

Islamic Society and Family Planning Media Advertisements in Pakistan: Mediating Role of Religiosity in Attitude and Behavioral Intention

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Abstract

Religious beliefs and religiosity have a significant impact on behavior. People want to adopt family planning methods to avoid unintended and unwanted pregnancies but they do not use family planning because they do not get support from their religion and people with high religiosity level follow their religion more strictly. Literature indicates that religion is one of the major reasons for overpopulation in Pakistan. The main objective of this study is to investigate the moderating role of religiosity between positive feelings, negative feelings, and attitude of Pakistani Muslims toward advertisements of family planning and intention to adopt family planning methods. Data were collected from the 525 Pakistanis using a cross-sectional study design. This research adopted snowball sampling for data collection. Partial Least Squares-Structural Equation Modeling (PLS-SEM) was used to test the hypotheses. Results of this study show religiosity significantly moderate the relationship between positive feelings toward advertisements of family planning and intention to adopt family planning methods, while there is no significant moderating role of religiosity between negative feelings, attitude toward advertisements of family planning and intention to adopt family planning methods.

Keywords: Advertisements, Religiosity, and Behavioral Intention.

Introduction:

Contraceptives are important to reduce the population growth of the world. Professor Adrian Raftery said "there is now a strong argument that population should return to the top of the international agenda and ignoring contraception and a continued preference for large families are major reasons of overpopulation and it should be taken as a serious threat to the world and its survival"¹.

Family planning is a core and serious issue in all developing countries, including Pakistan². Overpopulation of Pakistan and insufficient resources increased the importance of contraceptives, but two factors, advertisements of family planning and religion play a very effective role to influence the attitude and behavior of people. Television is considered popular form of media for advertising campaigns aiming to promote family planning and stimulate couples to make joint decisions in family affairs³. People feared

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¹Carrington, Damian. "World Population to hit 11bn in 2100-With 70% Chance of Continuous Rise." *The Guardian* 18, no. 9 (2014): 2014. Retrieved from

<http://www.theguardian.com/environment/2014/sep/18/world-population-new-study-11bn-2100>

²Bakht, Muhammad Bedar, ZaeemaArif, ShamsaZafar, and Muhammad Asif Nawaz. "Influence of media on contraceptive use: A cross-sectional study in four Asian countries." *Journal of Ayub Medical College Abbottabad* 25, no. 3-4 (2013): 3-8.

³Uddin, Jalal. "Gendered power dynamics and unmet need for family planning among married women in Bangladesh." (2014).

the contraceptives as a harmful foreign object, but people see television advertisements as informative and helping to reduce some of their fears about using contraceptives for controlling population growth⁴.

Advertising influences attitudes and behavioral intentions⁵. Religion plays a major role in developing and shaping the attitudes and behaviors of the followers⁶. According to the study conducted by Fam, Waller, and Erdogan (2004), they propose that religion greatly affects information processing of the advertisement by an individual⁷. It is also found that the extent to which a person is religious also impacts the perception of individuals regarding the advertisement⁸. Religiosity has an impact on consumer attitude toward advertising messages that leads to behavior^{9,10}.

In this regard, a major focus of this current study to investigate the moderating role of religiosity between the feelings toward advertisements of family planning, attitude toward advertisements of family planning and intention of Pakistani Muslims to adopt family planning methods.

Research Questions:

What is the moderating role of religiosity between positive feelings toward advertisements of family planning, negative feelings toward advertisements of family planning, attitude toward advertisements of family planning and intentions of Pakistanis to adopt family planning methods?

Literature Review:

"Religious commitment" often termed as religiosity, is defined by Worthington et al. (2003) 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"¹¹.

⁴Eber, M. "Comprehensive approach to IUD promotion in Pakistan." *Population Services International*. Washington DC (2006). Retrieved from

[https://www.k4health.org/sites/default/files/Comprehensive approach to iud prom in pakistan.pdf](https://www.k4health.org/sites/default/files/Comprehensive%20approach%20to%20iud%20prom%20in%20pakistan.pdf)

⁵Sunde, Julianne Kristine. "Attitudes and purchase intentions toward electric cars: What types of advertising appeal and message are most effective?." Master's thesis, 2014.

