

## **Religion and Individual Investment Choice Decision: The Case of Malaysia**

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### **Abstract**

*This paper explored the role of religion in individuals' investment choice decisions. A survey involving 440 employees was used. The Chi-Square test results indicated significant differences in investment choice decisions between Muslim and non-Muslim respondents. There was an equal proportion of Muslims maintaining their savings in the default fund as well as investing part of their savings in a unit trust fund. In contrast, a majority of non-Muslims preferred to invest part of their savings in the unit trusts. Religiosity was viewed from a multidimensional approach and accordingly two sets of instruments were used: the Religious Commitment Inventory (RCI-10) and Muslim Religiosity. The Chi-square tests results indicated no significant differences in investment choice decision among individuals with different levels of RCI and Muslim religiosity respectively. These results suggest that religiosity does not significantly influence individuals' investment choice decisions, particularly when it comes to investing part of their retirement savings in a unit trust.*

**Keywords:** Religion, Investment choice, Malaysia

### **1. Introduction**

*"Finance theory conventionally focuses on risk and return as the factors relevant to the construction of portfolios. But there is evidence of a growing number of investors who wish to incorporate moral or social concerns in their decision-making."*

*(Anand & Cowton, 1993, p. 377)*

Religion has been inferred as a potential determinant of savings and investment behaviour (Keister, 2003) because of the effect it has on the values, habits and attitudes of an individual (Delener, 1994). Various studies from a broad of academic disciplines have examined religion's influence upon people's values, habits, attitudes and behaviour. For example, Lehrer (2004) provides a critical review on the effect of religion on the choice of marital partner, marital stability, entry into cohabitation and marriage, divorce, fertility, women's work at home and in the labour market, education, wages and wealth. Tsalikis and Fritzsche (1989) suggest the importance of incorporating a religious component in developing a framework for business ethics. In a series of studies, Vitell et al. (2003; 2005; 2006) find that religiosity or religiousness is a significant determinant of consumer ethical beliefs. Religion has also been found to have positive and negative impact on mental and physical health (Koenig, McCullough, & Larson, 2001).

Although religion plays an important role in certain aspects of life, its effect on individual's retirement savings behaviour has not been explored. In Malaysia, members of Employees Provident Fund (EPF) are permitted to invest part of their retirement savings in approved unit trusts (also known as mutual fund) under the Members Investment Scheme (MIS). As of 1<sup>st</sup> June 2012, a total of 223 active unit trust funds from 24 Fund Management Institutions (FMI) are offered under the EPF-MIS. The unit trust industry in Malaysia is growing tremendously, with a Net Asset Value (NAV) of RM 277.828 billion as at 30<sup>th</sup> June 2012.

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Given that Malaysia is a major player in Islamic finance, the growth of Islamic unit trust is encouraging. Against this backdrop, the present study seeks to examine the extent to which religion influences individual's investment decision. In particular, the study seeks to investigate whether Muslim members take the opportunity to invest in an alternative investment product that has religious features (such as Shariah-compliant).

The remainder of the paper proceeds as follows. The next section discusses the literature review. Section three outlines the hypotheses development while section four describes the methodology. Section five presents the analysis and findings. Section six provides a conclusion to the paper.

## 2. Literature Review

### 2.1 Definition of Religion

It is difficult to search for a generally accepted definition of religion. Clarke and Byrne (1993) identified three sources of doubt about the possibility of producing a satisfactory definition of religion. They related to (1) conflicts and unclarities in the ordinary use of the term; (2) the confused meaning left to the term from its history; and (3) the obvious divergence in scholarly purposes and approaches to the definition of religion. Among the many kinds of definition, religion has been defined as:

*“system of symbols which acts to establish powerful, pervasive, and long-lasting moods and motivations in men by formulating conceptions of a general order of existence and clothing these conceptions with such an aura of factuality that the moods and motivations seem uniquely realistic”.*

*(Geertz, 1973, p. 78)*

*“A belief in God accompanied by a commitment to follow principles believed to be set forth by God”.*

*(McDaniel & Burnett, 1990, p. 103)*

### 2.2 Religious Affiliation and Religiosity

The two key aspects with which religion can be associated are religious affiliation and religiosity. Religious affiliation refers to the specific religious group to which an individual belongs (Lehrer, 2004). On the other hand, religiosity or religious commitment is defined by Worthington et al. (2003, p. 85) as:

*“the degree to which a person 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.”*

