Religiosity, Income and Consumption Decision: Analysing Gender Differences

(A case study of District Peshawar, Khyber Pakhtunkhwa)

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Abstract
Income is considered as an important determinant of personal consumption. The choices of an individual are not only influenced by the external factors (income, prices, etc.) but the internal factors such as personal preferences, social influence, and religious beliefs as well. The consumption decisions of the individual may therefore vary depending on their religiosity. Male and female are expected to perform different roles and responsibilities in the society, hence their role as a consumer may also differ while taking decisions regarding consumption of goods and service. The current study aims to examine the impact of religiosity and gender on the consumption decisions of the individual. A total of 679 faculty members (male and female) participated in the study from three major government universities located in district Peshawar. The results of logistic regression revealed that females are more influenced by religiosity in their consumption decisions regarding shariah-compliant financial products such as buying Islamic insurance policy takaful and opening profit and loss account as compared to their male counterparts. The results also confirmed that the income of the consumer has also an influence on their consumption decisions but the strength of religiosity is more than the income in affecting consumption decisions of female than male, where the role of income is more significant in determining consumption decision very consistent with the conventional consumption theory.

Keywords: Religiosity, Shariah-compliant, Takaful, Consumption Decision, Financial Literacy.

1. Introduction and literature:
Consumer decision-making behavior has long been of great interest to the researchers. Early economists, (such as John von Neumann, Oskar Morgenstern, and Nicholas Bernoulli) started their work to examine the foundation of consumer decision making (Richarme, 2005). They exclusively focused on the action of purchase (Loudon & Della Bitta, 1993). The famous consumption theory in economics presented by Keynes (1936) has put forward an interesting fact that consumption (marginal propensity to consume) is determined by economic and psychological factors. The psychological or subjective determinants of propensity to consumption are the attitude of people towards life, their education level, and religious beliefs.

The consumption decisions are determined by numerous factors but one of the factors that influence consumer decisions is culture and beliefs. Culture itself consists of language, art and literature, religion, Health beliefs, family relationships, sexuality, gender roles, education systems, economic systems, and forms of government. Cultural background is considered as the most significant determinant of consumer behavior (Engel, Blackwell & Miniard, 1995). Religion is the most important element of cultural values that influences the consumer behavior by the way they act or make choices (Mahesh, & Sethi 2014).
It is a natural phenomenon that consumption decisions may differ with gender. Male and female have different rationales and perspectives towards consumption subject to their economic, social, psychological, and mental conditions. The consumption decision of both males and females are taken differently. This difference not only exists in their consumption decisions but in their whole approach to life. Women are said to be more religious than men, (Trzebiatowska & Bruce, 2012). The gender difference in personal religiosity is the most researched topic in the literature. (Akinyele, 2007; Crockett & Voas, 2006).

Females are reported to have higher levels of religious belief (Sherkat, 2008) and are found as more involved in religious practice (Baker, 2008). Interestingly, female is more socially religious than male (Batson, Schoenrade, & Larry, 1993). Women are more likely to participate in religious activities like prayer and reading of religious books (Davis & Smith, 1991). The gender differences reflect in their consumption decisions concerning their age as well. The older male respondents were found to be more actively involved in religious activities comparatively (Levin et al., 1994) while female respondents have reported to have strong religious beliefs (Tamminen, 1994). Mitchell and Walsh (2004) stated that the selection of products is different concerning gender, both have different liking and disliking and a different way of choosing the goods. Akturan (2009) concluded that males and females are different from each other in their way of thinking, expectations, and lifestyle which determined their consumption decisions. Solomon et al (2010) described that the consumption of products varies with gender or sex type that shows a strong influence of the role of gender in...
consumption. It may be concluded that the decision-making process regarding consumption, of males and females, is different from each other depending on their personal, psychological, and other characteristics. The above discussion leads to the following research questions:

i. What is the influence of income on the consumption decisions of individual males and females regarding shariah-compliant financial goods and services?

ii. Are religious people more inclined toward the consumption of shariah-compliant financial goods and services?

Objectives of the study are:
To examine the role of religiosity in determining consumption decisions of male and female regarding sharia-compliant financial goods and services.

i. To inspect if the personal income of the consumer has an influence on his consumption decisions regarding sharia-compliant financial goods and services.

