# **Articles**

# Unravelling the Nexus Between Human Values and Competencies to Religion Among Educational Stakeholders in Mauritius Using Structural Equation Modelling

Shakeel M.C. Atchia

Religion has been associated with human values and competencies needed to shape young people into responsible citizens able to make a positive difference in the lives of others. However, this correlation remains dependent on the context. As the correlation has not yet been investigated in Mauritius, which is a multicultural and multi-ethnic country, this study aims to bridge this knowledge gap using a purely positivist epistemological approach. It will analyze the Mauritius-specific data derived from a public data set which was part of the "Mapping the Terrain" project to examine the correlation between religion and a broad set of human values and competencies, namely forgiveness, individualistic orientation, collectivistic orientation, self-efficacy, problem-solving, meaning-making, sense of belongingness, religiosity/spirituality, hope, life satisfaction, gratitude, emotion, regulation, empathy, and self-regulation. The descriptive analysis and the Structural Equation Model (SEM), developed using the SPSS and AMOS software, revealed that (i) independent of ethnic group, educational stakeholders in Mauritius have a high affinity to most of the human values and competences, and (ii) as compared with others, the Muslim community has a slightly lower affinity to forgiveness, life satisfaction, individualistic orientation, self-efficacy, and problem solving. These data, which represent important baseline information needed to inform policymakers and other educational stakeholders, were used to derive a set of recommendations that will

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further the development of the key human values and competencies needed to promote harmony in a multicultural and multi-ethnic country.

Keywords: human values, religion, correlation, structural equation model, Mauritius

auritius is a multi-ethnic, multilingual, and multifaith country with a pluralistic society comprising mainly four major ethnic groups: Indo-Mauritians (Hindus and Muslims), Creoles, Sino-Mauritians and Franco-Mauritians. Though the country had no indigenous population, it has been characterized by successive waves of European colonization and multiple immigrations which resulted in its culturally diverse society (Eriksen, 1990).

Mauritius is often described as unique because it is a harmonious society in which people with different cultural and religious backgrounds coexist peacefully and form the island's identity. Though society influences the overall value system, in homes and schools, it is generally agreed that the national identity is forged in individual homes, schools, workplaces (Aumeerally, et al., 2022), and other gatherings where diverse cultures interact. Schools and homes are fundamental in providing an environment conducive to formation of the individual and transmission of values, whether traditional or modern. Traditional values still advocated in the Mauritian society include respect for elders, family and community, hard work, religious faith, and a sense of hospitality. Modern values increasingly being adopted include individualism, secularism, and a focus on education and economic success (Younger, 2010). However, there are concerns about the loss of ancestral values and respect for things and people in the society (Vithilingem, 2019), despite the unflinching emphasis of the Mauritian education system to provide value-laden holistic education to every child. Inglehart and Welzel (2018) suggested that countries with high levels of trust, tolerance, and respect for others had lower levels of corruption, higher levels of social capital, and better economic growth, while Broido (2000) explained that societies that emphasize values such as fairness, empathy, and kindness are more likely to promote social justice, reduce inequalities, and create a sense of community.

Though the erosion of values in Mauritius is considered multifaceted, this study explores the effects of religion on value systems by investigating the association between religion and a broad set of human values in the context of Mauritius. Investigating how religion correlates to different human values and competencies in the Mauritian community can

potentially add to the existing scholarship on human values development which is considered an under-researched area. Second, understanding how religion influences values can provide insights into the social and cultural dynamics of a community. Third, investigating the relationship between religion and values can help identify potential areas of conflict or tension within a multicultural community. Fourth, this study's findings will inform policy and decision-making processes that allow development of values in the community.

Using an objectivist ontological and positivist epistemological approach, this article showcases the statistical correlation between religion and a set of human values/competencies in the Mauritian context, namely forgiveness, individualistic orientation, collectivistic orientation, self-efficacy, problem-solving, meaning-making, sense of belongingness, religiosity and spirituality, hope, life satisfaction, gratitude, emotion, regulation, empathy, and self-regulation.

# AIMS AND OBJECTIVES

This study investigates the correlation between religion and a broad set of human values and competencies in the educational community of Mauritius with a view to inform policymakers and educational stakeholders on the way forward to further the development of key human values among the multicultural and multi-ethnic Mauritian education community.

The study's objectives are as follows:

- (i) To analyze the Mauritius-based "Mapping the Terrain" (Nasser, et al., 2021) data using the descriptive statistical analysis and a structural equation model (SEM) to investigate the correlation between religion and a key set of human values and competencies in the Mauritian education community.
- (ii) To examine whether there is significant difference in key human values between the different religious groups in Mauritius.
- (iii) To examine the link between religion, religiosity/spirituality, and the other human values and competencies.
- (iv) To develop recommendations for improving the development of human values and competencies in the Mauritian community.