In her critical review of the role of religion in economic and demographic behaviour in the US, Lehrer (2004) upholds the importance of religion affiliation given the impact it has on the range of decisions that people make throughout their life. With regard to religiosity, she contended that this dimension of religion influences the end result of economic and demographic behaviour because it emphasizes the effect of affiliation and because its generally positive influence on health and well being can have repercussions for such behaviour. Focusing on the principal religious group in the US, such as Protestants, conservative Protestants, Roman Catholics, Jews and Mormons, as well as the unaffiliated, Lehrer (2004) synthesized the empirical findings on the effect of religion in the marital stability, the choice of marital partner, fertility, women's work at home and in the labour market, education, wages and wealth and entry into cohabitation and marriage. The evidence revealed a mixed effect. This provides an opportunity for the present study to explore the effect of religion on the individual economic behaviour outside the US regime, particularly in a developing economy.

Tahir and Brimble (2011) examined the extent to which Muslim investors comply with the requirements laid out in Islamic investment principles. In addition, they sought to identify the factors that influence the asset allocation decision in an investment experiment. Tahir and Brimble found support for the influence of Islam on investment decision making among the Muslim. However, the extent to which the Muslim adheres to the Islamic investment principles depends on their level of religiosity. In terms of asset allocation, the evidence of a wealth-maximising element to Islamic investment decisions was indicated.

Haron and Wan Azmi (2008) examined the role of religion in determining the savings behaviour of Malaysian customers, particularly the Islamic bank customers. Contrary to the expectation, their study found that Islamic banking customers placed profit motive above their religious motive when making economic decision. However, they also found that economic variables such as Kuala Lumpur Composite Index (KLCI), Consumer Price Index (CPI), and Gross Domestic Products (GDP) have a significant positive relationship with the savings function in the Islamic system, reflecting the influence of Islamic teachings.

Haron, Ahmad and Planisek (1994) discovered that religion had relatively no influence in bank patronage. They conducted a survey to determine the bank selection criteria considered important by Muslim and non-Muslim customers in a dual banking environment, and to gauge their knowledge of the existence of the Islamic bank and their perception towards this bank in Malaysia. Using a convenience sample, 301 customers covering 3 main towns in 2 states were given a self-administered questionnaire. Principal component analysis was used to cluster bank selection criteria. The results found that the most important factor considered by Muslims in selecting their financial institutions is "fast and efficient service". This factor was ranked second by non-Muslims. They considered "friendliness of bank personnel" as the most important factor. This factor was ranked third by Muslim customers. Only 40 per cent of the Muslim customers believe that religion is the only reason for patronising the Islamic bank.

Perhaps, the research carried out by Muhamad, S.Susela Devi and Abdul Mu'min (2006) is closely related to the present study in the view that religion has some influence on individual investment decision making. This study specifically explored the influence of Islamic religiosity on the investment decision-making among the Malaysian Malay Muslim investors. Aspects being examined include the types of instruments preferred for investment, objective(s) of investment as well as sources of information utilised in making such investment. A survey was carried out among 262 Malay Muslim accountants. It was found that the degree of religiosity has a significant influence on investment decision-making.

The literature discussed above suggests the importance of religion as a pertinent construct to individual behaviour. However, it is important to note that most prior studies on this topic have been conducted among American population who are predominantly Catholics, Protestants or Jews. As such, little can be said about the robustness of previous findings in other religious contexts and cultural settings. A limited number of studies can be found on the role of religion within the retirement savings context (Renneboog & Spaenjers, 2011). Therefore, there is a need to identify whether religion influences the investment choice decision within the retirement savings context, particularly in an emerging economy.

### ***3. Hypotheses Development***

The purpose of this study is to examine the role of religion in individual investment choice decision. In particular, the study sought to identify whether religious affiliation and religiosity affect individual decision to choose to invest part of their retirement savings in the approved unit trusts. Having reviewed the pertinent literature, the following hypotheses were formulated:

1. There is no association between individuals' religious affiliation and their investment choice decisions.
2. There is no association between individuals' religious commitment inventory and their investment choice decisions.
3. There is no association between Muslim religiosity and their investment choice decisions.

### ***4. Methodology***

#### ***4.1 Research Method***

The main objective of this study is to examine the role of religion in individual investment choice decision. To accomplish this objective, a set of questionnaire survey was designed to seek perceptions among EPF members about Members Investment Scheme, as well as perceptions on religiosity.