⁶Qamar, Nida, Rab Nawaz Lodhi, UroojQamar, UmieHabiba, and Anam Amin. "Advertising Practices in Pakistan According to Islamic Marketing Principles: A Study of Demographic Antecedents in Measuring Perception of People, 21 (12), 2250–2256." (2014).

⁷Fam, Kim Shyan, David S. Waller, and B. ZaferErdogan. "The influence of religion on attitudes towards the advertising of controversial products." *European Journal of marketing* (2004).

⁸Sunde, Julianne Kristine. "Attitudes and purchase intentions toward electric cars: What types of advertising appeal and message are most effective?." Master's thesis, 2014.

⁹Conroy, Stephen J., and Tisha LN Emerson. "Business ethics and religion: Religiosity as a predictor of ethical awareness among students." *Journal of business ethics* 50, no. 4 (2004): 383-396.

¹⁰Rice, Gillian, and Mohammed Al-Mossawi. "The implications of Islam for advertising messages: The Middle Eastern context." *Journal of Euromarketing* 11, no. 3 (2002): 71-96.

¹¹Worthington Jr, Everett L., Nathaniel G. Wade, Terry L. Hight, Jennifer S. Ripley, Michael E. McCullough, Jack W. Berry, Michelle M. Schmitt, James T. Berry, Kevin H. Bursley, and Lynn O'Connor. "The Religious Commitment Inventory--10: Development, refinement, and validation of a brief scale for research and counseling." *Journal of counseling psychology* 50, no. 1 (2003): 84.

In the 21st century, religion and religiosity still play a vital role in determining consumer behavior¹². It is also revealed that the extent to which a person is religious also impacts the perception of individuals regarding the advertisement¹³. Religiosity has an impact on consumer attitude toward advertising messages that leads to behavior^{14, 15}.

Bailey and Sood conducted a study and presented their findings that consumers who belong to different religious backgrounds have different consumption behavior. Furthermore, Muslim consumers believe in fate and they purchase products with the lowest level of information as compared to other people who belong to other religions¹⁶.

An and Kim also found in their study that culture and religion affect attitudes towards the socially sensitive advertisements of controversial products and that are perceived as "social ills" with negative influence on society and have less acceptance in society especially in Muslim society¹⁷. Similarly, Ammar et al. conducted a study in Pakistan and the findings of the study indicate that there is an association between socially-sensitive advertising and rejection of the brand¹⁸.

Hopkins et al. also said that it is more likely that more people with high religiosity will be more offended by the advertisements of controversial products¹⁹. People with high level of religiosity have greater and serious concerns about the controversial products (e.g., cigarettes, alcohol, underwear, contraceptives and condoms) and their advertisements because they possess more traditional attitudes and they have concerns about moral standards.

Past literature has indicated that there is an association between religiosity and advertisements, especially the controversial advertisements and advertisements of controversial products. As Waller, Fam, and Erdogan conducted a study in four different countries, Turkey, U.K., Malaysia and New Zealand and found that religion plays an essential role in influencing attitudes of people about advertisements of controversial products and results also point that geography is not a major determinant of attitudes²⁰.

¹²Patel, Mahesh. "Influence of religion on shopping behaviour of consumers-an exploratory study." *Abhinav National Monthly Refereed Journal of Research in Commerce & Management* 1, no. 5 (2012): 68-78.

¹³Sunde, Julianne Kristine. "Attitudes and purchase intentions toward electric cars: What types of advertising appeal and message are most effective?." Master's thesis, 2014.

¹⁴Conroy, Stephen J., and Tisha LN Emerson. "Business ethics and religion: Religiosity as a predictor of ethical awareness among students." *Journal of business ethics* 50, no. 4 (2004): 383-396.

¹⁵Rice, Gillian, and Mohammed Al-Mossawi. "The implications of Islam for advertising messages: The Middle Eastern context." *Journal of Euromarketing* 11, no. 3 (2002): 71-96.

