DEVELOPMENT AND VALIDATION OF RELIGIOSITY AND PRACTICE IN EDUCATION BY USING CONFIRMATORY FACTOR ANALYSIS

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Abstract

There is an imbalance of religiosity when developing leadership among university students. This research examined the effect of religiosity on the trend of leadership among students. The study used stratified random sampling to select 292 students. The sample age ranged between 19-25 years. Three instruments were used Centrality of Religiosity Scale. The data analysis involved was the Structural Equation Model, SPSS AMOS-26. The results indicated that religiosity contributed significantly to the prediction of leadership attitude. The results corroborated the findings shows that religiosity correlated with leadership education and that it explained some of the leading education. Based on the findings, it was suggested that universities should endeavour to teach rudiments of religiosity model to the students to improve attitudes of leadership, and university counsellors and psychologists should develop programmes to foster emotional intelligence and religiosity.

Keywords: Education and Students University, Leadership, Religiosity

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Introduction

In many developing countries, religiosity is a common topic, especially in the education sector. Many studies believed that experience, measured by years of teaching, is sufficient to take on the
roles and responsibilities of a school leader (Sindhvad, Richardson, Ivanov, & Lingat, 2020). Religion is believed to play a role in making sense of complex life events (Huber & Huber, 2012). Religiosity is described as the level of one's devotion, piety, and dedication, and it can be measured by these three doctrines. The term refers to a person’s subjective importance of spiritual beliefs in their lives, such as the meaning they give to religion and the extent to which they engage in religious activities such as praying and attending religious services, or the subjective importance of spiritual beliefs in a person's life (Rabinowitz, Hartlaub, Saenz, Thompson, & Gallagher-Thompson, 2010). According to (Batool & College, 2021), Student moral behaviour is significantly improved as a result of religious education, as evidenced by the fact that students who did not take religious education as a topic had the lowest levels of moral behaviour.

Introduction on Centrality of Religiosity Scale (CRS)

Religiosity is a multi-layered notion consisting of motivational, emotional, and behavioural characteristics as well as different religious activities, commitment, beliefs, and religious practices in organized institutions such as mosques (masjid), church, mandar and others. There are different ways to assess the level of religiosity in individuals of a different religion. One of the most important scales to assess the level of religiosity was developed by Wilkes, Burnett, and Howell (1986) to assess the four basic factors of religiosity: self-perceived religiousness, the significance of religious ethics, church-attending, and assurance in religious norms (Abbasi, Kazmi, Wilson, & Khan, 2019).

The concept of centrality by Huber and Huber (2012) refers to the importance and intensity of religiosity within an individual’s personality. Huber’s approach is built on the idea of constructing systems. In this approach, “the centrality defines the position of the religious construct system within the collection of all construct systems in a given personality” (Huber, Allemand, & Huber, 2011, p. 118). The assumption is that a high centrality of the religious construct system has a broad influence on other personal construct systems. Therefore, it influences a person’s behaviour and experiences (Friedrich-Killinger, 2020). Religiosity is a concise term used to refer to the various domains of religious activity, dedication, and belief (religious doctrine). It is defined in terms of both beliefs and religious practices regarding an organised religious affiliation or an authority and divine power (Raza, Youasf, & Rasheed, 2016). Religiosity, Generally, it has been assumed that religiousness increases at times of adversity (Pargament, 2001; Weber, 1920/1993). According to preliminary data collected during the current pandemic, this viewpoint appears to be supported by the evidence. For example, several media outlets reported on the brisk sales of religious literature, including the Bible, in the first few weeks after the global epidemic broke out in the first place (e.g., Coyle, 2020).

Problem Statement

There is an imbalance of religiosity when developing leadership among university students. Most Malaysian people deem God's decree as a source of law. Thus, religiosity can influence individuals making decisions because there are rules that serve as guidelines when judging if something is right or wrong. Individuals who hold high religious values will be more religious (Resty, 2018), but Helmy (2018) has stated that religiosity does not affect leadership. It is known that in
previous research, several differences in the study results have been found. Consequently, this has become one of the causes for the need to re-examine the factors that influence religiosity.

**Research Questions**

1. Is the style of leadership among students in education affected by religiosity?
2. How can the leadership among students in education be improved?

**Research Objectives**

1. To examine and analyse whether religiosity affects the trend of leadership among students in education.
2. To recommend strategies/initiatives to improve leadership among students in education.