#### ***4.2 Instruments***

This paper reports part of a larger study on retirement savings behaviour in Malaysia. The analyses that follow in the next section focussed on several sections of the questionnaire. Section one of the questionnaire was designed to gather information about the respondent's demographic and socio-economic background.

Another section focussed on Members Investment Scheme. In this section, members were asked to indicate their decision to either invest part of their savings in the unit trust, or maintain all of their savings in the default plan. Sections on religiosity items are discussed next.

### 4.3 Religiosity

One of the objectives of the present study is to explore whether Islamic religiosity had an influence on Muslim individual investment choice decision, especially when they are presented with a choice to invest part of their retirement savings in an alternative investment that complied with Syariah law. This study utilised the instruments developed by Wan Ahmad et al. (2008) to measure the religiosity of Muslim members. These instruments were deemed more appropriate for the present study because they encompass all aspects of Islam. In other words, the questionnaire items comprised statements related to *iman* (faith), *Syariah* (included ibadah and worldly conducts) and *akhlaq* (virtues and vices). In addition, the questionnaire items were developed by taking into consideration “the various levels of *hukum*, that is, obligation (*wajib*), recommendation (*sunnah*) and prohibition (*haram*) of the *Syariah* or the Islamic laws. The differences of *taklif* (religious obligatory) between male and female for certain obligations like paying *zakah fitrah* and going to the mosque to perform prayer in congregation were also noted” (Wan Ahmad, et al., 2008, pp. 283-284). In the present study, the Muslim respondents were asked to indicate their commitment on a Likert scales of 1 to 5, which ranged from “never“ to “always” for the items of Islamic laws and *akhlaq* (Item 1-15, Section H). For the items of faith, the respondents were asked to which degree they agree with the statements presented. These items (Item 16-22, Section H) took values from “1” (Strongly Disagree) to “5” (Strongly Agree). Following Wan Ahmad et al. (2008), the mean score for the components of *akhlaq* and faith were computed.

Although more than 60 per cent of the Malaysian population is Muslim, the EPF members also consisted of other minority religious groups such as Buddhism, Hinduism and Christian. For this reason, the present study seeks to identify their perceptions regarding religious commitment and whether this dimension has some impact on their retirement savings investment decision. To measure the religious commitment among non-Muslims, the Religious Commitment Inventory-10 (RCI-10), developed by Worthington et al. (2003) was used. This instrument has strong internal consistency, 3-week and 5-month test-retest reliability, construct validity and discriminant validity. The RCI-10 measures motivational and behavioural commitment to a religious value system, irrespective of the content of beliefs in that faith system and has been validated across different samples (Worthington, et al., 2003). The instrument (see Section G) was composed of ten 5-point Likert-type statements ranging from “1” (Strongly Disagree) to “5” (Strongly Agree) with six statements expressing intrapersonal religiosity (cognitive) and four expressing interpersonal religiosity (behavioural). The cognitive dimension focuses on the individual’s belief or personal religious experience while the behavioural dimension concerns the level of activity in organised religious activities. The respondent’s total score is then computed by summing scores for all ten statements. As the RCI-10 was a general version of religiosity measure, the Muslim respondents were also asked to which degree they agree with the statements presented.

### 4.4 Sampling and Data Collection

The population of interest in this study was the EPF members. Under the Members Investment Scheme, EPF members are allowed to invest part of their savings in approved external fund (unit trusts). To ensure a representative sample, the respondents were drawn from eight organisations spanning trades persons, clerical workers, academics and professionals. The main reason for choosing them as the sample was because the respondents were making salary contributions to the EPF; and the respondents were the potential mutual fund investors. It was considered that the nature of respondents’ occupations were adequate to capture the diversity of the fund member population.

Data collection was carried out in early November 2010. For members’ survey, the researcher distributed the questionnaires via the assistance of employee representative from eight organisations respectively. The representatives then distributed the questionnaires randomly to other employees. At the end of November 2010, the representatives returned all the questionnaires to the researcher. From a total of 1,000 questionnaires distributed, 500 were returned, out of which 440 were usable (valid and completed), thereby yielding a response rate of about 44 percent, a response rate considered sufficiently large for statistical reliability.

## **5. Analysis and Findings**

### **5.1 Members' Characteristics**

Table I presents the demographic characteristics of members. The sample consisted of slightly more males (52.5%) than females (47.5%). The mean (median) age of respondents was 33.1 (31) with a standard deviation of 8.27 years. Looking at ethnic composition, the majority of respondents were Malays (78.2%). This is not surprising as the Malays form the largest ethnic group in Malaysia. Compared to statistics from the Census of Population and Housing Malaysia 2000, the sample was over-weighted by the Malays (65%) and under-weighted by the Chinese (26%). In terms of religious affiliation, the largest proportion of the respondents was affiliated to Islam (78.6%). This was followed by Buddhism (12.7%) and Hinduism (7.3%). Another 1.1% respondents indicated that they were affiliated with Christianity.