¹⁶Bailey, Jessica M., and James Sood. "The effects of religious affiliation on consumer behavior: A preliminary investigation." *Journal of Managerial Issues* (1993): 328-352.

¹⁷An, Daechun, and Sang Hoon Kim. "Attitude toward offensive advertising: a cross-cultural comparison between Korea and the United States." In *American Academy of Advertising Conference Proceedings (Online)*, p. 89. American Academy of Advertising, 2006.

¹⁸Ammar, Nawal, Amanda Couture-Carron, ShahidAlvi, and Jaclyn San Antonio. "Experiences of Muslim and non-Muslim battered immigrant women with the police in the United States: A closer understanding of commonalities and differences." *Violence against women* 19, no. 12 (2013): 1449-1471.

¹⁹Hopkins, Christopher D., Kevin J. Shanahan, and Mary Anne Raymond. "The moderating role of religiosity on nonprofit advertising." *Journal of Business Research* 67, no. 2 (2014): 23-31.

²⁰Waller, David S., Kim-Shyan Fam, and B. Zafer Erdogan. "Advertising of controversial products: A cross-cultural study." *Journal of Consumer Marketing* (2005).

Yanu et al. conducted a research to determine the influence of the five factors of religion ("religious commitment", "the motivation one takes toward religion", "religious affiliation", "knowledge about the religion", and "the awareness of the social consequences of following a religion") on consumer behavior²¹. The outcomes of the study indicated that there is an association between the five factors of religion and consumer behavior. Furthermore, the utility of each factor may vary. Researchers must be careful in selecting the right religious factors in the light of their research objectives.

Moreover, the nature of the religious affiliation as a predictor of consumer behavior hardly explains much about religious influence on behaviors. It is also revealed that religiosity level appears to be less credible in determining the religious influence on behaviors and believers hold such beliefs that may contrary to their faith. Moreover, measuring consumers' religiosity level is challenging because every religion may see religiosity level different from the other religions²².

Contraceptive use also influenced by the religion. Religious beliefs are major hurdles in adopting and using contraceptives because of the bans and sanctions from religion, religious beliefs and religious leaders²³. Swimberghe et al. (2009) explain that religious beliefs influence consumer choices to buy products or brands. They also recognized that religiosity in religious beliefs is seen to have a vital role in influencing consumer behavior²⁴.

Review of the literature shows that there is a strong relationship between culture and consumer behavior²⁵. Muslims markets are very attractive for marketers because of their high birth rates, large populations, youth population and high purchasing power²⁶. It is also evident that religiosity plays a vital moderating role in how consumers react to advertising²⁷. Nooh et al. (2014) conducted a study and revealed that religiosity is positively associated with controversial products and controversial advertising and religiosity also has a significant relationship with consumer behaviors²⁸.

Hypotheses:

H₁: Religiosity significantly moderates the relationship between positive feelings toward advertisements of family planning and intention to adopt family planning methods.

²¹Fianto, Ahmad YA. "Development and Measurement of Islamic Values in Consumer Behaviour Research." *International Journal of Business and Management Invention* 3, no. 9 (2014): 1-10.

²²Ibid.

²³Brauner-Otto, Sarah R. "Health Services, Schools, Attitudes, and Contraceptive Use: Tests of a Theoretical Model Among Rural Nepalese." PhD diss., 2007.

²⁴Swimberghe, Krist, Dheeraj Sharma, and Laura Flurry. "An exploratory investigation of the consumer religious commitment and its influence on store loyalty and consumer complaint intentions." *Journal of Consumer Marketing* (2009).

²⁵Thompson, Craig J., and E. J. Arnould. "Consumer culture theory (CCT): twenty years of research." *Journal of Consumer Research* 31, no. 4 (2005): 868-882.

²⁶Taks, Marijke, and MuradShreim. "The influence of Islam on shopping behaviour for sports apparel: An empirical study of Muslim immigrants." In *Best practises in sport facility and event management: Conference proceedings*, pp. 326-328. Arko Sports Media/EASM; Nieuwegein (NL), 2009.

