.255	.270
Cognitively Religious * Behaviourally Religious * Experientially Religious	8.337	4	2.084	1.913	.106
Cognitively Religious * Consequently Religious * Experientially Religious	4.405	4	1.101	1.011	.401
Behaviourally Religious * Consequently Religious * Experientially Religious	6.179	4	1.545	1.418	.226
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	7.935	5	1.587	1.457	.202
Error	756.052	694	1.089		
Recreational Shopper					
Cognitively Religious	.958	2	.479	.647	.524
Behaviourally Religious	3.043	2	1.521	2.054	.129
Consequently Religious	1.306	2	.653	.882	.415
Experientially Religious	1.117	2	.559	.754	.471
Cognitively Religious * Behaviourally Religious	2.223	4	.556	.751	.558
Cognitively Religious * Consequently Religious	17.395	4	4.349	5.872	.000***
Cognitively Religious * Experientially Religious	6.277	2	3.139	4.238	.015**
Behaviourally Religious * Consequently Religious	9.077	4	2.269	3.064	.016**
Behaviourally Religious * Experientially Religious	.551	3	.184	.248	.863
Consequently Religious * Experientially Religious	6.747	3	2.249	3.037	.029**
Cognitively Religious * Behaviourally Religious * Consequently Religious	9.084	7	1.298	1.752	.094
Cognitively Religious * Behaviourally Religious * Experientially Religious	14.926	4	3.732	5.039	.001**
Cognitively Religious * Consequently Religious * Experientially Religious	7.457	4	1.864	2.518	.040**
Behaviourally Religious * Consequently Religious * Experientially Religious	4.471	4	1.118	1.509	.198
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	7.402	5	1.480	1.999	.077
Error	513.946	694	.741		
Price Conscious and Brand Loyal Shopper					
Cognitively Religious	8.297	2	4.148	3.478	.031**
Behaviourally Religious	8.527	2	4.264	3.575	.029**

Consequently Religious	.265	2	.132	.111	.895
Experientially Religious	.760	2	.380	.319	.727
Cognitively Religious * Behaviourally Religious	8.554	4	2.139	1.793	.128
Cognitively Religious * Consequently Religious	2.261	4	.565	.474	.755
Cognitively Religious * Experientially Religious	8.796	2	4.398	3.687	.026**
Behaviourally Religious * Consequently Religious	1.694	4	.423	.355	.841
Behaviourally Religious * Experientially Religious	1.961	3	.654	.548	.650
Consequently Religious * Experientially Religious	2.607	3	.869	.728	.535
Cognitively Religious * Behaviourally Religious * Consequently Religious	3.869	7	.553	.463	.861
Cognitively Religious * Behaviourally Religious * Experientially Religious	2.836	4	.709	.594	.667
Cognitively Religious * Consequently Religious * Experientially Religious	1.603	4	.401	.336	.854
Behaviourally Religious * Consequently Religious * Experientially Religious	1.552	4	.388	.325	.861
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	3.065	5	.613	.514	.766
Error	827.744	694	1.193		
Convenience Seeker					
Cognitively Religious	.645	2	.323	.383	.682
Behaviourally Religious	5.910	2	2.955	3.508	.030**
Consequently Religious	3.198	2	1.599	1.899	.151
Experientially Religious	2.920	2	1.460	1.733	.178
Cognitively Religious * Behaviourally Religious	6.628	4	1.657	1.967	.098*
Cognitively Religious * Consequently Religious	3.097	4	.774	.919	.452
Cognitively Religious * Experientially Religious	3.690	2	1.845	2.190	.113
Behaviourally Religious * Consequently Religious	3.134	4	.784	.930	.446
Behaviourally Religious * Experientially Religious	.991	3	.330	.392	.759
Consequently Religious * Experientially Religious	3.436	3	1.145	1.360	.254
Cognitively Religious * Behaviourally Religious * Consequently Religious	7.845	7	1.121	1.330	.233
Cognitively Religious * Behaviourally Religious * Experientially Religious	5.276	4	1.319	1.566	.182
Cognitively Religious * Consequently Religious * Experientially Religious	9.895	4	2.474	2.937	.020**
Behaviourally Religious * Consequently Religious * Experientially Religious	9.397	4	2.349	2.789	.026**
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	17.736	5	3.547	4.211	.001**
Error	584.591	694	.842		
Shopping Enjoyment					

Cognitively Religious	1.165	2	.582	.419	.658
Behaviourally Religious	6.579	2	3.289	2.365	.095*
Consequently Religious	1.644	2	.822	.591	.554
Experientially Religious	3.286	2	1.643	1.069	.344
Cognitively Religious * Behaviourally Religious	4.412	4	1.103	.793	.530
Cognitively Religious * Consequently Religious	4.602	4	1.150	.827	.508
Cognitively Religious * Experientially Religious	8.994	2	4.497	3.233	.040**
Behaviourally Religious * Consequently Religious	9.693	4	2.423	1.742	.139
Behaviourally Religious * Experientially Religious	6.249	3	2.083	1.498	.214
Consequently Religious * Experientially Religious	12.530	3	4.177	3.003	.030**
Cognitively Religious * Behaviourally Religious * Consequently Religious	10.086	7	1.441	1.036	.404
Cognitively Religious * Behaviourally Religious * Experientially Religious	6.497	4	1.624	1.168	.324
Cognitively Religious * Consequently Religious * Experientially Religious	2.712	4	.678	.487	.745
Behaviourally Religious * Consequently Religious * Experientially Religious	7.678	4	1.920	1.380	.239
Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	15.085	5	3.017	2.169	.056*
Error	965.230	694	1.391		
Brand Conscious Shopper					
Cognitively Religious	1.576	2	.788	.591	.554
Behaviourally Religious	6.311	2	3.156	2.366	.095*
Consequently Religious	6.396	2	3.198	2.398	.092*
Experientially Religious	1.008	2	.504	.378	.686
Cognitively Religious * Behaviourally Religious	1.764	4	.441	.331	.857
Cognitively Religious * Consequently Religious	8.578	4	2.144	1.608	.170
Cognitively Religious * Experientially Religious	5.904	2	2.952	2.213	.110
Behaviourally Religious * Consequently Religious	7.651	4	1.913	1.434	.221
Behaviourally Religious * Experientially Religious	3.034	3	1.011	.758	.518
Consequently Religious * Experientially Religious	.809	3	.270	.202	.895
Cognitively Religious * Behaviourally Religious * Consequently Religious	5.228	7	.747	.560	.789
Cognitively Religious * Behaviourally Religious * Experientially Religious	5.723	4	1.431	1.073	.369
Cognitively Religious * Consequently Religious * Experientially Religious	3.780	4	.945	.709	.586
Behaviourally Religious * Consequently Religious * Experientially Religious	11.158	4	2.789	2.091	.080*

Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious	9.133	5	1.827	1.370	.234
Error	925.593	694	1.334		

** p < 0.05; *** p < 0.01, *p<0.1

A summary of the two-way ANOVA results is provided in Table 6.15. For Impulsive and Fashion Conscious Shopper, the main effect of consequential religiosity (F (2, 694) = 3.348, p < 0.05) and interactive effect of Cognitively Religious * Experientially Religious (F (2, 694) = 3.192, p < 0.05) is found to be statistically significant while the main effect of cognitive religiosity (F (2, 694) = 0.675, p > 0.1),behavioural religiosity (F (2, 694) = 0.973, p > 0.1) and experiential religiosity (F (2, 694) = 0.236, p > 0.1) and the interaction effect of Cognitively Religious * Behaviourally Religious (F (4, 694) = 0.193, p > 0.1), Cognitively Religious * Consequently Religious (F (4, 694) = 0.476, p > 0.1), Behaviourally Religious * Consequently Religious (F (4, 694) = 1.135, p > 0.1), Behaviourally Religious * Experientially Religious (F (3, 694) = 0.45, p > 0.1), Consequently Religious * Experientially Religious (F (3, 694) = 0.439, p > 0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious (F (7, 694) = 1.255, p > 0.1), Cognitively Religious * Behaviourally Religious * Experientially Religious (F (4, 694) = 1.913, p > 0.1), Cognitively Religious * Consequently Religious * Experientially Religious (F (4, 694) = 1.011, p > 0.1), Behaviourally Religious * Consequently Religious * Experientially Religious (F (4, 694) = 1.418, p > 0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious (F (5, 694) = 1.457, p > 0.1) are not.

For Recreational Shopper, interactive effect of Cognitively Religious * Consequently Religious (F (4, 694) = 5.872, p > 0.001), Cognitively Religious * Experientially Religious (F (2, 694) = 4.238, p < 0.05), Behaviourally Religious * Consequently Religious (F (4, 694) = 3.064, p < 0.05), , Consequently Religious * Experientially Religious (F (3, 694) = 3.037, p < 0.05), Cognitively Religious * Behaviourally Religious * Consequently Religious (F (7, 694) = 1.752, p < 0.1), Cognitively Religious * Behaviourally Religious * Experientially Religious (F (4, 694) = 5.039, p < 0.01), Cognitively Religious * Consequently Religious * Experientially Religious (F (4, 694) = 2.518, p < 0.05), Cognitively Religious * Behaviourally Religious * Consequently Religious *

Experientially Religious (F (5, 694) = 1.999, p < 0.01) are found to be statistically significant while the main effect of cognitive religiosity (F (2, 694) = 0.647, p > 0.1), behavioural religiosity (F (2, 694) = 2.054, p > 0.1), consequential religiosity (F (2, 694) = 0.882, p > 0.1),experiential religiosity (F (2, 694) = 0.754, p > 0.1), and interactive effect of Cognitively Religious * Behaviourally Religious (F (4, 694) = 0.751, p > 0.1), Behaviourally Religious * Experientially Religious (F (3, 694) = 0.248, p > 0.1), Behaviourally Religious * Consequently Religious * Experientially Religious (F (4, 694) = 1.509, p > 0.1are not.

For Price Conscious and Brand Loyal Shopper, the main effect of cognitive religiosity (F (2, 694) = 3.478, p < 0.05) and behavioural religiosity (F (2, 694) = 3.575, p < 0.05) and interactive effect of Cognitively Religious * Experientially Religious (F (2, 694) = 3.687, p < 0.05) are found to be statistically significant while the main effect of consequential religiosity (F (2, 694) = 0.111, p >0.1) and experiential religiosity (F (2, 694) = 0.319, , p >0.1) and interactive effect of Cognitively Religious * Behaviourally Religious (F (4, 694) = 1.793, , p >0.1), Cognitively Religious * Consequently Religious (F (4, 694) = 0.474, p >0.1), Behaviourally Religious * Consequently Religious (F (4, 694) = 0.355, p>0.1), Behaviourally Religious * Experientially Religious (F (3, 694) = 0.548, p>0.1), Consequently Religious * Experientially Religious (F (3, 694) = 0.728, p>0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious (F (7, 694) = 0.463, p >0.1), Cognitively Religious * Behaviourally Religious * Experientially Religious (F (4, 694) = 0.594, p>0.1), Cognitively Religious * Consequently Religious * Experientially Religious (F (4, 694) = 0.336, p>0.05), Behaviourally Religious * Consequently Religious * Experientially Religious (F (4, 694) = 0.325, p>0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious (F (5, 694) = 0.514, p > 0.1) are not.

For Convenience Seeker, the main effect of behavioural religiosity (F (2, 694) = 3.508, p < 0.05) and interactive effect of Cognitively Religious * Behaviourally Religious (F (4, 694) = 1.967, p<0.05), Cognitively Religious * Consequently Religious * Experientially Religious (F (4, 694) = 2.937, p < 0.05), Behaviourally Religious * Consequently Religious * Experientially Religious (F (4, 694) = 2.789, p <0.05), Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious (F (5, 694) =

4.211, p < 0.01) are found to be statistically significant while the main effect of cognitive religiosity (F (2, 694) = 0.383, p >0.1) ,consequential religiosity (F (2, 694) = 1.899, p >0.1) and experiential religiosity (F (2, 694) = 1.733, , p >0.05) and interactive effect of Cognitively Religious * Consequently Religious (F (4, 694) = 0.919, p >0.1), Cognitively Religious * Experientially Religious (F (2, 694) = 2.19, p>0.1) Behaviourally Religious * Consequently Religious (F (4, 694) = 0.93, p>0.1), Behaviourally Religious * Experientially Religious (F (3, 694) = 0.932, p>0.1), Consequently Religious * Experientially Religious (F (3, 694) = 1.36, p>0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious (F (7, 694) = 1.33, p >0.1), Cognitively Religious * Behaviourally Religious * Experientially Religious (F (4, 694) = 1.566, p >0.1), are not.

For Shopping Enjoyment, the main effect of behavioural religiosity (F (2, 694) = 2.365, p < 0.1) and interactive effect of Cognitively Religious * Experientially Religious (F (2, 694) = 3.233, p < 0.05), Consequently Religious * Experientially Religious (F (5, 694) = 3.003, p < 0.05), Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious (F (5, 694) = 2.169, p < 0.1) are found to be statistically significant while the main effect of cognitive religiosity (F (2, 694) = 0.419, p >0.1) ,consequential religiosity (F (2, 694) = 0.519, p >0.1) and experiential religiosity (F (2, 694) = 1.069, , p > 0.1) and interactive effect of Cognitively Religious * Behaviourally Religious (F (4, 694) = 0.793, p >0.1), Cognitively Religious * Consequently Religious (F (4, 694) = 0.827, p >0.05), Behaviourally Religious * Consequently Religious (F (4, 694) = 1.742, p >0.1), Behaviourally Religious * Experientially Religious (F (3, 694) = 1.498, p >0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious (F (7, 694) = 1.036, p >0.1), Cognitively Religious * Behaviourally Religious * Experientially Religious (F (4, 694) = 1.168, p >0.1), Cognitively Religious * Consequently Religious * Experientially Religious (F (4, 694) = 0.487, p >0.1), Behaviourally Religious * Consequently Religious * Experientially Religious (F (4, 694) = 1.38, p >0.1) are not.

For Brand Conscious Shopper, the main effect of behavioural religiosity (F (2, 694) = 2.366, p < 0.1) and consequential religiosity (F (2, 694) = 2.398, p >0.1), and interactive effect of Behaviourally Religious * Consequently Religious * Experientially Religious (F (4, 694) = 2.091, p >0.1) are found to be statistically significant while the main effect of cognitive religiosity (F (2, 694) = 0.591, p >0.1) and experiential religiosity (F (2, 694) = 0.378, p < 0.1) and interactive effect of Cognitively Religious * Behaviourally Religious

(F (4, 694) = 0.331, p >0.1), Cognitively Religious * Consequently Religious (F (4, 694) = 1.608, , p >0.1), Cognitively Religious * Experientially Religious (F (2, 694) = 2.213, p < 0.1), Behaviourally Religious * Consequently Religious (F (4, 694) = 1.434, p >0.1), Behaviourally Religious * Experientially Religious (F (3, 694) = 0.758, p >0.1), Consequently Religious * Experientially Religious (F (5, 694) = 0.202, p < 0.1), Cognitively Religious * Behaviourally Religious * Consequently Religious (F (7, 694) = 0.56, , p >0.1), Cognitively Religious * Behaviourally Religious * Experientially Religious (F (4, 694) = 1.073, p >0.1), Cognitively Religious * Consequently Religious * Experientially Religious (F (4, 694) = 0.709, p >0.1), and Cognitively Religious * Behaviourally Religious * Consequently Religious * Experientially Religious (F (5, 694) = 1.37, p < 0.1) are not.

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. The Bonferroni method is employed to perform the post-hoc analysis since Levene's F tests confirmed that the error variances of these dependent variables are relatively equal across groups.

COGNITIVE RELIGIOSITY: For price conscious and brand loyal shopper, the significant contrast existed between cognitively low and high (p = 0.003). Respondents with a high level of cognitive religiosity appeared to exhibit high price conscious and brand loyal than low level of cognitive religiosity (Ms = 3.5357 for high, 3.00 for low). However no significant contrast is observed between low and medium groups and high and medium groups.

TABLE 6.16 Descriptive statistics of shopping orientation by cognitive religiosity

	Low	Medium	High
Impulsive and Fashion Conscious Shopper	2.8431(.96690)	3.1151(1.01495)	3.2625(1.08857)
Recreational Shopper	3.7059(1.08248)	3.8345(.83923)	4.0321(.89864)
Price Conscious and Brand Loyal Shopper	3.0000(1.16619)	3.3525(1.08256)	3.5357(1.11526)
Convenience Seeker	3.5686(1.08176)	3.7482(1.02217)	4.0536(.94044)
Shopping Enjoyment	2.6078(1.21784)	2.7050(1.21257)	3.1286(1.22930)
Brand Conscious Shopper	2.9020(1.10009)	3.2086(1.19464)	3.4268(1.19555)

BEHAVIOURAL RELIGIOSITY: For price conscious and brand loyal shopper,, the significant contrast existed between low and high (p = 0.001) and medium and high(p=0.001). Respondents with a high level of religiosity appeared to exhibit high price conscious and brand loyal than low and medium level (Ms = 3.5826 for high, 3.2157 for medium and 3.0345for low). However no significant contrast is observed between low and medium groups.

For convenience seeker shopper,, the significant contrast existed between low and high (p = 0.000) and medium and high(p=0.000). Respondents with a high level of religiosity appeared to exhibit convenience seeker than low and medium level (Ms = 4.0983 for high, 3.6667 for medium and 3.5000 for low). However no significant contrast is observed between low and medium groups.

For shopping enjoyment,, the significant contrast existed between low and high (p = 0.005) and medium and high(p=0.007). Respondents with a high level of religiosity appeared to exhibit shopping enjoyment more than low and medium level (Ms = 3.1262 for high, 2.7843 for medium and 2.5862 for low). However no significant contrast is observed between low and medium groups.

For brand conscious shopper, the significant contrast existed between low and high (p = 0.000), low and medium (p=0.027) and medium and high (p=0.000). Respondents with a high level of religiosity appeared to be more brand conscious than low and medium level and medium are more than low. (Ms = 3.5028 for high, 3.0915 for medium and 2.6207 for low).

TABLE 6.17 Descriptive statistics of shopping orientation by behavioural religiosity

	Low	Medium	High
Impulsive and Fashion Conscious Shopper	2.8621(.94495)	2.9608(.93810)	3.3135(1.10256)
Recreational Shopper	3.6034(1.07507)	3.8693(.85604)	4.0427(.88986)
Price Conscious and Brand Loyal Shopper	3.0345(1.19891)	3.2157(1.07570)	3.5826(1.10346)
Convenience Seeker	3.5000(1.12780)	3.6667(.93892)	4.0983(.93843)
Shopping Enjoyment	2.5862(1.17031)	2.7843(1.17508)	3.1262(1.24762)

Brand Conscious Shopper	2.6207(1.34852)	3.0915(1.26886)	3.5028(1.11657)

CONSEQUENTIAL RELIGIOSITY: For impulsive and fashion conscious shopper, the significant contrast existed between low and high (p = 0.000) and low and medium (p=0.003). Respondents with a high level of religiosity appeared to be more impulsive and fashion conscious than low and medium level are more than low. (Ms = 3.2955 for high, 3.1570 for medium and 2.6567 for low).

For brand conscious shopper, the significant contrast existed between low and high (p =0.001) , medium and high (p=0.010). Respondents with a high level of religiosity appeared to be more brand conscious than low and medium level. (Ms = 3.4697 for high, 3.1628 for medium and 2.9254 for low).

TABLE 6.18 Descriptive statistics of shopping orientations by consequential religiosity

	Low	Medium	High
Impulsive and Fashion Conscious Shopper	2.6567(.94632)	3.1570(.99930)	3.2955(1.09040)
Recreational Shopper	3.6418(1.04013)	3.7384(.92789)	4.0959(0.85440)
Price Conscious and Brand Loyal Shopper	2.9552(1.14723)	3.3023(1.1089)	3.5871(1.09712)
Convenience Seeker	3.3731(1.30077)	3.8837(.89728)	4.0685(0.92525)
Shopping Enjoyment	2.3881(1.23036)	2.9128(1.15898)	3.1311(1.24161)
Brand Conscious Shopper	2.9254(1.34066)	3.1628(1.19316)	3.4697(1.1592)

EXPERIENTIAL RELIGIOSITY:

TABLE 6.19 Descriptive statistics of shopping orientations by experiential religiosity

	Low	Medium	High
Impulsive and Fashion Conscious Shopper	3.1429(.69007)	3.2560(.94772)	3.1930(1.11027)
Recreational Shopper	3.4286(.97590)	3.8512(.89335)	4.0157(.90571)
Price Conscious and brand Loyal Shopper	2.8571(1.34519)	3.3929(1.01507)	3.4939(1.14591)
Convenience Seeker	3.2857(.75593)	3.7024(.95126)	4.0487(.97230)
Shopping Enjoyment	3.2857(1.49603)	3.1250(1.14874)	2.9791(1.26170)
Brand Conscious Shopper	3.2857(1.25357)	3.0655(1.19450)	3.4348(1.18594)

6.5 Testing of Hypothesis 3

Having tested the second hypothesis, attention is now turned to Hypothesis 3. This section presents the results of testing the following hypotheses:

H3a: There is no significant religious difference among consumers with different marital status

H3b: There is a significant religious difference among consumers with different Age.

H3c: There is no significant difference in level of religiosity among consumers affiliated with different religious groups

H3d: There is a significant religious difference among consumers with different Education.

H3e: There is no significant religious difference among consumers with different Occupation.

H3f: There is no significant religious difference among consumers with different area of Residence.

H3g: There is a significant religious difference among consumers with different Income.

H3h: There is a significant religious difference among consumers with different Gender.

In testing the above hypotheses, the religiosity construct is viewed from four perspectives: cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity. For the purpose of group comparison, the respondents are classified as low, medium and high for all four types of religiosity. A general rule of 33% (low), 33% (medium) and 33% (high) split is used to classify the scores of each scale into three levels. According to the frequency distributions, cognitive religiosity is classified into low (n =51, 6.8%), medium (n = 139, 18.5%) and high (n = 560, 74.7%), behavioural religiosity is classified into low (n =58, 7.7%), medium (n = 153, 20.4%) and high (n = 539, 71.9%), consequential religiosity is classified into low (n =67, 8.9%), medium (n = 172, 22.9%) and high (n = 511, 68.1%), and experiential religiosity is classified into low (n =7, 0.9%), medium (n = 168, 22.4%) and high (n = 575, 76.7%).

6.5.1 Hypothesis 3a

To test Hypothesis 3a, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and marital status as an independent variable with three multiple levels: single, married and divorced/widowed. To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be insignificant at 0.001 level (Box's M = 42.738, F = 2.020, p = 0.005), indicating that the covariance matrices are roughly equal and the assumption is tenable.

TABLE 6.20 MANOVA of marital status by religiosity

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.027	2.555	8	1490	0.009
Wilks' Lambda	0.973	2.559	8	1488	0.009

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.20. Contrary to expectation, the results indicated that the tests are significant (Pillai's trace = 0.027, F (8, 1499) = 2.555, p < 0.01; Wilks' lambda = 0.973, F (8, 1488) = 2.559, p < 0.01). Based on these results, decision is made that there are significant differences in religiosity among consumers with different marital status. Based on these results, Hypothesis 1c is accepted. Since only significant results are produced by the MANOVA, further testing is made.

One-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test showed that the experiential religiosity is significant at p < 0.05, indicating that the assumption for this variable is not met. Thus, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for this dependent variable.

TABLE 6.21 ANOVA of religiosity by marital status

	F	Sig.
Cognitive religiosity	1.728	0.178
Behavioural religiosity	4.761	0.009***
Consequential religiosity	5.459	0.004***
Experiential religiosity	1.108	0.337

** p < 0.05; *** p < 0.01

The results of one-way ANOVA indicates that statistically marital status differences existed in two types of religiosity; behavioural religiosity (F (2,747)= 4.761, p<0.01) and consequential religiosity (F (2,747)=5.459, p<0.01),

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. For behavioural religiosity and consequential religiosity the Bonferroni method is employed to perform the post-hoc analysis since Levene's F tests confirmed that the error variance of these dependent variables is relatively equal across groups.

TABLE 6.22 Descriptive statistics for religiosity by marital status

	Single	Married	Divorced/Widowed
Cognitive religiosity	3.671(0.9305)	3.799(0.9204)	3.792(1.147)
Behavioural religiosity	3.510(0.9531)	3.721(0.8916)	3.667(0.9813)
Consequential religiosity	3.503(0.9988)	3.730(0.9162)	3.412(1.2018)
Experiential religiosity	3.794(0.7879)	3.786(0.6912)	3.513(0.7338)

For behavioural religiosity, significant difference are found between married and single (p=0.006). The cell mean of married is higher (M= 3.721) than single (M=3.510)

For consequential religiosity significant difference are found between married and single (p=0.005). Married (M=3.730) people are more consequently religious than single (M=3.503)

6.5.2 Hypothesis 3b

To test Hypothesis 3b, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and age as an independent variable with five multiple levels: 21-30 years old, 31- 40 years old, 41-50 years old, 51-60 years old and 61 and above. To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be significant (Box's M = 84.778, F = 2.050, p = 0.000), indicating that the covariance matrices are roughly equal and the assumption is not tenable. The reason might be the equal group sizes.

TABLE 6.23 MANOVA of religiosity by age

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.057	2.7	16	2980	0.000
Wilks' Lambda	0.944	2.723	16	2267.485	0.000

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.23. Contrary to expectation, the results indicated that the tests are significant (Pillai's trace = 0.057, F (16, 2980) = 2.700, p < 0.001; Wilks' lambda = 0.944, F (16, 2267.485) = 2.723, p < 0.001). Based on these results, decision is made that there are significant differences in religiosity among consumers with different marital status. Based on these results, Hypothesis is accepted. Since only significant results are produced by the MANOVA, further testing is made.

One-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test showed that the cognitive religiosity, behavioural religiosity and consequential religiosity is significant at p < 0.05, indicating that the assumption for this variable is not met. Thus, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for this dependent variable while experiential religiosity is insignificant at p>0.05 indicating the assumption of homogeneity is met.

TABLE 6.24 ANOVA of religiosity by age

	F	Sig.
Cognitive religiosity	2.01	0.095
Behavioural religiosity	6.93	0.000***
Consequential religiosity	3.01	0.021**
Experiential religiosity	1.223	0.300

** $p < 0.05$; *** $p < 0.01$

The results of one-way ANOVA indicates that statistically age differences existed in three types of religiosity; cognitive religiosity (Brown-Forsythe F (4,177.372) =2.010, p<0.1), behavioural religiosity (Brown-Forsythe F (4,160.509)=6.930, p<0.001) and consequential religiosity (Brown-Forsythe F (4,114.123)=3.010, p<0.05),

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. Tamhane's T2 method is employed to perform the post-hoc analysis since Levene's F tests confirmed that the error variance of these dependent variables are not equal across groups.

TABLE 6.25 Descriptive statistics for religiosity by age

	21-30	**31-40**	**41-50**	**51-60**	**61 and above**
Cognitive Religiosity	3.7011(0.92761)	3.6879(1.02813)	3.8034(0.84824)	4.0533(0.73265)	3.8333(1.000)
Behavioural Religiosity	3.4719(.97740)	3.6879(.84919)	3.9233(.77638)	3.7733(.90711)	3.6500(1.00569)
Consequential Religiosity	3.5335(.97630)	3.6378(.96572)	3.7746(.91965)	3.94(.75199)	3.4333(1.25703)
Experiential Religiosity	3.7918(.76407)	3.7133(.71438)	3.7712(.71973)	3.952(.60415)	3.91(.74685)

For cognitive religiosity, significant difference are found between 21-30 years old and 51-60 years old (p=0.029), 31-40 years old and 51-60 years old (p=0.056). 51-60 years old are more cognitively religious (M=4.0533) than 21-30 years old (M=3.7011) and 31-40 years old (3.6879).

For behavioural religiosity, significant difference are found between 21-30 years old and 31-40 years old (p=0.086), and 21-30 years old and 41-50 years old (p=0.000). 21-30 years (M=3.4719) old are less religious than 31-40 years old (M=3.6879) and 41-50 years old (M=3.9233)

For consequential religiosity, significant difference are found between 21-30 years old and 41-50 years old (p=0.097), and 51-60 years old (p=0.009) . 21-30 years old (M=3.5335) are less religious than 41-50 years old (M=3.7746) and 51-60 years old. (M= 3.9400)

6.5.3 Hypothesis 3c

To test Hypothesis 3c, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and religion as an independent variable with four multiple levels: Hindu, Muslim, Jain and Christian. To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be significant (Box's M = 84.778, F = 2.050, p = 0.000), indicating that the covariance matrices are not roughly equal and the assumption is not tenable. The reason might be the unequal group sizes.

TABLE 6.26 MANOVA of religiosity by religious affiliation

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.043	2.694	12	2235	0.001
Wilks' Lambda	0.957	2.723	12	1966.09	0.001

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.26. Contrary to expectation, the results

indicated that the tests are significant (Pillai's trace = 0.043, F (12, 2235) = 2.694, p < 0.01; Wilks' lambda = 0.957, F (12, 1966.085) = 2.723, p < 0.01). Based on these results, decision is made that there are significant differences in religiosity among consumers with different religion. Based on these results, Hypothesis is accepted. Since only significant results are produced by the MANOVA, further testing is made.