The majority of respondents are well educated with more than 50 percent having completed a University degree. More than two-third of total respondents have been members with the EPF for 10 years or less (69.3%). The sample median monthly income was between RM4,001 and RM5,000. The majority of respondents (45.2%) earned RM4,000 or less. More than 10% of total respondents earned RM10,001 and above. This result indicates that most of the respondents can be classified as middle-class income earners since majority have monthly incomes within the range of RM1000 to RM5000 (Eight Malaysian Plan 2001-2005)

### **5.2 Religious affiliation and Investment choice decision**

To identify whether there is a relationship between religious affiliation and investment choice decision, a Chi-Square test is used. The Chi-Square test was chosen because the independent variables consisted of more than two groups and the dependent variable, investment choice decision, was measured at the nominal (categorical) level. To calculate Chi-Square, a cross-tabulation was performed and presented in Table II.

As noted at the end of Table II, the Pearson Chi-Square value was highly significant ( $p < 0.01$ ), indicating that there was a relationship between the religious affiliation and investment choice decision. However, 25 percent of the cells have an expected count less than 5. This violated one of the assumptions of the chi-square test (minimum expected count must be 5). Therefore, to have a more valid result, the type of religious affiliation was reduced to two categories: Muslim and non-Muslim. The chi-square test was re-run and the results were depicted at the end of Table III.

The Pearson Chi-Square value was highly significant ( $p < 0.01$ ). In this case, there was no expected count less than 5, so the chi-square assumption was not violated. This significant result suggests that there were significant differences in retirement savings investment choice decision between the religious affiliation groups. Relatively, there was an equal proportion of Muslims maintaining their savings in the default fund as well as investing part of their savings in a unit trust fund. On the other hand, a majority of non-Muslims prefer to invest part of their savings in the unit trusts.

### **5.3 Religiosity and Investment choice decision – Religious Commitment Inventory**

To examine whether there is a relationship between religiosity and investment choice decision, a chi-square test was employed. For the purpose of group comparison, the respondents were classified as low, moderate and highly religious based on their total scores on RCI scales. Following Worthington et al. (2003), respondents that scored at least one standard deviation higher than the mean score were classified as highly religious, those who scored one standard deviation below than the mean score were classified as low religiosity, and those scored in between were classified as moderate religiosity. Figure I tabulated the total scores of RCI. Table IV shows that 13.9 per cent of total respondents are classified as highly religious. This is consistent with Worthington et al. (2003) who postulate that highly religious people are those who are within the most religiously committed 15 per cent of the population.

Table V shows the cross-tabulation results of RCI group and investment choice decision. Based on the chi-square result documented at the end of Table V, there was no significant difference in investment choice decision among members with different level of RCI. This indicates that there is no relationship between RCI and investment choice decision.

#### **5.4 Religiosity and Investment choice decision – Muslim Religiosity**

Similar to RCI, a chi-square test was employed to examine whether there is a relationship between Muslim religiosity and investment choice decision. For the purpose of group comparison, the respondents were divided into three groups based on their total scores on Muslim religiosity scales. Following Wan Ahmad et al. (2008), those who scored above 0.5 standard deviation of the mean score were considered as devout, those who scored below 0.5 standard deviation of the mean score were considered as casually religious, and those scored in between were grouped as moderately religious. Figure II tabulated the score of Muslim religiosity. Table VI shows that 72.8 per cent of Muslim respondents had a medium (moderate) to high (devout) index of religiosity. This proportion is similar to Wan Ahmad et al. (2008) where almost 72 per cent of their respondents had a medium or high index of religiosity.

Table VII showed the cross-tabulation results of Muslim religiosity group and investment choice decision. Compared to RCI, the analysis that follow was based on 346 respondents who were Muslim. According to the chi-square test results, there was no significant difference in investment choice decision among members with different level of Muslim religiosity. The value of the chi-square statistic was 0.186 ( $P > 0.05$ ). Similar to RCI, this result suggests that there is no relationship between Muslim religiosity and investment choice decision.