²⁷Hopkins, Christopher D., Kevin J. Shanahan, and Mary Anne Raymond. "The moderating role of religiosity on nonprofit advertising." *Journal of Business Research* 67, no. 2 (2014): 23-31.

²⁸Nooh, Mohammad Noorizzuddin, Syadiyah Abdul Shukor, Muhammad RidhwanAb Aziz, K. Khairi, and Mahdhir Abdullah. "Relationship between Religiosity and Controversial Products and Offensive Nature of Advertising Appeals." *Journal Of Marketing Management* 2, no. 2 (2014): 113-128.

H₂: Religiosity significantly moderates the relationship between negative feelings toward advertisements of family planning and intention to adopt family planning methods.

H₃: Religiosity significantly moderates the relationship between attitude toward advertisements of family planning and intention to adopt family planning methods.

Methodology:

This study follows a quantitative method and cross-sectional study was conducted by using the questionnaire as the instrument for data collection. The major focus of the research is to analyze the moderating role of religiosity between positive feelings toward advertisements of family planning, negative feelings toward advertisements of family planning, attitude toward advertisements of family planning and intention to adopt family planning methods. So, according to the need and nature of the study Pakistani Muslims are the unit of analysis for this current study. According to the nature and sensitivity of the current study, “snowball sampling” technique was used to approach respondents and get data from citizens of Pakistan. A number of relevant studies also used snowball sampling technique and found this technique most appropriate for sensitive studies. Structural equation modeling (SEM) was used through partial least squares (PLS) software to analyze data.

Findings:

The data used for this research was collected from Pakistanis. A total of 550 respondents were approached to collect data personally by using the snowball sampling technique. 535 questionnaires were filled out of 550 questionnaires, 15 respondents refused to fill the questionnaire because of a sensitive issue. After ensuring that data is free from missing values and, the results of means and standard deviations were used to assess the accuracy of the data input. It was found that there were no out-of-range values based on the close checking of the responses. All responses were within the plausible 5-point Likert scale.

After the checking and screening of the data as described in the previous discussion, the next step was to assess the outer model and inner model^{29,30}. PLS-SEM was used in the present research to evaluate the outer model (measurement model) and the inner model (structural model). Outer factor loading as important criteria in assessing indicator's contribution to assigned construct was examined. Outer loadings were examined based on the threshold value of 0.50 and above³¹. However, Hair et al. stressed that outer loading greater than 0.40 but less than 0.70 should be carefully analyzed and should be deleted only if it increases the value of CR and AVE. Based on these recommendations regarding item deletion, 13 items were deleted out of 48 items³².

Table 1 shows “Composite Reliability” (CR) and “Cronbach's Alpha” (CA) values for all the constructs are higher than 0.7 which established the reliability of all

²⁹Hair Jr, Joseph F., G. Tomas M. Hult, Christian Ringle, and Marko Sarstedt. *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications, 2016.

³⁰Henseler, Jörg, and Georg Fassott. "Testing moderating effects in PLS path models: An illustration of available procedures." In *Handbook of partial least squares*, pp. 713-735. Springer, Berlin, Heidelberg, 2010.

³¹Hair, Joseph F. "Multivariate data analysis." (2009).

³²Hair Jr, Joseph F., G. Tomas M. Hult, Christian Ringle, and Marko Sarstedt. *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications, 2016.

variables. It also presents that AVE value of all variable exceeds the threshold value of 0.50 so it can be concluded that convergent validity is established.