One-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test showed that the behavioural religiosity, consequential religiosity and experiential religiosity is significant at p < 0.05, indicating that the assumption for this variable is not met. Thus, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for this dependent variable while cognitive religiosity is insignificant at p>0.05 indicating the assumption of homogeneity is met.

TABLE 6.27 ANOVA of religiosity by religious affiliation

	F	Sig.
Cognitive religiosity	2.76	0.041**
Behavioural religiosity	6.494	0.000***
Consequential religiosity	7.858	0.000***
Experiential religiosity	2.276	0.079

** p < 0.05; *** p < 0.01

The results of one-way ANOVA indicates that statistically religious affiliation differences existed in three types of religiosity; cognitive religiosity (F (3,746)=2.760, p<0.05), behavioural religiosity (Brown-Forsythe's F (3,440.977)=6.494 p<0.001), consequential religiosity (Brown-Forsythe's F (3,419.305)=7.8585, p<0.001), and no significant differences are found in experiential religiosity.

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. Since levene test is not significant, Bonferroni method is employed to perform post hoc for cognitive religiosity while for behavioural religiosity, consequential religiosity and experiential religiosity Tamhane 's T2 method is employed to perform the post-hoc analysis since

Levene's F tests confirmed that the error variance of these dependent variables are not equal across groups.

TABLE 6.28 Descriptive statistics for religiosity by religion

	Hindu	**Muslim**	**Jain**	**Christian**
Cognitive Religiosity	3.6745 (.95193)	3.9066(.88845)	3.7111(.89880)	3.8727(.89824)
Behavioural Religiosity	3.5244(.96861)	3.8434(.79911)	3.6159(.91612)	3.8352(.81048)
Consequential Religiosity	3.5165(.97013)	3.89659(.91090)	3.5365(1.04646)	3.8577(.79437)
Experiential Religiosity	3.7528(.72487)	3.8924(.63842)	3.6876(.88401)	3.8831(.70634)

For cognitive religiosity, significant difference are found between Hindu and Muslim (p=0.074). Muslims are more cognitively religious (M=3.9066) than Hindu (M=3.6745).

For behavioural religiosity, significant difference are found between Hindu and Muslim (p=0.001) and Hindu and Christian (p=0.011). Hindus (M=3.5244) are less behaviourally religious than Muslim (M=3.8434) and Christian (M=3.8352).

For consequential religiosity, significant difference are found between Hindu and Muslim (p=0.000) and Hindu and Christian (p=0.003) and Muslim and Jain (p=0.035) and Jain and Christian (p=0.093). Hindus (M=3.5165) and Jain (M=3.5365) are less consequential religious than Muslim (M=3.89659) and Christian (M=3.5365).

6.5.4 Hypothesis 3d

To test Hypothesis 3d, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and education as an independent variable with seven multiple levels: illiterate, literate but not formal schooling, school upto 9th standard,SSC/HSC, some college including diploma but not graduate,

graduate/post graduate(General), graduate/post graduate(Professional). To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be significant (Box's M = 125.448, F = 1.943, p = 0.000), indicating that the covariance matrices are roughly unequal and the assumption is not tenable. The reason might be the unequal group sizes.

TABLE 6.29 MANOVA of religiosity by education

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.07	2.209	24	2972	0.001
Wilks' Lambda	0.931	2.219	24	2582.762	0.001

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.29. The results indicated that the tests are significant (Pillai's trace = 0.070, F (24, 2972) = 2.209, p < 0.01; Wilks' lambda = 0.931, F (24, 2582.762) = 2.219, p < 0.01). Based on these results, decision is made that there are significant differences in religiosity among consumers with different education. Based on these results, Hypothesis is accepted. Since only significant results are produced by the MANOVA, further testing is made.

One-way ANOVA tests are conducted to know which independent variables are responsible for variation in each dependent variable. The Levene's F test is used to check homogeneity of variance assumption prior to interpreting the results. The test showed that the consequential religiosity is significant at p < 0.05, indicating that the assumption for this variable is not met. Thus, Brown-Forsythe's one-way ANOVA, which does not assume equal variance, is utilised for comparisons between groups for this dependent variable while cognitive religiosity, behavioural religiosity and experiential religiosity are insignificant at p>0.05 indicating the assumption of homogeneity is met.

TABLE 6.30 ANOVA of religiosity by education

	F	Sig.
Cognitive religiosity	1.715	0.115
Behavioural religiosity	3.261	0.004***
Consequential religiosity	2.703	0.022**
Experiential religiosity	3.037	0.006***

** p < 0.05; *** p < 0.01,

The results of one-way ANOVA indicates that statistically religious differences existed in three types of religiosity; behavioural religiosity ($F_{(6,743)}=3.261$ p<0.01), consequential religiosity (Brown-Forsythe's $F_{(6,58.062)}=2.073$, p<0.05), and experiential religiosity ($F_{(6,743)}=3.037$ p<0.01) and no significant differences are found in cognitive religiosity.

To determine these differences in detail, post-hoc pairwise multiple comparison tests are conducted on significant findings to assess mean differences between groups. Since levene test is not significant, Bonferroni method is employed to perform post hoc for behavioural religiosity and experiential religiosity while for consequential religiosity Tamhane 's T2 method is employed to perform the post-hoc analysis since Levene's F tests confirmed that the error variance of these dependent variables are not equal across groups.

TABLE 6.31 Descriptive statistics for religiosity by education

	Illiterate	Literate but not formal schooling	School upto 9th standard	SSC/HSC	Some college including Diploma but not graduate	Graduate /Post Graduate (General)	Graduate /Post graduate (professional)
Cognitive Religiosity	3.7500 (.89856)	2.9583 (1.22717)	3.8917 (.78224)	3.8093 (.87093)	3.7543 (.99951)	3.7568 (.84345)	3.6078 (.99589)
Behavioural Religiosity	3.1250 (1.08098)	3.3750 (.65314)	3.7833 (.83222)	3.8307 (.87469)	3.6106 (.98240)	3.5428 (.86878)	3.4958 (.92044)
Consequential Religiosity	3.0208 (1.05035)	3.1250 (1.52167)	3.8500 (.96062)	3.8039 (.92982)	3.5704 (.94425)	3.6419 (.80633)	3.4790 (1.11372)
Experiential Religiosity	3.2625 (.77190)	3.2750 (.78513)	3.9350 (.58069)	3.8299 (.66167)	3.8129 (.80883)	3.6838 (.70335)	3.8319 (.73230)

For behavioural religiosity, significant difference are found between illiterate and SSC/HSC (p=0.067) and between SSC/HSC and graduate/post graduate (General) (p=0.0.093) and between SSC/HSC and graduate/post graduate (professional) (p=0.040). SSC/HSC (M=3.8307) are more religious than illiterate (M= 3.1250), graduate/post graduate (General) (M= 3.5428) and graduate/post graduate (Professional) (M=3.4958)

For Experiential religiosity, significant difference are found between illiterate and School upto 9th standard (p=0.040), between illiterate and SSC/HSC (p=0.061), between illiterate

and some college including diploma but not college (p=0.076) and between illiterate and graduate/postgraduate (professional)(p=0.073). Illiterate (M=3.2625) are less religious than School upto 9th standard (M=3.9350), SSC/HSC (M=3.8299), some college including diploma but not college (M=3.8129), graduate/postgraduate (professional)(M=3.8319)

6.5.5 Hypothesis 3e

To test Hypothesis 3e, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and occupation as an independent variable with four multiple levels: self-employed, Government employees, private sector employees, housewife/Retired/Unemployed/Student. To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be insignificant at 0.01 level (Box's M = 45.683, F = 1.507, p = 0.037), indicating that the covariance matrices are roughly equal and the assumption is tenable.

TABLE 6.32 MANOVA of religiosity by occupation

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.017	1.058	12	2235	0.392
Wilks' Lambda	0.983	1.057	12	1966.085	0.393

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.32. The results indicated that the tests are insignificant (Pillai's trace = 0.017, F (12, 2235) = 1.058, p > 0.1; Wilks' lambda = 0.983, F (12, 1966.085) = 1.057, p > 0.1). Based on these results, decision is made that there are no significant differences in religiosity among consumers with different education.

Because the overall multivariate F test for occupation produced non- significant results, no further testing is conducted. The mean and standard deviation for each group in relation to their frequency of occupation are reported as below.

TABLE 6.33 Descriptive statistics for occupation by religiosity

	Self Employed	Govt. Employee	Private Sector Employee	Housewife/Retired/Unemployed/Students
Cognitive Religiosity	3.8366 (.91387)	3.7139 (.92174)	3.6254 (.99134)	3.7616 (.88267)
Behavioural Religiosity	3.7250 (.90310)	3.5827 (.95486)	3.5739 (.91144)	3.5872 (.94461)
Consequential Religiosity	3.6978 (.95647)	3.6247 (.91238)	3.5155 (.96992)	3.6473 (1.00338)
Experiential Religiosity	3.7875 (.75591)	3.7118 (.80776)	3.7680 (.70909)	3.8488 (.67395)

6.5.6 Hypothesis 3f

To test Hypothesis 3f, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and area of residence as an independent variable with three multiple levels: Urban, Suburb/Town, Rural. To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be insignificant at 0.1 level (Box's M = 22.293, F = 1.105, p = 0.336), indicating that the covariance matrices are roughly equal and the assumption is tenable.

TABLE 6.34 MANOVA of religiosity by area of residence

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.017	1.581	8	1490	0.126
Wilks' Lambda	0.983	1.582	8	1488	0.125

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.34. The results indicated that the tests are insignificant (Pillai's trace = 0.017, F (8, 1490) = 1.581, p > 0.1; Wilks' lambda = 0.983, F

(8, 1488) = 1.582, p > 0.1). Based on these results, decision is made that there are no significant differences in religiosity among consumers with different area of residence.

Because the overall multivariate F test for area of residence produced non- significant results, no further testing is conducted. The mean and standard deviation for each group in relation to their frequency of area of residence are reported as below.

TABLE 6.35 Descriptive statistics for area of residence by religiosity

	Urban	Suburb/Town	Rural
Cognitive Religiosity	3.7564 (0.87407)	3.671 (0.97833)	3.7751 (0.99789)
Behavioural Religiosity	3.6239 (0.91414)	3.6602 (0.8974)	3.6197 (0.96691)
Consequential Religiosity	3.6068 (0.97782)	3.4784 (0.96483)	3.7751 (0.92165)
Experiential Religiosity	3.7569 (0.71746)	3.7753 (0.71632)	3.8408 (0.78067)

6.5.7 Hypothesis 3g

To test Hypothesis 3g, multivariate analysis of variance (MANOVA) is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and income as an independent variable with five multiple levels: <90000, 90001-200000, 200001-500000, 500001-1000000, >1000000. To examine whether the assumption of equality of variance-covariance matrices are equal across the four religiosity groups, Box's M test is run. The test turned out to be insignificant at 0.1 level (Box's M = 36.173, F = 0.888, p = 0.672), indicating that the covariance matrices are roughly equal and the assumption is tenable.

TABLE 6.36 MANOVA of religiosity by income

	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.015	0.692	16	2980	0.805
Wilks' Lambda	0.985	0.69	16	2267.49	0.806

Pillai's trace and Wilks' lambda are used to test statistical significance of the religiosity effect. The results are presented in Table 6.36. The results indicated that the tests are insignificant (Pillai's trace = 0.015, F (16, 2980) = 0.692, p > 0.1; Wilks' lambda = 0.985,

F (16, 2267.485) = 0.690, p > 0.1). Based on these results, decision is made that there are no significant differences in religiosity among consumers with different income level.

Because the overall multivariate F test for income produced non- significant results, no further testing is conducted. The mean and standard deviation for each group in relation to their frequency of income are reported as below.

TABLE 6.37 Descriptive statistics for income by religiosity

	<90000	90001-200000	200001-500000	500001-1000000	<1000000
Cognitive Religiosity	3.8930 (.87373)	3.7538 (.92690)	3.6964 (.93047)	3.7333 (.95121)	3.7609 (1.00778)
Behavioural Religiosity	3.7860 (.82211)	3.6066 (.94568)	3.5956 (.94540)	3.6485 (.97767)	3.6449 (.70764)
Consequential Religiosity	3.7901 (.99923)	3.6411 (.97832)	3.6151 (.93793)	3.5667 (.95841)	3.4855 (1.0152)
Experiential Religiosity	3.8296 (.72740)	3.8586 (.68255)	3.7285 (.77396)	3.7545 (.78268)	3.7609 (.60460)

6.5.8 Hypothesis 3h

To test Hypothesis 3h , Independent sample t test is performed using the four religiosity factors (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity) as dependent variables and gender as an independent variable with two multiple levels: male and female.

For behavioural religiosity the test is found to be statistically significant, t(748)=1.933, p<0.1. These results indicate that male (M=3.6801) are behaviourally more religious than female (M=3.5451)

TABLE 6.38 Descriptive statistics of gender by religiosity

	Male	Female
Cognitive Religiosity	3.7858(.90023)	3.6727(.97821)
Behavioural Religiosity	3.6801(.93507)	3.5451(.90137)
Consequential Religiosity	3.6653(.94206)	3.5608(.99961)
Experiential Religiosity	.7649(.75118)	3.8159(.70672)

6.6 Summary of Results

The first part of data analysis and findings are presented in this chapter. Three research hypotheses are tested. Hypothesis 1 is tested to examine the effect of religious affiliation on use of information source and shopping orientation.

Hypothesis 2 is tested to examine the effect of religiosity on use of information source and shopping orientation. In testing the hypothesis, the religiosity construct is viewed from four perspectives: cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity.

Hypothesis 3 is tested to examine the effect of demographic variables (i.e marital status, age, education, occupation, area of residence, income and gender) and religious affiliation on religiosity. In testing the hypothesis, the religiosity construct is viewed from four perspectives: cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity.

In conclusion, the outcomes of hypotheses testing indicated that use of information sources and shopping orientation are influenced by the degree of religiosity and religious affiliation. Religious affiliation and except income, area of residence and occupation, other demographic variables influences level of religiosity among consumers.

TABLE 6.39 Summary of Hypothesis Testing

Hypothesis	Result
There is a significant difference in the use of information source among consumers affiliated with different religions..	Accepted
There is a significant difference in shopping orientation among consumers affiliated with different religions.	Accepted
There is significant difference in use of information source among consumers with different levels of religiosity.	Accepted
There is significant difference in shopping orientation among consumers with different levels of religiosity.	Accepted
There is no Significant religious difference among consumers with different marital status.	Rejected
There is Significant religious difference among consumers with different Age.	Accepted
There is no significant difference in level of religiosity among consumers affiliated with different religious groups.	Rejected

There is Significant religious difference among consumers with different Education.	Accepted
There is no Significant religious difference among consumers with different Occupation.	Accepted
There is no Significant religious difference among consumers with different area of Residence.	Accepted
There is Significant religious difference among consumers with different Income.	Rejected
There is Significant religious difference among consumers with different Gender.	Accepted

CHAPTER 7

Data Analysis and Results - II

7.0 Overview

The results obtained in the first part of data analysis by using analysis of variance procedure are presented in the preceding chapter. It is necessary to further analyse the data by making use of multiple linear regression to see if the relationships that are uncovered would hold in a multivariate context and to determine whether the relationships are linear. The Multivariate statistical technique used to analysis the relationship between a single dependent variable and several independent variables is called multiple linear regressions. The objective of such technique is to predict the dependent variable's by looking at the independent's variable value. The product should be what is known a "variate", that is, the independent's variable linear combination that may predict best the dependent variable. The variables' weights convey their input to the overall prediction (Hair et al. 1998). The specific issues addressed by the regression analysis in this study are listed below:

1. In predicting shopping orientation, which variables are more important; religious or demographics?

2. What is the contribution of religious variables in predicting the aspects of shopping orientation?

3. What is the direction relationship if meaningful relationships between variables are found?

4. How strong the strength of association between a religious variable and a dependent variable of interest?

Two sets of personal characteristic variables (religious variables and demographics) are included in the regression model to predict patronage behavior which gives answers to the first questions. The influence of religious variables is of our interest where expectation is that religious affiliation and religiosity would be shown to be the important regressors in the presence of extraneous variables such demographic factors. The increase in the value of coefficient of determination (R^2) when a religious variable entered into a regression

equation is calculated to answer the second question. According to Norusis (1990), a change in R^2 indicates that a variable provides unique information about the criterion variable that is not available from other predictor variables in the equation

The answer to the third and fourth questions is given by evaluating the standardised regression coefficients (beta weights) of religious variables in the final regression equation. The assessment of the sign of the standardized regression coefficients gives an idea about is the direction of the relationships, whether it is positive or negative. To determine the significance of influence of variable, the beta weights of variables in the final regression equation are compared. The beta weight reflects the relative impact on a dependent variable of a change in one standard deviation in either variable (Hair et al. 1998). Following a common convention, a beta weight of about 0.1 is used as a cut-off threshold for a particular relationship to be considered of practical importance (Tate 1998).

7.1 Hypotheses

In this chapter, the following hypotheses are tested:

H4a: Holding all other predictors constant, there is a significant impact of religious affiliation on use of information sources.

H4b: Holding all other predictors constant, there is a significant impact of religious affiliation on shopping orientation.

H5a: Holding all other predictors constant, there is a significant impact of consumer religiosity on use of information source.

H5b: Holding all other predictors constant, there is a significant impact of consumer religiosity on shopping orientation.

7.2 Analytical Model

The relationship between the independent (predictor) and the dependent (criterion) variables examined here is represented to be a linear function. The hypothetical linear regression model for this study has been developed as follows:

$$Y = b0 + b1X1 + b2X2 + b3X3 + \ldots + b13X13 + e$$

where: Y represents the predicted value on the dependent variable, b0 is the Y intercept (the value of Y when all the X values are 0), the various independent variables are represented by X1, X2, X3 … X13, b1, b2 … b13 are the coefficients assigned to each of the independent variables during regression and e is the error term. In this study the predictor variables are used in the form of two sets of personal characteristics namely religious variables (religious affiliation, cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity religiosity) and demographics (gender, age, marital status, education, occupation, area of residence and income).

An automated selection procedure of stepwise regression is applied to find the best model for all regression analyses. To determine the contribution of each variable already in the equation as if it is entered last the tests are performed at each step in the stepwise solution. This procedure makes it possible to select a set of independent variables that best predict the dependent variable, and thereby eliminate superfluous variables. On the basis of the contribution of each variable the order of the inclusion of the independent variable is determined to explain the variance in the independent variable (Hair et al. 1998). In this case, the variable that explains the greatest amount of variance is entered first; the variable that explains the greatest amount of variance in conjunction with the first variable is entered second, and so on. At each successive step, the independent variables which do not meet the pre-established statistical criteria for inclusion in the equation are deleted.

7.3 Prediction of Information Sources

The subjects' use of information sources, media and personal sources are entered as criterion variables in two separate stepwise regression analyses to determine the influence of personal characteristics on use of information sources. The assumptions about normality of residuals, linearity, equality of variance of the residuals (homoscedasticity) and

independence are checked and the presence of outliers and multicollinearity is investigated after each regression analysis,

To check the normality of the residuals, a normal probability plot of studentised residuals is constructed for each regression analysis. It is confirmed that residuals are normally distributed on the basis of the results obtained. To check whether the equality of variance assumption (homoscedasticity) had been violated, a plot of studentised residuals versus the predicted values (residual scatterplot) is depicted. It is observed that there is no increase or decrease in the spread of residuals with the magnitude of the predicted values. Thus, it is concluded that the assumptions of linearity and homoscedasticity in multiple regression had met. By using tolerance values, variance inflation factor (VIF) and condition index (Appendix E), multicollinearity tests are performed. The tolerance values and VIF indicate inconsequential collinearity. The results of the tests shows an absence of multicollinearity problem because all independent variables in the regression equation had high tolerance values ranging from 0.757 to 0.986 and no VIF value exceeds 2(Mason and Perreault 1991). Further, although the condition indices exceeded 15, which would be associated with multicollinearity problem (Belsley 1991), an examination of the proportion of variance decomposition values indicated that none of them are substantial. So, there are no reasons to be concerned about the presence of multicollinearity problem in the regression model.

7.3.1 Media

The results of the regression analysis are presented in Table 7.1. The analysis showed that the final regression model with media as a dependent variable is found to be statistically significant (F = 12.495, p < 0.001). There are thirteen variables that emerged in the best model which includes:
<90000(D29), Housewife/Retired/Unemployed/Students (D25), Suburb/Town (D27), Christianity(D14), Some college (Including Diploma but not degree) (D19), Graduate/Post Graduate (General) (D20), Single (D3), Consequential Religiosity, Experiential Religiosity, Behavioural Religiosity, >1000000(D33), Government employee(D23) and Divorced/Widowed(D5).

The remaining variables would not have significant effect. The explanatory power of this model, as reported by the adjusted R^2 value is 0.166. It means that 16.6 percent of the variability in the subjects' uses of information from media sources is predicted by the thirteen independent variables in the regression model. Income <90000(D29) is the first variable that entered the equation as it is the most salient in explaining subjects' use of media information. It alone contributes 3.70 percent of the variation. At step 2, Housewife/Retired/Unemployed/Students (D25) is entered in the regression equation and accounted for an additional 3 percent of the variation in media source. Suburb/Town (D27) entered the regression equation at step 3 and accounted for an additional 1.5 percent of the variation in media sources. Christianity (D14) entered the regression equation at step 4 and accounted for an additional 1.5 percent of the variation in media sources. Some college (Including Diploma but not degree) (D19) entered the regression equation at step 5 and accounted for an additional 1.7 percent of the variation in media sources. Graduate/Post Graduate (General)(D20) entered the regression equation at step 6 and accounted for an additional 1.3 percent of the variation in media sources. Single (D3) entered the regression equation at step 7 and accounted for an additional 0.7 percent of the variation in media sources. Consequential Religiosity entered the regression equation at step 8 and accounted for an additional 0.7 percent of the variation in media sources. Experiential Religiosity entered the regression equation at step 9 and accounted for an additional 0.8 percent of the variation in media sources. Behavioural Religiosity entered the regression equation at step 10 and accounted for an additional 0.5 percent of the variation in media sources. Income >1000000(D33) entered the regression equation at step 11 and accounted for an additional 0.4 percent of the variation in media sources. Government employee (D23) is predictor that entered the equation at step 12 and accounted for an additional 0.4 percent of the variation. Divorced/Widowed (D5) is the final predictor that entered the equation and accounted for an additional 0.4 percent of the variation.

TABLE 7.1 Regression analysis: predictors of media source

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	< 90000	.038	.037	29.784***
2	Housewife/retired/unemployed/student	.069	.067	27.847***
3	Suburb/Town	.086	.082	23.323***
4	Christianity	.102	.097	21.064***

5	Some college (Including Diploma but not graduation	.120	.114	20.242***
6	Graduate/post graduate(General)	.134	.127	19.202***
7	Single	.142	.134	17.593***
8	Consequential Religiosity	.150	.141	16.375***
9	Experiential Religiosity	.159	.149	15.563***
10	Behavioural Religiosity	.165	.154	14.602***
11	>1000000	.171	.158	13.804***
12	Government employee	.176	.162	13.088***
13	Divorced/Widowed	.181	.166	12.495***

Final Regression Equation

Variable	B	S.E	Beta	t value
Constant	3.086	.225		13.709***
< 90000	.315	.073	.155	4.328***
Housewife/retired/unemployed/student	-.373	.078	-.183	-4.770***
Suburb/Town	-.303	.085	-.121	-3.582***
Christianity	-.705	.152	-.159	-4.641***
Some college (Including Diploma but not graduation	.334	.082	.153	4.085***
Graduate/post graduate(General)	.265	.092	.104	2.886*
Single	.222	.077	.109	2.890*
Consequential Religiosity	.082	.039	.078	2.104*
Experiential Religiosity	-.151	.048	-.110	-3.132*
Behavioural Religiosity	.099	.040	.091	2.499*
>1000000	-.465	.208	-.076	-2.232*
Government employee	.236	.108	.078	2.179*
Divorced/Widowed	-.513	.239	-.074	-2.149*

Note: none of the previously enter variables is removed in subsequent steps

Significance level: *p<0.05; **p<0.01; ***p<0.001

As shown in the final regression equation in Table 7.1, media is significantly related to <90000 (D29) (β =0.155, t=4.328,p<0.001), Housewife/Retired/Unemployed/Students(D25) (β =−0.183, t=−4.770,p<0.001), Suburb/Town (D27) (β =−0.121, t=−3.582,p<0.001), Christianity(D14) (β =−0.159, t=−4.641,p<0.001), Some college (Including Diploma but not degree) (D19) (β =0.153, t=4.085,p<0.001), Graduate/Post Graduate(General) (D20) (β =0.104, t=2.886, p<0.001), Single (D3) (β =0.109, t=2.890, p<0.05), Consequential Reli

giosity (β =0.078, t=2.104, p<0.05), Experiential Religiosity (β =−0.110, t=−3.132, p<0.05), Behavioural Religiosity (β =0.091, t=2.499, p<0.05), >1000000(D33) (β =−0.076, t=−2.232, p<0.05), Government employee(D23) (β =0.078, t=2.179, p<0.05) and Divorced/Widowed(D5) (β =−0.074, t=−2.149, p<0.05).

The direction of relationship between variables in the equation can be interpreted as follows. The positive sign of beta coefficient on < 90000(D29) implied that respondents having an income < 90000(D29) use media sources more than 200001 – 500000(D31). The negative sign of beta coefficient on Housewife/Retired/Unemployed/Students (D25) i mplied that subjects who Housewife/Retired/Unemployed/Students (D25) are using media information less frequently than self employed (D22). The negative sign of beta coefficient on Suburb/ Town (D27) implied that subjects who reside in Suburb/Town (D27) are using media information less frequently than the subject resides in Rural (D28). The negative sign of beta coefficient on Christianity (D14) implied that subjects who are Christian are using media information less frequently than the subject Muslim (D12). The positive sign of beta coefficient on some college (including diploma but not degree) (D19) implied that subjects who have an education some college (including diploma but not degree) (D19) are using media information more frequently than the subject Illiterate (D15). The positive e sign of beta coefficient on Graduate/post graduate (General (D20)) implied that subjects who have an education Graduate/post graduate (General) (D20) are using media information more than Illiterate(D15). The positive sign of beta coefficient on Single (D3) implied that subjects' who is Single (D3) tends to use media information more frequently than Married (D4). The positive sign of beta coefficient on Consequential religiosity' implied that subjects who are more consequentially religious are using media information more frequently than less consequentially religious. The negative sign of beta coefficient on experiential religiosity implied that subjects who are more experientially religious are using media sources less frequently than those who are lower in experiential religiosity. The positive sign of beta coefficient on Behavioural Religiosity implied that subjects who are more behaviourally religious, uses media sources more frequently than those who are lower in behavioural religiosity. The negative sign of beta coefficient on >1000000(D33) implied that respondents having an income >1000000 (D33) uses media sources less than 200001 – 500000 (D31). The positive sign of beta coefficient on government employee (D23) implied that the subject who is government employee uses media sources more than

self-employed (D22). The negative sign of beta coefficient on divorced/widowed (D5) implied that subjects' who is divorced/widowed (D5) tends to use media information less frequently than Married (D4).

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on media information is housewife/Retired/Unemp loyed/Students (D25) (β =−0.183) followed by Christianity (D14) (β =−0.159), <90000(D 29) (β =0.155), Some college (Including Diploma but not degree) (D19) (β =0.153), Subur b/Town(D27) (β =−0.121), Experiential Religiosity (β =−0.110), Single(D3) (β =0.109), Graduate/Post Graduate(General) (D20) (β =0.104), Behavioural Religiosity (β =0.091), Consequential Religiosity (β =0.078), Government employee (D23) (β =0.078), >1000000 (D33) (β =−0.076) and Divorced/Widowed (D5) (β =−0.074) respectively.

7.3.2 Personal

The results of the regression analysis are presented Table 7.2. The analysis showed that the final regression model with personal as a dependent variable is found to be statistically significant (F = 9.698, p < 0.001). There are four variables that emerged in the best model which includes: Consequential Religiosity, Christianity (D14), Jainism (D13) and Single (D3).

The effects of the remaining variables are not significant. The explanatory power of this model, as reported by the adjusted R^2 value is 0.044. This suggests that 4.4 percent of the variability in the subjects' uses of information from media sources is predicted by the four independent variables in the regression model. Consequential Religiosity is the first variable that entered the equation as it is the most salient in explaining subjects' use of personal information. It alone contributes 2 percent of the variation. At step 2, Christianity (D14) is entered in the regression equation and accounted for an additional 1.1 percent of the variation in personal source. Jainism (D13) entered the regression equation at step 3 and accounted for an additional 0.9 percent of the variation in personal sources. Single

(D3) entered the regression equation at step 4 and accounted for an additional 0.4 percent of the variation in personal sources.