#### **6. Conclusion**

The current study explored the role of religion in individuals' retirement savings investment choice decisions. As such, a 'religion' construct was operationalised using religious affiliation and religiosity. The study hypothesised that there was no association between religious affiliation and the investment choice decision. The Chi-square test results indicated significant differences in investment choice decisions between Muslim and non-Muslim respondents. There was an equal proportion of Muslims maintaining their savings in the default fund as well as investing part of their savings in a unit trust fund. In contrast, a majority of non-Muslims preferred to invest part of their savings in the unit trusts. In Malaysia, Muslim is regarded as the majority religious group, while Buddhism, Hinduism and Christianity are regarded as the minority religious group. From the consumer behaviour point of view, the findings supported the results of Bailey and Sood (1993), suggesting that there were statistically significant differences in the consumer behaviour of the US minority religious groups (i.e. Buddhism, Hinduism and Islam) and the majority religious groups (i.e. Judaism, Catholic and Protestant). In a similar location to the present study, these findings supported those of Mokhlis (2009) who found an overall significant difference among Malaysian consumers affiliated to Islam, Buddhism, Hinduism and Christianity in the following aspects of consumer behaviour: lifestyle, perceived importance of store attributes and preference for store format. It is important to note that there has been no study conducted to examine religious affiliation and investment choice decisions within the retirement savings context; therefore these findings provide the first evidence to the background literature in retirement savings, particularly the investment choice decision.

The next hypothesis tested the influence of religiosity on the investment choice decision. Religiosity was viewed from a multidimensional approach and accordingly two sets of instruments were used: the Religious Commitment Inventory (RCI-10) developed by Worthington et al. (2003) and Muslim Religiosity developed by Wan Ahmad et al. (2008). The study hypothesised that there was no association between RCI and the investment choice decision. In addition, the study also hypothesised that there was no association between Muslim religiosity and investment choice decision. The Chi-square tests results indicated no significant differences in investment choice decision among individuals with different levels of RCI and Muslim religiosity respectively. These results suggest that religiosity does not significantly influence individuals' investment choice decisions, particularly when it comes to investing part of their retirement savings in a unit trust.

**Table I: Respondents' Profile (N=440)**

		Valid Percent (%)		Valid Percent (%)	
Gender	Male	52.5	EPF	Less than 5 years	33.4
	Female	47.5	Membership	5-10 years	35.9
Age	30 and below	47.3		11-20 years	23.4
	31-35	22.3		More than 20 years	7.3
	36-40	15.9	Monthly	Less than or equal to RM4,000	45.2
	41-45	6.6	Income	Between RM4,001 and RM5,000	18.4
	46-50	4.1		Between RM5,001 and RM6,000	8.2
	51 and above	3.9		Between RM6,001 and RM7,000	5.9
Between RM7,001 and RM8,000				3.6	
Ethnicity	Malay	78.2			Between RM8,001 and RM9,000
	Chinese	13.4		Between RM9,001 and RM10,000	3.0
	Indian	7.7		RM10,001 and above	10.9
	Other	0.7			
Religion Affiliation	Islam	78.6	Highest	Secondary	12.3
	Buddhism	12.7	Education	Diploma	22.3
	Hinduism	7.3		First degree	53.2
	Christianity	1.1		Masters	10.7
				PhD	0.7
				Other	0.9

**Table II: Religious affiliation\*Investment Decision Crosstabulation**

Count

Religious affiliation	Investment Decision		Total
	Maintain	Invest	
Islam	172	174	346
Buddhism	19	37	56
Hinduism	8	24	32
Christianity	4	1	5
Total	204	235	439