Table 1
Loadings, Reliability and Convergent Validity Values

Variables	Items	Loadings	IR	CA	CR	AVE
Attitude	ATA10	0.83	.838			
	ATA12	0.80	.840			
	ATA13	0.70	.851			
	ATA2	0.65	.849	0.85	0.88	0.52
	ATA3	0.62	.847			
	ATA4	0.68	.843			
	ATA5	0.74	.852			
Intention	BI1	0.94	.891			
	BI2	0.96	.837	0.92	0.95	0.87
	BI3	0.89	.933			
Negative Feelings	NF1	0.63	.907			
	NF10	0.75	.909			
	NF2	0.60	.903			
	NF4	0.68	.902			
	NF5	0.60	.903	0.91	0.91	0.52
	NF6	0.90	.901			
	NF7	0.69	.903			
Positive Feelings	NF8	0.85	.898			
	NF9	0.74	.905			
	PF1	0.70	.878			
	PF10	0.82	.872			
	PF2	0.69	.880			
	PF3	0.77	.879			
	PF4	0.62	.875	0.89	0.91	0.50
	PF5	0.71	.878			
	PF6	0.76	.892			
	PF7	0.66	.876			
Religiosity	PF8	0.55	.871			
	PF9	0.75	.875			
	REL4	0.55	.825			
	REL5	0.85	.796			
	REL6	0.78	.811	0.84	0.86	0.51
	REL7	0.88	.799			
	REL8	0.65	.804			
	REL9	0.52	.845			

Note: CR=Composite Reliability, AVE=Average, Variance Extracted, IR= Indicator Reliability, CA= Cronbach's Alpha .

Table 2 presents the findings of "Fornell-Larcker Criterion" assessment with the square root of the variables. The "square root of AVE" found higher than its highest construct's correlation with any other constructs which established "discriminant validity".

Table 2

Discriminant Validity

Variables	ATA	BI	NF	PF	REL
Attitude	0.72				
Intention	0.33	0.93			
Negative Feelings	0.06	0.09	0.72		
Positive Feelings	0.50	0.29	0.43	0.71	
Religiosity	-0.22	-0.12	0.16	0.04	0.72

Table 3 shows the results of cross loading which indicate that all loadings values are higher than 0.5 means there is no problem of “discriminant validity”.

Table 3

Cross Loading

	ATA	BI	NF	PF	REL
ATA10	0.83	0.28	0.00	0.35	-0.18
ATA12	0.80	0.24	-0.05	0.38	-0.21
ATA13	0.70	0.26	0.11	0.36	-0.14
ATA2	0.65	0.15	0.02	0.30	-0.10
ATA3	0.62	0.12	0.08	0.27	-0.11
ATA4	0.68	0.12	0.10	0.36	-0.04
ATA5	0.74	0.34	0.06	0.42	-0.22
BI1	0.33	0.94	0.04	0.26	-0.15
BI2	0.32	0.96	0.10	0.29	-0.13
BI3	0.27	0.89	0.11	0.24	-0.03
NF1	-0.02	0.02	0.63	0.26	0.26
NF10	0.03	0.02	0.75	0.45	0.10
NF2	0.07	0.00	0.60	0.37	0.09
NF4	0.08	0.01	0.68	0.38	0.12
NF5	-0.02	0.01	0.60	0.30	0.15
NF6	0.00	0.11	0.90	0.28	0.16
NF7	-0.10	-0.01	0.69	0.25	0.20
NF8	0.13	0.07	0.85	0.42	0.06
NF9	0.01	0.02	0.74	0.44	0.14
PF1	0.49	0.23	0.17	0.70	-0.01
PF10	0.36	0.28	0.39	0.82	0.04
PF2	0.37	0.07	0.21	0.69	-0.05

PF3	0.37	0.21	0.26	0.77	-0.02
PF4	0.38	0.10	0.21	0.62	-0.08
PF5	0.48	0.22	0.17	0.71	-0.10
PF6	0.33	0.24	0.48	0.76	0.14
PF7	0.25	0.09	0.34	0.66	0.08
PF8	0.17	0.16	0.36	0.55	0.12
PF9	0.26	0.21	0.36	0.75	0.11
REL4	-0.06	0.02	-0.03	-0.03	0.55
REL5	-0.24	-0.11	0.07	-0.05	0.85
REL6	-0.19	-0.07	0.14	0.04	0.78
REL7	-0.14	-0.10	0.13	0.07	0.88
REL8	-0.16	0.00	0.09	0.03	0.65
REL9	-0.02	-0.03	0.20	0.18	0.52

Note: PF= Positive Feelings, NF= Negative Feelings, BI= Behavioral Intention
Findings in Table 4 of the collinearity indicates that there is no problem of collinearity because all the values of VIF are clearly below the threshold of 5.