The hypotheses of the study are:

H1: religiosity has a significant impact on the consumption decision of female reading Shariah-compliant financial goods and services.

H2: religiosity has a significant impact on the consumption decision of male regarding shariah-compliant financial goods.

H3: income has a significant impact on the consumption decision of females regarding shariah-compliant financial goods.

H4: income has a significant impact on the consumption decision of females regarding shariah-compliant financial goods.

2. Methodology and Econometric Modelling:
The primary data was gathered from 679 male and female participants of the three government Universities of District Peshawar. The data collected entailed details regarding the participant's religiosity, income, financial knowledge, and stated preferences for consumption of shariah-compliant goods. The personal information of the participants i.e., age, qualification, and marital status was also collected. The binary logistic regression is used to get empirical results. We have two models to be tested.

Model 1: female consumption decision

\[ Cdf = \beta_0 + \beta_1 fprrel + \beta_2 fprinc + \beta_3 fage + \beta_4 fmarst + \beta_5 fqual + \mu_i \]

where:
- \( Cdf \) = Consumption decision of female regarding shariah-compliant goods and service.
- \( fprrel \) = personal religiosity of the female
- \( fprinc \) = personal income of the female
- \( fage \) = Age of female
- \( fmarst \) = Marital Status of female
- \( fqual \) = Qualification of female
- \( \mu_i \) = Error term

Model 2: male consumption decision

\[ Cdm = \beta_0 + \beta_1 mprrel + \beta_2 mprinc + \beta_3 mage + \beta_4 mmarst + \beta_5 mqual + \mu_i \]

where:
- \( Cdm \) = Consumption decision of male regarding shariah-compliant goods and service.
- \( mprrel \) = personal religiosity of the male
- \( mprinc \) = personal income of the male
- \( mage \) = Age of male
- \( mmarst \) = Marital Status of male
- \( mqual \) = Qualification of the male
- \( \mu_i \) = Error term

3. Variables and their Measurement:
The study seeks to test the impact of religiosity and income on the individual’s consumption decision regarding sharia-compliant goods. The consumption decision is captured through the stated preferences of the consumers towards purchase of Islamic takaful (preferred over conventional insurance policy) and opening of profit and loss account (preferred over saving account) while religiosity of the participants was captured through Glock and Stark (1968) suggested dimensions.
4. Discussion over Findings:

Table: 1 represents the descriptive statistics of the male and female sample. It can be seen that 24% of the female respondents have a low level of religiosity while 76% have reported higher religiosity. Comparing it with the male sample, 36% have a low level of religiosity while 64% are having a higher consistent with the results of Trzebiatska and Bruce (2012). It may be said that comparatively females are more religious than males already confirmed by Sherkat (2008). It is presented that 72% of the female respondents have preferred takaful over conventional insurance policy while 28% do not. Similarly, 60% of the male sample shows preference to takaful while 40% do not. Other details may also be seen from the table.

Table: 1

| Description              | Female sample (270) | Male sample (409) |
|--------------------------|---------------------|-------------------|
|                         | Freq. | Percent | Freq. | Percent |
| Religiosity              |       |         |       |         |
| 0                        | 64    | 23.70   | 147   | 35.94   |
| 1                        | 206   | 76.30   | 262   | 64.05   |
| Preference for takaful   |       |         |       |         |
| 0                        | 75    | 27.77   | 163   | 39.85   |
| 1                        | 195   | 72.23   | 246   | 60.14   |
| Preference for PLS account |     |         |       |         |
| 0                        | 75    | 27.77   | 180   | 44.00   |
| 1                        | 195   | 72.23   | 229   | 56.00   |
| Age                      |       |         |       |         |
| 1                        | 58    | 21.48   | 38    | 9.29    |
| 2                        | 109   | 40.37   | 86    | 21.0    |
| 3                        | 47    | 17.40   | 139   | 33.98   |
| 4                        | 30    | 11.11   | 69    | 16.87   |
| 5                        | 26    | 9.62    | 77    | 18.84   |
| Marital Status           |       |         |       |         |
| 0                        | 124   | 45.92   | 127   | 31.90   |
| 1                        | 146   | 54.07   | 282   | 68.10   |
| Qualification            |       |         |       |         |
| 1                        | 54    | 20.00   | 69    | 16.87   |
| 2                        | 149   | 55.18   | 157   | 38.38   |
| 3                        | 41    | 15.18   | 141   | 34.47   |
| 4                        | 26    | 9.64    | 42    | 10.26   |
| Income                   |       |         |       |         |
| 1                        | 0     | 0       | 36    | 8.80    |
| 2                        | 19    | 36.54   | 110   | 26.89   |
| 3                        | 12    | 23.08   | 94    | 22.98   |
| 4                        | 8     | 15.38   | 93    | 22.73   |
| 5                        | 13    | 25.00   | 76    | 18.58   |