TABLE 7.2 Regression analysis: predictors of personal source

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	Consequential religiosity	.021	.020	16.433***
2	Christianity(D14)	.034	.031	13.007***
3	Jainism(D13)	.044	.040	11.515***
4	Single(D3)	.049	.044	9.698***

Final Regression Equation

Variable	B	S.E	Beta	t value
Constant	3.578	.135		26.482***
Consequential religiosity	.156	.034	.165	4.547***
Christianity(D14)	-.494	.145	-.123	-3.409*
Jainism(D13)	-.363	.135	-.097	-2.687*
Single(D3)	.135	.067	.073	2.026*

Note: none of the previously entered variables is removed in subsequent steps

Significance level: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

As shown in the final regression equation in Table 7.2, personal is significantly related to consequential Religiosity (β =0.165, t=4.547,p<0.001),Christianity(D14) (β =−0.123, t =−3.409, p<0.05), Jainism (D13)(β =−0.097, t=−2.678, p<0.05) and Single (D3) (β =0.073, t=2.026, p<0.05). The direction of relationship between variables in the equation can be interpreted as follows. The positive sign of beta coefficient on Consequential religiosity implied that respondents who are more consequential religious tend to use more information from personal sources than those who are less consequential religious.

This negative relationship indicates that respondents who are Christian tend to sought information from personal sources less frequently than Muslim. Also, there is a significant, negative beta coefficient on Jainism which indicates that the information from personal sources is less frequently used by Jain than Muslim. The positive sign of beta coefficient for single indicates that they use more personal information sources than married people.

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on use of personal information source is Consequential Religiosity (β =0.165) followed by Christianity (D14) (β =−0.123), Jainism (D13)(β =−0.097) and Single(D3) (β =0.073).

7.4 Prediction of Shopping Orientation

The separate stepwise multiple regressions is performed to examined the influence of personal characteristics on shopping orientations with personal characteristics entered as predictor variables and each of the six shopping orientation factors resulted in the factor analysis as the criterion. After each regression analysis, the assumptions about normality of residuals, linearity, equality of variance of the residuals (homoscedasticity) and independence are examined and the presence of outliers and multicollinearity is investigated.

To check the normality of the residuals, a normal probability plot of studentised residuals is constructed for each regression analysis. It is confirmed that residuals are normally distributed on the basis of the results obtained. To check whether the equality of variance assumption (homoscedasticity) had been violated, a plot of studentised residuals versus the predicted values (residual scatterplot) is depicted. It is observed that there is no increase or decrease in the spread of residuals with the magnitude of the predicted values. Thus, it is concluded that the assumptions of linearity and homoscedasticity in multiple regression had met. By using tolerance values, variance inflation factor (VIF) and condition index (Appendix E), multicollinearity tests are performed. The results of the tests shows an absence of multicollinearity problem because all independent variables in the regression equation had high tolerance values ranging from 0.631 to 0.980 and no VIF value exceeds 2(Mason and Perreault 1991). Further, although the condition indices exceeded 15, which would be associated with multicollinearity problem (Belsley 1991), an examination of the proportion of variance decomposition values indicated that none of them are substantial. So, there are no reasons to be concerned about the presence of multicollinearity problem in the regression model.

7.4.1 Impulsive and Fashion Conscious Shopper

The results of the regression analysis are presented in Table 7.3. The variables are entered into the regression equation one at a time. The overall F-test for the final regression model is highly significant (F = 13.930, p < 0.001) with eleven variables entered the resulting equation. The explanatory power as reported by the adjusted R^2 value is 0.16, suggesting that the eleven predictor variables are able to explain 16 percent of the variation in the Impulsive and Fashion Conscious Shopper

Looking at the stepwise ordering of the predictor variables that entered the regression equation, Income <90000(D29) is the first variable that entered the equation as it is the most salient in explaining Impulsive and Fashion Conscious Shopper. It alone contributes 3 percent of the variation. At step 2, School upto 9th standard (D17) is entered in the regression equation and accounted for an additional 2 percent of the variation in impulsive and fashion consciousness. Hindu (D11) entered the regression equation at step 3 and accounted for an additional 2 percent of the variation in subjects impulsive and fashion consciousness. Jainism (D13) entered the regression equation at step 4 and accounted for an additional 2.7 percent of the variation in subjects impulsive and fashion consciousness. Christianity (D14) entered the regression equation at step 5 and accounted for an additional 1.3 percent of the variation in subjects impulsive and fashion consciousness. Graduate/post graduate (General (D20)) entered the regression equation at step 6 and accounted for an additional 1.1 percent of the variation in subjects impulsive and fashion consciousness. Suburb/Town (D27) entered the regression equation at step 7 and accounted for an additional 1 percent of the variation in subjects impulsive and fashion consciousness. Behavioural Religiosity entered the regression equation at step 8 and accounted for an additional 1.1 percent of the variation in subjects impulsive and fashion consciousness. Experiential Religiosity entered the regression equation at step 9 and accounted for an additional 0.7 percent of the variation in subjects impulsive and fashion consciousness. Single (D3) entered the regression equation at step 10 and accounted for an additional 0.5 percent of the variation in subjects impulsive and fashion consciousness. Consequential religiosity is the final predictor that entered the equation and accounted for an additional 0.6 percent of the variation.

TABLE 7.3 Regression analysis: predictors of Impulsive and Fashion Conscious Shopper

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	< 90000(D29)	.031	.030	23.789***
2	School upto 9th standard(D17)	.052	.050	20.597***
3	Hindu(D11)	.073	.070	19.658***
4	Jainism(D13)	.102	.097	21.095***
5	Christianity(D14)	.116	.110	19.448***
6	Graduate/post graduate(General(D20))	.128	.121	18.216***
7	Suburb/Town(D27)	.140	.131	17.186***
8	Behavioural Religiosity	.151	.142	16.456***
9	ExperientialReligiosity	.159	.149	15.603***
10	Single(D3)	.165	.154	14.613***
11	Consequential religiosity	.172	.160	13.930***

Final Regression Equation

Variable	B	S.E	Beta	t value
Constant	3.352	.260		12.885***
< 90000(D29)	.217	.076	.100	2.855*
School upto 9th standard(D17)	-.592	.164	-.124	-3.612***
Hindu(D11)	-.595	.096	-.256	-6.193***
Jainism(D13)	-.888	.170	-.201	-5.208***
Christianity(D14)	-.697	.177	-.148	-3.933***
Graduate/post graduate(General(D20))	.292	.092	.108	3.185*
Suburb/Town(D27)	-.279	.091	-.105	-3.079*
Behavioural Religiosity	.132	.042	.114	3.129*
ExperientialReligiosity	-.168	.052	-.115	-3.246*
Single(D3)	.190	.077	.088	2.476*
Consequential religiosity	.102	.041	.092	2.467*

Note: none of the previously entered variables is removed in subsequent steps

Significance level: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

The regression equation in Table 7.3 suggests that Impulsive and Fashion Conscious Shopper is significantly related to < 90000(D29) ($\beta = 0.100$, t= 2.855, p<0.05), School upto 9th standard(D17) ($\beta = -0.124$, t=−3.612, p<0.001), Hindu(D11) ($\beta = -0.256$, t= −

6.193,p<0.001), Jainism(D13) ($\beta = -0.201$, t= -5.208, p<0.001), Christianity(D14) (

$\beta = -0.148$, t= -3.933, p<0.001), Graduate/post graduate(General(D20)) ($\beta = 0.108$, t= 3

.185, p<0.05), Suburb / Town(D27) ($\beta = -0.105$, t= -3.079, p<0.05), Behavioural

Religiosity ($\beta = 0.114$, t=3.129, p<0.05), Experiential Religiosity ($\beta = -0.115$, t= -3.246

,p<0.05), Single(D3) ($\beta = 0.088$, t=2.476,p<0.05), Consequential Religiosity ($\beta = 0.092$, t

= 2.467, p<0.05).

The direction of relationship between variables in the equation can be interpreted as follows. The positive sign of beta coefficient on < 90000(D29) implied that respondents having an income < 90000(D29) are more Impulsive and Fashion Conscious Shopper than 200001 – 500000(D31). The negative sign of beta coefficient on School upto 9th standard (D17) implied that subjects who have an education School up to 9th standard (D17) are less Impulsive and Fashion Conscious Shopper than Illiterate (D15). The negative sign of beta coefficient on Hindu (D11) implied that subjects who are Hindu are less Impulsive and Fashion Conscious Shopper than Muslim (D12). The negative sign of beta coefficient on Jainism (D13) implied that subjects who are Jain are less Impulsive and Fashion Conscious Shopper than Muslim (D12).The negative sign of beta coefficient on Christianity (D14) implied that subjects, who are Christian, are less Impulsive and Fashion Conscious Shopper than Muslim (D12). The positive sign of beta coefficient on Graduate/post graduate (General (D20)) implied that subjects who have an education Graduate/post graduate (General (D20)) are more Impulsive and Fashion Conscious Shopper than Illiterate(D15). The negative sign of beta coefficient on Suburb/Town (D27) implied that subjects who reside in Suburb/Town (D27) are less Impulsive and Fashion Conscious Shopper than Rural (D28). The positive sign of beta coefficient on Behavioural Religiosity implied that subjects who are more behaviourally religious are more Impulsive and Fashion Conscious Shopper than who score low on behavioural religiosity. The negative sign of beta coefficient on experiential religiosity implied that subjects who are more experientially religious, are less Impulsive and Fashion Conscious Shopper than those who score low on experiential religiosity. The positive sign of beta coefficient on Single (D3) implied that subjects' who is Single (D3) tends to be more Impulsive and Fashion Conscious Shopper than Married (D4). The positive sign of beta coefficient on Consequential religiosity' implied that subjects who are more consequentially religious are

more Impulsive and Fashion Conscious Shopper than the subject who score low on consequential religiosity.

The relative importance of variables is indicated by their standardized beta coefficients. The variables having the strongest effect on Impulsive and Fashion Conscious Shopper is Hindu (D11) ($\beta = -0.256$) followed by Jainism(D13) ($\beta = -0.201$), Christianity(D14) ($\beta = -0.148$), School upto 9th standard (D17) ($\beta = 0.124$), Experiential Religiosity ($\beta = -0.115$), Behavioral Religiosity ($\beta = 0.114$), graduate/post graduate (general)(D20)($\beta = 0.108$), Suburb/Town(D27) ($\beta = -0.105$), <90000 (D29) ($\beta = 0.100$), Consequential Religiosity ($\beta = 0.092$) and single (D3) ($\beta = 0.088$).

7.4.2 Recreational Shopper

The results of the regression analysis are presented in Table 7.4. The variables are entered into the regression equation one at a time. The overall F-test for the final regression model is highly significant (F = 15.552, p < 0.001) with nine variables entered the resulting equation. The explanatory power as reported by the adjusted R^2 value is 0.111, suggesting that the eleven predictor variables are able to explain 11.1 percent of the variation in the Recreational Shopper.

Looking at the stepwise ordering of the predictor variables that entered the regression equation, Consequential religiosity is the first variable that entered the equation as it is the most salient in explaining Recreational shopper. It alone contributes 5.7 percent of the variation. At step 2, Suburb/Town (D27) is entered in the regression equation and accounted for an additional 2.4 percent of the variation in Recreational shopper. School up to 9th standard (D17) entered the regression equation at step 3 and accounted for an additional 1.2 percent of the variation in subjects Recreational shopper. < 90000(D29) entered the regression equation at step 4 and accounted for an additional 0.7 percent of the variation in subjects Recreational shopper. SSC/HSC (D18) entered the regression equation at step 5 and accounted for an additional 0.6 percent of the variation in subjects Recreational shopper. Housewife/retired/unemploye

d/student (D25) entered the regression equation at step 6 and accounted for an additional 0.7 percent of the variation in subjects Recreational shopper. Cognitive Religiosity entered the regression equation at step 7 and accounted for an additional 0.7 percent of the variation in subjects Recreational shopper.

TABLE 7.4 Regression analysis: predictors of Recreational shopper

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	Consequential Religiosity	.058	.057	46.166
2	Suburb/Town	.084	.081	34.100
3	School upto 9th standard	.097	.093	26.680
4	< 90000	.105	.100	21.816
5	SSC/HSC	.112	.106	18.843
6	Housewife/retired/unemployed/student	.120	.113	16.847
7	Cognitive Religiosity	.117	.111	19.695

Final Regression Equation

Variable	B	S.E	Beta	t value
(Constant)	2.998	.157		19.123
Consequential Religiosity	.195	.035	.208	5.600
Suburb/Town	-.350	.078	-.156	-4.505
School upto 9th standard	-.485	.140	-.120	-3.465
< 90000	.183	.064	.100	2.852
SSC/HSC	-.208	.073	-.099	-2.828
Housewife/retired/unemployed/student	.153	.063	.084	2.418
Cognitive Religiosity	.072	.036	.074	2.016

Note: none of the previously entered variables is removed in subsequent steps

Significance level: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

The regression equation in Table 7.4 suggests that Recreational shopper is significantly related to Consequential religiosity ($\beta = 0.208$, t= 5.600, p<0.001), Suburb/Town(D27) ($\beta = -0.156$, t=-4.505,p<0.001), School upto 9th standard(D17) ($\beta = -0.120$, t= $-$3.465, p<0.05), < 90000 (D29) ($\beta = 0.100$, t=$-$ 2.852, p<0.05), SSC/HSC(D18) ($\beta = -0$.099, t=$-$2.828,p<0.05), Housewife/retired/unemployed/student (D25) ($\beta = 0.084$, t= 2.481, p<0.05), Cognitive Religiosity ($\beta = 0.074$, t=2.016, p<0.05).

The direction of relationship between variables in the equation can be interpreted as follows. The positive sign of beta coefficient on Consequential religiosity' implied that subjects who are more consequentially religious are more Recreational shopper than the subject who score low on consequential religiosity. The negative sign of beta coefficient on Suburb/Town (D27) implied that subjects who reside in Suburb/Town (D27) are less Recreational shopper than Rural (D28). The negative sign of beta coefficient on School upto 9th standard (D17) implied that subjects who have an education School up to 9th standard (D17) are less Recreational shopper than Illiterate (D15). The positive sign of beta coefficient on < 90000(D29) implied that respondents having an income < 90000(D29) are more Recreational shopper than 200001 – 500000(D31). The negative sign of beta coefficient on SSC/HSC (D18) implied that subjects who have an education SSC/HSC(D18) are less Recreational shopper than Illiterate(D15). The positive sign of bet a coefficient on Housewife/Retired/Unemployed/Student (D25) implied that subjects' who is Housewife/Retired/Unemployed/Student (D25) tends to be more Recreational shopper than Self-employed (D22).

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on Recreational shopper is Consequential Religiosity ($\beta = 0.208$) followed by Suburb/Town (D27) ($\beta = -0.156$), School upto 9th standard (D17) ($\beta = -0.120$), <90000 (D29) ($\beta = 0.100$), SSC/HSC (D18) ($\beta = -.099$), Housewife/retired/unemployed /student (D25) ($\beta = 0.084$), Cognitive Religiosity ($\beta = 0.074$).

7.4.3 Price conscious and brand loyal shopper

The results of the regression analysis are presented in Table 7.5. The variables are entered into the regression equation one at a time. The overall F-test for the final regression model is highly significant (F = 12.437, p < 0.001) with nine variables entered the resulting equation. The explanatory power as reported by the adjusted R^2 value is 0.121, suggesting that the nine predictor variables are able to explain12.1 percent of the variation in the Price conscious and brand loyal shopper.

Looking at the stepwise ordering of the predictor variables that entered the regression equation, Behavioural Religiosity is the first variable that entered the equation as it is the most salient in explaining Price conscious and brand loyal shopper. It alone contributes 3.9 percent of the variation. At step 2, Suburb/Town (D27) is entered in the regression equation and accounted for an additional 2.6 percent of the variation in Price conscious and brand loyal shopper. Graduate/post graduate (General (D20)) entered the regression equation at step 3 and accounted for an additional 1.3 percent of the variation in subjects Price conscious and brand loyal shopper. >1000000(D33) entered the regression equation at step 4 and accounted for an additional 0.9 percent of the variation in subjects Price conscious and brand loyal shopper. Consequential religiosity entered the regression equation at step 5 and accounted for an additional 0.6 percent of the variation in subjects Price conscious and brand loyal shopper. School upto 9th standard (D17) entered the regression equation at step 6 and accounted for an additional 0.5 percent of the variation in subjects Price conscious and brand loyal shopper. Christianity (D14) entered the regression equation at step 7 and accounted for an additional 0.5 percent of the variation in subjects Price conscious and brand loyal shopper. Hindu (D11) entered the regression equation at step 8 and accounted for an additional 0.5 percent of the variation in subjects Price conscious and brand loyal shopper. Jainism (D13) entered the regression equation at step 9 and accounted for an additional 1.3 percent of the variation in subjects Price conscious and brand loyal shopper.

TABLE 7.5 Regression analysis: Price conscious and brand loyal shopper

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	Behavioural Religiosity	.040	.039	31.249***
2	Suburb/Town(D27)	.067	.065	26.882***
3	Graduate/post graduate(General(D20))	.081	.078	22.040***
4	>1000000(D33)	.092	.087	18.842***
5	Consequential religiosity	.099	.093	16.330***
6	School upto 9th standard(D17)	.105	.098	14.564***
7	Christianity(D14)	.111	.103	13.265***
8	Hindu(D11)	.117	.108	12.281***
9	Jainism(D13)	.131	.121	12.437***

Final Regression Equation

Variable	B	S.E	Beta	t value
Constant	2.745	.223		12.283***
Behavioural Religiosity	.205	.045	.169	4.604***

Suburb/Town(D27)	-.395	.097	-.143	-4.093***
Graduate/post graduate(General(D20))	.301	.098	.107	3.084*
>1000000(D33)	-.586	.235	-.086	-2.495*
Consequential religiosity	.099	.043	.085	2.299*
School upto 9th standard(D17)	-.383	.173	-.077	-2.215*
Christianity(D14)	-.673	.186	-.137	-3.606***
Hindu(D11)	-.361	.101	-.149	-3.554***
Jainism(D13)	-.630	.180	-.136	-3.494*

Note: none of the previously entered variables is removed in subsequent Significance level:
* p < 0.05; ** p < 0.01; *** p < 0.001

The regression equation in Table 7.5 suggests that Price conscious and brand loyal shopper is significantly related to Behavioural Religiosity ($\beta = 0.169$, t=4.604,p<0.001), followed by Hindu(D11) ($\beta = -0.149$, t=−3.554,p<0.001),Suburb/Town(D27) ($\beta = -0.143$, t=−4.093,p<0.001), Christianity(D14) ($\beta = -0.137$, t= −3.606,p<0.001), Jainism(D13) ($\beta = -0.136$, t=− 3.4946,p<0.05), Graduate/postgraduate(General(D20)) ($\beta = 0.107$, t=3.084,p<0.005), >1000000(D33) ($\beta = -0.086$, t=− 2.495, p<0.05), Consequential Religiosity ($\beta = 0.085$, t= 2.299, p<0.05), School upto 9th standard(D17) ($\beta = -0.077$, t=−2.215,p<0.05).

The positive sign of beta coefficient on Behavioural Religiosity implied that subjects who are more behaviourally religious are more Price conscious and brand loyal shopper than who score low on Behavioural Religiosity. The negative sign of beta coefficient on Suburb/Town (D27) implied that subjects who reside in Suburb/Town (D27) are less Price conscious and brand loyal shopper than Rural (D28). The positive sign of beta coefficient on Graduate/post graduate (General (D20)) implied that subjects who have an education Graduate/post graduate (General (D20)) are more Price conscious and brand loyal shopper than Illiterate(D15). The negative sign of beta coefficient on >1000000 (D33) implied that respondents having an income < 90000 (D33) are less Price conscious and brand loyal shopper than 200001 – 500000 (D31). The positive sign of beta coefficient on Consequential religiosity' implied that subjects who are more consequentially religious are more Price conscious and brand loyal shopper than the subject who score low on

consequential religiosity. The negative sign of beta coefficient on School upto 9th standards (D17) implied that subjects who have an education School up to 9th standards (D17) are less Price conscious and brand loyal shopper than Illiterate (D15). The negative sign of beta coefficient on Christianity (D14) implied that subjects, who are Christian, are less Price conscious and brand loyal shopper than Muslim (D12). The negative sign of beta coefficient on Hindu (D11) implied that subjects who are Hindu are less Price conscious and brand loyal shopper than Muslim (D12). The negative sign of beta coefficient on Jainism (D13) implied that subjects who are Jain are less Price conscious and brand loyal shopper than Muslim (D12).

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on Price consciousness and brand loyalty is Behavioural Religiosity ($\beta = 0.169$) followed by Suburb/Town(D27) ($\beta = -0.143$), Graduate/post graduate(General(D20)) ($\beta = 0.107$), >1000000(D33) ($\beta = -0.086$), Consequential religiosity ($\beta = 0.085$), School upto 9th standard(D17) ($\beta = -0.077$), Christianity(D14) ($\beta = -0.137$), Hindu(D11) ($\beta = -0.149$), Jainism(D13) ($\beta = -0.136$) respectively.

7.4.4 Convenience Seeker

The results of the regression analysis are presented in Table 7.6. The variables are entered into the regression equation one at a time. The overall F-test for the final regression model is highly significant (F = 14.428, p < 0.001) with ten variables entered the resulting equation. The explanatory power as reported by the adjusted R^2 value is 0.152, suggesting that the ten predictor variables are able to explain15.2 percent of the variation in the Convenience seeker

Looking at the stepwise ordering of the predictor variables that entered the regression equation, Consequential Religiosity is the first variable that entered the equation as it is the most salient in explaining Convenience seeker. It alone contributes 6.2 percent of the variation. At step 2, Behavioural Religiosity is entered in the regression equation and accounted for an additional 2.8 percent of the variation in Convenience seeker. Suburb/Town (D27) entered the regression equation at step 3 and accounted for an

additional 1.6 percent of the variation in subjects Convenience seeker. Christianity (D14) entered the regression equation at step 4 and accounted for an additional 1 percent of the variation in subjects Convenience seeker. < 90000(D29) entered the regression equation at step 5 and accounted for an additional 0.6 percent of the variation in subjects Convenience seeker. 90001-200000(D30) entered the regression equation at step 6 and accounted for an additional 1.2 percent of the variation in subjects Convenience seeker. Literate but not formal schooling (D16) entered the regression equation at step 7 and accounted for an additional 0.6 percent of the variation in subjects Convenience seeker. 31-40 years old (D7) entered the regression equation at step 8 and accounted for an additional 0.4 percent of the variation in subjects Convenience seeker. Experiential Religiosity entered the regression equation at step 9 and accounted for an additional 0.4 percent of the variation in subjects Convenience seeker. Some college (Including Diploma but not graduation (D19) entered the regression equation at step 10 and accounted for an additional 0.4 percent of the variation in subjects Convenience seeker.

TABLE 7.6 Regression analysis: predictors of Convenience seeker.

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	Consequential Religiosity	.063	.062	50.084***
2	Behavioural Religiosity	.092	.090	38.013***
3	Suburb/Town(D27)	.110	.106	30.678***
4	Christianity(D14)	.121	.116	25.566***
5	< 90000(D29)	.128	.122	21.864***
6	90001-200000(D30)	.141	.134	20.276***
7	Literate but not formal schooling(D16)	.148	.140	18.482***
8	31-40 years old(D7)	.153	.144	16.790***
9	Experiential Religiosity	.159	.148	15.510***
10	Some college (Including Diploma but not graduation(D19)	.163	.152	14.428***

Final Regression Equation

Variable	B	S.E	Beta	t value
(Constant)	2.091	.215		9.747***
Consequential Religiosity	.155	.038	.152	4.113***
Behavioural Religiosity	.191	.038	.180	4.985***
Suburb/Town(D27)	-.260	.083	-.107	-3.135*
Christianity(D14)	-.501	.147	-.117	-3.410*

< 90000(D29)	.339	.083	.172	4.066***
90001-200000(D30)	.313	.089	.146	3.509***
Literate but not formal schooling(D16)	-.782	.324	-.082	-2.413*
31-40 years old(D7)	.198	.080	.085	2.486*
Experiential Religiosity	.100	.047	.075	2.113*
Some college (Including Diploma but not graduation(D19)	.147	.073	.070	2.026*

Note: none of the previously entered variables is removed in subsequent Significance level: * p < 0.05; *** p < 0.001

The regression equation in Table 7.6 suggests that Convenience seeker is significantly related to Consequential Religiosity ($\beta = 0.152$, t=4.113,p<0.001), Behavioural Religiosity ($\beta = 0.180$, t=−4.985,p<0.001), Suburb/Town(D27) ($\beta = −0.107$, t=−3.135,p <0.005), Christianity(D14) ($\beta = −0.117$, t=−3.410,p<0.05), < 90000(D29) ($\beta = 0.172$, t= 4.066,p<0.001), 90001-200000(D30) ($\beta = 0.146$, t=3.509,p<0.001), Literate but not formal schooling(D16) ($\beta = −0.082$, t= −2.413,p<0.05), 31-40 years old(D7) ($\beta = 0.085$, t=2.486,p<0.05), Experiential Religiosity ($\beta = 0.075$, t=2.113,p<0.05),. Some college (Including Diploma but not graduation (D19) ($\beta = 0.070$, t=2.026,p<0.05).

The positive sign of beta coefficient on Consequential religiosity' implied that subjects who are more consequentially religious are more Convenience seeker than the subject who score low on consequential religiosity. The positive sign of beta coefficient on Behavioural Religiosity implied that subjects who are more behaviourally religious are more Convenience seeker than who score low on Behavioural religiosity. The negative sign of beta coefficient on Suburb/Town (D27) implied that subjects who reside in Suburb/Town (D27) are less Convenience seeker than Rural (D28). The negative sign of beta coefficient on Christianity (D14) implied that subjects, who are Christian, are less Convenience seeker than Muslim (D12). The positive sign of beta coefficient on <90000((D29)) implied that respondents having an income < 90000 (D29) are more Convenience seeker than 200001 – 500000 (D31). The positive sign of beta coefficient on 90001-200000((D30)) implied that respondents having an income 90001-200000((D30)) are more Convenience seeker than 200001 – 500000 (D31). The negative sign of beta coefficient on literate but not formal schooling (D16) implied that subjects who have an

education literate but not formal schooling (D16) are less Convenience seeker than Illiterate (D15). The positive sign of beta coefficient on 31-40 years old (D7) implied that respondents having an age 31-40 years old (D7) are more Convenience seeker than 61 and above (D10). The positive sign of beta coefficient on experiential religiosity' implied that subjects who are more experiential religiosity are more Convenience seeker than the subject who score low on experiential religiosity. The positive sign of beta coefficient on some college (including diploma but not graduation (D19) implied that subjects who have an education some college (including diploma but not graduation (D19) are more Convenience seeker than Illiterate (D15).

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on Convenience seeker is Behavioural Religiosity (β =0.180), < 90000(D29) (β =0.172), Consequential Religiosity (β =0.152), 90001-200000(D30) (β =0.146), Christianity(D14) (β = -0.117), Suburb/Town(D27) (β = -0.107), Literate but not formal schooling(D16) (β = -0.082), 31-40 years old(D7) (β = 0.085), Experiential Religiosity (β =0.075), Some college (Including Diploma but not graduation(D19) (β =0.070)

7.4.5 Shopping enjoyment

The results of the regression analysis are presented in Table 7.7. The variables are entered into the regression equation one at a time. The overall F-test for the final regression model is highly significant (F = 12.111, p < 0.001) with ten variables entered the resulting equation. The explanatory power as reported by the adjusted R^2 value is 0.118, suggesting that the ten predictor variables are able to explain11.8 percent of the variation in the Shopping enjoyment

Looking at the stepwise ordering of the predictor variables that entered the regression equation, Cognitive Religiosity is the first variable that entered the equation as it is the most salient in explaining Shopping enjoyment. It alone contributes 2.9 percent of the variation. At step 2, Housewife/retired/unemployed/student (D25) is entered in the

regression equation and accounted for an additional 2.6 percent of the variation in shopping enjoyment. Experiential Religiosity entered the regression equation at step 3 and accounted for an additional 1.2 percent of the variation in subjects Shopping enjoyment. Jainism (D13) entered the regression equation at step 4 and accounted for an additional 1.4 percent of the variation in subjects Shopping enjoyment. Hindu (D11) entered the regression equation at step 5 and accounted for an additional 1.3 percent of the variation in subjects Shopping enjoyment. Behavioural Religiosity is entered the regression equation at step 6 and accounted for an additional 0.8 percent of the variation in subjects Shopping enjoyment. Graduate/post graduate (professional) (D21) entered the regression equation at step 7 and accounted for an additional 0.7 percent of the variation in subjects Shopping enjoyment. < 90000(D29) entered the regression equation at step 8 and accounted for an additional 0.4 percent of the variation in subjects Shopping enjoyment. Government employee (D23) entered the regression equation at step 9 and accounted for an additional 0.5 percent of the variation in subjects Shopping enjoyment.

TABLE 7.7 Regression analysis: predictors of shopping enjoyment.