Table 4

Collinearity

Variables	Tolerance	VIF
Positive Feelings	.559	1.787
Negative Feelings	.744	1.344
Attitude	.690	1.450
Religiosity	.917	1.090

After checking and reconfirming absence for collinearity problem, the next step was to assess the structural model. According to Hair et al. (2013), the basic criteria for assessing the “structural model” in PLS-SEM are the significance of the “path coefficients”, “coefficient determination” (R^2), the “effect size” (f^2) and “predictive relevance” (Q^2)³³.

Based on the “PLS-SEM” algorithm and bootstrapping procedure as mentioned above, Table 5 shows the “path coefficient” of the independent variables and the dependent variable. The result reveals that three exogenous variables have a positive coefficient and two exogenous variables have a negative coefficient with the endogenous variable. The bootstrapping finding in Table 5 reveals that the association between positive feelings and intention is significant at $p < 0.01$; while the association between negative feelings and intention is found insignificant. Results also showed that positive feelings and negative

³³Hair Jr, Joseph F., G. Tomas M. Hult, Christian Ringle, and Marko Sarstedt. *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications, 2016.

feelings have a significant association with attitude at $p < 0.01$ and $p < 0.1$ respectively. Association between attitude and intention also found significant at $p < 0.05$.

Table 5

Results of Direct Relationships

Paths	β	SE	T	P
Positive Feelings -> Intention	0.17	0.12	1.43	0.08*
Negative Feelings -> Intention	0.01	0.20	0.07	0.47
Attitude -> Intention	0.23	0.11	2.11	0.02**
Religiosity -> Intention	-0.07	0.17	0.43	0.33

*: $p < 0.1$; **: $p < 0.05$; ***: $p < 0.01$

This study tested the moderating role of religiosity on the relationship of positive feelings toward advertisements of family planning, negative feelings toward advertisements of family planning, attitude toward advertisements of family planning and intention to adopt family planning methods with Smart PLS 2.0 using the bootstrapping procedure with 525 cases and 5,000 sub-samples³⁴.

Vinzi et al. stated that there are three steps to test moderation, firstly determine only the main influences of the independent variables on the dependent variable; secondly, reexamine the influences of independent variables on dependent variable by including the moderator; and lastly, include the interaction terms, i.e., the multiplication of independent variables by the moderator variable³⁵. The product of the indicators of the variables is used to reflect the latent interaction variables³⁶. Hence, the moderating effect holds only when these interaction terms are significant³⁷.

Table 6

Results of Mediation

Paths	Path Coef	Path Coef	Path Coef	Standard Error	T-Stat	P Value	Decision
PF -> BI	0.22	0.16					
NF -> BI	-0.07	0.006					
AtA -> BI	0.29	0.252					
Moderating Variable REL -> BI	-	-	0.075	0.085			

³⁴Ringle, C. M., Wande, S., & Becker, J.-M. (2016a). Smartpls 3.0. Retrieved August 9, 2016, from <http://www.smartpls.com>

³⁵Henseler, Jörg, and Georg Fassott. "Testing moderating effects in PLS path models: An illustration of available procedures." In *Handbook of partial least squares*, pp. 713-735. Springer, Berlin, Heidelberg, 2010.

³⁶Chin, Wynne W., Barbara L. Marcolin, and Peter R. Newsted. "A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study." *Information systems research* 14, no. 2 (2003): 189-217.

³⁷Hair Jr, Joseph F., G. Tomas M. Hult, Christian Ringle, and Marko Sarstedt. *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications, 2016.