# LITERATURE REVIEW

To situate the context of this study, this section presents an overview of (a) "Mapping the Terrain" project, (b) the factors influencing the

development of human values and competencies in a community, (c) the link between religion and human values/competencies, and (d) human values and competencies in Mauritius, especially among stakeholders of the Mauritian education system.

# "Mapping the Terrain" Project

The "Mapping the Terrain" project is a research initiative launched in 2018 to explore the values and competencies in communities of interest, focusing on students in secondary schools and higher education as well as their teachers and university instructors. The project was carried out by the International Institute of Islamic Thought (IIIT) and aimed to produce a comprehensive report on the current state of education in Muslim societies, as well as to identify key challenges and opportunities for improvement (Nasser, et al., 2021).

The project involved extensive research and data collection from a wide range of sources, including academic literature, policy documents, and expert interviews. For the 2019–2020 "Mapping the Terrain" project, which was used in this study, the research team also conducted a survey of over 20,000 educators, policymakers, and other stakeholders in Muslim societies of different countries (Nasser, et al., 2021). The goals of the project were multiple and included expanding the research agenda in societies of interest to widen the discussion based on empirical and field-based results, and to highlight the importance of human development as one of the goals for reform of education. A human development framework was used, based on theoretical underpinning and previous research investigating pathways for prosperous and highly conscious states of existence (Said, 2003).

The 2020 report provides a detailed analysis of the level of likelihood for a specific set of values and competencies in the participating societies, highlights the areas of progress and concern, and provides a list of recommendations for policymakers and educators on how to address the challenges facing education in Muslim societies and improve the quality and accessibility of education for all. The values—forgiveness, individualistic orientation, collectivistic orientation, self-efficacy, problem-solving, meaning-making, sense of belongingness, religiosity and spirituality, hope, life satisfaction, gratitude, emotion, regulation, empathy, and self-regulation—were grouped into three sets of competencies identified as critical for transformation. These included open-mindedness (adaptability and ability to think critically), responsibility (as part of a social responsibility

orientation), and a sense of a collaborative collective (taking the collective to a collaborative state).

The Mauritian-based data were used in this study because it (a) used a wide exploration of values within selected communities, including Mauritius; (b) provided data from a statistically viable sample of 971 Mauritian participants; (c) used convenience sampling to include Muslim participants; (d) depicted the existing direct and indirect correlations between the specific values, mediating factors, and different groups of participants; and (e) represented important implications for researchers, educators, and policy makers.

# Factors Influencing the Development of Human Values and Competencies in a Community

Human values and competencies are principles, beliefs, skills, and attitudes that guide the behavior and actions of individuals in a community (Schwartz, 2007). Some examples of human values and competencies include justice, freedom, respect, responsibility, altruism, autonomy, human dignity, integrity, honesty, forgiveness, individualistic orientation, collectivistic orientation, self-efficacy, problem-solving, meaning-making, sense of belongingness, religiosity, spirituality, hope, life satisfaction, gratitude, empathy, self-regulation, and morality (Poorchangizi, et al., 2019; Avise & Ayala, 2010; Nasser, et al., 2021). These values are essential for personal growth and social cohesion. They help individuals make ethical decisions and behave in ways that promote their own and others' wellbeing. However, the level of likelihood of these values and competencies is contextualised and varies from one country, society, community and even from one individual to another. It is therefore imperative to understand the level of likelihood of these values and competencies in each community to be able to develop transformative action plans aiming to create a positive culture within specific communities and organizations. It is in this perspective that the baseline data is used in promoting these values through education and practice so that individuals can contribute to a more just and compassionate society.

In the quest to empower the public with such human values and competencies, it is important to understand how various factors interact in a community. The scholarship revealed that some of the common factors influencing human values and competencies in a community are family, culture, society, environment, religious beliefs, ethnicity,

and economic history. In fact, personal values and competencies are developed through the influence of these factors (Parandeh, et al., 2014). Family is one of the most significant influences on moral development. Children learn about fairness, justice, and social responsibilities and develop their own moral system by understanding right and wrong from their families (Helliesen, 2012). Culture plays an important role in shaping human values and competencies. Development efforts that consider or focus on culture provide a mechanism for linking local residents to the development process. People are likely to take part in and remain committed to development efforts to which they have a direct connection (Higgins, 2014).