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	Cognitive Religiosity	.030	.029	23.500***
2	Housewife/retired/unemployed/student	.057	.055	22.643***
3	Experiential Religiosity	.071	.067	19.072***
4	Jainism	.086	.081	17.608***
5	Hindu	.100	.094	16.452***
6	Behavioural Religiosity	.109	.102	15.197***
7	Graduate/post graduate (professional)	.117	.109	14.070***
8	< 90000	.123	.113	12.971***
9	Government employee	.128	.118	12.111***

Final Regression Equation

Variable	B	S.E	Beta	t value
(Constant)	2.976	.302		9.855***
Cognitive Religiosity	.203	.051	.153	4.021***
Housewife/retired/unemployed/student	-.285	.094	-.114	-3.042*
Experiential Religiosity	-.259	.062	-.153	-4.147***
Jainism	-.730	.195	-.143	-3.734***
Hindu	-.251	.105	-.093	-2.382*
Behavioural Religiosity	.139	.050	.103	2.791*

Graduate/post graduate (professional)	-.272	.120	-.080	-2.277*
< 90000	.225	.090	.090	2.509*
Government employee	.297	.137	.081	2.171*

Note: none of the previously entered variables is removed in subsequent Significance level: * p < 0.05; *** p < 0.001

The regression equation in Table 7.7 suggests that Shopping enjoyment is significantly related to Cognitive Religiosity ($\beta = 0.153$, t=4.021,p<0.001), Housewife/retired/unemployed/ student(D25) ($\beta = -0.114$, t=-3.042,p<0.05), Experiential Religiosity ($\beta = -0.153$, t= -4.147,p<0.001), Jainism(D13) ($\beta = -0.143$, t=$-$ 3.734,p<0.001), Hindu(D11) ($\beta = -0$. 093, t= -2.382,p<0.05), behavioural religiosity ($\beta = 0.103$, t=2.791,p<0.005), Graduate/post graduate (professional) (D21) ($\beta = -0.080$, t= -2.277,p<0.05), < 90000(D29) ($\beta = 0$. 090, t=2.509,p<0.05), Government employee(D23) ($\beta = 0.081$, t=2.171,p<0.05).

The positive sign of beta coefficient on Cognitive religiosity' implied that subjects who are more cognitively religious are more Shopping enjoyment than the subject who score low on cognitive religiosity. The positive sign of beta coefficient on housewife/retired/unemplo yed/student (D25) implied that respondents, who are housewife/retired/unemployed/studen t (D25), are scoring more Shopping enjoyment than self-employed (D22). The negative sign of beta coefficient on experiential religiosity' implied that subjects who are more experiential religiosity' are less Shopping enjoyment than the subject who score low on experiential religiosity. The negative sign of beta coefficient on Jainism (D13) implied that subjects, who are Jain, are less shopping enjoyment than Muslim (D12). The negative sign of beta coefficient on Hindu (D12) implied that subjects, who are Hindu, are less shopping enjoyment than Muslim (D12). The positive sign of beta coefficient on behavioural religiosity implied that subjects who are more behaviourally religious are more Shopping enjoyment than who score low on behavioural religiosity. The negative sign of beta coefficient on graduate/post graduate (professional)(D21) implied that subjects who have an education graduate/post graduate(professional))(D21) are more Shopping enjoyment than Illiterate (D15). The positive sign of beta coefficient on <90000((D29)) implied that

246

respondents having an income < 90000(D29)) are more Shopping enjoyment than 200001 – 500000 (D31). The positive sign of beta coefficient on government employee (D23) implied that respondents who are government employee (D23) are more Shopping enjoyment than self-employed (D22).

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on Shopping enjoyment is cognitive religiosity ($\beta = 0.153$) followed by Experiential Religiosity($\beta = -0.153$ Jainism (D13) ($\beta = -0.143$), Housewife/retired/unemployed/student(D25) ($\beta = -0.114$), Behavioural Religiosity ($\beta = 0.103$), Hindu(D11) ($\beta = -0.093$), < 90000(D29) ($\beta = 0.090$), Government employee(D23) ($\beta = 0.081$) and Graduate/post graduate (professional) (D21) ($\beta = -0.080$) respectively.

7.4.6 Brand conscious shopper

The results of the regression analysis are presented in Table 7.8. The variables are entered into the regression equation one at a time. The overall F-test for the final regression model is highly significant (F = 17.687, p < 0.001) with ten variables entered the resulting equation. The explanatory power as reported by the adjusted R^2value is 0.135, suggesting that the ten predictor variables are able to explain13.5 percent of the variation in the Brand conscious shopper

Looking at the stepwise ordering of the predictor variables that entered the regression equation, Behavioral Religiosity is the first variable that entered the equation as it is the most salient in explaining Brand conscious shopper. It alone contributes 4.8 percent of the variation. At step 2, Consequential religiosity is entered in the regression equation and accounted for an additional 1.7 percent of the variation in Brand conscious shopper. 51-60 years old (D9) entered the regression equation at step 3 and accounted for an additional 1.9 percent of the variation in subjects Brand conscious shopper. Christianity (D14) entered the regression equation at step 4 and accounted for an additional 1 percent of the variation in subjects Brand conscious shopper. Suburb/Town (D27) entered the regression equation at step 5 and accounted for an additional 1 percent of the variation in subjects Brand conscious shopper. Hindu (D11) is entered the regression equation at step 6 and accounted

for an additional 1 percent of the variation in subjects Brand conscious shopper. Jainism (D13) entered the regression equation at step 7 and accounted for an additional 1.9 percent of the variation in subjects Brand conscious shopper.

TABLE 7.8 Regression analysis: predictors of Brand conscious shopper.

Step	Variable entered	R^2	Adj. R^2	F Ratio
1	Behavioural Religiosity	.049	.048	38.607***
2	Consequential religiosity	.067	.065	26.917***
3	51-60 years old(D9)	.088	.084	23.916***
4	Christianity(D14)	.099	.094	20.457***
5	Suburb/Town(D27)	.110	.104	18.417***
6	Hindu(D11)	.122	.114	17.137***
7	Jainism(D13)	.143	.135	17.687***

Final Regression Equation

Variable	B	S.E	Beta	t value
(Constant)	2.523	.234		10.789***
Behavioural Religiosity	.216	.047	.167	4.589***
Consequential religiosity	.165	.046	.133	3.632***
51-60 years old(D9)	-.667	.164	-.139	-4.075***
Christianity(D14)	-.964	.197	-.183	-4.886***
Suburb/Town(D27)	-.270	.102	-.091	-2.642*
Hindu(D11)	-.510	.107	-.197	-4.748***
Jainism(D13)	-.819	.190	-.166	-4.308***

Note: none of the previously entered variables is removed in subsequent Significance level: * $p < 0.05$; *** $p < 0.001$

The regression equation in Table 7.8 suggests that Brand conscious shopper is significantly related to Behavioural Religiosity ($\beta = 0.167$, t=4.589, p<0.001), Consequential Religiosity ($\beta = 0.133$, t=3.632, p<0.001), 5160 years old (D9) ($\beta = -0.139$, t=-4.075, p<0.001), Christianity (D14) ($\beta = -0.183$, t=-4.886,p<0.001), Suburb/Town (D27) ($\beta = -0.091$, t=-2.642, p<0.05), Hindu (D11) ($\beta = -0.197$, t=-4.748, p<0.001), Jainism (D13) ($\beta = -0.166$, t=-4.308, p<0.01).

The positive sign of beta coefficient on behavioural religiosity implied that subjects who are more behavioural religiosity are more Brand conscious shopper than the subject who score low on behavioural religiosity. The positive sign of beta coefficient on Consequential religiosity implied that subjects who are more consequential religiosity are more Brand conscious shopper than the subject who score low on Consequential religiosity. The negative sign of beta coefficient on 51-60 years old (D9) implied that respondents having an age 51-60 years old (D9) are less Brand conscious shopper than 61 and above (D10). The negative sign of beta coefficient on Christianity (D14) implied that subjects, who are Christian, are less Brand conscious shopper than Muslim (D12). The negative sign of beta coefficient on Suburb/Town (D27) implied that subjects who reside in Suburb/Town (D27) are less Brand conscious shopper than Rural (D28). The negative sign of beta coefficient on Hindu (D12) implied that subjects, who are Hindu, are less Brand conscious shopper than Muslim (D12). The negative sign of beta coefficient on Jainism (D13) implied that subjects, who are Jain, are less Brand conscious shopper than Muslim (D12).

The relative importance of variables is indicated by their standardised beta coefficients. The variable having the strongest effect on Brand conscious shopper is Hindu (D11) ($\beta = -0.197$) followed by Christianity (D14) ($\beta = -0.183$), Behavioural Religiosity ($\beta = 0.167$), Jainism (D13) ($\beta = -0.166$). 51-60 years old (D9) ($\beta = -0.139$), Consequential Religiosity ($\beta = 0.133$), Suburb/Town (D27) ($\beta = -0.091$).

7.5 Summary of Results

The results and conclusions drawn from the analysis are summarized in the final section of this chapter. The main purpose for the use of multiple regression analysis in the present study is to identify which variables (Religious and demographic) best predicts the criterion variables (information sources and shopping orientations). The two sets of personal characteristics namely religion (religious affiliation and religiosity (cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity)) and demographics (gender, marital status, age, education, occupation, area of residence and income) represents an independent variable. An automated selection procedure of stepwise regression is used to allow the predictor variables to enter or leave the regression equations, as they are significant.

The religious influences on shopping orientation are further clarified by the findings of regression analysis. The regression results, summarised in Table 7.9**,** have demonstrated that:

1. When controlling for the effect of other predictor variables, religious affiliation still has an influence on the information sources (Media and Personal) and Shopping orientations (Impulsive and Fashion Conscious, Recreational Shoppers, Price Conscious and Brand Loyal Shoppers, Convenience Seeker, Shopping Enjoyment and Brand conscious Shopper).

2. Religious affiliation is a strongest predicator of information source relating to media and shopping orientation relating to Impulsive and Fashion Conscious and Brand conscious Shopper

3. When controlling for the effects of other predictor variables, cognitive religiosity still has an influence on shopping orientation (Recreational Shopper).

4. When controlling for the effect of other predictor variables, Behavioural Religiosity still has an influence on information source (Media) and shopping orientation (Impulsive and Fashion Conscious, Price Conscious and Brand Loyal Shoppers, Convenience Seeker, Shopping Enjoyment and Brand Loyal Shopper)

5. Behavioural Religiosity is the strongest predictor of shopping orientation relating to Price Conscious and Brand Loyal Shoppers, Convenience Seeker and Brand Loyal Shopper

6. When controlling for the effects of other predictor variables, Experiential religiosity has an influence on use of information source (media), shopping orientation (Impulsive and Fashion Conscious, Convenience Seeker, Shopping Enjoyment and Brand conscious Shopper)

7. Experiential Religiosity is the strongest predictor of information source relating to media and shopping orientation relating to Impulsive and Fashion Conscious, Shopping Enjoyment and Brand conscious Shopper.

8. When controlling for the effects of other predictor variables, consequential religiosity has an influence on use of information source (media and personal), shopping orientation (Impulsive and Fashion Conscious, Recreational Shoppers,

Price Conscious and Brand Loyal Shoppers, Convenience Seeker and Brand conscious Shopper).

9. Consequential religiosity is the strongest predictor of information source relating to media and shopping orientation relating to Recreational Shoppers, Convenience Seeker and Brand conscious Shopper

Based on the above results, Hypotheses 4a, 4b, 5a and 5b are accepted.

TABLE 7.9 Summary of results: multiple linear regression analysis

Predicted Variable	Equation	Adj. R^2
Media	3.08 – 0.183 Housewife/Retired/Unemployed/Students(D25)***–0.159 Christianity(D14) *** + 0.155 <90000(D29)*** + 0.153 Some college(Including Diploma but not degree(D19)*** – 0.121Suburb/Town(D27) *** – 0.110 Experiential Religiosity** + 0.109 Single(D3) ** + 0.104 Graduate/Post Graduate(General)(D20) ** + 0.091 Behavioral Religiosity** + 0.078 Consequential Religiosity** + 0.078 Government employee(D23) ** – 0.076 >1000000(D33) ** – 0.074 Divorced/Widowed(D5) **	0.166
Personal	3.578 + 0.165 Consequential Religiosity***–0.123 Christianity (D14)** –0.097 Jainism(D13) ** + 0.073 Single(D3) **	0.044
Impulsive and Fashion conscious shopper	3.352 – 0.256 Hindu(D11) *** – 0.201 Jainism(D13) *** –0.148 Christianity(D14) *** – 0.124 School upto 9th standard(D17) *** – 0.115 Experiential religiosity** + 0.114 Behavioural Religiosity** + 0.108 graduate/post graduate (general)(D20) ** – 0.105 Suburb/Town(D27) ** + 0.100 <90000(D29) ** + 0.092 Consequential Religiosity** + 0.088 single(D3) **	0.160
Recreational Shopper	2.998 + 0.208 Consequential Religiosity*** – 0.156 Suburb/Town(D27) *** – 0.120 School upto 9th standard(D17) ** + 0.100 < 90000(D29) ** – 0.099 SSC/HSC(D18)** + 0.084 Housewife/retired/unemployed/student(D25) ** + 0.074 Cognitive Religiosity**	0.111
Price Conscious and Brand loyal Shopper	2.745 + 0.169 Behavioural Religiosity*** – 0.149 Hindu (D11) *** – 0.143 Suburb/Town (D27) *** –0.137 Christianity (D14) *** – 0.136 Jainism (D13) ** + 0.107 Graduate/post graduate (General (D20)) ** – 0.086 >1000000(D33) ** + 0.085 Consequential Religiosity** – 0.077 School upto 9th standard (D17) **.	0.121
Convenience Seeker	2.091 + 0.180 Behavioural Religiosity*** + 0.172 < 90000(D29) *** + 0.152 Consequential Religiosity*** + 0.146 90001-200000(D30) *** – 0.117 Christianity(D14) ** – 0.107 Suburb/Town(D27) ** – 0.082 Literate but not formal schooling(D16) ** + 0.085 31-40 years old(D7) ** + 0.075 Experiential Religiosity** + 0.070 Some college (Including Diploma but not graduation(D19) **	0.152

Shopping Enjoyment	2.976 + 0.153 Cognitive Religiosity*** – 0.153 Experiential Religiosity*** – 0.143 Jainism(D13)*** –0.114 Housewife/retired/unemployed/student(D25)** + 0.103 Behavioural Religiosity** – 0.093 Hindu(D11) ** + 0.090 < 90000(D29) ** + 0.081 Government employee(D23) ** – 0.080 Graduate/post graduate (professional) (D21) **	0.118
Brand Conscious Shopper	**2.523** – 0.197 Hindu(D11) *** – 0.183 Christianity(D14) *** + 0.167 Behavioural Religiosity*** – 0.166 Jainism(D13) *** – 0.139 51-60 years old(D9) *** + 0.133 Consequential religiosity***– 0.091 Suburb/Town(D27)**	0.135

*** denotes significance at p < 1%; ** denotes significance at p < 5%;

* denotes significance at p < 10%.

CHAPTER 8

SUMMARY, DISCUSSIONS AND IMPLICATIONS

8.0 Overview

With an objective to expand a body of knowledge, an attempt is made to establish link between religiosity and shopping orientation in the present study. On the basis of the results of the earlier two chapters, it is concluded that religiosity is a personal characteristic construct that can be used in explaining consumer shopping orientation.

This chapter concludes the whole thesis by summarising the major findings and conclusions of the research. It also discusses the implication of this research from the perspective of marketing theory and practices along with limitations and suggestions for further research in this research domain. The whole chapter is categorised in seven different parts as below. The summary of the thesis is provided in the first section of the chapter followed by results of hypothesis testing in the second section. In the second section attempts are made to consolidate the findings of the research and its comparison with previous similar research. The main contribution of this research in the current literature is presented in the third section while the fourth section presents the marketing implications of the research. The methodological limitations are presented in the fifth section followed by discussion on further research potentiality in this research area. This chapter ends with the concluding remarks.

8.1 Summary of the Thesis

It looks logical to provide an overview of this thesis and summing-up its findings before we discuss the research findings in a great detail and emphasizing its contribution to the current literature and marketing practices. The cultural influences in the form of religious affiliation and religiosity on consumer shopping orientation are the major focus of this study. Actually, the research was conceptualised when the researcher realised that, religion as a cultural subsystem has received much less attention than some other similar areas of influence (e.g. values, nationality or ethnicity) despite the apparently considerable effect of culture on a wide variety of consumer behaviours. This thesis is envisioned as a modest contribution towards further research on this subject area.

The relevant literature and empirical findings from past studies are reviewed to establish the knowledge base of some key important aspects of the study. After surveying and evaluating the relevance of various available data base for this study, it is concluded that the use of electronic databases could be a major supplement to the research work. To complete the study in the reasonable time limit, a focus literature research is employed. The research process to be rigorous and extensive, searches is made through a broad base of electronic and traditional databases and libraries.

The literature review is carried out in two parts. In the first phase, literature review is carried out to define the constructs; religiosity and shopping orientation. In addition to this, various theories and models of consumer behaviour are examined to explore whether religious construct is supported. For the purpose, Darden's (1980) consumer behaviour model of retail patronage and Sheth's (1983) integrative theory of shopping and patronage preference are examined and reviewed to provide theoretical base for the study. These two models and their subsequent empirical testing served as the basis for the framework of the study.

The third chapter presents the relevant literature review. Previous studies on the relationship between religion and consumer behaviour are examined and reviewed. Two major categories of research themes are identified on the basis of literature review: studies

of consumption in specific religious settings, and studies of the influence of religion on specific consumption behaviours. The studies of the influence of religion on specific consumption behaviours have been studied from two broad viewpoints: religious affiliation and religiosity. The difference between two needs to be marked: religious affiliation is an ascribed condition which states the identification of individuals to a particular religion whereas religiosity, or religiousness, is the intensity of one's religious belief and is mainly a personal phenomenon. Previous research is extensively reviewed on these two dimensions. These past studies collectively provide justification for the use of religious affiliation and religiosity to explain variance in some aspects of consumer behaviour.

The methodological aspect of study is presented in the fourth chapter. This chapter presents details on research paradigm used for the study including method of study, process of data collection, survey instrument and sampling process. For purpose of present study, survey method is used since it is most relevant techniques for primary data collection. Structured questionnaire is used for collecting data and it is developed previous research inventories of similar researcher. Five point Likert scale is used to measure the variables except demographic variables. Initially questionnaire is prepared in English version which is translated into Gujarati version keeping in mind respondent's language proficiency. The questionnaire is revised on the basis of the results of pilot testing for making it more relevance and appropriate for research. For the purpose of sampling, quota sampling method is used in which nine hundred respondents living in the Gujarat state are targeted as the sample for this research from which 750 usable responses are secured for statistical analysis.

The fifth chapter presents the statistical techniques used to analysis field survey data. The chapter starts with statistical package used for the data analysis. Statistical Package for the Social Science (SPSS) version 20 is deemed to be most appropriate statistical programme to be used for the study. Following the discussion on statistical package, various factors contributing to the selection of statistical techniques are discussed which includes objectives and focus of the analysis, sample type and size, the level of measurement and the distribution pattern of the data. Procedures and assumptions related to the use of univariate (descriptive statistics), bivariate (univariate ANOVA) and multivariate (factor

analysis, multivariate ANOVA and multiple linear regressions) techniques are discussed briefly.

Chapter six and seven presents the discussion on the data analysis and observed findings. To reduce the dimensionality of religiosity, information sources and shopping orientation variables, factor analysis is employed. Principal components with varimax rotation is employed to (1) summarise the important information in the data into a smaller set of factors of newly correlated composite dimensions to express what is common among the original items and (2) to generate component scores for entry to subsequent analysis. On the basis eigenvalues and meaningfulness of the interpretation of the resulting factors, from each set of items numbers of factors are determined. On the basis of analysis, four factors of religiosity are extracted, labelled cognitive religiosity, behavioural religiosity, consequential religiosity and experiential religiosity. In addition, six factors representing shopping orientation (i.e. Impulsive and Fashion Conscious, Recreational Shoppers, Price Conscious and Brand Loyal Shoppers, Convenience Seeker, Shopping Enjoyment and Brand conscious Shopper) and two factors representing information sources (i.e. media and personal) are extracted respectively.

Three sets of hypothesis are developed which are tested using multivariate analysis of variance (MANOVA) followed by univariate ANOVA when MANOVA is significant. The first set of hypotheses is related with the determination of whether consumer's affiliations to different religions (Hinduism, Islam, Jainism and Christianity) have differential effect on information source, and shopping orientation. Whether consumers with different levels of religiosity (low, medium, and high) behaved differently in areas of information source, and shopping orientation would be the second set of hypothesis. The third set of hypothesis is related with whether the level of consumer religiosity is impacted by their demographic profile and their religious affiliation.

In chapter seven, the remaining set of hypotheses are tested to examine whether religious variables as predictors variables have an impact on shopping orientation and information sources as a predicted variables relative to other personal characteristic variables. Hypothesis H4 specified that holding all other predictors constant, there is a significant

impact of religious affiliation on information sources and shopping orientations. Hypothesis H5 postulated that holding all other predictors constant, there is a significant impact of consumer religiosity on information sources and shopping orientations. Eight stepwise multiple linear regressions are performed to test these hypotheses. The results of hypotheses testing are presented in the Table 8.1.

TABLE 8.1 Results of hypotheses testing

Hypothesis	Result
There is a significant difference in the use of information source among consumers affiliated with different religions.	Accepted
There is a significant difference in shopping orientation among consumers affiliated with different religions.	Accepted
There is significant difference in use of information source among consumers with different levels of religiosity.	Accepted
There is significant difference in shopping orientation among consumers with different levels of religiosity.	Accepted
There is no Significant religious difference among consumers with different marital status.	Rejected
There is Significant religious difference among consumers with different Age.	Accepted
There is no significant difference in level of religiosity among consumers affiliated with different religious groups	Rejected
There is Significant religious difference among consumers with different Education.	Accepted
There is no Significant religious difference among consumers with different Occupation.	Accepted
There is no Significant religious difference among consumers with different area of Residence.	Accepted
There is a Significant religious difference among consumers with different Income.	Rejected
There is Significant religious difference among consumers with different Gender.	Accepted
Holding all other predictors constant, there is a significant impact of religious affiliation on use of information sources.	Accepted

Holding all other predictors constant, there is a significant impact of religious affiliation on shopping orientation.	Accepted
Holding all other predictors constant, there is a significant impact of consumer religiosity on use of information source.	Accepted
Holding all other predictors constant, there is a significant impact of consumer religiosity on shopping orientation.	Accepted

The last chapter of the thesis represents the findings of the study with contribution of the study in literature and its significance of the study from marketing perspectives. The limitations of the study and recommendations for further research in field wrap up the thesis.

8.2 Discussion of Findings

The major findings of the study are reviewed in this section. The worth of religious affiliation and religiosity in explaining consumer behaviour is evaluated by making comparison of research findings with previous research of similar nature. If some hypotheses are not supported, efforts are made to explore the reason for the same.

8.2.1 Religious Affiliation

In this study it is hypothesized that the use of information source and shopping orientation of consumers differs based on their religious affiliation based on existing lines of discussion in consumer behaviour literature. Hinduism, Islam, Jainism and Christianity are the four religious categories used in this study. The result of the data analysis shows that there is a difference in the use of information sources and shopping orientation of consumers based on their religious affiliation.

USE OF INFORMATION SOURCES: The people of the Islamic faith, as compared to their Hindu counterparts, are reported to use more media information source.

The findings of this study cannot be directly compared with previous research in the field but in the broad sense the findings appears consistent with the study of Hirschman (1981)

and McDaniel and Burnett's (1991) who have investigated the relationship between use of information sources and religious affiliation.

SHOPPING ORIENTATION: The people of the Islamic faith, as compared to Hindu and Jain, are found to be more impulsive and fashion conscious, recreational, price conscious and brand loyal and enjoying shopping. Muslims are also more convenience seeker than Hindu and brand conscious than Hindu, Jain and Christian. One possible rationale for the statistical distinction between Muslims and the other three religious adherents is that, Islam has not evolved significantly with modernity. The ardent believers of Islam still follows their traditional beliefs and values, even though the other religions have reassigned these priorities in line with the modern ways of living and lifestyles.

The results of this study reveal that consumer affiliation to a particular religion has some effects on consumer behaviour. The groups found to differ significantly on information sources and shopping orientation based on their religious affiliation which indicates the explanatory power of religious affiliation in explaining differences in these aspects of consumer behaviour.

If we churn the literature in this field, it is found that the previous studies examining the effect of religious affiliation on consumer behaviour were in the context of similarities and differences in consumption-related activities between consumers raised in different religious traditions. The findings in this research area reveal that several consumption related behaviour are impacted by consumer religious affiliation. Explicitly, researchers have two opposing views with regards to the role of religious affiliation in determining consumer behaviour.

One the one end, researcher believed that there exist behaviour differences among the consumers affiliated to different religion. (Hirschman 1983; Bailey and Sood 1993; Essoo and Dibb 2004, Waller and Erdogan (2004), Siala, O'Keefe and Hone (2004)). On the other hand there is an opposing view of the researcher and they believe that consumer behaviour is affected on a limited scale or even insignificantly affected by their religious affiliation. (McDaniel and Burnett 1990). On concluding remarks, the findings of this research study appear consistent with the literature – in general, religious affiliations have paramount impact on consumer behaviour.

It is not surprising that the result of this study produce supportive patterns for the effect of religious affiliation on consumer behaviour because of the cultural environment of the study. The study is first of its kind in Gujarat because most other studies reported in the current literature have been conducted among North Americans who are predominantly Jews, Catholics or Protestants. Thus, significance in the findings of the study indicate that it is possible to generalised the previous findings in religious segments of Gujarat.

8.2.2 Religiosity

The purpose of second set of hypotheses is to test the influence of religiosity on the use of information sources and shopping orientation. It is believed that religiosity is a multi-dimensional concept and accordingly four factors of religiosity are identified: "Cognitive religiosity," Behaviour religiosity", experiential religiosity" and "consequential religiosity."

USE OF INFORMATION SOURCES: The results of study indicate that consumers use of information sources significantly differ with different levels of religiosity. It is found that experiential religiosity is associated to media sources of information (i.e. television, magazine and newspaper advertising) i.e those who are low on experiential religiosity are found to use more of media information sources.

Since it is not possible to compare the results directly with previous study but in general results are consistent with the findings of Delener (1989) and Choi, Kale and Shin (2010) while contrary to Mokhlis (2006), Hirschman (1981) and McDaniel and Burnett's (1991) who found that those who are religious, searches less for external information. The reason for more use of media sources by religious people may be because of their submissive and trusting attitudes, as it is mention in the literature of psychology (Tate and Miller 1971; Hamby 1973; Kahoe 1974). Another reason that could be stressed here may be because of less secure and self-confident feelings among highly religious people due to higher perceived risk in purchase decision (Gentry et al. 1988; Delener 1990b; Smith and Frankenberger 1991; Smith et al. 2005). One more explanation might be given by use of

perceived risk theory which states that to reduce the risk and uncertainty in purchase decision, consumer acquire more market information (Schiffman and Kanuk 1991).

SHOPPING ORIENTATION: Another finding of this study suggests that shopping orientation varies with different level of religiosity. Three dimensions of religiosity (Cognitive religiosity," Behaviour religiosity", and "consequential religiosity) are found significant in predicting certain shopping orientation of consumers.

Cognitive Religiosity

- Respondents with a high level of cognitive religiosity appeared to exhibit high price conscious and brand loyal than low level of cognitive religiosity.

Behavioural Religiosity

- Respondents with a high level of religiosity appeared to exhibit high price conscious and brand loyal than low and medium level

- Respondents with a high level of religiosity appeared to exhibit convenience seeker than low and medium level

- Respondents with a high level of religiosity appeared to exhibit shopping enjoyment more than low and medium level

- Respondents with a high level of religiosity appeared to be more brand conscious than low and medium level and medium are more than low

Consequential Religiosity

- Respondents with a high level of religiosity appeared to be more impulsive and fashion conscious than low and medium level are more than low.

- Respondents with a high level of religiosity appeared to be more brand conscious than low and medium level.

Again, it is not possible to do direct comparison of this finding to those previous studies because of differences in context and measurement devices employed. In general, however, the findings of this study extend the view point that there exist differences in the shopping orientations of consumers based on their level of religiosity. The findings of this study shows consistency with results obtained by Mokhlis (2006), Shin et. al. (2011), Smith and Frankenberger (1991), Sood and Nasu (1995), Essoo and Dibb (2004) , Rahadian (2008) in their study.

In particular, the results of a positive relationship between religiosity and price conscious orientation obtained in this study is consistent with the work of Smith and Frankenberger (1991) who have found the similar results in their study. The results of this study are also supported by the recent work of Sood and Nasu (1995), Essoo and Dibb (2004) and Mokhlis (2009) who have investigated those religious consumers are more economic.

The present study also indicates that those high in religiosity (behavioural and consequential religiosity) tend to be more impulsive when making purchase decision and this finding is contrary to psychological which suggest that highly religious individuals tend to behave in a relatively more mature, disciplined and responsible manner (Hamby 1973; Wiebe and Fleck 1980; Francis and Bourke 2003).

Also the results indicate that more religious consumers are more brand loyal, brand conscious and convenience seeker when they take purchase decision. The possible reason for this is due to conservative and traditional nature of religious individuals which results in lower risk tolerance (Delener 1990a) and preference for well established brands (Wilkes et al. 1986).