H1	REL*PF -> BI	0.046	0.547	0.084	0.09*	Supported
H2	REL*NF -> BI	0.183	0.405	0.451	0.35	Not Supported
H3	REL*AtA -> BI	0.095	0.418	0.227	0.27	Not Supported
	R ²	0.13	0.136	0.168		

*:p<0.1; **:p<0.05;***:p<0.01

One of the most commonly used criteria for assessing structural model is the coefficient of determination (R^2) of endogenous latent variables³⁸. According to Cohen (1988), R^2 values of .27, .13 and .02 indicate substantial, moderate and weak R^2 values, respectively³⁹. Results show that the R^2 value indicates all the four exogenous variables (PF, NF, ATA, and REL) combined together in the model explain 13% variance in the endogenous variable (intention to adopt family planning methods). Consequently, based on the assessment of the R^2 of the endogenous latent variables intention to adopt family planning methods, it is concluded that the model has substantial predictive validity.

In this study, the effect size for the exogenous construct found to be statistically significant to affect the endogenous variables is assessed and reported where 0.02, 0.15, and 0.35 have been proposed as small, moderate and large effects, respectively⁴⁰. Findings indicate that exogenous constructs have small effect size on their endogenous construct.

Table 7

Effect Size (f^2)

Variables	Effect Size	
PF -> BI	0.10	Small
NF -> BI	0.19	Moderate
AtA -> BI	0.07	Small
Rel -> BI	0.18	Moderate

Results of cross-validated redundancy for intention to adopt family planning methods (BI) show that intention's Q^2 value (.11) is greater than zero; this suggests a substantial predictive relevance of the model.

Table 8

Predictive Relevance (Q^2)

Total	SSO	SSE	1-SSE/SSO
BI	1575	1501.68	0.11

³⁸Hair Jr, Joseph F., G. Tomas M. Hult, Christian Ringle, and Marko Sarstedt. *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications, 2016.

³⁹Cohen, J. "Statistical Power Analysis for the Behavioral Sciences. Hillsdale." (1988).

⁴⁰Cohen, J. "Statistical Power Analysis for the Behavioral Sciences. Hillsdale." (1988).

Discussion:

This section presents the recapitulation of the research findings based on the objectives of the research. The primary objective of the study is to analyze the moderating role of religiosity between positive feelings toward advertisements of family planning, negative feelings toward advertisements of family planning, attitude toward advertisements of family planning and intention to adopt family planning methods. Based on the main objective of the study three hypotheses are formulated and tested statistically based on PLS-SEM using SmartPLS 2.0.

Firstly, H1 states that religiosity significantly moderates the relationship between positive feelings toward advertisements of family planning and behavioral intention. The result shows that religiosity significantly moderates the relationship between positive feelings toward advertisements of family planning and behavioral intention. Hence, H1 is supported. Analysis of the study also reveals that high religiosity of Pakistani Muslims significantly moderates the positive relationship between positive feelings and behavioral intention.

The literature on consumer behavior also indicates that religious factors are also important in influencing consumer behavior given the presence of certain rules in religion. Religion shows potential for significant elements in the phases of problem-solving and decision making⁴¹. It is also evident that religiosity plays a significant moderating role in how consumers react to advertising⁴². Findings of this study also support that religiosity is positively related to controversial products and controversial advertisements and religiosity also have a significant relationship with consumer behaviors⁴³.

Secondly, H2 states that religiosity significantly moderates the relationship between negative feelings toward advertisements of family planning and behavioral intention. Unfortunately, the result demonstrates no support for the hypothesized moderation role of religiosity on negative feelings and behavioral intention relationship. Hence, H2 is not supported. The result of the study does not support the findings of previous studies^{44,45,46,47} which indicated that there is a positive significant relationship between religiosity and controversial advertisements. As Hopkins et al. (2014) said that it is more likely that more religious person will be more offended by the advertisements of

⁴¹Khraim, Hamza. "Measuring religiosity in consumer research from an Islamic perspective." *Journal of Economic and Administrative Sciences* (2010).

⁴²Hopkins, C. D., Shanahan, K. J., & Raymond, M. A. (2014). The moderating role of religiosity on nonprofit advertising. *Journal of Business Research*, 67(2), 23-31.

⁴³Nooh, Mohammad Noorizzuddin, Syadiyah Abdul Shukor, Muhammad RidhwanAb Aziz, K. Khairi, and Mahdhir Abdullah. "Relationship between Religiosity andControversial Products and Offensive Nature of Advertising Appeals." *Journal Of Marketing Management* 2, no. 2 (2014): 113-128.