**Scope Study**

The study looks at religiosity’s relevance with the trend of leadership among 292 universities students aged between 19 and 25 years old.

**Literature Review**

The term “religious centrality” is frequently applied to define the degree to which a belief is central, significant, or relevant within an individual’s life or identity. Religious and spiritual commitment is a critical element in creating insight into the role those spiritual beliefs act in an individual’s life. It is debated in this study that an individual’s religion or spirituality can be an integral element in their identity and attempt to shape their core beliefs. The Centrality of Religiosity Scale (CRS) uses five main theoretical characteristics of religiosity: public practice, private practice, religious experience, ideology, and the intellectual dimension. These dimensions are found as likely approaches for developing and implementing individual religious systems (Zwingmann & Gottschling, 2015). Religiosity is also described as an individual's awareness of understanding, and a readiness to accept the philosophies of his beliefs, and that becomes a personal belief, an internal belief, which is exhibited in daily activities. Huber’s prior study has developed CRS to measure the significance and implication of religious meanings in personality (Huber & Huber, 2012). Many scholars in different fields have applied this instrument. Yendell and Huber (2020) performed a study on Islamophobia in Switzerland and discovered that CRS was a reliable instrument of measurement. The research found that the more religious people are, the more likely they accept other religions; thus, they are more likely to have a positive perception of Islam. Students are tomorrow’s leaders; hence it is imperative that they grasp an understanding of their leadership styles early in their school life. Learning about leadership styles and models, and exposure to leadership training and development will help students increase their knowledge and individual capabilities as leaders in their organisation (Adams, 2018). According to the research, If someone is religious in any way, it becomes a part of their identity if they are oriented in that direction. When someone is at home, in a fitness centre working out, in their place of worship or concentration, out grocery shopping, or at work, their religious faith or spiritual
orientation is very much a reflection of who they are and how they live. They incorporate the tenets of their faith or spirituality into everything they think and do because those precepts serve as a direction for their everyday lives (Smudde, 2021).^{18}

**Religiosity**

Individual awareness of knowledge, as well as willingness to accept the teachings of his belief, are defined by Dister (1999:10) as religiousness. This awareness of knowledge and willingness to accept the teachings of his belief develops into personal belief, internal faith, which is realised in daily activities. Thoules (2000:20) defines religiosity as the belief and faith in the sacred gods who are worshipped as the distinguishing traits of Hindu religion, which are known as the Advita (divine qualities). Religion is manifested in the response to the sacred ones, as well as in the observing, thinking, feelings, and adherence to them. Skinner, as described in Ancok et al. (2005:73), defines religiosity as the expressions of human beings’ desire to follow and obey the sacred ones, which may be noticed in their daily behaviours and rituals.

Overall, according to Glock and Stark (1965), who are quoted by Abdullah (2005), there are five aspects of religiosity, namely: 1) religious belief (the ideological dimension); 2) religious practise (the ritual dimension); 3) religious feeling (the experiential dimension); 4) religious knowledge (the intellectual dimension); and finally, 5. Religious effect (the social dimension) (the consequential dimension).

The religious implication is defined as an idiosyncratic system of concepts related to the sacred and refer to self, other people, and the world (Krok, 2014). Though general findings imply a protecting influence of religiousness on mental health, there is also evidence that some religious beliefs or behaviours can cause or strengthen pathological terms. Extreme religious forms (e.g. excessive rituals, disproportional accentuation of sin, delusions of persecution) may strengthen deluded beliefs and exacerbate guilt and worry, constituting psychopathological symptoms. This paper helps to investigate predictive values of the religious meaning system, the centrality of religiosity and social support for mental health outcomes. As a result, religiousness and social support together are associated with mental health outcomes, but the character of these associations depends on dimensions. The religious meaning system and the centrality of religiosity showed negative links with the dimension of mental health and is also called somatic symptoms. Receiving support is associated with better mental health whereas the need for support and protective buffering support are predictors of negative mental health outcomes (Krok, 2014).

Other researchers confirm the extant literature to a degree, in which the relationship between religiosity and life satisfaction is more complicated as we do not treat religiosity as a unidimensional construct. Meanwhile, the consequential dimension is positively related to life satisfaction, but the ideological and intellectual dimensions are negatively related to life satisfaction (Yeniaras & Akarsu, 2017). This study was conducted to find a correlation between religiosity and subjective well-being by employing a multi-dimensional religiosity scale. By dissecting religiosity into different dimensions, we show when life satisfaction is in negative, positive, linear and/or curvilinear correlation with religiosity.