The result also indicate that more religious consumers are more brand and fashion conscious and it is because of commitment to religious group, they hold a strong social value and are more susceptible to normative influences as a result of their regular interaction with others affiliated with the same religious organisation. These influences may have created greater awareness in brand and fashion. Both orientations reflect a social/hedonistic approach to shopping because they share an underlying social motivation for consumption (Shim 1996).

The research outcome of the study makes it clear that religiosity has enough potential as an explanatory construct of consumer behaviour. Religiosity appears as a significant determinant of consumer behaviour despite small sample size used earlier which suggest that one's intensity of belief or commitment to his/ her religion results in differences in

behavioural pattern. The level of religious commitment results in differences in personality trait which becomes a cause of the observed variation in consumer behaviour.

Religious and non-religious or less religious people differs on the basis of value system.(Rokeach 1969) . There is a difference in the codes of behaviour between devout and casually religious individuals regardless of religious affiliation. Those who are committed to their religion or are religious may feel obligated to behave in a manner that does not contradict their religious faith or the expectation of other members of religious organisation and I tis in blunt contrast with those who are less religious. Because they have less strong religious belief, they might feel agile by the religious ideologies and thus free to behave in other ways. This difference levels in the degree of religiosity is seen to determine cognitive, behavioural, experiential and consequential differences in individuals' consumer behaviour across the four sample groups.

The result of this study provides additional support to the findings of earlier studies that level of religiosity influences consumers consumption activities considerably which envisages that religiosity is part of personal traits that have significant impact on consumers' purchasing behaviour (Wilkes et al. 1986; McDaniel and Burnett 1990; Smith and Frankenberger 1991; Delener 1994; Sood and Nasu 1995; Siguaw and Simpson 1997; Essoo and Dibb 2004). The consistency in the findings of present and the previous study further suggests that the religious effects on consumer behaviour are replicable across different cultural settings (i.e. Western and Eastern worlds) and religions (i.e. Judeo-Christian and non-Judeo-Christian).

8.2.3 Consumer demography and religiosity

The third set of hypotheses tested to determine the influence of demographic factors on religiosity. The religiosity construct is viewed from a multidimensional approach and accordingly four factors of religiosity are identified: "Cognitive religiosity," Behaviour religiosity", experiential religiosity" and "consequential religiosity."

The findings suggest that

1. For behavioural and consequential religiosity, married are more religious than single.

2. Age is positively associated with Cognitive, behavioural and consequential religiosity that is level of religiosity would increase as the person age would get increased. The results are consistent with Smith and Frankenberger (1991) reported that the level of religiosity is positively related to age and Argue, Johnsont, & Whitet (1999) who have investigated non-linear increase in religiosity with age, with the greatest increase occurring between ages 18 and 30. It is also found a significant decline in religiosity between 1980 and 1988. The age effect is significantly stronger for Catholics than Protestants and the lower religiosity of males is also significantly stronger for Catholics.

3. Behaviourally HSC/SSC educated are more religious than illiterate and graduate/post graduate while on experientially religiosity, illiterate are less religious than School upto 9th standards, SSC/HSC, some college including diploma but not college, graduate/postgraduate (professional). Results support previous findings of Barro and McCleary (2002) , Sacerdote and Glaeser (2002), Iannaccone (1998) and Sacerdote and Glaeser (2002), while contrary to Mukhopadhyay (2009).

4. Religious differences are found in gender with male are more behaviourally religious than female. The findings are consistent with Loewenthal K. M. (2002) while contrary to Frankenberger (1991) and Miller & Stark (2002)

5. Level of religiosity is not associated with income which is contrary to the earlier findings of Herzer & Strulik (2013) who states that higher income leads to declining religiosity and declining religiosity leads to higher income.

6. Religiosity is not associated with occupation, area of residence.

8.2.4 Religious affiliation and Religiosity

The level of religiosity is found to be different for different religious group. Over all Muslims are more religious than Hindu, Jain and Christian. For cognitive religiosity, Muslims are found to be more religious than Hindu, for behavioural religiosity Hindus are

found to be less religious than Muslim and Christian and on consequential religiosity, Muslims are found to be more religious than Hindu and Jain.

8.2.5 Prediction of shopping orientation and information sources

To understand the dynamism of relationships between the four religious dimensions and shopping orientation and information sources, additional analysis is conducted using multiple regression analysis. Demographic variables are enters as covariates in the regression models to understand differences because of these personal attributes. There is no research hypothesis constructed to study the relative influences of personal variables on shopping orientation and use of information sources because they are beyond the scope of this thesis. While establishing the relationship among the variables of interest, demographic variables are taken as extraneous or controlled variables.

Personal characteristics (i.e Religion, Religiosity and Demographic variables) are entered to predict two factors of information sources. Three religiosity variables (experiential religiosity, Behavioural religiosity and consequential religiosity) and one religious affiliation variable (Christianity) and eight demographic variables (marital status, education, occupation, area of residence and income) are found to significantly predicted media information. The adjusted R^2 is 0.166 at a 0.001 significance level.

On personal information, the significant predictors are the one religiosity dimensions (consequential religiosity) and one religious affiliation variable (Christianity). One of the demographic variables (Marital Status) is found to be related to personal information. The adjusted R^2 for personal information is 0.044 at a 0.001 significance level.

Personal characteristic variables are entered into the regression model to predict six shopping orientation factors identified from the factor analysis. The adjusted R^2 ranged from 0.111 to 0.160 at a 0.001 significance level.

Three Religiosity variables are significantly associated with impulsive and fashion conscious shopper, namely experiential religiosity, Behavioural religiosity and consequential religiosity; the last two having positive signs and the first one negative.

Demographic factors (education, area of residence, income and marital status) and religious affiliation had significant impact.

Recreational shopper is predicted by two religiosity variables, namely consequential and cognitive religiosity, religious affiliation and four demographic variables, namely area of residence, education, income and occupation.

Price conscious and brand loyal orientation is predicted by two religiosity variables, namely experiential and consequential religiosity, religious affiliation and three demographic variables, namely area of residence, education and income.

On convenience seeker, significant predictor variables are three religiosity variables namely behavioural, consequential and experiential religiosity, religious affiliation, income, age, education and area of residence.

Shopping enjoyment is predicted by three religiosity variables namely cognitive, , experiential and behavioural religiosity, religious affiliation, occupation, income and education.

On brand conscious shopper, significant predictor variables are two religiosity variables namely behavioural and consequential religiosity, religious affiliation, age and area of residence.

Overall, all three sets of personal characteristic variables appear to affect shopping orientation factors. Of four religiosity variables, consequential religiosity appears to be most significant in predicting shopping orientations except shopping enjoyment. It affects five shopping orientation factors. The findings also suggest that certain shopping orientation constructs are more closely linked with the degree of religiosity than other shopping orientation constructs. Specifically, three shopping orientation factors, namely recreational shopper, price conscious and brand loyal shopper, convenience seeker and shopping enjoyment are found to be significantly influenced by religiosity. Religious

affiliation had significant impact on impulsive and fashion conscious shopper, price conscious and brand loyal shopper and brand conscious shopper.

Considering the data analysis results, the following observations are drawn:

1. Religious affiliation, after controlling for the effect of other predictor variables, has an influence on prediction of information sources (media and personal) and five shopping orientation namely impulsive and fashion conscious shopper, price conscious and brand loyal shopper, convenience seeker, shopping enjoyment and brand conscious shopper

2. consequential religiosity, after controlling for the effects of other predictor variables, has an influence on information source (media and personal), shopping orientation (impulsive and fashion conscious shopper, recreational shopper, price conscious and brand loyal shopper, shopping enjoyment and brand conscious shopper).

3. Consequential religiosity is the strongest predictor of recreational shopper and personal information source.

4. Behavioural religiosity, when controlling for the effects of other predictor variables, has an influence on information source (media), shopping orientation (impulsive and fashion conscious shopper, price conscious and brand loyal shopper, convenience seeker, shopping enjoyment and brand conscious shopper) .

5. Behavioural religiosity is the strongest predictor of price conscious and brand loyal shopper, convenience seeker and brand conscious shopper

6. Experiential religiosity, when controlling for the effects of other predictor variables, has an influence on information source (media), shopping orientation (impulsive and fashion conscious shopper, convenience seeker and shopping enjoyment) .

7. Experiential religiosity is the strongest predictor of shopping enjoyment.

8. Cognitive religiosity, when controlling for the effects of other predictor variables, has an influence on shopping orientation (recreational shopper and shopping enjoyment).

9. Cognitive religiosity is the strongest predictor of shopping enjoyment.

Coefficient of Multiple Determinations (R^2): The coefficient of multiple determination (R^2) gained from the regression analysis is presented in Table 8.2. From the table, it can be seen that the value of R^2 for some regression equations are relatively low. According to Duncan (1995), to validate the statistical results, instead of focusing the overall explanatory power of the independent variables, it is also important to understand the

underlying factors that contribute to the low variance accounted for by the independent variables (p. 65).

TABLE 8.2 Coefficient of multiple determination (R^2)

Criterion	Predictor	R^2	Adj. R^2
Information Source	Media	0.181	0.166
	Personal	0.049	0.044
Shopping orientation	Impulsive and Fashion Conscious Shopper	0.172	0.16
	Recreational Shopper	0.117	0.111
	Price conscious and brand loyal shopper	0.131	0.121
	Convenience Seeker	0.163	0.152
	Shopping enjoyment	0.128	0.118
	brand conscious shopper	0.143	0.135

The variation in one variable due to the variation in the other variables is explained by the value of R^2 (proportion or percentage), and its value ranges from 0 to 1. The model is better fitted if the value of R^2 is closure to 1. Thus the predictive ability of the regression model or the strength of the straight-line relationship can be measured by the R^2 (Zar 1999). The statistical methodologists (Reisinger 1997; Uncles and Page 1998; Studenmund 2001; Lattin, Carroll and Green 2003) have an opinion that the goodness-of-fit for the model cannot be determined on the basis of numerical value R^2 rather, it is an indicator of explained variance relative to total variance in the dependent variable. On their discussion on applications of regression analysis, Lattin et al. (2003) stated that "there are no absolute standards for what constitutes an acceptable fit" (p. 53). Also, in the words of Studenmund (2001), "there is no simple method of determining how high R^2 must be considered satisfactory. Instead, knowing when R^2 is relatively large or small is a matter of experience" (p. 49). There are two compelling opinion for interpreting high value of $R^{2.}$ On the one end, some researchers contend that the value of R^2 needs to be very high for accurate prediction (Hair et al. 1998). On the other end, At the other extreme, some believe that proper care should be taken for validating the model on the basis of value of R^2. As convincingly defined by Lehmann, Gupta and Steckel (1998), "low R^2 means that individuals predictions cannot be made accurately, not that the results are worthless. In

fact, when using survey data, R^2 above 0.6 usually mean that either the equation is essentially tautology or that the data are incorrectly analysed" (p. 499).

Cohen (1988, p. 79-81) has given a systematic guidelines who had categorised R^2 values of 0.01, 0.09 and 0.25 in regression analysis as having small, medium and large effect size respectively. In the present study, the best regression equation "explains" approximately 16.6% of the variance in Media information source and the poorest equation involves only 4.4% of the variance for personal information sources as shown in the Table 8.2. According to Cohen (1988), these effect sizes can be classified as small to large.

It is required to pay a closer attention for the low R^2 values in some regression equations in the present study. A low R^2 value explains proportion of variance in dependent variable cause by an independent variable is low. Theoretically, it may means that there is relatively large portion of the variation in each criterion is unexplained and the independent variables considered in the regression equations may not be representative predictors of dependent variables (Hair et al. 1998). For example, the adjusted R^2 between personal characteristics and recreational shopper is 0.111 which means that the personal characteristics (predictor variables) are able to explain for only 11.1% of the variation in the recreational shopper (Predicted Variable) , leaving 88.9% of the variation unexplained. It means that there are other predicator variables other than personal characteristics that could directly or indirectly have influence on the criterion variables.

Lower value of R^2 in this study is a result of inclusion of only a small number of many possible predictors of shopping orientation. According to Peterson, Albaum and Beltramini (1985), it is common to have a lower value of R^2 in consumer behaviour studies examining limited number of variables and some of the reasons for this are well documented. For instance, in time-series, R^2s are routinely as high as 0.9 because of stable environment while the value of R^2s may fall to 0.2 where the environment is changing. A difference in the value of R^2 is also found between regression models where it is to predict individual behaviour or attitudes and those where the aim is to predict aggregate measures (sales, market shares, etc.) – the earlier model being prone to low values of R^2 (Uncles and Page 1998).

Reisinger (1997) recently conducted an empirical study on why R^2 values obtained in marketing research are relatively low. In his study, with an objective to identify various influences on the coefficient of determination (R^2) which originate in the research designs of empirical studies, he has analysed 105 regression models using OLS estimation from 44 marketing studies published in the *Journal of Marketing Research* (volumes 1992-94), the *International Journal of Research in Marketing* (volumes 1989-94) and *Marketing Letters* (volumes 1989-94). In his Meta analysis, he has invistigated data type (time-series data, cross-sectional data or pooled data), data collection method (primary or secondary) and sample size as explanatory variables. Numbers of interesting conclusions were drawn from the analyses which are presented in the following paragraph. Based on his meta-analysis, the researcher arrived at a number of interesting conclusions and these are described in the following paragraphs.

First, in cross-sectional analyses R^2 values are relatively lower than in time series analyses. In cross sectional research, the number of different (i.e. heterogeneous) objects are studied where the proportion of unexplained variance is higher than that of time series data where only one object is studied over a period of time. In addition to this, measurement level would affect the R^2 values. In marketing research time-series data involves measurement at an aggregate level (e.g. population) whereas in cross-sectional data, measurement are taken at same aggregate level but involve data at a lower level (e.g. households). As a result of aggregation, one can obtain higher R^2 values because of averaging of unexplained variance. So difference in aggregation level of time-series and cross-sectional data would be another factor that cause difference in R^2 between time-series and cross-sectional data (Reisinger 1997).

Second, R^2 values are higher in studies involving secondary data than primary data. Again the difference is attributable to level of aggregation and as such secondary data may be measured at a higher aggregation level (Reisinger 1997).

Third reason for higher value of R^2 is the number of regressors. The R^2 value for a given sample size n can be increased by adding more regressors into the linear model though

they are not practically relevant. On the basis of his empirical study, Reisinger (1997) has concluded that the larger the number of regressors in a study, the higher is R^2 value.

Fourth, values of R^2 are inversely related to sample size. As the sample size becomes larger, the unadjusted R^2 tends to decrease and vice versa.

From the findings of Reisinger's (1997), it seems clear that in marketing studies low R^2 values can be attributed to many qualitative and quantitative factors. In the present study, the linear regression analysis is based on primary, non-aggregated cross-sectional data and large sample size (over 700) which have contributed to lower R^2 values. In fact, it is common in various consumer behaviour studies to obtain low R^2 values in regression analysis which is briefly reviewed in the following paragraphs.

Shim and Kotsiopulos (1992a, 1992b) has used multiple linear regressions to study the relationships among patronage behaviour, shopping orientations, store attributes, information sources and personal characteristics. The study was on retail patronage behaviour of apparel shopping among female consumers and the study was carried out in two parts. The R^2 values obtained in the first part ranges from 0.01 to 0.2 for the regression equations estimated.

In their second part of study, they have obtained R^2 values ranging from 0.02 to 0.36 in which they have investigated the influences of non-antecedent variables on patronage behaviour and store attributes. They have defended for lower value of R^2 by arguing that there are some other important variables which are not included in the regression equation explaining the variation in the dependent variable. Clark (1992) obtained R^2 values of 0.028, 0.04 and 0.063 respectively for orthodoxy in religious beliefs, fundamentalism and cognitive religiosity in predicting sales personnel friendliness/ helpfulness in his study on relationship between certain religiosity variables and the importance placed by an individual on retail store evaluative criteria dealing with sales personnel friendliness/helpfulness.

Jasper and Lan (1992) obtained R^2 values from 0.0385 to 0.097 which are low but statistically significant in his study to examine the relative importance of consumers' lifestyle, demographic and motivational factors in catalogue shopping patronage.

Eastlick and Feinberg (1999) obtained R^2 value of 0.065 and 0.032 for functional and non-functional motives in predicting consumers' annual catalogue expenditures for clothing and sporting goods products respectively.

In a more recent study, Jin and Kim (2001) obtained R^2 value ranging from 0.01 to 0.24 in their study to examine the effects of consumers' internal shopping motives and external store attributes on excitement that shoppers may experience at discount stores in Korean markets and the mediating impact of excitement on selected behaviour outcomes. Nevertheless, all regression models in their study are significant.

Mokhlis (2006) examined the effect of religiosity on patronage behaviour and he obtained R^2 values ranging from 0.060 to 0.193.

Following points needs to be emphasised on the basis of above discussion of the present study:

1. Smaller value of R^2 indicates a small amount of variation in the regression equation due to smaller number of independent variables while there many other variables that have influence on information sources and shopping orientation.

2. Although the value of R^2 is low in regression equation, the relationship is statistically significant ($p < 0.001$) indicating overall level of goodness-of-fit as measured by the F-statistics.

3. The regression equations in the present study can be classified as small to large explanatory power according to Cohen's (1988) classification system of effect size, since the R^2 values are in the range of 0.049 to 0.181.

4. According Reisinger (1997), in a literature of marketing, there are number of factors which contribute to Low R^2s which includes the type of data, method of data collection and

sample size. In the present study, the lower value of R^2 is a result of the use of cross-sectional study, use of primary data and larger sample size (over 700).

5. Lower R^2 values are commonly found in the previous similar study of consumer behaviour literature using linear regression analysis.

8.3 Contribution to the Literature

The behaviour of the consumer is not impacted by extent to which individuals follow the teaching of their religion rather it is impacted by the religion itself. There are very limited numbers of research study focusing on religion and consumer behaviour. (Smith and Frankenberger 1991, Sood and Nasu 1995, Essoo and Dibb 2004, Mokhlis 2009). The influence of religious background on consumer shopping orientation in an integrated approach has not been studied till date. With an objective to contribute to the current literature, this study is undertaken to examine the effect of religious variables on consumer shopping orientation. Many of the preliminary findings support the literature regarding religion-consumer behaviour relationship. Further, the findings of this study contribute theoretically in many ways which is discussed in forthcoming paragraphs.

As it is indicated in the literature, the shopping orientation of consumers is influenced by variety of personal and demographics factors. Important among them are personal values, employment, family life cycle, social class, sex, education attainment, marital status, age and income (Darden 1980; Shim and Kotsiopulos 1992a). While being recognised as a subset of consumers' personal traits (Sheth 1983), religion got a very negligible attention of consumer behaviour researcher. This study is specifically important since it provides theoretical foundation to role of religion as a cultural based predicator of consumer shopping orientation in particular and consumer behaviour in general and gives support Sheth's (1983) Shopping Preference Theory.

Though the existing literature on consumer behaviour research supports the inclusion religious variable as a reliable and valid predictor in consumer behaviour, there is a little consensus on which measure (religious affiliation or religiosity) is the most efficient in explaining variation in aspects of consumer behaviour. In general, it is evident that consumer behaviour is much more obvious for religiosity than merely for religious

affiliation. It means that religiosity has a more potential as predicator and determinants of consumer behaviour in general and shopping orientation and use of information sources in particular. Thus, this study gives more attention to religiosity rather than religious affiliation which is overlooked by earlier researcher and this would be a big contribution of this study.

Another major contribution of this study is the identification of religiosity dimensions. Though the past researcher agreed that the religiosity is a multidimensional concept, there is no consensus among researcher for the exact number of religious dimensions to be used. A multi item scale is prepared to measure the religious level of individual by giving a close attention to various aspects of religiosity. Factor analysis reveals the four dimensions of religiosity namely cognitive, experiential, consequential and behavioural religiosity. Since consumer decision-making process revolves around the concept of cognitive, experiential, consequential and behavioral (Schiffman and Kanuk 1991; Loudon and Dilla-Bitta 1993; Engel et al. 1995; Mowen and Minor 1998; Hawkins et al. 2001; Solomon 2002; Arnould et al. 2004), these four dimensions of religiosity are of special importance in understanding various aspect of consumer behavour. Also these four dimensions produce differential effects on certain aspect of consumer behaviour. For instance, consumers' uses of information from media sources are influenced by experiential, consequential and behavioral (cognitive dimension) while consumers' uses of information from personal sources are influenced by consequential religiosity. The implication is that, in order to obtain more elaborate finding, future research effort should explore the effects of religiosity from these four perspectives rather than treating religiosity as one composite dimension.

In addition, the thesis is unique because of the relative newness of the religiosity measure used. Since the previous research in this field reveal the use of intrinsic-extrinsic measure of religiosity or interpersonal (behavioural) religiosity and intrapersonal (Cognitive) religiosity measure, this research lays new foundation to measure religiosity on more than two measures. The reliability tests performed on the four components of the scale, experiential, cognitive, behavioural, and consequential revealed a high degree of internal consistency with alpha coefficients of 0.726, 0.693, 0.616 and 0.6 respectively. In an initial

research effort the scale is acceptable although a higher alpha level would be more preferred. In this study the degree of religiosity of four different religious groups is measured using this scale which had not previously been measured using this scale. Thus, those who want to study non-Judeo Christian respondents, particularly in the non-Western culture, can probably use this scale.

Unlike the previous study where expensive, high involvement items such as automobile and microwave oven (Delener 1989, 1990a, 1990b, 1994), radio (Bailey and Sood 1993; Rodriguez 1993; Sood and Nasu 1995) and television set (Essoo and Dibb 2004) , in this study to examine the religious influences on shopping orientation of consumers, shopping for clothes is used as a product. Although the findings of this study cannot be generalised for the other product category, it can widen knowledge base by providing evidence that religious influences are not limited only to the purchase of expensive and high involvement products but also to include clothing which represents the value-expressive and high purchase frequency product class.

Finally, previous studies on religious influence on consumer behaviour were limited to the Western Judeo-Christian cultures where Jews, Protestants and Catholics are predominant in its society. The research investigating this issue is underrepresented in other countries with different socio-cultural milieus. This research extends a current body of literature by establishing the link between religion and consumer behaviour in a totally different cultural framework – Gujarat. This research is first of its kind in which religious influences on consumer behaviour is investigated in Gujarat and to the best of researcher knowledge, there is no evidence of such research in the context of Gujarat culture.

8.4 Managerial Implications

To craft a target market strategy to address the diverse need set of consumers across different culture is most fundamental problem or a marketing dilemma of a many marketers. Since market consists of culturally diverse consumers, it cannot be assumed homogeneous and it calls for different ways to approach these consumers. Though marketer can standardised its marketing strategy by focusing common needs of the

consumer, the significant impact of cultural influences on consumer behaviour cannot be overlooked.

This study investigates the role of religion in understanding consumer behaviour as an element of culture. Along with the findings earlier research (Bailey and Sood 1993; Sood and Nasu 1995; Essoo and Dibb 2004) the result of this study advocates that the religious beliefs and commitment have profound impact on consumer behaviour. Instead of considering religion as correlate of item purchasing, a smart marketer can use it as a predicator of consumer behaviour and get benefited by understanding their consumers in a more precise manner. The marketing implications of this study are discussed in the following paragraphs.

The findings of the present study provide insights to the marketer for the development of market segmentation strategies. Differences in consumer behaviour due to the differences in religious values provide insights for the development of segmentation strategies at the strategic level. The effectiveness of segmentation strategies is based on choice of a segmentation base. The findings of this study indicate that a marketer can use religion or religiosity as a base to segment its market. To formulate the marketing strategies on the basis of religious values would be more appropriate when consumer behaviour differs because of religious adherence or intensity of religious belief.

Religious construct affect product planning, distribution and pricing strategies of marketer apart from its profound effect on marketing communication strategies. Marketing communication strategies could better be developed by knowing the large market segment preferences which results into enhanced consumer values. This knowledge would also serves as a base for the development of more precise content of the message and appeal. Those who are religious search for information more actively than none or less religious counterpart which indicates higher amount of promotion materials should be available to them.

The advertising message should be personalised according to religious values of the target audience to get positive emotional response. Religious people prefer to have a message that

could not contradict their religious beliefs. Also the marketer can predict the media habits of target market on the basis of their religious belief and can target those media than can have maximum reach to these people.

8.5 Limitations of the Study

While assessing the reliability and practicality of the research findings, the certain constrains faced by the researcher needs to be taken into account. Instead of disapproving the findings of this study, to provide insights for and strengthening further study in this research area, the limitations of this study are discussed in the followings paragraphs.

Since this is a cross sectional study and no experimental research is conducted, causality of the relationships in the results can be concluded on the basis of this study. Since this is an exploratory research, attempts are made to discover associations between religion and some aspects of consumer behaviour. In fact, the findings of this study correlation based rather than causality. The acknowledged associations should be understood as initial evidence rather than as a conclusive demonstration that such causal relationships exist. To provide consistent evidence for verification of the linkages, more theory-driven studies and this stream of research are necessary to understand differences in consumer behaviour due religious cultures.

The second limitation of this research is measurement error that occurs in any survey base research due to the respondent's ability to accurately report their level of agreement with the survey statements.

Another limitation of the research is ability to generalised research findings beyond the sample size used and geographical boundaries of Gujarat. The sample selected for this study belongs to Gujarat region and the difference in the demographic characteristics of sample and population of Gujarat might limit the generalization of these research findings to the Gujarati population as a whole and to other less or more developed countries.

Sample size is another limitation that makes the findings of this research less relevant. Due to the time and cost constrains, the sample size in this study is relatively small compared to

population. But for drawing preliminary conclusions about the impact of religion on consumer behaviour the sample size included is thought to be reasonably acceptable in Gujarat due to the exploratory nature of this study.

In the present study, apparel product category is used to investigate the religious influences on consumer shopping orientation, the findings cannot be generalised beyond this product category. Even in the present study, no specific apparel product category is used, the findings cannot be generalised to specific clothing categories (e.g. sportswear, activewear, undergarment). While shopping for clothing has been the focus of a number of other studies (e.g. Shim and Kotsiopulos 1992a, 1992b; 1993; Md. Zain and Jabri 1996), there is evidence that different results may be obtained with different categories of purchase (Kim and Kang 2001).

Finally, sensitivity of measurement construct and the self-reported nature of data collection could have been introduced bias in the data. So to overcome this problem, It is recommended that data collection that uses self-administered method should be explored in future research.

The researcher has the opinion that the preliminary findings of this research might generate greater interest in this field and might strengthen future research despite all of the above limitations. If the methodological constrains are overcome, the findings of this research presents prolific research opportunity in this field.

8.6 Recommendations for Future Research

The role of religion in shaping attitudes and values and determining consumer behaviour is apparent. This research provides further insights on religion and consumer behaviour despite its methodological limitations. Of course, there is a need for improvement and directions in several areas that the future research should take into consideration for expanding existing horizons of knowledge in this field of research.

This study is basically exploratory in nature (even though they are analysed quantitatively) and the results and findings derived are tentative rather than conclusive or bindings. It implies that more studies are required to validate the results further and this require the inclusion of consumers having diverse demographic profile (e.g. rural and urban consumers, different religions) as these variables provide insights into shopping, based on the present findings.

It is recommended that future research should focus to study the differences in shopping behaviour of consumers of same religious denomination in the same national culture. The future research should focus on differences in shopping behaviours between devout and casually religious people in Gujarat, influence of religious values on shopping orientations between consumers in Gujarat and other state of India. In addition, other aspects of consumer behaviour should also be considered in future research such as retail patronage behaviour, ethical behaviour of consumers, the religious influences on online shopping orientation and website evaluative criteria etc. The results reported in the previous research would get new dimensions by further research and thereby giving more insights to the marketers about shopping habit of religious consumers.

In the present study, shopping for clothing is used to study consumer shopping orientation. To confirm whether similar pattern of results are found for other shopping items such as electronic or automobiles, further research is required. Further this study should be extended to other apparel product category.

In the present study it is found that the value of R^2 for regression model is small indicating that there are other predicator variables which influence the variation in dependent variables. Future research should take into account these variables for making the regression equation more precise and predictive. Qualitative research could help identify such factors.

Since religious values or beliefs are personal in nature, it looks impractical to solely rely on quantitative data. Because of that to get the proper insights and precise conception of consumer religious beliefs, values, ideas and motivation, qualitative research method such as such as depth interview should be employed in future research endeavor. Qualitative

research is particularly more viable as a predecessor to or to complement to quantitative research since we have very less number of evidences establishing the link between religion and consumer behaviour. It is also in confirmation to the view of Tashakkori and Teddlie (1998) who has the opinion that use of methodological triangulation in future research, disadvantages of using both research method in isolation could be minimized.

8.7 Summary

The last chapter of this study has covered the discussion on the major findings of this study along with the significance of the study from marketing and managerial point of view as well as its limitation and scope for further research in this field.

Being an important element of one's cognitive world, Religion represents individual's perception and understanding of himself, of significant others and of the objects and behaviours which constitute his psychological environment. Because of this reason one cannot underestimate the role of religion as an explanatory construct in explaining human behaviour.