Religious beliefs also play a significant role in shaping human values. Religious teachings provide guidance on what is right and wrong and help individuals develop their moral compass. Economic history also influences the development trajectories of communities through factors such as human capital deficits, and/or the availability of resources (Higgins, 2014).

In conclusion, human values are influenced by various factors such as family upbringing, cultural background, religious beliefs and practices as well as economic history. Understanding these factors can help communities develop strategies that promote positive value systems that benefit individuals and society as a whole.

# The Link Between Religion and Human Values/Competencies

Analysis of the literature reveals that the relationship between religion and human values or competencies has been a topic of debate for centuries. The first school of thought argues that religion is a social institution and is necessary for the development of human values and competencies (Mc Givern, 2014) that provide individuals with a sense of identity and purpose (Smith, 2010). The opposing school of thought argues that the link between religion and values or competencies is much more complex. Support for this school of thought is found in McKay & Whitehouse (2015) who argue there are many examples of religious people behaving immorally. Smith (2015) states that religious traditions may lead to harmful or discriminatory acts based on their belief in the inferiority of certain groups, and Brown (2018) asserts that some religious individuals may become closed-minded and resistant to new ideas, limiting their ability to develop critical thinking skills.

Despite the debate, the main line of thought in the literature is that religion, which provides a framework for ethical decision-making, is essential for promoting positive values that contribute to personal growth and social cohesion. In fact, religion has been linked to the development of human values and competencies in several ways. In addition to a sense of meaning and purpose, religion provides a set of moral guidelines and ethical principles that guide behaviors. For many religious individuals, faith is a guiding force that informs their actions and decisions and helps them live in accordance with their beliefs. Religious teachings encourage individuals to develop values such as compassion, forgiveness, humility, honesty, and respect for others (McGivern, 2014). For instance, Islam teaches its followers to be kind to others, especially those who are less fortunate than themselves. By providing a moral framework, religion can help promote a sense of community and social cohesion and contribute to the development of a more just and equitable society.

Religion also plays a crucial role in developing competencies such as empathy, critical thinking, and emotional intelligence. Religious teachings encourage individuals to put themselves in the shoes of other people to understand their perspectives and thus develop empathy toward others (McGivern, 2014). Moreover, religious practices such as prayer and meditation have been shown to reduce stress levels and improve mental health (McKay & Whitehouse, 2015). By encouraging individuals to reflect on their beliefs and to question their assumptions, religious traditions help cultivate critical thinking skills.

# The Link Between Religion and Human Values/Competencies in Mauritius

While a considerable body of research examines the link between religion and value systems, the scholarship on the context in Mauritius, though growing, is still limited. Researchers such as Leung (2019), Saver, et al. (2018), Eriksen (1997), and Ng Tseung-Wong (2015) have offered multiple insights on the multifaceted interplay between religion and values in the Mauritian context.

The dominant perspective is that the coexistence of Hinduism, Islam, Christianity, Buddhism, and other religious traditions fosters a unique peaceful interfaith environment in Mauritius. Eriksen (1997) explained this by noting that despite inhabitants' concern about their cultural identity and "roots," the peaceful polyethnic Mauritian society is sustained by maintaining local ethnic boundaries, compromise, and tolerance. Abdul-Jabbar (2022) argued that instead of leading to discord, this religious

pluralism acts as a catalyst for the acquisition of values and competencies such as intercultural communication, tolerance, and empathy, fostering mutual understanding that transcends religious boundaries. Leung (2019) suggested that the fusion of religious and cultural dimensions plays a pivotal role in nurturing competencies, such as cultural intelligence and adaptability, that are crucial for effective social integration and cohesion in Mauritius. In fact, the intricate interplay of various religious traditions within a multicultural context fosters a sense of cosmopolitanism, promoting competencies such as global awareness and cross-cultural understanding.

According to Eriksen (1992), a second school of thought supports the notion that inhabitants remain prone to strategic exploitation of cultural uniqueness to strengthen their positions. Steinberg (1981) explained that persons and organizations generally invoke principles of cultural relativism when they themselves have something to gain from differential treatment, and that they will otherwise support equality principles. In fact, despite the fact that Mauritius is often considered a melting pot of diverse cultures and religions, peace is preciously sustained by the values and competencies inherited by elders, independent of religions, ethnicity, and cultures.

# Human Values and Competencies Among Stakeholders of the Mauritian Education System

The education system of a country plays a crucial role in the development of human values and competencies among students who are tomorrow's citizens (Atchia, 2022), and other educational stakeholders. These values and competencies shape an individual's personality, behavior, and social relationships.