⁴⁴Fam, Kim Shyan, David S. Waller, and B. ZaferErdogan. "The influence of religion on attitudes towards the advertising of controversial products." *European Journal of marketing* (2004).

⁴⁵Hopkins, Christopher D., Kevin J. Shanahan, and Mary Anne Raymond. "The moderating role of religiosity on nonprofit advertising." *Journal of Business Research* 67, no. 2 (2014): 23-31.

⁴⁶Nooh, Mohammad Noorizzuddin, Syadiyah Abdul Shukor, Muhammad RidhwanAb Aziz, K. Khairi, and Mahdhir Abdullah. "Relationship between Religiosity andControversial Products and Offensive Nature of Advertising Appeals." *Journal Of Marketing Management* 2, no. 2 (2014): 113-128.

⁴⁷De Run, Ernest Cyril, Muhammad Mohsin Butt, Kim-ShyanFam, and Hui Yin Jong. "Attitudes towards offensive advertising: Malaysian Muslims' views." *Journal of Islamic Marketing* (2010).

controversial products⁴⁸. People with high level of religiosity have greater and serious concerns about the controversial products (e.g., cigarettes, alcohol, underwear, contraceptives and condoms) and their advertisements because they possess more traditional attitudes and they have concerns about moral standards.

Thirdly, H13 states that religiosity significantly moderates the relationship between attitude toward advertisements of family planning and behavioral intention. This result also has been unable to demonstrate the significant moderating role of religiosity on attitude toward advertisements of family planning and behavioral intention relationship. Therefore, H3 is not supported. This finding is unexpected and contrary to past studies^{49,50}. Findings also show that both high and low religiosity also have no significant moderating roles on the relationship between Attitude and intention to adopt family planning methods.

Literature revealed that religion and religiosity are important in influencing consumer behavior⁵¹. It also explains that the extent to which a person is religious also impacts the attitude of individuals regarding the advertisement. Religiosity has an impact on consumer attitude toward advertising messages that leads to behavior^{52,53,54}.

Hence, the study enhances the knowledge of the Theory of planned behavior and literature on advertising and consumer behavior. This study will provide insight in regards to the intentions of Pakistanis to adopt family planning methods. This study will also likely contribute to the body of knowledge by extending the theory of planned behavior by adding new variables, feelings, and attitudes toward the advertisements of family planning. Hopefully, this study will also helpful for future researchers who want to explore the relationships between religion, advertisements, and behavioral intention and it will also guide the future researchers about the mediating role of attitude.

⁴⁸Hopkins, Christopher D., Kevin J. Shanahan, and Mary Anne Raymond. "The moderating role of religiosity on nonprofit advertising." *Journal of Business Research* 67, no. 2 (2014): 23-31.

⁴⁹Schiffman, Leon, Leslie Lazar Kanuk, and Joseph Wisenblit. "Consumer Behavior, 11." *E Prentice Hall* (2010).

⁵⁰Waller, David S., Kim-ShyanFam, and B. ZaferErdogan. "Advertising of controversial products: A cross-cultural study." *Journal of Consumer Marketing* (2005).

⁵¹Patel, Mahesh. "Influence of religion on shopping behaviour of consumers-an exploratory study." *Abhinav National Monthly Refereed Journal of Research in Commerce & Management* 1, no. 5 (2012): 68-78.

⁵²Conroy, Stephen J., and Tisha LN Emerson. "Business ethics and religion: Religiosity as a predictor of ethical awareness among students." *Journal of business ethics* 50, no. 4 (2004): 383-396.

⁵³Rice, Gillian, and Mohammed Al-Mossawi. "The implications of Islam for advertising messages: The Middle Eastern context." *Journal of Euromarketing* 11, no. 3 (2002): 71-96.

⁵⁴Sunde, Julianne Kristine. "Attitudes and purchase intentions toward electric cars: What types of advertising appeal and message are most effective?." Master's thesis, 2014.