Religion as subculture has been explored very less though it has relevance in understanding human behaviour in general and particularly in understanding consumption behaviour. Because of this negligence, it is not found to be well assimilated in marketing theory and practices. By way of this study, researcher does an attempt to explore the role of religion in determining consumer behaviour. This study has investigated interesting findings on the effects religious values on consumer shopping orientation. In this study, respondents surveyed are from four major religions practiced in Gujarat and it is found that religious value are related to the use of information sources and shopping orientation of consumers which supports the findings of an earlier research to include religious values as a construct in an examination of consumer behaviour.

The close examination of religious diversity of Gujarat is the starting point of this research. This study will improve understanding of religious influences on consumer shopping orientation as a normative aspect while market behaviour as a social symbolic aspect

which are neglected by consumer behaviour researcher by and large. By the conduct of this research, existing body of knowledge in this field would be extended and it also provides sense and motivation for further research in the subject area. To validate the research findings of the present study and its wider acceptability, further future research is required to gain more precise insights of religious influences on consumer choices and purchase activities.

List of References

- Ackennan, D. and Tellis, G. (2001). Can culture affect prices? A cross-cultural study of shopping and retail prices. *Journal of Retailing* 77 (1): 57-82

- Ackroyd, S. and Hughes, J. (1992). *Data Collection in Context*. London: Longman

- Afifi, A. A. and Clark, V. (1996). *Computer-Aided Multivariate Analysis*, 3rd ed. London: Chapman & Hall

- Allison, P. D. (1999). *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge Press

- Allport, G. and Ross, J. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology* 2: 423-443

- Andaleeb, S. S. (1993). Religious affiliations and consumer behavior: an examination of hospitals. *Journal of Health Care Marketing* 13 (4): 42-49

- Argue A., Johnson D.R and White L.K (1999, September). Age and Religiosity: Evidence from a Three-'Wave Panel Analysis. *Journal for the scientific study of Religion, 38(3)*, 423-435.

- Argyle, M. (2000) *Psychology and Religion*. Oxford, UK: Routledge.

- Argyle, M. and Beit-Hallahmi, B. (eds.) (1975). *The Social Psychology of Religion*. London,UK: Routledge.

- Armstrong, K. (2001). *The Battle for God: A History of Fundamentalism*. New York: Ballantine Books

- Arnould, E., Price, L. and Zikhan, G. (2004). *Consumers*, 2nd ed. New York: McGraw-Hill

- Assael, H. (1992*). Consumer Behaviour and Marketing Action*, 4th ed. Boston: PWAKent

- Ateeq-ur-Rehman, Muhammad Shahbaz Shabbir (2010). The relationship between religiosity and new product adoption. *Journal of Islamic Marketing Vol. 1 No. 1*, pp. 63-69

- Babbie, E. (1992). *The Practice of Social Research*, 6th ed. Belmont, CA: Wadsworth Inc.

- Babbie, E. R. (1982). *Social Research for Consumers*. Belmont, CA: Wadsworth Publishing Co.

- Bailey, J. M. and Sood, J. (1993). The effect of religious affiliation on consumer behavior: a preliminary investigation. *Journal of Managerial Issues* 5 (3): 328-352

- Baker, M. J. (2001). Selecting a research methodology. *The Marketing Review* 1 (3): 373-397

- Bakewell Cathy and Mitchell Vincent-Wayne (2003). Generation Y Female consumer Decision making Styles. International Journal of Retail and Distribution Management 31 (2): 95-106

- Barro, R. and R. McCleary (2002) 'Religion and Political Economy in an International Panel,'NBER Working Paper Number: 8931.

- Bearden, W. O. and Netemeyer, R. G. (1999). *Handbook of Marketing Scales*, 2nd ed. Thousand Oaks: Sage Publications

- Belk, R. W. (1992). Moving possessions: an analysis based on personal documents from the 1847-1869 Mormon migration. *Journal of Consumer Research* 19 (3): 339-361

- Belk, R. W. and Coon, G. S. (1991). Can't buy me love: dating, money and gifts. *Advances in Consumer Research* 18, Association for Consumer Research: 1-7

- Bellenger, D N and Korgaonkar, P (1980). "Profiling the Recreational Shopper". *Journal of Retailing* 56 (3): 77-92.

- Bellenger, D. and Moschis, G. P. (1981). A socialization model of retail patronage. *Advances in Consumer Research* 9: 373-378

- Belsley, D. A. (1991). *Conditioning Diagnostics: Collinearity and Weak Data in Regression*. New York: Wiley

- Belzen, J. A. (1999). The cultural psychological approach to religion: contemporary, debates on the object of the discipline. *Theory & Psychology* 9 (2): 229-255

- Bergan, A. (2001). Religiosity and life satisfaction. *Activities, Adaptation & Aging* 24 (3): 23-34

- Berkman, H. W., Lindquist, J. D. and Sirgy, M. J. (1997). *Consumer Behavior*. Chicago, IL: NTC Publishing Group

- Black, T. R. (1999). *Doing Quantitative Research in the Social Sciences: An Integrated Approach to Research Design Measurement and Statistics*. London: Sage

- Blaikie, N. (2003). *Analysing Quantitative Data*. London: Sage Publications

- Bowen, J. R. (1998). *Religions in Practice: An Approach to the Anthropology of Religion*. Boston: Allyn & Bacon

- Brañas Garza, P. and Neuman S.(2003) 'Analysing Religiosity within an Economic Framework: The case of Spanish Catholics,' IZA Discussion Paper, Number 868.

- Bristow, D. N. and Asquith, J. A. (1999). What's in a name? an intercultural investigation of Hispanic and Anglo consumer preferences and the importance of brand name. *Journal of Product & Brand Management* 8 (3): 185-203

- Brown, M., Pope, N. and Voges, K. (2001). Buying or browsing? An exploration of shopping orientations and online purchase intention. *European Journal of Marketing* 37 (11/12): 1666-1684

- Brown, S. and Taylor, K. (2003, November). Religion and Education:. Leicester: Department of Economics, University of Leicester.

- Brown, Timothy Tyler (2009). Rational praying: The economics of prayer. *The Journal of Socio-Economics*, *38*(1), 37-44.

- Bryman, A. (2001). *Social Research Methods*. Oxford: Oxford University Press

- Bryman, A. and Cramer, D. (2001). *Quantitative Data Analysis with SPSS Release 10: A Guide for Social Scientists*. Hove, England: Routledge

- Burgess, S. M. and Steenkamp, J. E. M. (1999). Value priorities and consumer behaviour in a transitional economy. In R. Batra (ed.), *Marketing Issues in TransitionalEconomies*. Boston: Kluwer Academic Publishers

- Burns, R. B. (2000). *Introduction to Research Methods*, 4th ed. London: Sage Publications

- Burton, D. (2000). Design issues in survey research. In D. Burton (ed.), *Research Training for Social Scientists*. London: Sage Publications

- Cardwell, J. D. (1980). *The social context of religiosity.* Lanham, MD: University Press of America.

- Carpenter, J. M. and Moore, M. (2005). Consumer preferences for retail formats: implications for tenant mix strategies. *Journal of Shopping Center Research* 12 (1): 1-21

- Carson, D., Gilmore, A., Perry. C. and Gronhaug, K. (2001). *Qualitative Marketing Research*. London: Sage

- Cateora, P. A. and Graham, J. L. (1999). *International Marketing*, 10th ed. Boston: Irwin/McGraw-Hill

- Cheron, E. and Hayashi, H. (2001). The effect of respondents' nationality and familiarity with a product category on the importance of product attributes in consumer choice: globalisation and the evaluation of domestic and foreign products. *Japanese Psychological Research* 43 (4): 183-194

- Chisnall, P. M. (1997). *Marketing Research*, 5th ed. London: McGraw-Hill

- Choi Y. (2010). Religion, religiosity, and South Korean consumer switching behaviour. *Journal of Consumer Behaviour*. 9: 157–171 (2010)

- Choi Y., Kale R. and Shin J. (2010). Religiosity and consumers' use of product information source among Korean consumers: an exploratory research. *International Journal of Consumer Studies,* 61–68

- Chudry, F. and Pallister, J. (2002). The importance of ethnicity as a segmentation criterion: The case of the Pakistani consumers' attitude towards direct mail compared with the indigenous population. *Journal of Consumer Behaviour* 2 (2): 125-137

- Chung, Y. S. (1998). Culture and consumption expenditure patterns: comparison between Korean and United States households. *Journal of Consumer Studies and Home Economics* 22 (1): 39-50

- Churchill, G. A. (1995). *Marketing Research: Methodological Foundations*, 6th ed.Texas: The Dryden Press

- Clark, J. W. (1992). Personal religiousness and retail store evaluative criteria. In Robert L. King (ed.), *Proceedings of the Annual Meeting of the Southern Marketing Association*: 102-105

- Clarke, P. B. and Byrne, P. (1993). *Religion Defined and Explained*. London: MacMillan Press Ltd.

- Coakes, S. J. and Steed, L. G. (2001). *SPSS Analysis without Anguish*. Wiley Chichester

- Cohen, B. H. (2001). *Explaining Psychological Statistics*, 2nd ed. New York: Wiley

- Cohen, J. (1988). *Statistical Power Analysis*, 2nd ed. Hillsdale, NJ: Erlbaum Associates

- Cohen, J. and Cohen, P. (1983). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. Hillsdale, NJ: Erlbaum Associates

- Cohen, L. and Manion, L. (1994). *Research Methods in Education*, 4th ed. London: Routledge

- Comrey, A. L. and Lee, H. B. (1992). *A First Course in Factor Analysis*, 2nd ed. Hillsdale, NJ: Erlbaum

- Cooper, D. R. and Emory, C. W. (1995). *Business Research Methods*, 5th ed. Chicago: Irwin

- Cowan, C. D. (1990). Why statisticians need their probabilities - getting into regression. *Marketing Research*, December: 65-68

- Cowan, C. D. (1990). Why statisticians need their probabilities - getting into regression. *Marketing Research*, December: 65-68

- Cramer, D. and Howitt, D. (2004). *The SAGE Dictionary of Statistics*. London: Sage Publications Ltd.

- Creswell, J. W. (1994). *Research Design: Qualitative & Quantitative Approaches*. Thousand Oaks, CA: Sage

- Cronbach, L. J. (1990). *Essentials of Psychological Testing*, 5th ed. New York: HarperCollins Publishers

- Crystal, D. (1993). *The Cambridge Encyclopaedia*, 3rd ed. Cambridge University Press, Cambridge

- Cui, G. (1997). Marketing strategies in a multi-ethnic environment. *Journal of Marketing Theory and Practice* 5 (1): 122-134

- Cutler, B. D. (1991). Religion and marketing: important research area or a footnote in the literature? *Journal of Professional Services Marketing* 8 (1): 153-164

- Cutler, B. D. and Winans, W. A. (1999). What do religion scholars say about marketing? Perspectives from the religion literature. *Journal of Professional Services Marketing* 18 (2): 133-145

- Dancey, C. P. and Reidy, J. (2004). *Statistics without Maths for Psychology*, 3rd ed. Pearson Education Ltd.

- Darden, W R and Reynolds, F D (1971). "Shopping Orientations and Product Usage," *Journal of Marketing Research*, Vol 8, November, pp 505-508.

- Darden, W. R. (1980). A patronage model of consumer behaviour. In R. W. Stampfl and E. C. Hirschman (eds.), *Competitive Structure in Retail Markets: The Department Store Perspective*. Chicago: American Marketing Association

- Darden, W. R. (1980). A patronage model of consumer behaviour. In R. W. Stampfland E. C.

- Darden, W. R. and Howell, R. D. (1987). Socialization effects of work experience on shopping orientations. *Journal of the Academy of Marketing Science* 15 (3): 52-63

- de Mooij, M. (2004). *Consumer Behavior and Culture: Consequences for Global Marketing and Advertising*. Thousand Oaks, CA: Sage

- de Mooij, M. and Hofstede, G. (2002). Convergence and divergence in consumer behaviour: implications for international retailing. *Journal of Retailing* 78: 61-69

- de Vaus, D. (2001). *Research Design in Social Research*. London: Sage Publications

- de Vaus, D. (2002). *Surveys in Social Research*, 5th ed. London: Routledge

- Delener, N. (1987). An exploratory study of values of Catholic and Jewish subcultures: implications for consumer psychology, in *World Marketing Congress*, Proceedings of the Third Bi-Annual International Conference, Kenneth D. Bahn and M. Joseph Sirgy (eds). Barcelona, Spain: Academy of Marketing Science: 151-155

- Delener, N. (1989). Religious differences in cognitions concerning external information search and media usage, in *Marketing: Positioning for the 1990s*, Robert L. King (ed.), *Proceedings of the Annual Meeting of the Southern Marketing Association*: 64-68

- Delener, N. (1990a). The effects of religious factors on perceived risk in durable goods purchase decisions. *Journal of Consumer Marketing* 7 (3): 27-38

- Delener, N. (1990b). An examination of the religious influences as predictors of consumer innovativeness. *Journal of Midwest Marketing* 5 (Spring): 167-178

- Delener, N. (1994). Religious contrasts in consumer decision behaviour patterns: their dimensions and marketing implications. *European Journal of Marketing* 28 (5): 36-53

- Delener, N. and Schiffman, L. G. (1988). Family decision making: the impact of religious factors. In G. Frazier et al. (eds.), *Efficiency and Effectiveness in Marketing*. Chicago, IL: American Marketing Association (Summer): 80-83

- Demerath, N. J., III, & Hammond, P. E. (1969). *Religion in social context.* New York: Random House.

- Denscombe, M. (1998). *The Good Research Guide*. Buckingham: Open University Press

- Denzin, N. K. and Lincoln, Y. S. (1994). *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage

- DeVellis, R. F. (1991). *Scale Development: Theory and Application*. Newbury Park, CA: Sage

- Diamantopoulos, A. and Schlegelmilch, B. B. (1997). *Taking the Fear Out of Data Analysis*. London: The Dryden Press

- Dillon, W. R., Madden, T. J. and Firtle, N. H. (1990). *Marketing Research in a Marketing Environment*, 2nd ed. Boston: Irwin

- Donnellan, E. (1995). Changing perspectives on research methodology in marketing. *Irish Marketing Review* 8: 81-23

- Easterby-Smith, M., Thorpe, R. and Lowe, A. (1991). *Management Research: AnIntroduction*. London: Sage Publications

- Eastlick, M. A. and Feinberg, R. A. (1999). Shopping motives for mail catalog shopping. *Journal of Business Research* 45 (3): 281-290

- Ebaugh, H. R. (2002). Presidential address 2001, return of the sacred: reintegrating religion in the social sciences. *Journal for the Scientific Study of Religion* 41 (3): 385- 395

- Eckman, M., Kotsiopulos, A. and Bickle, M. C. (1997). Store patronage behavior of Hispanic versus non-Hispanic consumers: comparative analyses of demographics, psychographics, store attributes and information sources. *Hispanic Journal of Behavioral Sciences* 19 (1): 69-83

- Edwards, D. J. (1998). Types of case study work: a conceptual framework for casebased research. *Journal of Humanistic Psychology* 38: 36-71

- Ellison, C. G. and Levin, J. S. (1998). The religion-health connection: evidence, theory and future directions. *Health Education Behaviour* 25: 700-720

- Ellison, C. G., Gay, D. A. and Glass, T. A. (1989). Does religious commitment contribute to individual life satisfaction? *Social Forces* 68 (1): 100-123

- Emenheiser, D. A., Clay, J. M. and Palakurthi, R. (1998). Profiles of successful restaurant managers for recruitment and selection in the U.S. *International Journal of Contemporary Hospitality Management* 10 (2): 54-62

- Engel, J. F. (1976). Psychographic research in a cross-cultural non-product setting. *Advances in Consumer Research* 3. Association for Consumer Research: 98-101

- Engel, J. F., Blackwell, R. D. and Miniard, P. W. (1995). *Consumer Behavior,* 8th ed. Fort Worth: Dryden Press

- Essoo, N. and Dibb, S. (2004). Religious influences on shopping behaviour: an exploratory study. *Journal of Marketing Management* 20 (7/8): 683-712

- Eungi-Kim, A. (2003). Religious influences on personal and societal well-being. *Social Indicators Research* 62/63 (April): 149-170

- Everitt, B. S. (2001). *Statistics for Psychologists: An Intermediate Course*. Mahwah, NJ: Lawrence Erlbaum Associates

- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C. and Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods* 4 (3): 272-299

- Fam, K. S., Waller, D. S. and Erdogan, B. Z. (2004). The influence of religion on attitudes towards the advertising of controversial products. *European Journal of Marketing* 38 (5/6): 537-555

- Fastnow, C. J., Grant, T. and Rudolph, T. J. (1999). Holy roll calls: religious traditions and voting behavior in the U.S. House. *Social Science Quarterly* 80 (December): 687- 701
- Fava, J. L. and Velicer, W. F. (1992). The effects of overextraction on factor and component analysis. *Multivariate Behavioral Research* 27: 387-415

- Ferguson, E. and Cox, T. (1993). Exploratory factor analysis: a users' guide. *International Journal of Selection and Assessment* 1 (2): 84-94

- Ferraro, G. P. (1994). *The Cultural Dimension of International Business*. New Jersey:Prentice-Hall

- Field, A. (2005). *Discovering Statistics using SPSS*, 2nd ed. London: Sage

- Foddy, W. (1993). *Constructing Questions for Interviews and Questionnaires*. Hong Kong: Cambridge University Press

- Forsythe, S.M. & Bailey, A.W. (1996). Shopping enjoyment, perceived time poverty, and time spent shopping. Clothing and Textiles Research Journal, 14 (3), 185-191.

- Forza, C. (2002). Survey research in operations management: a process-based perspective. *International Journal of Operations & Production Management* 22 (2): 152-194

- Francis, L. J. and Bourke, R. (2003). Personality and religion: applying Cattell's model among secondary school pupils. *Current Psychology* 22 (2): 125-137

- Francis, L. J. and Kaldor, P. (2002). The relationship between psychological well-being and Christian faith and practice in an Australian population sample. *Journal of the Scientific Study of Religion* 41 (1): 179-184

- Fuller, B.K & Blackwell, S.C. 1992. Wardrobe consultant clientele: Identifying and describing three market segments. *Clothing and Textiles Research Journal 10*(2):11-17

- Geertz, C. (1993). *The Interpretation of Cultures: Selected Essays*. London: Fontana

- Genia, V. (1993). A psychometric evaluation of the Allport-Ross I/E scales in a religiously heterogeneous sample. *Journal of the Scientific Study of Religion* 32 (3): 284-290

- Gentry, J. W., Tansuhaj, P., Manzer, L. L. and John, J. (1988). Do geographic subcultures vary culturally? *Advances in Consumer Research* 15: 411-417

- Ghodeswar B.M. Consumer Decision-Making Styles Among Indian Students. Alliance Journal of Business Research

- Gilbert, D. C. and Choi, K. C. (2003). Relationship marketing practice in relation to different

- Gill, J. and Johnson, P. (1997). *Research Methods for Managers*, 2nd ed. London: Paul Chapman Publishing Ltd.
- Glaeser, E. L. and B. I. Sacerdote (2002) 'Education and Religion,' NBER Working Paper Number: 8080.

- Glock, C. Y. (1972). On the Study of Religious Commitment, in J. E. Faulkner (ed.) *Religion's Influence in Contemporary Society, Readings in the Sociology of Religion*, Ohio: Charles E. Merril: 38-56.

- Goff, B. G. and Gibbs, M. C. (1993). Denominational affiliation change: application of the consumer decision model. *Journal of Consumer Affairs* 27 (2): 227-257

- Grapentine, T. (1997). Managing multicollinearity. *Marketing Research* 9 (3): 10-21

- Greeley, A. M. (1963). A note of the origins of religious differences. *Journal of the Scientific Study of Religion 3*: 21-31

- Green, S. B. and Salkind, N. J. (2003). *Using SPSS for Windows and Macintosh*, 3rd ed. Upper Saddle River, NJ: Prentice Hall

- Greenleaf, E. A. (1992). Improving rating scale measures by detecting and correcting bias components in some response styles. *Journal of Marketing Research* 29 (May): 176-188

- Gregory, G. D., Munch, J. M. and Peterson, M. (2002). Attitude functions in consumer research: comparing value-attitude relations in individualist and collectivist cultures. *Journal of Business Research* 55 (11): 933-942

- Gregory, R. J. (1996). *Psychological Testing: History, Principles and Applications*, 2nd ed. Boston, MA: Allyn and Bacon

- Grey, D. E. (2004). *Doing Research in the Real World*. London: Sage Publications

- Griffin, R. W. and Pustay, M. (1996). *International Business: A Managerial Perspective*. Reading, MA: Addison-Wesley Publishing

- Groome, T. H. (1998). *Educating for life.* Allen, TX: Thomas Moore Press

- Groome, T. H., & Corso, M. J. (1999). *Empowering catechetical leaders.* Washington, DC: National Catholic Educational Association.

- Grunert, S. C. and Juhl, H. J. (1995). Values, environmental attitudes and buying of organic foods. *Journal of Economic Psychology* 16 (1): 39-62

- Guadagnoli, E. and Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin* 103: 265-275

- Guba, E. G. and Lincoln, Y. S. (1994). Competing paradigms in qualitative research. Chapter 6 in N. K. Denzin and Y. S. Lincoln (eds.), *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage

- Gurhan-Canli, Z. and Maheswaran, D. (2000). Cultural variations in country of origin effects. *Journal of Marketing Research* 37 (3): 309-317

- Gutman, J. & Mills, M.K. (1982). Fashion life style, self-concept, shopping orientation, and store patronage: An integrative analysis. Journal of Retailing, 58 (2), 64-86.

- Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998). *Multivariate Data Analysis*, 5th ed. New Jersey: Prentice Hall Inc.

- Hamby, J. (1973). Some personality correlates of religious orientation. *Dissertation Abstract International* 34: 1127-1128

- Hardy, M. A. (1993). Regression with dummy variables. In Lewis-Beck, M. S. (ed.), *Regression Analysis*. International Handbooks of Quantitative Applications in the Social Sciences Vol. 2. London: Sage Publications/Toppan Publishing. pp. 69-158

- Haron, S., Ahmad, N. and Planisek, S. L. (1994). Bank patronage factors of Muslim and non-Muslim customers. *International Journal of Bank Marketing* 12 (1): 32-40

- Hawkins, D. I., Best, R. J. and Coney, K. A. (2001). *Consumer Behavior: Building Marketing Strategy*, 8th ed. Burr Ridge, IL: Irwin Inc.

- Hawkins, D. I., Coney, K. A. and Best, R. J. (1980). *Consumer Behavior: Implications for Marketing Strategy*. Dallas, TX: Business Publications Inc.

- Hawkins, D.I., Best, R.J. & Coney, K.A. (1989). *Consumer behavior: Implications for marketing strategy*. 4th ed. Boston. Irwin

- Hays, W. L. (1994). *Statistics*, 5th ed. New York: Harcourt Brace

- He Y. (2001). Students' apparel shopping orientation changes in relations to life events (Master thesis, Louisiana State University and School of Human Ecology, 2011)

- Herbert, M. (1990). *Planning a Research Project*. London: Cassell

- Herbig, P. and Yelkur, R. (1998). Hispanic and Anglo difference in consumer behavior. *Journal of International Marketing and Marketing Research* 23 (1): 47-56

- Herzer, D., & Strulik, H. (2013, August). Religiosity And Income: A Panel Cointegration And Causality Analysis. *Discussion Papers*. Centre for Europen, Governance and Economic Developement Research.

- Hess, D.W. (2012). The Impact of Religiosity on Personal Financial Decisions. *Journal of Religion & Society,* Vol.14

- Hill, P. C. and Hood, R. W., Jr. (eds.) (1999). *Measures of Religiosity*. Birmingham, AL: Religious Education Press

- Hill, P.C. & Hood, R.W., Jr. (eds) (1999) *Measures of Religiosity*. Religious Education Press, Birmingham, AI.

- Hinkin, T. R., Tracey, J. B. and Enz, C. A. (1997). Scale construction: developing reliable and valid measurement instruments. *Journal of Hospitality and Tourism Research* 21: 100-120

- Hirschman (eds.), *Competitive Structure in Retail Markets: The Department Store Perspective*. Chicago: American Marketing Association

- Hirschman, E. C. (1981). American-Jewish ethnicity: its relationship to some selected aspects of consumer behavior. *Journal of Marketing* 45 (Summer): 102-110

- Hirschman, E. C. (1982a). Religious differences in cognitions regarding novelty seeking and information transfer. *Advances in Consumer Research* 10. St. Louis, Missouri: Association for Consumer Research: 228-233

- Hirschman, E. C. (1982b). Ethnic variation in leisure activities and motives, in Bruce J. Walker et al. (eds.), *An Assessment of Marketing Thought and Practice: 1982 Educators' Conference Proceedings*. Chicago: American Marketing Association: 93-98

- Hirschman, E. C. (1982c). Ethnic variation in hedonic consumption. *Journal of Social Psychology* 118 (2): 225-234

- Hirschman, E. C. (1983). Religious affiliation and consumption processes: an initial paradigm. In J. N. Sheth (ed.), *Research in Marketing* 6. Greenwich, CT: JAI Press: 131-170

- Hirschman, E. C. (1985). Ethnicity as a predictor of media content preferences, in M. J.Houston and R. J. Lutz (eds.), *Marketing Communications: Theory and Research*. Proceedings of the AMA Educators' Winter Conference. Chicago, IL: American Marketing Association: 209-214

- Holdcroft B. (2006). What is religiosity? *Catholic Education: A Journal of Inquiry and Practice.* Vol. 10, No. 1

- Holliday, A. (2002). *Doing and Writing Qualitative Research*. London: Sage

- Hollis, M. (1994). *The Philosophy of Social Science: An Introduction*. Cambridge: Cambridge University Press

- Holloway, I. (1997). *Basic Concepts for Qualitative Research*. Oxford: Blackwell Science
- Howard, J. A, and Sheth, J. N. (1969). *The Theory of Buyer Behavior*. New York: John Wiley & Sons

- Howell, D. C. (1997). *Statistical Methods for Psychology*, 4th ed. London: Duxbury Press

- Howell, R. D. (1979). *A Multivariate Examination of a Patronage Model: The Impact of Values and Life Style on Shopping Orientations. Unpublished PhD Dissertation*, University of Arkansas, Fayetteville

- Hu, H. and Jasper, C. R. (2004). Men and women: a comparison of shopping behavior. *Journal of Shopping Center Research* 11 (1): 113-131

- Huck, S. W. and Cormier, W. H. (1996). *Reading Statistics and Research*, 2nd ed. New York: HarperCollins Publishers Inc.

- Hutcheson, G. and Sofroniou, N. (1999). *The Multivariate Social Scientist*. London: Sage Publications

- Iannaccone, L. R. (1998) 'Introduction to the Economics of Religion,' *Journal of Economic Literature*, 36, 1465-95.

- Iannaccone, Laurence R. (1990). Religious Practice: A Human Capital Approach. *Journal for the Scientific Study of Religion*, *29*(3), 297-314.

- Jaccard, J. (1998). *Interaction Effects in Factorial Analysis of Variance*. Sage University Papers Series on Quantitative Applications in the Social Sciences, 07-118. Thousand Oaks, CA: Sage

- Jackson, E. J. (1991). *A User's Guide to Principal Components*. New York: Wiley

- Jain, S. C. (1989). Standardization of international marketing strategy: some empirical hypotheses. *Journal of Marketing* 53 (1): 70-79

- Jain, S. C. (1996). *International Marketing Management,* 5th ed. Cincinnati, OH: South-Western College Publishing

- Jarboe, G.R. & Mcdaniel, C.D. (1987). A profile of browsers in regional shopping malls. *Journal of the academy of Marketing Science 15*(1):46-53

- Jasper, C. R. and Lan, P. N. R. (1992). Apparel catalog patronage: demographic, lifestyle and motivational factors. *Psychology & Marketing* 9 (4): 275-296

- Jeannet, J. P. and Hennessey, H. D. (1998). *Global Marketing Strategies,* 4th ed. Boston, MA: Houghton Mifflin Company

- Jin, B. and Kim, J. O. (2001). Discount store retailing in Korea: shopping excitement, shopping motives and store attributes. *Journal of Global Marketing* 15 (2): 81-107

- John Krieger H.S, Bayraktar A. (2011). The Impact of Intrinsic Religiosity on Consumers' Ethical Beliefs: Does It Depend on the Type of Religion? A Comparison of Christian and Moslem Consumers in Germany and Turkey. *Journal of Business Ethics*,102:319–332

- John, J., Tansuhaj, P., Manzer, L. and Gentry, J. (1986). Fatalism and explanation of the cross-cultural differences in the perception of uncertainty in the marketplace. *AMA Workshop on Culture and Subculture*. De Paul University, Chicago.