**Pearson Chi-Square tests value = 14.839<sup>a</sup>, df = 3, Sig = .002, N =439**

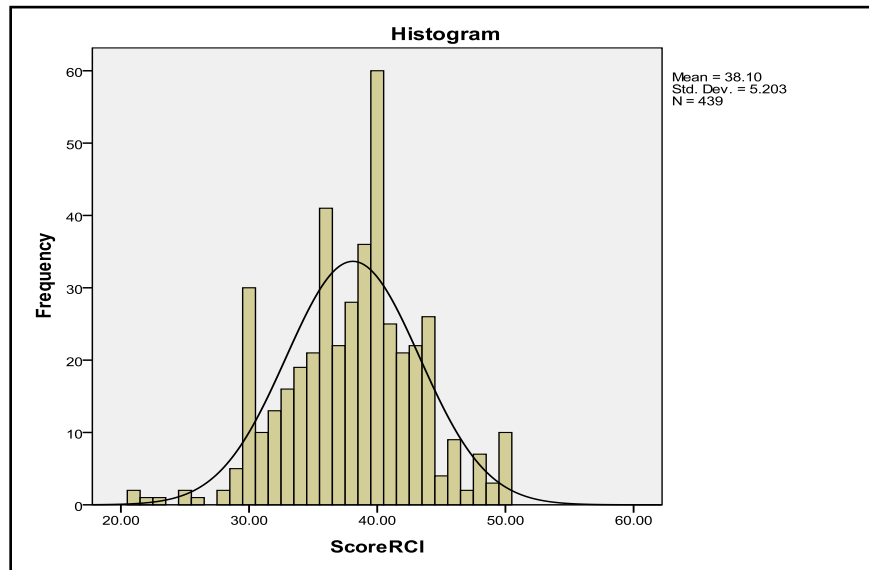
a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 2.32.

**Table III: Religiousgroup\* Investment Decision Crosstabulation**

Religious group		Investment Decision		Total
		Maintain	Invest	
Muslim	Count	172	174	346
	Expected Count	160	186	346
Non-Muslim	Count	31	62	93
	Expected Count	43	50	93
Total	Count	203	236	439
	Expected Count	203	236	439

**Pearson Chi-Square tests value = 9.580<sup>a</sup>, df = 1, Sig = .002, N =439**

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 43.22.



**Figure I: Tabulation of Score RCI-10 for EPF Members**

**Table IV: RCI group of EPF members (N=439)**

	Low	Medium	High
Frequency	67	311	61
%	15.3	70.8	13.9

**Table V: RCIgroup \* Investment Choice Decision Crosstabulation**

RCI group		Investment Decision		Total
		Maintain	Invest	
Low	Count	36	31	67
	Expected	31.1	35.9	67.0
Medium	Count	143	168	311
	Expected	144.5	166.5	311.0
High	Count	25	36	61
	Expected	28.3	32.7	61.0
Total	Count	204	235	439
	Expected	204.0	235.0	439.0

**Pearson Chi-Square tests value = 2.188<sup>a</sup>, df = 2, Sig = .335, N = 439**

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.35.



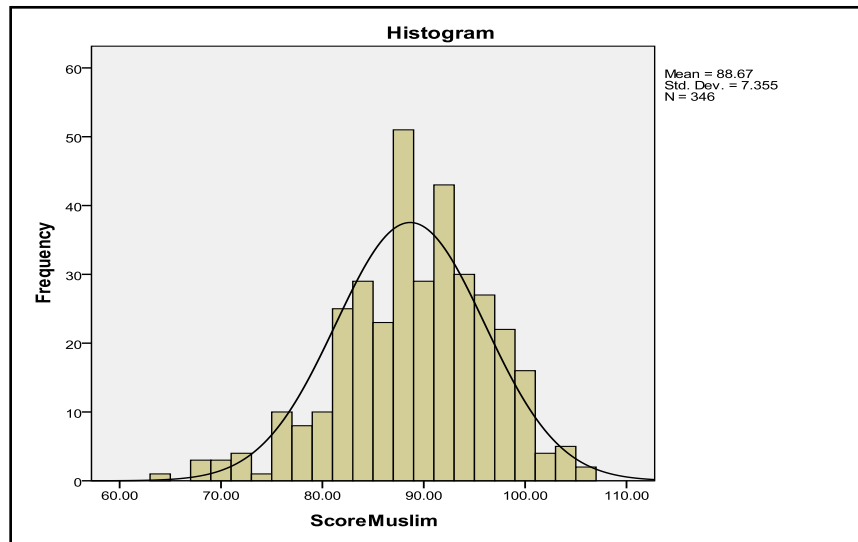


Figure II: Tabulation of Muslim religiosity scores

Table VI: Muslim Religiosity Group (N=346)

	Casual	Moderate	Devout
Frequency	94	146	106
%	27.2	42.2	30.6

Table VII: Scoremuslimgroup \* Investment Choice Decision Crosstabulation

Muslim group		Investment Decision		Total
		Maintain	Invest	
Casual	Count	49	45	94
	Expected	47.3	46.7	94.0
Moderate	Count	72	74	146
	Expected	73.4	72.6	146.0
Devout	Count	53	53	106
	Expected	53.3	52.7	106.0
Total	Count	174	172	346
	Expected	174.0	172.0	346.0

Pearson Chi-Square tests value = .186<sup>a</sup>, df = 2, Sig = .911, N = 346

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 46.73.

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