Moreover, from the early 1900s, sociologists and psychologists have agreed about the multiple dimensions of religiosity (Pearce, Hayward, & Pearlman, 2017). A study in China
applied CRS to the setting of Hong Kong as a part of China, focusing on a particular target group of teachers in primary and secondary school. The results showed that gender and religious belief were important predictors of the centrality of religiosity results for CRS-5, CRSi-7, and CRS-15. In addition, age was a positive predictor for public practice, and teachers’ education level was positively linked to private practice for CRS-15. The effects regarding understanding of the existing literature are discussed (Lee & Kuang, 2020)\textsuperscript{27}.

Furthermore, Gheorghe (2019)\textsuperscript{28} indicated that the scale’s reliability analysis showed an overall Cronbach’s alpha of 0.93. This demonstrated acceptable internal consistency. The Spearman correlation between the CRS scale’s total score and that of the Intimate and Expressive Religious Belief Assessment Questionnaire showed positive levels of convergent validity. The Receiver Operating Characteristics (ROC) indicated good discriminative validity and the confirmatory analysis revealed a satisfactory fit. The aim of the study was to confirm a Romanian version of the Centrality of Religiosity Scale (CRS 15) and to determine its psychometric properties in religious and highly religious people.

In addition to studies that point towards a linear relationship between religiosity and SWB, Mochon, Norton, and Ariely (2011)\textsuperscript{29} showed that religiosity might be in a quadratic relationship with SWB. Their results suggested a U-shaped relationship of religiosity to SWB. Accordingly, Mochon et al. (2011)\textsuperscript{29} argued that “while most adherents are happier than non-adherents, some adherents—those with low levels of religiosity—might be happier if they stopped believing altogether” (Mochon et al., 2011)\textsuperscript{29}.

Research has shown that individuals who are involved in regular religious practices and rituals are much stronger mentally when compared to people who do not indulge in such activities. Such individuals do not fall into depression, alcoholism, or bad behaviour. This observation is more evident in children who are brought up with such orientation from infancy. When they reach adulthood, they are found to be emotionally intelligent when compared to their peers who fall into the snares of adolescence. The paper published by Adeyemo and Adeleye (2008)\textsuperscript{30} tested this hypothesis. Self-efficacy levels were found to be better in children who were involved in religious practices. Besides that, Garima (2012)\textsuperscript{31} stated that the religious approach was highly influential in building self-esteem and attitudes, and the wellbeing of students. Previous studies indicated that the contribution of religiosity in understanding creativity and entrepreneurship intention of higher education students showed that personal attitudes towards entrepreneurship and PBC positively affected entrepreneurial intention and mediated the effect of emotional intelligence on entrepreneurial intention. Religiosity has a direct positive effect on attitudes. The results revealed no or a tenuous influence of spirituality in the various concepts studied (Rodrigues, Jorge, Pires, & António, 2019)\textsuperscript{32}. Furthermore, a previous study by Sembiring et al. (2020)\textsuperscript{33} showed that there was a positive relationship between emotional intelligence and job satisfaction; organisational justice and job.

As a result, a quality education system is dependent upon the effectiveness of its teachers as it is the teachers who directly associate with students and significantly impact students’ learning and achievement (Anderson, 2004; Birwatkar, 2014)\textsuperscript{34,35}. The question to ponder here is the way that teachers impact the learning outcomes of students as past studies have unfolded numerous avenues in this regard. Classroom instruction methods, teacher commitment, instructional and transformational leadership available to teachers, extra job responsibilities, citizenship behaviour, teachers’ job satisfaction and job security are some of the many areas which have been researched.
by scholars from around the globe in this regard. It the important to conduct this research to know
the effects of religiosity in education and the best way to implement the model of religiosity.