- Johnson, A. G. (2000). *The Blackwell Dictionary of Sociology*, 2nd ed. Oxford: Blackwell Publishers Ltd

- Johnson, B. R., Jang, S. J., Larson, D. B. and Li, S. D. (1995). Does adolescent religious commitment matter? A reexamination of the effects of religiosity on delinquency. *Journal of Research in Crime and Delinquency 38* (1): 22-43

- JongKuk Shin J. et. Al. (2011). Does Religiosity affect Consumer's Socialization Agent and Shopping Orientation?. Paper presented at International Conference on E-business, Management and Economic., *IPEDR vol.3. Hong Kong: IACSIT Press,)*

- Kacen, J. J. and Lee, J. A. (2002). The influence of culture on consumer impulsive buying behavior. *Journal of Consumer Psychology 12* (2): 163-176

- Kahoe, R. D. (1974). Personality and achievement correlates of intrinsic and extrinsic religious orientations. *Journal of Personality and Social Psychology 29* (6): 812-818

- Keppel, G. (1991). *Design and Analysis: A Researcher's Handbook*. Englewood Cliffs, NJ: Prentice-Hall, Inc

- Kerlinger, F. M. (1986). *Foundations of Behavioral Research*, 3rd ed. New York: Harcourt Brace Javanovich College Publishers

- Kerlinger, F. M. and Lee, H. (2000). *Foundations of Behavioral Research*, 4th ed. Stamford: Wadsworth

- Kharim H. (2010). Measuring Religiosity in Consumer Research from Islamic Perspective. *International Journal of Marketing Studies Vol. 2,* No. 2

- Khraim H.(2010). Measuring Religiosity in Consumer Research from Islamic Perspective. *International Journal of Marketing Studies,* 2(2)

- Khraim, H. S., Mohamad, O. and Jantan, M. (1999). Measuring religiosity in consumer research. *Proceedings of the Third Asian Academy of Management Conference*, Kuala Terengganu, Malaysia, July 16-17: 652-661

- Khraim, H.S., Khraim, A.S., Al-Kaidah, F.M (2011), Jordanian Consumer's Evaluation of Retail Store Attributes: The Influence of Consumer Religiosity, *International Journal of Marketing Studies, Vol. 3* (4)

- Kim, Y. K. and Kang, J. (2001). The effects of ethnicity and product on purchase decision making. *Journal of Advertising Research 41*(2): 39-48

- King, M. (1967). Measuring the Religious Variable: Nine Proposed Dimensions, *Journal for the Scientific Study of Religion*, Vol. 6: 173-185.

- Kinnear, T. C. and Taylor, J. R. (1996). *Marketing Research: An Applied Approach,* 5th ed. NY: McGraw Hill

- Kirk, R. (1995). *Experimental Design: Procedures for the Behavioral Sciences*. Pacific Grove, CA: Brooks/Cole

- Knutsen, O. (2004). Religious denomination and party choice in Western Europe: a comparative longitudinal study from eight countries 1970-97. *International Political Science Review* 25 (1): 97-128

- Koenig, H. G., McCullough, M. and Larson, D. B. (2000). *Handbook of Religion and Health*. New York: Oxford University Press

- Kopp, R.J., Eng, R.J., & Tigert, D.J. (1989). A competitive structure and segmentation analysis of the chicago fashion market. Journal of Retailing, 65 (4), 496-515.

- Kotabe, M. and Helsen, K. (1998). *Global Marketing Management*. New York: John Wiley

- Kumar Rao_, Dr.Dwayne Ball†and Dr. Ronald Hampton, Modes of Religious and Spiritual Orientation and their Relationships to Consumer Behavior, University of Nebraska-Lincoln.)

- Kumar, R. (1999). *Research Methodology: A Step-by-Step Guide for Beginners*. London: Sage Publications Ltd.

- Kwon, Y.H, Paek, S.L & Arzeni, M. (1991). Catalog vs non-catalog shoppers of apparel: Perceived risks, shopping orientations, demographics, and motivations. *Clothing and Textiles Research Journal 10*(1):13-19.

- LaBarbera, P. A. (1987). Consumer behavior and born-again Christianity. *Research in Consumer Behavior*, Vol. 2. Sheth, J. N. and Hirschman, E. C. (eds.). pp. 193-222. London: JAI Press

- LaBarbera, P. A. and Gurhan, Z. (1997). The role of materialism, religiosity and demographics in subjective well-being. *Psychology & Marketing* 14 (1): 71-97

- LaBarbera, P. A. and Stern, J. (1990). The relationship between Jewish religious intensity and repeat purchasing behavior. In L. M. Capella, H. W. Nash, J. M. Starling and R. D. Taylor (eds.), *Proceedings of the Annual Meeting of the Southern Marketing Association*: 87-90

- Lattin, J., Carroll, J. D. and Green, P. E. (2003). *Analyzing Multivariate Data*. Pacific Grove, CA: Brooks/Cole-Thomson Learning

- Lee, E-J., Fairhurst, A. and Dillard, S. (2002). Usefulness of ethnicity in international consumer marketing. *Journal of International Consumer Marketing* 14 (4): 25-48

- Lee, J. A. (2000). Adapting Triandis's model of subjective culture and social behaviour relations to consumer behavior. *Journal of Consumer Psychology* 9 (2): 117-126

- Leedy, P. D. (1993). *Practical Research Planning and Design*, 5th ed. New York: Macmillan Publishing Company

- Lehmann, D. R., Gupta, S. and Steckel, J. H. (1998). *Marketing Research*. Reading, MA: Addison-Wesley

- Lenski, G. (1961). *The Religious Factor, A Sociological Study of Religion's Impact on Politics, Economics, and Family Life,* Connecticut: Greenwood Press.

- Levin, J. S. and Chatters, L. M. (1998). Religion, health and psychological well-being in older adults: findings from three national surveys. *Journal of Aging and Health* 10 (4): 504-531

- Lewis, N. (1978). *The new Roget's thesaurus in dictionary form.* New York: Putnam.

- Lewis-Beck, M. S. (1993). Applied regression: an introduction. In Lewis-Beck, M. S. (ed.), *Regression Analysis*. International Handbooks of Quantitative Applications in the Social Sciences Volume 2. London: Sage Publications/Toppan Publishing. pp. 1-68

- Lindridge, A. M. and Dibb, S. (2003). Is culture a justifiable variable for market segmentation? A cross-cultural example. *Journal of Consumer Behaviour* 2 (4): 269- 288

- Ling K.C et.al (2010). The Effects of Shopping Orientations, Online Trust and Prior Online Purchase Experience toward Customers' Online Purchase Intention,*International Business Research* 3(3)

- Loewenthal , K., McLoed, A., & Cinnirella, M. (2002). Are women more religious than Men? Gender differences in religious activities among different religious groups in the U.K. *Personality and Individual Differences, 32*, 133-139.

- Loroz, P. G. (2003). Religiosity, consumer values and advertising effectiveness. Paper presented at the *Society for Consumer Psychology Winter Conference*, New Orleans, Lousiana

- Loudon, D. L. and Dilla-Bitta, A. J. (1993). *Consumer Behavior: Concepts and Applications*, 4th ed. New York: McGraw-Hill

- Lovelock, C. H. and Weinberg, C. B. (1978). Public and non-profit marketing comes of age. In G. Zaltman and T. V. Bonoma, *Review of Marketing 1978*, Chicago, American Marketing Association: 413-452

- Lumpkin, J.R. (1985). Shopping orientation segmentation of the elderly consumer. *Journal of Academy of Marketing Science 13*(2):271-289.

- Lumpkin, J. R. & Greenberg, B. A. (1982). Apparelshopping patterns of the elderly consumer. *Journal of Retailing* 58(4):68-89.

- MacCallum, R. C., Widaman, K. F., Zhang, S. and Hong, S. (1999). Sample size in factor analysis. *Psychological Methods* 4 (1): 84-89

- Malhotra, N. K. and Birks, D. F. (1999). *Marketing Research: An Applied Approach.* Essex: Pearson Education Ltd.

- Malhotra, N. K., Peterson, M. and Kleiser, S. B. (1999). Marketing research: a state-of the- art review and direction for the twenty-first century. *Journal of the Academy of Marketing Science* 27 (2): 160-183

- Manstead, A. S. R. (1997). Situations, belongingness, attitudes and culture: four lessons learned from social psychology. In *Social Psychology*, C. McGarty and S. A. Haslam (eds.). Cambridge: Blackwell Publishers Ltd: 239-251

- Marty, M. E. and Appleby, R. S. (eds.) (1991). *Fundamentalisms Observed.* Chicago: University of Chicago Press

- Marx, K. (1912). *Capital: A Critique of Political Economy*. Chicago: Charles H. Kerr & Co.

- Mason, C. H. and Perreault, W. D. (1991). Collinearity, power and interpretation of multiple regression analysis. *Journal of Marketing Research* 28 (3): 268-280

- Mason, J. (2002). *Qualitative Researching*, 2nd ed. London: Sage Publications

- Mason, J. B., Durand, R. M. and Taylor, J. L. (1983). *Retail patronage: A causal analysis of antecedent factors. In Patronage Behavior and Retail Management*, W. R. Darden and R. F. Lusch (eds). New York: North-Holland, 339-351

- Mason,C. H. and Perreault, W. D. (1991). Collinearity, power and interpretation of multiple regression analysis. *Journal of Marketing Research* 28 (3): 268-280

- Mattila, A. S., Apostolopoulos, Y., Sonmez, S., Yu, L. and Sasidharan, V. (2001). The impact of gender and religion on college students' spring break behaviour. *Journal of Travel Research* 40 (November): 193-200

- Maxwell, J. A. (1996). *Qualitative Research Design: An Interactive Approach*. London: Sage

- Maxwell, S. E. and Delaney, H. D. (1990). *Designing Experiments and Analyzing Data: A Model Comparison Perspective*. Belmont, CA: Wadsworth

- May, T. (2001). *Social Research: Issues, Methods and Process*, 3rd ed. Buckingham: Open University Press

- McCort, D. J. and Malhotra, N. K. (1993). Culture and consumer behaviour: Toward an understanding of cross-cultural consumer behaviour in international marketing. *Journal of International Consumer Marketing* 6 (2): 91-127

- McCracken, G. (1990). Culture and consumer behaviour: an anthropological perspective. *Journal of the Market Research Society* 32 (1): 3-11

- McCrossan, L. (1991). *A Handbook for Interviewers*. London: HMSO

- McDaniel, S. W. and Burnett, J. J. (1990). Consumer religiosity and retail store evaluative criteria. *Journal of the Academy of Marketing Science* 18 (Spring): 101-112

- McDaniel, S. W. and Burnett, J. J. (1991). Targeting the Evangelical market segment. *Journal of Advertising Research* 31 (4): 26-33

- McDonald, W. J. (1995). American versus Japanese consumer decision making: an exploratory cross-cultural content analysis. *Journal of International Consumer Marketing* 7 (3): 81-93

- Md. Zain, O. and Jabri, M. (1996). The antecedents of loyalty patronage behaviour. *Jurnal Pengurusan* 15 (July): 63-90

- Menard, S. (1995). *Applied logistic regression analysis*. Thousand Oaks, CA: Sage Publications. Series: Quantitative Applications in the Social Sciences No. 106

- Micceri, T. (1990). The unicorn, the normal curve and other improbable creatures. *Psychological Bulletin* 105: 156-166

- Michell, P. and Al-Mossawi, M. (1995). The mediating effect of religiosity on advertising effectiveness. *Journal of Marketing Communications* 1: 151-162

- Michell, P. and Al-Mossawi, M. (1999). Religious commitment related to message contentiousness. *International Journal of Advertising* 18 (4): 427-443

- Miles, M. B. and Huberman, A. M. (1994). *Qualitative Data Analysis*, 2nd ed. Thousand Oaks: Sage

- Miller , A. S., & Stark, R. (2002, May). Gender and Religiousness: Can Socialization Explanations Be Saved? *American Journal of Sociology*, 1399-1423.

- Mitchell, V.-W. (1994). How to identify psychographic segments: Part 1. *Marketing Intelligence & Planning* 12 (7): 4-10

- Mitchell, V.-W. (1996). Assessing the reliability and validity of questionnaire. *Journal of Applied Management Studies* 5 (2): 199-217

- Mitchell, V.-W. and Bates, L. (1998). UK consumer decision-making styles. *Journal of Marketing Management* 14: 199-225

- Mokhlis, S. (2006). *The influence of religion on retail patronage behaviour in Malaysia.* Ph.D Thesis, University Of Stirling, Faculty of Management.

- Mokhlis, S. (2006). The Effect of Religiosity on Shopping Orientation: An Exploratory Study in Malaysia. *The Journal of American Academy of Business , Vo l. 9(*1)

- Mohklis S. (2008).Consumer Religiosity and the Importance of Store Attributes. *The Journal of Human Resource and Adult Learning* 4(2)

- Mohklis S. (2009). Relevancy and Measurement of Religiosity in Consumer Behavior Research. *Jouranal of International Business Research* 2(3)

- Mohklis S. (2009). Religious Differences in Some Selected Aspects of Consumer Behaviour: A Malaysian Study . *The Journal of International Management Studies* 4(1)

- Mokhlis S. (2010). Religious Contrasts in Consumer Shopping Styles: A Factor Analytic Comparison. *Journal of Business Studies Quarterly, Vol. 2(1), pp. 52-64*

- Monroe, K. B. and Guiltinan, J. P. (1975). A path-analytic exploration of retail patronage influences. *Journal of Consumer Research 2* (June): 19-28

- Moschis G.P. and Fon Sim Ong (2011). Religiosity and consumer behavior of older adults: A study of subcultural influences in Malaysia. *Journal of Consumer Behaviour,* 10: 8–17

- Moschis, G. P. (1987). *Consumer Socialization: a Life-Cycle Perspective*. Lexington Books, Lexington, MA

- Moss, G. and Vinten, G. (2001). Choice and preferences: testing the effect ofnationality. *Journal of Consumer Behaviour* 1 (2): 198-207
- Mowen, J. C. and Minor, M. S. (1998). *Consumer Behavior*, 5th ed. Upper Saddle River, NJ: Prentice-Hall, Inc.

- Moye, L. N. and Kincade, D. H. (2002). Influence of usage situations and consumer shopping orientations on the importance of the retail store environment. *International Review of Retail, Distribution and Consumer Research* 12 (1): 59-79

- Moye, L. N. and Kincade, D. H. (2003). Shopping orientation segments: exploring differences in store patronage and attitudes toward retail store environments among female apparel consumers. *International Journal of Consumer Studies* 27 (1): 58-71

- Mueller, R. O. (1996). *Basic Principles Structural Equation Modelling: An Introduction to LISREL and EQS*. New York: Springer

- Mukhopadhyay, S. (2009, November). Religion, Religiosity and Educational Attainment of Immigrants to the USA. UNR Joint Economics Working Paper Series, Department of Economics /0030 University of Nevada, Reno

- Musil, C. M., Jones, S. L. and Warner, C. D. (1998). Structural equation modelling and its relationship to multiple regression and factor analysis. *Research in Nursing & Health* 21 (3): 271-281

- Muthen, B. and Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology* 38: 171-189

• Neuman, S. (1986) 'Religious Observance within a Human Capital Framework,' *Applied Economics*, 18, 1193-1202.

• Neuman, W. L. (1994). *Social Research Methods: Qualitative and Quantitative Approaches*, 2nd ed. MA: Allyn and Bacon

• Newman, I. and Benz, C. R. (1998). *Qualitative-Quantitative Research Methodology:Exploring the Interactive Continuum*. Carbondale, IL: Southern Illinois University Press

• Newton, R. R. and Rudestam, K. E. (1999). *Your Statistical Consultant: Answers to Your Data Analysis Questions*. Thousand Oaks: Sage

• Nittin Essoo and Sally Dibb (2004), Religious Influences on Shopping Behaviour: An Exploratory Study, *Journal of Marketing Management*, 20, 683-712

• Nix, T. W. and Gibson, J. G. (1989). Does a hospital's religious affiliation affect choice of hospital and patient satisfaction? *Journal of Health Care Marketing* 9 (2): 40-41

• Norusis, M. J. (1990). *SPSS Introductory Statistics Student Guide*. Chicago, Illinois: SPSS Inc.

• Nunamaker, J. F., Chen, M. and Purdin, T. D. M. (1991). Systems development in information systems research. *Journal of Management Information Systems* 7 (3): 89- 106

• Nunnally, J. C. and Bernstein, I. H. (1994). *Psychometric Theory*, 3d ed. McGraw-Hill Inc.

• O'Guinn, T. C. and Belk, R. W. (1989). Heaven on earth: consumption at Heritage Village USA. *Journal of Consumer Research* 16 (September): 227-238

• Oppenheim, A. N. (1993). *Questionnaire Design, Interviewing and Attitude Measurement*. London: Pinter Publishers Ltd.

• Parameshwaran M.G. and Srivastava R.K. (2010). Should Marketers Consider Religiosity in Understanding Consumer Purchase Behavior?. *SIES Journal of Management*, April - August 2010, Vol.7(1): 46-54)

• Parboteeah K.P, Hoegl M, Cullen J.B. (2008). Ethics and Religion: An Empirical Test of a Multidimensional Model. *Journal of Business Ethics* 80:387–398

• Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*, 2nd ed. London: Sage

• Pedhazur, E. J. (1997). *Multiple Regression in Behavioral Research: Explanation and Prediction*, 3rd ed. Wadsworth-Thomson Learning

- Pedhazur, E. J. and Schmelkin, L. P. (1991). *Measurement, Design and Analysis: An Integrated Approach*. Hillsdale, NJ: Erlbaum

- Perry, C., Riege, A. and Brown, L. (1999). Paradigm's role among scientific paradigms in marketing research. *Irish Marketing Review* 12 (2): 16-23

- Peterson, G. R. (2001). *Religion as orienting worldview*. Zygon 36 (1): 5-19

- Peterson, R. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research* 21 (September): 381-391

- Peterson, R. A., Albaum, G. and Beltramini, R. F. (1985). A meta analysis of effect sizes in consumer behaviour experiments. *Journal of Consumer Research* 12 (June): 97-103

- Pindyck, R. S. and Rubinfeld, D. L. (1991). *Econometric Models and Economic Forecasts*, 3rd ed. New York: McGraw-Hill

- Pirez, G. and Stanton, J. (2004). Developing ethnicity as a segmentation criterion: an alternative approach. *Proceedings of the Australian and New Zealand Marketing Academy Conference (ANZMAC 2004)*, Wellington, New Zealand, 29 Nov - 1 Dec 2004

- Polit, D. F. (1996). *Data Analysis and Statistics for Nursing Research*. Stamford: Appleton & Lange

- Preece, R. A. (1994). *Starting Research: An Introduction to Academic Research and Dissertation Writing*. London: Pinter/Continuum

- Punch, K. F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches*. London: Sage

- Ragin, C. C. (1998). *Constructing Social Research: The Unity and Diversity of Method*. Thousand Oaks, CA: Pine Forge Press

- Rahadian, M. (2008). *The Effect of decision making styles on consumer's perception: The moderating effect of Religiosity and type of products* (Master Thesis, National Cheng Kung University (2008)

- Rajagopalan, R. and Heitmeyer, J. (2005). Ethnicity and consumer choice: a study of consumer levels of involvement in Indian ethnic apparel and contemporary American clothing. *Journal of Fashion Marketing and Management* 9 (1): 83-105

- Rajguru R. (2011). Functional Attributes and Shopping Values: Supermarket Vs Local Market. *International Journal of Global Business*, 4 (2), 15-27

- Reisinger, H. (1997). The impact of research designs on R^2 in linear regression models: an exploratory meta-analysis. *Journal of Empirical Generalisations in Marketing Science* 2: 1-12

- Reynolds, N., Diamantopoulos, A. and Schlegelmilch, B. (1993). Pretesting in questionnaire design: a review of the literature and suggestions for further research. *Journal of the Market Research Society* 35 (2): 171-182

- Roberts, M. J. and Russo, R. (1999). *A Student's Guide to Analysis of Variance*. London: Routledge

- Robson, C. (2002). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers*, 2nd ed. Oxford: Blackwell

- Rodriguez, C. M. (1993). Relevancy, measurement and modelling of religiosity in consumer behaviour: the case of Peru. In G. Albaum et al. (eds.), *Proceedings of the Fourth Symposium on Cross-Cultural Consumer and Business Studies,* Kahuka, Hawaii

- Rokeach, M. (1969). Value systems in religion. *Review of Religious Research* 11: 3-23

- Rokeach, M. (1973). *The Nature of Human Values*. New York: The Free Press

- Rook, D.W. (1987). 'The buying impulse', *Journal of Consumer Research*, 14(2), 189-1999.

- Rose, D. and Sullivan, O. (1996). *Introducing Data Analysis for Social Scientists*, 2nd ed. Buckingham: Open University Press

- Rubin, A. and Babbie, E. (1993). *Research Methods for Social Work*. Belmont, California: Wadsworth Publishing Co.

- Rust, J. and Golombok, S. (1999). *Modern Psychometrics: the Science of Psychological Assessment*, 2nd ed. London: Routledge

- Sarantakos, S. (1998). *Social Research*, 2nd ed. London: MacMillan Press

- Sawkins, J. W., P. T. Seaman and H. C. S. Williams (1997) 'Church Attendance in Great Britain: An Ordered Logit Approach,' *Applied Economics*, 29, 125-34.

- Schaffer, W. D. (1991). Power analysis in interpreting statistical non-significance. *Measurement and Evaluation in Counselling and Development* 23: 146-148

- Schiffman, L. G. and Kanuk, L. L. (1991). *Consumer Behavior*, 4th ed. Englewood Cliffs, NJ: Prentice Hall

- Schouten, J. W. and McAlexander, J. H. (1995). Subcultures of consumption: an ethnography of the new bikers. *Journal of Consumer Research* 22: 43-61

- Schwartz, S. H. and Huismans, S. (1995). Value priorities and religiosity in four western religions. *Social Psychology Quarterly* 58 (2): 88-107

- Sekaran, U. (1992). *Research Methods for Business*, 2nd ed. New York: John Wiley and Sons

- Seock, Y.K. and Bailey L.R (2008). The influence of college student's shopping orientations and gender differences on online information searches and purchase behaviour. *International Journal of Consumer Studies,*32,113-121

- Shamdasani, P. N., Hean, T. K. and Lee, E. Z. C. (2001). Influences on store patronage behavior: a comparison of department and discount stores in Singapore. *Journal of Asian Business* 17 (2): 63-84

- Shaw, D. S. and Clarke, I. (1998). Culture, consumption and choice: towards a conceptual relationship. *Journal of Consumer Studies and Home Economics* 22 (3): 163-168

- Sheikh, N. and Thomas, J. (1994). Factors influencing food choice among ethnic minority adolescents. *Nutrition & Food Science* 94 (5): 29-35

- Sheth, J. N. (1983). *An integrative theory of patronage preference and behavior*. In W.R. Darden and R. F. Lusch (eds.), Patronage Behavior and Retail Management. New, York: North-Holland, 9-28

- Sheth, J. N. and Mittal, B. (2004). *Customer Behavior: A Managerial Perspective*, 2nd ed. Thomson South-Western

- Shim, S & Kotsiopulos, A. (1992b). Patronage behavior of apparel shopping: Part II. Testing a patronage model of consumer behavior. Clothing and Textiles Research Journal 10(2): 58-64

- Shim, S & Kotsiopulos, A. (1993). A typology of apparel shopping orientation segments among female consumers. Clothing and Textiles Research Journal 12(1):73-85.

- Shim, S & Mahoney, M.Y. (1992). The elderly mail-order catalog user of fashion products: A profile of the heavy purchaser. *Journal of Direct Marketing 6*(1):49-58

- Shim, S. & Bickle, M.C. (1994). Benefit segments of the female apparel market: Psychographics, shopping orientations, and demographics. Clothing and Textiles Research Journal, 12 (2), 1-12.

- Shim, S. & Kotsiopulos, A. (1992a). Patronage behavior of apparel shopping: Part I. Shopping orientations, store attributes, information sources, and personal characteristics. *Clothing and Textiles Research Journal 10*(2):48-57

- Shim, S. (1996). Adolescent consumer decision-making styles: the consumer socialization perspective. *Psychology & Marketing 13* (6): 547-569

- Shim, S. and Kotsiopulos, A. (1991). Information seeking patterns of retail apparel buyers. *Clothing and Textiles Research Journal* 10 (1): 20-30

- Shim, S., Gehrt, K. C. and Holikova, S. (1998). Shopping orientation-based segmentation of U.S. grocery shoppers. *Journal of Food Products Marketing* 5 (2): 1-19

- Shin, J., Park M., Moon, M., Kim, M. (2011). Does Religiosity affect on Consumer's Socialization Agent and Shopping Orientation? *International Conference on E-business, Management and Economic., Hong Kong: IACSIT Press*

- Shweder, R. A. (1991). *Thinking through Cultures: Expeditions in Cultural Psychology*. Cambridge, MA: Harvard University Press

- Siala, H., O'Keefe, R. M. and Hone, K. S. (2004). The impact of religious affiliation on trust in the context of electronic commerce. *Interacting with Computers* 16 (1): 7-27

- Siguaw J.A. and Simpson P.M (2011). The Effects of religiousness on Sunday shopping and outshopping behaviours: a study of shopper attitudes and behaviours in the American South. *The International Review of Retail, Distribution and Consumer Research, 7(*1), 23-40

- Siguaw, J. A. and Simpson, P. M. (1997). Effects of religiousness on Sunday shopping and outshopping behaviours: a study of shopper attitudes and behaviours in the American South. *International Review of Retail, Distribution and Consumer Research* 7 (1): 23-40

- Siguaw, J. A., Simpson, P. M. and Joseph, M. (1995). Religiosity effects on shopping behaviors: a comparative study of the U.S. and New Zealand. Paper presented at *Proceedings, Institute for Operations Research and Management Sciences (INFORMS) International Conference Singapore*, June 25-28

- Singhapakdi, A., Marta, J. K., Rallapalli, K. C. and Rao, C. P. (2000). Toward an understanding of religiousness and marketing ethics: an empirical study. *Journal of Business Ethics* 27 (4): 305-319

- Sinha P. (2003). Shopping Orientation in Evolving Indian Market.*VIKALPA, Vol 28,* No.2

- Sirkin, R. M. (1995). *Statistics for the Social Sciences*. London: Sage

- Siu, N. Y. M., Dickinson, J. R. and Lee, B. Y. Y. (2000). Ethical evaluations of business activities and personal religiousness. *Teaching Business Ethics* 4 (3): 239-256

- Sloan, R. P., Bagiella, E. and Powell, T. (1999). Religion, spirituality, and medicine. *Lancet* 353 (9153): 664-667

- Slowikowski, S. and Jarratt, D. G. (1997). The impact of culture on the adoption of high technology products. *Marketing Intelligence & Planning* 15 (2): 97-105

- Smith, M. C. and Frankenberger, K. D. (1991). *The effects of religiosity on selected aspects of consumer behavior*. In T. Schellinck (ed.), Proceedings of the Annual Conference of the Administrative Sciences Association of Canada 12 (6): 274-283

- Smith, M. C., Kahle, L. R., Frankenberger, K. D. and Batra, R. (2005). *Religiosity and social risk*. Paper presented at Association for Consumer Research European Conference,

Gotenberg, Sweden

- Sojka, J. Z. and P. S. Tansuhaj (1995). Cross-cultural consumer research: a twenty-year review. *Advances in Consumer Research* 22: 461-474

- Solomon, M. R. (2002). *Consumer Behavior: Buying, Having and Being*, 5th ed. Upper Saddle River, NJ: Prentice-Hall

- Sommer, B. and Sommer, R. (1991). *A Practical Guide to Behavioral Research: Tools and Techniques*, 3rd ed. New York: Oxford University Press

- Sood, J. and Nasu, Y. (1995). Religiosity and nationality: an exploratory study of their effect on consumer behaviour in Japan and the United States. *Journal of Business Research,* 34 (1): 1-9

- Spilka, B., Hood, R.W., Hunsberger, B. and Gorsuch, R. (2003) *The Psychology of Religion.*New York, NY: Guildford Press.

- Spinks, G.S. (1963) *Psychology and Religion*. London, UK: Methuen.

- Sproles, G. B. and Kendall E. (1986). A methodology for profiling consumers' decision-making styles. *Journal of Consumer Affairs* 20 (Winter): 267-279

- Stark, R. and Glock, C. Y. (1968). *American Piety: The Nature of Religious Commitment. Berkeley,* CA: University of California Press

- Stephenson, R. P. and Willett, R. P. (1969). *Analysis of consumer's retail patronage strategies*. In P. R. McDonald (ed.), Marketing Involvement in Society and Economy (pp. 316-322). Chicago: American Marketing Association

- Stoltman, J.J, Gentry, J.W & Anglin, K.A.(1991). Shopping choices: The case of mall choice. *Advances in Consumer Research* 18:434-440.

- Stone, G. P. (1954). City shoppers and urban identification: observations on the social psychology of city life. *The American Journal of Sociology 60* (July): 36-45

- Studenmund, A. H. (2001). *Using Econometrics: A Practical Guide*, 4th ed. Boston, MA: Addison Wesley Longman

- Suhail, K. and Chaudhry, H. R. (2004). Predictors of subjective well-being in an eastern Muslim culture. *Journal of Social & Clinical Psychology* 23 (3): 359-375

- Summers, T.A, Belleau, B.D & Wozniak, P.J. (1992). Fashion and shopping perceptions, demographics, and store patronage. Clothing and Textiles Research Journal 11 (1):83-91.