Table: 2 presents the marginal effects after binary logistic regression with consumption decision as dependent variable in the case of female sample. It may be seen from the table that religiosity is highly significant in both models at $P<0.000$ for consumption decision regarding takaful and $P<0.000$ for profit and loss account. It is suggested that female with high level of religiosity are more influenced in their decisions regarding consumption of shariah-compliant products by preferring them over conventional one, that reflects the differences in consumption decision within male and female (Akturan, 2009; Solomon et al 2010). Similarly, income is significant in both cases indicating that the income of the female respondents has a considerable impact on their consumption choices. It may be interpreted that a one-unit increase in religiosity i.e., going from 0 to 1, the likelihood of preference of takaful over conventional policy is increased by 31.42. Age and qualification are also significant in both models suggesting that a unit increase in age of the female respondent, the likelihood of choosing shariah compliant increases by 1.32. The marital status of the respondents in both models is insignificant. It is concluded that the marital status of the female respondents has no influence on their consumption decisions regarding shariah compliant goods.
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| Variable          | dy/dx  | Z-value | P-value |
|-------------------|--------|---------|---------|
| Religiosity       | 31.42  | 3.97    | 0.000***|
| Income            | 1.47   | 2.04    | 0.042** |
| Age               | 1.32   | 2.08    | 0.037***|
| Marital status    | 1.49   | 0.55    | 0.580   |
| Qualification     | 1.45   | 1.97    | 0.049** |

Preference for profit and loss account over saving account

| Variable          | dy/dx  | Z-value | P-value |
|-------------------|--------|---------|---------|
| Religiosity       | 38.53  | 5.26    | 0.000***|
| Income            | 1.35   | 2.23    | 0.020** |
| Age               | 1.81   | 2.17    | 0.030***|
| Marital status    | 1.33   | 0.63    | 0.531   |
| Qualification     | 1.00   | 1.84    | 0.066*  |

Dy/dx is for discrete change of dummy variable from 0 to 1

Table: 3 summarizes the predicted probabilities of binary regression in the case of male respondents. If we compare the results of both models, it is revealed that they are more similar. Religiosity is significant in for preferring shariah complaints over conventional. Interestingly, income and qualification are appeared to be highly significant for a male sample. A one-unit increase in religiosity leads to an increase in the probability of choosing shariah complaints by 13.33 and 10.51 respectively. The age of the male respondent is weakly significant, having a very low impact on his consumption decisions while marital status is insignificant.

Preference for Takaful over conventional insurance policy

| Variable          | dy/dx  | Z-value | P-value |
|-------------------|--------|---------|---------|
| Religiosity       | 2.42   | 2.30    | 0.021** |
| Income            | 10.51  | 4.23    | 0.000***|
| Age               | 1.00   | 1.72    | 0.085*  |
| Marital status    | 1.00   | 1.01    | 0.311   |
| Qualification     | 1.52   | 2.89    | 0.004***|

dy/dx is for discrete change of dummy variable from 0 to 1

It is suggested that there exist considerable differences in the behavior towards consumption among males and females. The female respondents in the present study are found more religious as compared to their male counterparts. The highly preferred financial products with shariah complaints over conventional ones as compared to males. Male respondents have a positive influence of religiosity on their consumption decisions but income and qualification are more important in determining these decisions than religiosity.