The education system in Mauritius has evolved over time to provide free, quality, and inclusive education to all students, independent of their culture and ethnic groups, as aligned with the "Sustainable Development Goal 4 (SDG4)" of the UNESCO recommendations. The current system, based on the "Nine Years Continuous Basic Education (NYCBE)" reform, emphasizes learners' holistic development focused not only on knowledge but also on skills, attitudes, and values. The National Curriculum Framework (NCF) is grounded on values essential to develop well-balanced individuals and autonomous lifelong learners (Belle, et al, 2022). In fact, values education has been introduced into the pre-primary, primary, and secondary curricula through inclusion of different subjects such as moral, citizenship, and religious education, to include Islamic studies, Bible knowledge, and Hinduism. These subjects aim to promote values such as respect for others, responsibility, and social justice.

Mauritius has undertaken several national educational reforms in recent decades focused on a more well-rounded learning experience rather than merely the child's cognitive development (Dhunnoo and Adiapen, 2013). A framework has been introduced for developing six key competencies that include communication, collaboration, creativity, critical thinking, problem-solving, and citizenship (MoE, 2017). The goal is to develop well-rounded individuals who are equipped with the skills and attitudes required to succeed in a globalized world.

However, despite these efforts, Dhunnoo and Adiapen (2013) note that social ills which result from the decline in values are still on the rise in the country. Yogi (2009) explained that though the number of educated people may have increased, murder, hatred, and selfishness nonetheless are spreading like wildfire; many educational institutions have been established, but only a few civilized people are produced; education is available for all, but the dignity has declined; trained people are produced from many institutions, but sincere people are very few; and many books are written, much research is done and professional achievements are attained, but humanity is threatened. For an improved society, it is therefore imperative that values-based education is improved and extended beyond the level of the classroom to all stakeholders. Dhunnoo and Adiapen (2013) highlighted that values-based education seemed to meet different opinions depending on the exposures and nature of the profession. Davies (2016) explained that one of the causes of persistent social ills in a community is the lack of diversity of values shaped by the cultural backgrounds, personal beliefs, and religions of all educational stakeholders, including parents, teachers, school administrators, and policymakers, in addition to students. Some feel their religious beliefs are an essential part of their identity that should be respected anywhere while others feel religion has no place in secular settings. Some feel their religious beliefs should be reflected in the curriculum, in their teaching, and in their leadership roles, while others feel that education should be only secular (Brown, 2020; Johnson, 2017; Garcia, 2018). The position of one individual may be different from others, creating a diversity of views on values and religion in the society (Jones, 2019).

This study describes the correlations that exist between religions and values/competencies among the Mauritian education stakeholders and provides important insights that inform the way forward in the development of a values-based education for all. Bringing together the discussions expounded in the different sections of the literature review, we may conclude that though the current education system provides the necessary platform to develop human values and

competencies among all Mauritian students, the target can only be reached if we (i) identify the contextualized factors that influence the development of values and competencies among Mauritian learners, (ii) investigate how each identified factor affects the development of values and competencies, to be used as baseline data by different stakeholders, (iii) use the baseline data to develop recommendations and action plans for the development of values and competencies (iv) implement action plans, and (v) monitor, evaluate and amend the implementation plan until targets are reached. It is in this perspective that this study analyzes the Mauritian-based data derived from the AEMS project to investigate the links or correlation between religion and a broad set of human values and competencies.

# METHODOLOGY

Analysis of the literature revealed that (i) most of the studies are limited to only few human values and competencies, (ii) the correlation between religion and values or competencies has not been analyzed in the Mauritian context, and (iii) analyses are limited to simple statistical analysis.

Thus, using the Mauritius-based data from the "Mapping the Terrain" project, a purely quantitative methodology investigated the correlation between religion and a broad set of human values among the Mauritian participants. In fact, data collected from 971 participants, representing the different stakeholders of the Mauritian education system, as detailed in Table 1, were analyzed using IBM SPSS and AMOS software to test the correlation between participants' religion (one of the factors influencing development of human values and competencies among learners) and a broad set of human values, namely forgiveness, individualistic orientation, collectivistic orientation, self-efficacy, problem-solving, meaning-making, sense of belongingness, religiosity and spirituality, hope, life satisfaction, gratitude, emotion, regulation, empathy, and self-regulation.

The quantitative analyses done in this study were a (i) descriptive analysis, which showcases the association between the main religious beliefs in Mauritius (Muslim, Christian and Hindu) and the key human values, and (ii) Structural Equation Model (SEM) which showcases the existing correlations between religion and the set of human values.