- Sun, T., Horn, M. and Merritt, D. (2004). Values and lifestyles of individualists and collectivists: a study on Chinese, Japanese, British and US consumers. *Journal of Consumer Marketing* 21 (5): 318-331

- Swimberghe K.R., Sharma D., Flurry L.W (2011). Does a Consumer's Religion Really Matter in the Buyer–Seller Dyad? An Empirical Study Examining the Relationship Between Consumer Religious Commitment, Christian Conservatism and the Ethical Judgment of a Seller's Controversial Business Decision. *Journal of Business Ethics,* 102:581–598

- Swinyard, W. R., Kau, A. K. and Phua, H. Y. (2001). Happiness, materialism and religious experience in the U.S. and Singapore. *Journal of Happiness Studies* 2 (1): 13- 32

- Tabachnick, B. G. and Fidell, L. S. (2000). *Computed-Assisted Research Design and Analysis*. Needham Heights, MA: Allyn and Bacon

- Tabachnick, B. G. and Fidell, L. S. (2001). *Using Multivariate Statistics*, 4th ed. New York: HarperCollins College Publishers

- Tashakkori, A. and Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage

- Tate, E. and Miller, G. (1971). Differences in value systems of persons with varying religious orientations. *Journal for the Scientific Study of Religion* 10 (4): 357-365

- Tate, R. (1998). *An Introduction to Modeling Outcomes in the Behavioral and Social Sciences*, 2nd ed. Edina, Minnesota: Burgess Publishing

- Taylor V.A., Halstead D. and Haynes P. J (2010). Consumer responses to Christian religious symbols in advertising. *Journal of Advertising,* vol. 39, no. 2 (Summer 2010), pp. 79–92.)

- Terpstra, V. and David, K. (1991). *The Cultural Environment of International Business,* 3rd ed. Cincinnati, Ohio: South-Western Publishing Company

- Terpstra, V. and Sarathy, R. (2000). *International Marketing*, 8th ed. Fort Worth, FL: The Dryden Press

- Thompson, C. J. and Tambyah, S. K. (1998). Rethinking theories of "consumer culture" through postmodern analyses of consumption and the production of hybrid cultural forms. *Advances in Consumer Research* 25: 58-59.

- Thompson, H. A. and Raine, J. E. (1976). Religious denomination preference as a basis for store location. *Journal of Retailing*, 52 (2): 71-78

- Ticehurst, G. W. and Veal, A. J. (2000). *Business Research Methods: A Managerial Approach*. New South Wales: Pearson Education Pty Limited

- Tull, D. S. and Hawkins, D. I. (1990). *Marketing Research: Measurement and Method*, 5th ed. New York: Macmillan

- Turley, D. (1995). The Irish consumer through Irish eyes: European values survey 1990. *Irish Marketing Review* 8: 91-96

- Uncles, M. and Page, K. (1998). Overall goodness-of-fit statistics in academic marketing research. ANZMAC98 Conference Proceedings, Otago, New Zealand: 2705-2713

- Van Buren III, H. J. and Agle, B. R. (1998). Measuring Christian beliefs that affect managerial decision-making: a beginning. *International Journal of Value-Based Management* 11 (2): 159-177

- van der Heijden, B. (2003). The relationship between career mobility and occupational expertise: a retrospective study among higher-level Dutch professionals in three age groups. *Employee Relations* 25 (1): 81-109

- VanVoorhis, C. W. and Morgan, B. L. (2001). Statistical rules of thumb: what we don't want to forget about sample sizes. *Psi Chi Journal* 6 (4).

- Venkatesh, A. (1995). Ethnoconsumerism: a new paradigm to study cultural and crosscultural consumer behavior. In J. A. Costa and G. Bamossy (eds.), *Marketing in a Multicultural World* (pp. 26-67). Sage Publications

- Visser E.M. and Preez R.D (2001). Apparel shopping orientation: Two decades of research. *Journal of Family Ecology and Consumer Sciences,29*

- Vitell S.J., PaoUllo J. and Singh J.J,(*2005). Religiosity and Consumer Ethics, *Journal of Business Ethics* 57: 175-181)

- Weaver, G. and Agle, B. (2002). Religiosity and ethical behaviour in organisations: a symbolic interactionist perspective. *Academy of Management Review* 27 (1): 77-87

- Weber, M. (1930). *The Protestant Ethic and the Spirit of Capitalism*. Talcott Parsons (ed.) Boston: Unwin Hyman

- Welker K.s.(2004). *A patronage study of small, retail apparel firms* (Doctoral dissertation,the florida state university college of human sciences,2004)

- Wiebe, K. and Fleck, R. (1980). Personality correlates of intrinsic, extrinsic and nonreligious orientations. *Journal of Psychology 105*: 181-187

- Wilkes, R. E., Burnett, J. J. and Howell, R. D. (1986). On the meaning and measurement of religiosity in consumer research. *Journal of the Academy of MarketingScience* 14 (Spring): 47-56

- Wilson A.J. and Liu J. (2011). Challenges of Islamic branding: navigating emotions and halal. *Journal of Islamic Marketing 2 (1)*: 28-42

- Wilson A.J. et.al. (2013). Crescent marketing, Muslim geographies and brand Islam. *Journal of Islamic Marketing 4 (1):* 22-50

- Wilson J.A. and Hollensen S.(2013). Assessing the implications on performance when aligning customer lifetime value calculations with religious faith groups and *after*lifetime values – a Socratic elenchus approach. *Int. J. Business Performance Management 14 (1)*

- Winer, B. J., Brown, D. R. and Michels, K. M. (1991). *Statistical Principles in Experimental Design*, 3rd ed. New York: McGraw-Hill

- Woods, T. E., Antoni, M. H., Ironson, G. H. and Kling, D. W. (1999). Religiosity is associated with affective and immune status in symptomatic HIV-infected gay men. *Journal of Psychosomatic Research* 46 (2): 165-176

- Worthington, E. L., Jr., Wade, N. G., Hight, T. L., McCullough, M. E., Berry, J. T., Ripley, J. S., Berry, J. W., Schmitt, M. M. and Bursley, K. H. (2003). The religious commitment inventory-10: development, refinement and validation of a brief scale for research and counselling. *Journal of Counselling Psychology 50* (1): 84-96

- Wulff, D. M. (1997). *Psychology of Religion: Classic and Contemporary*, 2nd ed. New York: Wiley and Sons

- Wuthnow, R. (1998). *After Heaven: Spirituality in America since the 1950s*. Berkeley: University of California Press.

- Yin, R. K. (1994). *Case Study Research: Design and Methods*, 2nd ed. Thousand Oaks, CA: Sage

- Zar, J. H. (1999). *Biostatistical Analysis*. Upper Saddle River, NJ: Prentice-Hall International

- Zelinksi, W. (2001). The uniqueness of the American religious landscape. *The Geographical Review* 91 (July): 565-585

- Zhang B., Carpenter J.M and Deborah J.C. (2011). Shopping Orientations and Retail Format Choice among Generation Y Apparel Shoppers. *Journal of Textile and Apparel Technology and Management,7(1)*

- Zikmund, W. G. (2000). *Business Research Methods*, 6th ed. Orlando, FL: The Dryden Press

List of Publications

Sr. No.	Title of the research paper	Name of Journal	Author's Name
1	Influence of Religion on Shopping Behaviour of Consumers-An Exploratory Study	Abhinav National Monthly Refereed Journal of Reasearch in Commerce & Management	Mahesh Patel
2	Measurement of Religiosity in Consumer Research	Asian Academic Research Journal of Social Sciences & Humanities	Mahesh Patel and Dr. JayaAshish Sethi
3	Use of Religion as a Construct in Studying Consumer Behaviour - A Theoretical Perspective	International Journal of Business Management and Research	Mahesh Patel and Dr. JayaAshish Sethi

Appendix A

Previous Consumer Behaviour Research on Religion

Author(s)	Method	Sample	Product	Dimensions	Focus of the study
Engel (1976)	Group interview	Church members (n = 2,625)	No product involved	Denominational affiliation	
Thomson & Raine (1976)	Personal interview	Protestant (n = 854)	No product involved	Denominational affiliation	Store location
Hirschman (1981)	Self-administered questionnaire	Jewish (n = 192) Non-Jewish (n = 469)	No product involved	Religious affiliation	Jewish ethnicity
Hirschman (1982a)	Self-administered questionnaire	Catholic (n = 96) Jewish (n = 120)	No product involved	Religious affiliation	Novelty seeking and information transfer
Hirschman (1982b)	Self-administered questionnaire	Catholic (n = 166) Jewish (n = 172) Protestant (n = 80)	No product involved	Religious affiliation	Leisure activities and motives
Hirschman (1982c)	Self-administered questionnaire	Catholic (n = 167) Jewish (n = 228) Protestant (n = 55)	No product involved	Religious affiliation	Hedonic consumption
Hirschman (1983)	Self-administered questionnaire	Catholic (n = 96) Jewish (n = 120) Protestant (n = 114)	No product involved	Religious affiliation	Consumption patterns
Hirschman (1985)	Self-administered questionnaire	Catholic (n = 116) Jewish (n = 163) Protestant (n = 53)	No product involved	Religious affiliation	Media content preferences
Wilkes, Burnett & Howell (1986)	Mail survey	Mostly Protestant (n = 602)	No product involved	Religiosity	Measurement of religiosity and consumer lifestyles
Delener (1987)	Self-administered questionnaire	Catholic (n = 204) Jewish (n = 145)	No product involved	Religious affiliation	Value structure
LaBarbera (1987)	Case study	Born-again Christian	No product involved	Religious affiliation	General consumer behaviour of born-again Christians
Delener & Schiffman (1988)	Self-administered questionnaire	Catholic (n = 204) Jewish (n = 145) Jewish (n = 145)	Microwave oven & automobile	Religious affiliation and religiosity	Family decision-making

Delener (1989)	Self-administered questionnaire	Catholic (n = 131) Jewish (n = 76)	Microwave oven & automobile	Religious affiliation and religiosity	External information search
Nix & Gibson (1989)	Telephone survey	Former patients (n = 200)	No product involved	Religious affiliation	Selection of hospital and patient satisfaction
LaBarbera & Stern (1990)	Self-administered questionnaire	Orthodox Jewish Non-Orthodox Jewish	Non-durable products	Denominational affiliation	Repeat purchase behaviour
Delener (1990a)	Self-administered questionnaire	Catholic (n = 131) Jewish (n = 76)	Microwave oven & automobile	Religious affiliation and religiosity	Consumer innovativeness
Delener (1990b)	Self-administered questionnaire	Catholic (n = 131) Jewish (n = 76)	Microwave oven & automobile	Religious affiliation Religiosity	Perceived risk aversion
McDaniel & Burnett (1990)	Mail survey	Protestant (n = 314) Catholic (n = 264) Jewish (n = 39)	No product involved	Religious affiliation Religiosity	Store evaluative criteria
McDaniel & Burnett (1991)	Mail survey	Born-Again (n = 108) Non Born-Again (n = 442)	No product involved	Denominational affiliation	Media usage behaviour
Smith & Frankenberger (1991)	Mail survey	Protestant (n = 316) Catholic (n = 159) Jewish (n = 105) Other (n = 68) None (n = 15)	No product involved	Religiosity	Shopping criteria
Clark (1992)	Self-administered questionnaire	Student sample (n = 182)	No product involved	Religiosity	Store evaluative criteria
Andaleeb (1993)	Self-administered questionnaire	RAH and NRAH patients (n = 130)	No product involved	Religious affiliation	Hospital selection and evaluation of medical service
Bailey & Sood (1993)	Self-administered questionnaire	Buddhist (n = 28) Catholic (n = 90) Hindu (n = 16) Islam (n = 40) Jewish (n = 31) Protestant (n = 107) Non-religious (n = 37)	Stereo sound system	Religious affiliation	Shopping behaviour

Rodriguez (1993)	Personal interview	Catholic (n = 313)	Expensive radio	Religiosity	Purchasing patterns of Peruvian consumers
Haron, Ahmad & Planisek (1994)	Self-administered questionnaire	Muslim (n = 150) Non-Muslim (n = 151)	No product involved	Religious affiliation	Bank patronage factors in Malaysia
Delener (1994)	Self-administered questionnaire	Catholic (n = 131) Jewish (n = 76)	Automobile	Religious affiliation Religiosity	Family decision-making
Sood & Nasu (1995)	Self-administered questionnaire	Shinto (n = 125) Protestant (n = 105)	Expensive radio	Religious affiliation Religiosity	Shopping behaviour in Japan and US
Michell & Al-Mossawi (1995)	Experiment	Christian (n = 200) Muslim (n = 200)	No product involved	Religiosity	Advertising effectiveness
LaBarbera & Gurhan (1997)	Self-administered questionnaire	Born-again and non- born-again Christian (n=241)	No product involved	Religiosity	Materialism and subjective well-being
Siguaw, Simpson & Joseph (1995)	Telephone interview	n = 338 (U.S. sample) n = 60 (N.Z. sample)	No product involved	Religiosity	Sunday shopping and Out shopping
Siguaw & Simpson (1997)	Telephone interview	n = 338 (Fundamentalist, Protestant, Catholic, Other)	No product involved	Religiosity	Sunday shopping and out shopping
Michell & Al-Mossawi (1999)	Experiment	Bahraini Muslim (n = 800)	No product involved	Religiosity	Perceived message of TV commercials in Bahrain
Siala, O'Keefe & Hone (2004)	Experiment	Christian (n = 29) Muslim (n = 38) Others (n = 24)	Books	Religious affiliation	Trust in e-commerce
Fam, Waller & Erdogan (2004)	Self-administered questionnaire	n = 1,393 (Buddhist, Muslim, Christian, Hindu and non-religious believers)	No product involved	Religious affiliation	Attitudes towards the advertising of controversial products
Essoo & Dibb (2004)	Mail survey	Hindu (n= 324) Catholic (n = 198) Muslim (n = 78)	Television set	Religious affiliation Religiosity	Shopping behaviour in Mauritius
Mokhlis (2006)	Self-administered questionnaire	Muslims (103) Buddhist (57) Hindu (34) Christian (32)	Apparel product	Religiosity	Shopping Orientation

Mokhlis (2009)	Self-administered questionnaire	Muslims (103) Buddhist (57) Hindu (34) Christian (32)	Apparel product	Religiosity	Relevancy and Measurement
Mokhlis (2010)	Self-administered questionnaire	Muslims (260) Buddhist (104) Hindu (113) Christian and others (20)	No product involved	Religiosity	Consumer Shopping Styles
Rehman and Shabbir (2010)	Self-administered questionnaire	Muslim Students (n=300)	No product involved	Religiosity	New Product Adoption in Pakistan
Choi (2010)	Self-administered questionnaire	Buddhists (n=147), Catholics (n=57) , Protestants (n=103) , and nonreligious (n=166)	No product involved	Religious affiliation Religiosity	South Korea consumer Store switching behavior
Choi, Kale and Shin (2010)	Self-administered questionnaire	Buddhism (122), Protestantism (n=102), Catholicism (n=89), Orthodox (n=2), Other (n=2), No religion (n=193)	No product involved	Religiosity	Korean consumers use of various information sources
Taylor, Halstead, and Haynes (2010)	Personal Interviews	275 Adults	No product involved	Religiosity	Christian religious symbol in advertising
Moschis and Sim Ong (2011)	Personal Interviews	645 adults	No product involved	Religiosity	well-being and changes in consumer preferences
Siguaw and Simpson (2011)	Telephone interview	European-Americans, African-Americans (n=338)	No product involved	Religiousness	Sunday shopping and outshopping behaviours
Moschis and Sim Ong (2011)	Self-administered questionnaire	Muslims, Buddhist, Hindu (n=645)	No product involved	Religiosity	well-being and changes in consumer preferences
Khraim et. al (2011)	Self-administered questionnaire	1101 individuals	No product involved	Religiosity	Measurement of Religiosity
Swimberghe, Flurry and Parker (2011)	Panel Survey	531 Respondents	No product involved	Religiosity	Christian consumers' conservative beliefs in the
Hess (2012)	Personal Interviews	Gallop Data base		Religiosity	United States

Appendix B

Survey Questionnaire

Dear Participant,
The purpose of this research study is to investigate religious influences on consumer shopping orientation. Please be assured that all of your responses are anonymous, and they will be reported in the aggregate for research purposes only.

You must be 21 years of age to participate in this study. There are no foreseeable risks or discomforts in completing this survey; no questions are asked that would pose any physical, psychological, or social risks. It should take you approximately 15 minutes to complete the survey. Your completion of the survey serves as your consent to participate in the study.

Your participation will be of great importance to the success of this project. Answering these questions will also help you to identify your buying habits and give you the opportunity to state your opinions. Information obtained during the course of the study will remain confidential, to the extent allowed by law.

There are no right or wrong answers. We are interested in your opinions. Please answer all items.
_____
—

1. Religiosity

Please indicate your reactions to the following statements by using the scale below:
1 – Strongly disagree 2 – disagree 3 – neither disagree nor agree 4 – agree 5 – strongly agree

Religious beliefs are especially important to me because they answer many questions about the meaning of life	1	2	3	4	5
It is important to me to spend periods of time in private religious thought or prayer	1	2	3	4	5
My religious beliefs lie behind my whole approach to life	1	2	3	4	5
Religious beliefs influence all my dealings in life	1	2	3	4	5
I spent time trying to grow in understanding of my religious beliefs	1	2	3	4	5

I often read books and magazines about my religious beliefs	1	2	3	4	5
I enjoy spending time with others of my religious affiliation	1	2	3	4	5
I have often had a strong sense of God presence	1	2	3	4	5
My religious beliefs are very important to me	1	2	3	4	5
I pray mainly to get relief and protection.	1	2	3	4	5
I would like to talk my religious teaching with others	1	2	3	4	5
Fasting brings closer to the God	1	2	3	4	5
Religious festivals are very important to me	1	2	3	4	5
I enjoy participating in the activities of my religious organization	1	2	3	4	5
I make financial contributions to religious organization	1	2	3	4	5
I volunteer to help others based on my religious beliefs	1	2	3	4	5
I ask other people to pray for me.	1	2	3	4	5
When I do something wrong, I ask for God's forgiveness.	1	2	3	4	5
I listen to religious songs or poetry about God.	1	2	3	4	5
When I face a problem, I pray for God's help	1	2	3	4	5
Praying gives me strength when I'm upset	1	2	3	4	5
I avoid swearing by God's name	1	2	3	4	5
I help people in their difficulties for God's sake	1	2	3	4	5
Rewards of Paradise encourage me to do good doings	1	2	3	4	5
Advise others to do good and avoid sin	1	2	3	4	5
I look for opportunities to give charity	1	2	3	4	5
Prayer is a regular part of my life	1	2	3	4	5

| I take religious advise or teaching into consideration when I have a serious personal problem | 1 | 2 | 3 | 4 | 5 |

I do believe in personal God or in higher power   1   2   3   4   5

I frequently visit the places of my rel1igious faith
(church/temple/mosque)   1   2   3   4   5

2. Perceived strength of religiosity

How would you rate the strength of your religiosity?

Very strong   Very weak

    6   5   4   3   2   1

3. Shopping Orientation

Please indicate your reactions to the following statements by using the scale below:
1 – strongly disagree 2 – disagree 3 – neither disagree nor agree 4 – agree 5 – strongly agree

I prefer to buy national brand-name clothing   1   2   3   4   5

Wearing designer clothing gives me social
Status   1   2   3   4   5

I usually buy at the most convenient store   1   2   3   4   5

Shopping for clothes puts me in a good
mood   1   2   3   4   5

I do not pay much attention to brand names   1   2   3   4   5

I am very cost conscious when it comes to
clothes   1   2   3   4   5

I shop where it saves me time   1   2   3   4   5

Shopping is not a pleasant activity for me   1   2   3   4   5

A well-known brand means good quality   1   2   3   4   5

I usually watch the advertisements for
announcements of sales   1   2   3   4   5

The more expensive brands are usually
my choice   1   2   3   4   5

I try to stick to certain brands and stores	1	2	3	4	5
I usually have one or more outfits that are of the very latest style	1	2	3	4	5
When I must choose between the two I usually dress for fashion, not comfort	1	2	3	4	5
I buy as much as possible at sale prices	1	2	3	4	5
I am interested in fashion	1	2	3	4	5
The lower price products are usually my choice	1	2	3	4	5
I look carefully to find the best value for the money	1	2	3	4	5
I like to go shopping with a friend	1	2	3	4	5
I get a psychological lift from shopping	1	2	3	4	5
I often go shopping to get ideas even though I have no intention of buying	1	2	3	4	5
Shopping wastes my time	1	2	3	4	5
I continued to shop, not because I had to, but because I wanted to	1	2	3	4	5
I usually continue to shop around even after making purchases	1	2	3	4	5
I often buy things which I never intended to buy	1	2	3	4	5
I consider myself to be trendy	1	2	3	4	5
I look for quality in a product and is willing to pay extra for it	1	2	3	4	5
I read fashion news regularly to see what is new in fashion	1	2	3	4	5
I think I am impulsive buyer	1	2	3	4	5
The quality of merchandise I buy is more important to me than the prices I have to pay	1	2	3	4	5
I don't mind paying high prices for clothes	1	2	3	4	5

I put high value on convenience when shopping for clothes	1	2	3	4	5
Once a find a brand I like, I stick to it	1	2	3	4	5

4. Information Sources

How often do you refer to the following information sources when   to buy an apparel/clothing? Use one of the following response options: 1 – Never 2 – Rarely 3 – Sometimes 4 – Quite often 5 – Always

Television advertising	1	2	3	4	5
Catalogues/brochures	1	2	3	4	5
Magazine advertising	1	2	3	4	5
Newspaper advertising	1	2	3	4	5
Friend's opinion	1	2	3	4	5
Family/relatives	1	2	3	4	5
Salesperson's advice	1	2	3	4	5
Internet	1	2	3	4	5

5. When shopping for clothing for oneself, what is the average amount of money spent per year?

Rs. _____

6. Demography

Finally, please tell us about yourself (tick one).

You are: [1] Male   [2] Female

You are: [1] Single   [2] Married   [3] Divorced/widowed

You are: [1] 21-30years old   [2] 31-40 years old   [3] 41-50 years old

           [4] 51-60 years old   [5] 60 and above

Your religion is:

           [1] Islam   [2] Hinduism
           [3] Jainism   [4] Christianity

[5] Free thinker   [6] Others (please specify _____)

Education attainment:

[1] Illiterate   [2] Literate but not formal schooling
[3] School upto 9th standard   [4] SSC/HSC
[5] Some college (Including Diploma[6]Graduate/post graduate(General)
    but not graduation
[7] Graduate/post graduate (professional)

Occupation: [1] Self-employed   [2] Government employee
              [3] Private sector employee   [4] Housewife/retired/unemployed/student

How would you describe the area in which you live?
              1. Urban   2. Suburb/Town   3. Rural

Your annual income (for single); your combined incomes (for married); your spouse's income (for non working individuals):

[1] < 90000   [2] 90001-200000   [3] Rs. 200001 – Rs. 500000
[4] Rs. 500001 – Rs.1000000 [5] >1000000

Name:_____

Residential_____
Address   _____
          _____
Cont. No._____

Appendix C

Descriptive Statistics

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Cognitive Religiosity	3.744	0.93074	-0.773	0.1
Behavioural Religiosity	3.6302	0.92446	-0.602	-0.248
Consequential Religiosity	3.6267	0.96437	-0.544	-0.321
Experiential Religiosity	3.7837	0.73501	-0.609	0.339

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Media Information Source	3.3027	1.00884	-0.164	-0.385
Personal Information Source	4.152	0.91178	-1.11	1.24

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Impulsive and Fashion Conscious Shopper	3.2067	1.07214	-0.073	-0.72
Recreational Shopper	3.9733	0.90649	-0.605	-0.115
Price Conscious and Brand Loyal Shopper	3.4653	1.12063	-0.333	-0.673
Convenience Seeker	3.964	0.97774	-0.89	0.519
Shopping Enjoyment	3.0147	1.23956	-0.104	-0.915
Brand Conscious Shopper	3.3507	1.19678	-0.42	-0.626

Appendix D

Correlation Matrix

Correlation matrix of independent variables: religiosity, religious affiliation and demographics

	Cognitive Religiosity	Behavioural Religiosity	Consequential Religiosity	Experiential Religiosity	Gender	Marital Status	Age	Religion	Education	Occupation	Area of Residense	Income
Cognitive Religiosity	1											
Behavioural Religiosity	.320**	1										
Consequential Religiosity	.353**	.330**	1									
Experiential Religiosity	.317**	.216**	.256**	1								
Gender	-0.06	-0.07	-0.05	0.033	1							
Marital Status	0.065	.105**	.094*	-0.03	-.076*	1						
Age	.080*	.152**	.095**	0.033	-.221**	.550**	1					
Religion	0.066	.108**	.101**	0.035	0.003	0.016	0.036	1				
Education	-0.04	-0.06	-0.04	0.03	.096**	-.223**	-.264**	-0.02	1			
Occupation	-0.05	-0.06	-0.04	0.028	.299**	-.100**	-.130**	-.081*	.107**	1		
Area of Residense	0.003	0	0.062	0.047	-0.05	-.081*	-.106**	-0.06	-.080*	-0.07	1	
Income	-0.04	-0.02	-0.07	-0.05	0.025	-0.02	0	0.029	0.026	-0.05	-0.05	1

Appendix E

Multicollinearity Tests for Multiple Linear Regression Analysis

Multicollinearity diagnostic tests (information source)

Dependent variables	Variables entered	Tolerance values	VIF	Condition index
Media Information Source	< 90000	0.865	1.156	2.251
	Housewife/retired/unemployed/student	0.757	1.32	2.456
	Suburb/Town	0.97	1.031	2.556
	Christianity	0.95	1.053	2.617
	Some college (Including Diploma but not graduation	0.79	1.265	2.752
	Graduate/post graduate(General)	0.851	1.176	2.836
	Single	0.787	1.271	3.482
	Consequential Religiosity	0.808	1.237	3.817
	Experiential Religiosity	0.897	1.115	4.003
	Behavioural Religiosity	0.848	1.179	4.717
	>1000000	0.958	1.044	12.44
	Government employee	0.858	1.166	12.926
	Divorced/Widowed	0.949	1.054	19.963
Personal Information Source	Consequential Religiosity	0.968	1.033	1.625
	Christianity	0.975	1.026	1.783
	Jainism	0.986	1.014	2.426
	Single	0.971	1.03	9.252

Multicollinearity diagnostic tests (shopping orientation)

Dependent variables	Variables entered	Tolerance values	VIF	Condition index
Impulsive and Fashion Conscious Shopper	< 90000	0.906	1.103	2.337
	School upto 9th standard	0.948	1.054	2.463
	Hindu	0.655	1.526	2.494
	Jainism	0.755	1.324	2.774
	Christianity	0.793	1.261	2.951
	Graduate/post graduate(General)	0.967	1.034	3.618
	Suburb/Town	0.961	1.041	3.641
	Behavioural Religiosity	0.847	1.181	6.057
	Experiential Religiosity	0.896	1.116	12.116
	Single	0.895	1.118	12.988
	Consequential Religiosity	0.814	1.228	20.692
Recreational Shopper	Consequential Religiosity	0.852	1.173	2.124
	Suburb/Town	0.98	1.021	2.321
	School upto 9th standard	0.974	1.026	2.549
	< 90000	0.954	1.048	3.015
	SSC/HSC	0.955	1.048	3.408
	Housewife/retired/unemployed/student	0.98	1.02	10.583
	Cognitive Religiosity	0.866	1.154	12.973
Price Conscious and Brand Loyal Shopper	Behavioural Religiosity	0.868	1.152	1.979
	Suburb/Town	0.968	1.034	2.067
	Graduate/post graduate(General)	0.974	1.027	2.092
	>1000000	0.979	1.022	2.145
	Consequential Religiosity	0.853	1.172	2.349
	School upto 9th standard	0.976	1.024	2.669
	Christianity	0.819	1.221	4.9
	Hindu	0.671	1.49	10.185
	Jainism	0.771	1.298	14.132

Convenience Seeker	Consequential Religiosity	0.824	1.214	2.277
	Behavioural Religiosity	0.864	1.157	2.356
	Suburb/Town	0.966	1.035	2.478
	Christianity	0.968	1.033	2.598
	< 90000	0.631	1.585	2.724
	90001-200000	0.656	1.525	3.176
	Literate but not formal schooling	0.974	1.026	5.23
	31-40 years old	0.961	1.04	11.54
	Experiential Religiosity	0.901	1.109	11.828
	Some college (Including Diploma but not graduation	0.957	1.045	18.356
Shopping Enjoyment	Cognitive Religiosity	0.816	1.225	2.372
	Housewife/retired/unemployed/student	0.842	1.187	2.421
	Experiential Religiosity	0.861	1.162	2.634
	Jainism	0.806	1.24	3.4
	Hindu	0.765	1.307	4.155
	Behavioural Religiosity	0.859	1.164	5.25
	Graduate/post graduate (professional)	0.947	1.056	11.967
	< 90000	0.912	1.096	13.444
	Government employee	0.855	1.169	19.971
Brand Conscious Shopper	Behavioural Religiosity	0.872	1.146	1.976
	Consequential Religiosity	0.859	1.165	2.023
	51-60 years old	0.991	1.009	2.121
	Christianity	0.82	1.219	2.419
	Suburb/Town	0.972	1.028	4.756
	Hindu	0.673	1.486	9.869
	Jainism	0.778	1.285	13.641