Research Methodology

Instruments were used to collect the data for the study. The description of the instruments is given
as follows: the adult population, including adolescents, were the samples. The responses were
made on a 4-point Likert scale, and the responses to all ten items were summed up to yield the
final composite score, ranging from 10 to 40. In a sample from 23 nations, the Cronbach’s alpha
value ranged from .76 to .90, with the majority in the high .80. The scale was unidimensional. The
criterion validity was documented in numerous correlation studies. The Religiosity Scale was
developed by Huber and Huber (2012)\(^2\). The scale was made up of 44 items. The responses were
made using a 5-point Likert scale: Strongly Agree, Agree, Undecided, Disagree. It had a reliability
coefficient of 0.88 as determined by the test-retest method.

The questionnaires were administered to the participants in their various universities
following the approval of the university authorities. The administration of the instruments took
one week. Since the participants had to respond to four instruments, it was not possible to retrieve
them on the very day of administration. This necessitated further visits by the researchers. Of the
three hundred distributed, two hundred and ninety-two were retrieved. This represented a response
rate of 97.3%. The data were analysed using Structural Equation Model, SPSS AMOS-26.

Finding

![Figure 1. Centrality Religiosity: The Average Variance Extracted (AVE) and Composite
Reliability (CR) for Centrality of Religiosity Construct](image)
Table 1
Centrality of Religiosity: The Average Variance Extracted (AVE) and Composite Reliability (CR) for Centrality of Religiosity Construct

<table>
<thead>
<tr>
<th>Construct Validity</th>
<th>Name of Category</th>
<th>Name of Index</th>
<th>Level of acceptance</th>
<th>Index Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Fit</td>
<td>RMSEA</td>
<td>&lt; 0.08</td>
<td>0.44</td>
<td>Achieved</td>
<td></td>
</tr>
<tr>
<td>Incremental Fit</td>
<td>CFI</td>
<td>&gt;0.9</td>
<td>0.977</td>
<td>Achieved</td>
<td></td>
</tr>
<tr>
<td>Parsimonious Fit</td>
<td>Chisq/df</td>
<td>&lt; 3.0</td>
<td>1.573</td>
<td>Closed to 3.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 2
The Average Variance Extracted (AVE) and Composite Reliability (CR) for Centrality of Religiosity Construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Factor Loading</th>
<th>CR (Above 0.6)</th>
<th>AVE (Above 0.5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrality of Religiosity</td>
<td>CR1</td>
<td>0.75</td>
<td>0.854</td>
<td>0.599</td>
</tr>
<tr>
<td></td>
<td>CR2</td>
<td>0.93</td>
<td>0.813</td>
<td>0.523</td>
</tr>
<tr>
<td></td>
<td>CR3</td>
<td>0.67</td>
<td>0.821</td>
<td>0.534</td>
</tr>
<tr>
<td></td>
<td>CR4</td>
<td>0.72</td>
<td>0.813</td>
<td>0.523</td>
</tr>
<tr>
<td>CR1</td>
<td>CR11</td>
<td>0.68</td>
<td>0.821</td>
<td>0.534</td>
</tr>
<tr>
<td></td>
<td>CR12</td>
<td>0.76</td>
<td>0.821</td>
<td>0.534</td>
</tr>
<tr>
<td></td>
<td>CR13</td>
<td>0.74</td>
<td>0.821</td>
<td>0.534</td>
</tr>
<tr>
<td></td>
<td>CR14</td>
<td>0.74</td>
<td>0.821</td>
<td>0.534</td>
</tr>
<tr>
<td>CR2</td>
<td>CR21</td>
<td>0.64</td>
<td>0.813</td>
<td>0.523</td>
</tr>
<tr>
<td></td>
<td>CR22</td>
<td>0.69</td>
<td>0.813</td>
<td>0.523</td>
</tr>
<tr>
<td></td>
<td>CR23</td>
<td>0.82</td>
<td>0.813</td>
<td>0.523</td>
</tr>
<tr>
<td></td>
<td>CR24</td>
<td>0.73</td>
<td>0.813</td>
<td>0.523</td>
</tr>
<tr>
<td>CR3</td>
<td>CR31</td>
<td>0.84</td>
<td>0.906</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>CR32</td>
<td>0.88</td>
<td>0.906</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>CR33</td>
<td>0.78</td>
<td>0.906</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>CR34</td>
<td>0.86</td>
<td>0.906</td>
<td>0.707</td>
</tr>
<tr>
<td>CR4</td>
<td>CR41</td>
<td>0.80</td>
<td>0.870</td>
<td>0.625</td>
</tr>
<tr>
<td></td>
<td>CR42</td>
<td>0.81</td>
<td>0.870</td>
<td>0.625</td>
</tr>
<tr>
<td></td>
<td>CR43</td>
<td>0.82</td>
<td>0.870</td>
<td>0.625</td>
</tr>
<tr>
<td></td>
<td>CR44</td>
<td>0.73</td>
<td>0.870</td>
<td>0.625</td>
</tr>
</tbody>
</table>