5. Conclusion:

This study throws light on the factors responsible to determine the consumption decision regarding shariah complaints financial goods and services. Religiosity and income have appeared as an important determinant of individual consumption decisions regarding shariah compliant financial goods and services. The study has examined the impact of the said variables on consumption decisions concerning gender. It is concluded that female consumers are comparatively more influenced by religiosity in their consumption decisions than males. Male consumers are highly influenced by income and qualification in their consumption decisions than religiosity. The study provides an important implication that psychological factor such as religiosity is a strong predictor of female financial consumption decision than economic factor i.e., income. This implies that determining the consumption function of a consumer, the gender differences need to be considered to have more elaborated results.
References

Akinyele, S. T. (2007). Gender differences and church member satisfaction: An appraisal. *Gender and Behaviour, 5*(2), 1432-1441.

Alam, S. S., Mohd, R., & Hisham, B. (2011). Is religiosity an important determinant of Muslim consumer behavior in Malaysia? *Journal of Islamic marketing.*

Baazeem, T. A. S. (2015). *How religiosity influences consumption: The impact of consumer religiosity on perceptions of psychological and social risk* (Doctoral dissertation, Queensland University of Technology).

Bakshi, S. (2012). Impact of gender on consumer purchase behavior. *Journal of Research in Commerce and Management, 1*(9), 1-8.

Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective.* Oxford University Press.

Bradshaw, M., & Ellison, C. G. (2009). The nature-nurture debate is over, and both sides are lost! Implications for understanding gender differences in religiosity. *Journal for the scientific study of religion, 48*(2), 241-251.

Bryce, W., & Olney, T. T. (1991). Gender differences in consumption aspirations: A cross-cultural appraisal. *Social Behavior and Personality: an international journal, 19*(4), 237-253.

Crockett, A., & Voas, D. (2006). Generations of decline: Religious change in 20th-century Britain. *Journal for the scientific study of religion, 45*(4), 567-584.

Davis, J. A., & Smith, T. W. (1991). *General social surveys, 1972-1991: Cumulative codebook* (No. 12). National Opinion Research Center (NORC).

Dawson, D. A., & Archer, L. (1992). Gender differences in alcohol consumption: effects of measurement. *British journal of addiction, 87*(1), 119-123.

Engel, J. F., & Blackwell, R. D. (1995). *Miniard. Paul W.*

Hicks, J. R. (1936). Keynes' theory of employment. *The Economic Journal, 46*(182), 238-253.

Hudson, D. L., Purnell, J. Q., Duncan, A. E., & Baker, E. (2015). Subjective religiosity, church attendance, and depression in the National Survey of American Life. *Journal of religion and health, 54*(2), 584-597.

Jensen, L., & Jensen, J. (1993). Family values, religiosity, and gender. *Psychological Reports, 73*(2), 429-430.

Levin, J. S., Taylor, R. J., & Chatters, L. M. (1994). Race and gender differences in religiosity among older adults: Findings from four national surveys. *Journal of Gerontology, 49*(3), S137-S145.

Loudon David, L., & Della, B. A. J. (1993). Consumer behavior. *McGraw USA.*

Morgenstern, O. (1976). The collaboration between Oskar Morgenstern and John von Neumann on the theory of games. *Journal of Economic Literature, 14*(3), 805-816.

Paseephol, T., Small, D. M., & Sherkat, F. (2008). Rheology and texture of set yogurt as affected by inulin addition. *Journal of Texture Studies, 39*(6), 617-634.

Patel, M. K., & Sethi, J. (2014). Use of Religion as a Construct in Studying Consumer Behaviour-A Theoretical Perspective.

Richarme, M. (2005). Consumer decision-making models, strategies, and theories, oh my. *Decision Analyst, 604*, 7601-3100.

Stark, R., & Glock, C. Y. (1968). *American piety: The nature of religious commitment* (Vol. 1). University of California Press.

Strutton, D., Vitell, S. J., & Pelton, L. E. (1994). How consumers may justify inappropriate behavior in market settings: An application on the techniques of neutralization *Journal of Business Research, 30*(3), 253-260.

Trzebiatowska, M., & Bruce, S. (2012). *Why are women more religious than men?* Oxford University Press.

Wong, Y. L. I., Sands, R. G., & Solomon, P. L. (2010). Conceptualizing community: The experience of mental health consumers. *Qualitative health research, 20*(5), 654-667.