With reference to the Average Variance Extracted (AVE) and Composite Reliability (CR) values in Table 4.4, the study found that all AVE and CR exceeded their threshold values of 0.5 and 0.6, respectively (Kashif et al., 2015, 2016; Noor et al., 2015; Yusof et al., 2017, Aziz et al., 2016;
Mohamad et al., 2016, 2017, 2018, 2019; Sarwar et al., 2020). Thus, the study can conclude that the CV and CR for all latent constructs in the model have been achieved.

Discussion

Results as shown in Table 2 indicate that the three independent variables (religiosity) as a block seem to be effective in predicting leadership attitude. The observed F-ratio was significant (F (3,288 = 63.218, P<0.05). The multiple regression square (R2) value (0.397) suggested that there was about 39.7% of the total variation in the students. Results from Table 3 show the extent to which each of the independent variables contribute to the prediction and the value of ratio associated with respective variables. It indicated that religiosity contributed significantly to the prediction of leadership attitude. The values of the standardised regression weights associated with these variables indicated that emotional intelligence made the greatest contribution, followed by religiosity. The results corroborated the findings by De Lazzari (2000) that emotional intelligence was moderately correlated with leadership education and that it explained some of the leading education. The significant contribution of emotional intelligence to predict the leadership of the students was explicable considering the central role that emotion (its understanding and use) played in leadership attitude. Considering the definition of emotional intelligence by Mayer, Salovey and Caruso (2000), as “the capacity to perceive, assimilate, understand and manage emotion”, a student high in emotional intelligence based on the above definition should also have some of the elements required to be high in leadership, such as self-acceptance, positive. The study achieved the finding of the research, which is structured elements of religiosity model to implement to the education setting.

The implication of the Findings

The result of this study has important implications for educational settings. Since religiosity is a strong predictor of leadership education, the university should begin to develop programmes to foster religiosity among students. As religiosity is teachable and learnable, teachers should endeavour to teach rudiments of religiosity elements to students. University counsellors and psychologists can also develop religiosity programmes and use the programmes to enhance their leadership. Hence, as a conclusion, the Centrality of Religiosity Scale (CRS) is a measure of the centrality, importance, or salience of religious meanings in personality. It has been applied yet in different versions and multitudes of studies in the sociology of religion, psychology of religion and religious studies in various countries. It measures the general intensities of the five theoretical cores that define dimensions of religiosity, public practice, private practice, religious experience, ideology, and the intellectual dimension. It can together be considered as representative for the total of religious life. In this research, findings have answered the research question and achieved the objective of the study. This study focused on the development and validation of the religiosity Scale for university students. The research procedures and results are presented according to research questions. The factors of the religiosity students according to the research question 1 are the effects of the trend of leadership among the students in education religiosity. The validity and reliability of this scale, corresponding to research questions 2 have been proven by presenting the required results and numerical values and recommending initiatives to improve leadership among students in education. The previous research is related to the previous researcher, Which the previous study only focus on the young children (Kim, 2019), the researcher had continued,
focusing on education, most of the age range of their age, youth age. Results of the present study clearly indicate leadership differences in religiosity practice, religiosity also impacted education practice. The results also specify that have higher religiosity, a positive impact on their leadership attitudes comparison with students less religiosity university students.

**Conclusion**

To develop our religiosity in our education, it is necessary first to know what type of religiosity fundamental is, to concern ourselves with our development and to act the attitudes of students. researchers prepare a model for religiosity education that can be implemented. In the long run, the reward will be attitudes as shown by our education. In a dynamic, changing world like the one we live in, we need individuals to be trained to adapt quickly, almost instinctively to the changeable situations beyond academic intelligence, and beyond specialized training to be sufficient to identify religiosity. Overall, the religiosity teacher or a parent will hold a personal value and enjoy authority in relation to others. They will be a living example for their child. In this way, we will make an art out of education. Students with high will generate better social attitudes and leadership. The students’ low social attitude can be improved at least by one factor which is religiosity.

**References**