The descriptive analysis and development of the SEM were done in a systematic way. Specifically, the data were checked for negatively worded items, transformed by re-coding into same variables, cleaned and converted into a SPSS file, categorical variables were checked, and descriptive statistical analysis run and analyzed. It should be noted that due to the low number of

 $\begin{table 1.5cm} \textbf{Table 1.} Distribution of Respondents, by Category. N = 971. Counts and Percentages Exclude Missing Values (Belle, et al., 2022) \end{table}$ 

	Category	n	%
	Male	324	33.5
Gender	Female	642	66.5
	<18	537	55.6
	18-24	231	23.9
Age	25-34	67	6.9
	35-44	76	7.9
	45+	54	5.6
	Indo-Mauritian	799	83.3
D.4	Afro-African	79	8.2
Ethnicity	Sino Mauritian	18	1.9
	Other	63	6.6
	Muslim	559	58.4
Religion	Hindu	240	25.1
	Christian	112	11.7
	Atheist	15	1.6
	Other	13	1.4
	Nothing in particular	9	0.9
	Buddhist	5	0.5
	Jewish	3	0.3
	Agnostic	2	0.2
	School student	595	61.3
	Grade 9	33	5.6
	Grade 10	268	45.8
	Grade 11	147	25.1
	Grade 12	57	9.7
	Other	80	13.7
	University student (Bachelor's)	170	17.7
	Level 1	44	25.6
Voice	Level 2	90	52.3
voice	Level 3	33	19.2
	Level 4	3	1.7
	Other degree/year	2	1.2
	University Instructor/School teacher	206	21.0
	No. of years on the job		
	<1 year	1	0.5
	1–3 years	16	8
	4–6 years	48	23.9
	>6 years	136	67.7

other religious groups, such as Jewish, Buddhist, Atheist, Agnostic, etc., they have been placed in the group "others" for the sake of this study.

The data were also verified for (i) accuracy, (ii) reliability of items using the reliability estimates, and (iii) the assumptions to run the structural equation modelling, such as normality, multicollinearity, autocorrelation, and homoscedasticity, as depicted in figure 1. The reason for developing a SEM was because it integrates several different multivariate techniques into one model fitting framework, and it is an integration of measure theory, factor (latent variable) analysis, path analysis, regression, and simultaneous equations among others (Thakkar, 2020). It is particularly suitable as it involves complex, multi-faceted constructs that are measured with errors, thus making provision for the correction of the errors.



Figure 1. Stepwise procedure of developing the SEM (Atchia & Chinapah, 2023)

# RESULTS AND DISCUSSION

The importance of developing a SEM instead of univariate analyses for such a study has been purported by Thoresen and Harris (2002) and Henningsgaard & Arnau (2008), who explained that univariate analyses are too simplistic when studying correlates of religion to several independent

variables. The multivariate analyses offer a richer evaluation of the relationships than univariate analyses, as they consider the interrelationships between not only multiple independent variables but also among multiple dependent variables simultaneously, which may yield effects not uncovered by univariate analyses (Thompson, 1994, 2000). In addition, multivariate methods reduce the likelihood of making Type I errors associated with multiple analyses (Fish, 1988). Thus, a SEM with multivariate analyses fits the aim of this study to examine the correlation between religion and the sets of values and competencies.

This section presents not only the SEM showcasing the correlation between religion (dependent variable) and human values or competencies (independent variable), but also guides the reader through the steps used to develop the SEM. Then, the descriptive analysis will be presented to shed light on the correlations observed in the SEM.

# Developing the SEM

All recommendations required to run factor loadings and develop a SEM were tested and found to be in accordance. In fact, the calculated Cronbach's alpha was 0.897, indicating high reliability and internal consistency of the data collection instrument (questionnaire). The Kaiser-Meyer Olkin (KMO) and Bartlett's Test of Sphericity were 0.984 and 0.000, indicating that the data were appropriate for factor analysis.

By running the factor loadings using all the items, 19 components were identified which were then reduced to 12 as some of the highest loaded items grouped under different components were referring to a single component. Based on the eigen values greater than 1, the "Total Variance Explained" table, and the scree plot, the 12 components were therefore extracted representing more than 70.5% of the variance as compared with the remaining components, in line with the factor loading procedures described by O'Connor (2000), and Cota, et al. (1993).

As all the conditions required were met, the SEM was generated using the Amos software to show the correlation between religion (dependent variable) and the 12 values and competencies (independent variable) extracted by factor loadings. In line with the procedure described by O'Connor (2000), each independent variable was represented by three items (observed endogenous variables) with the highest factor loadings. For instance, the factor "teacher efficacy" was represented by highest loaded items (0.955 each) TSE1, TSE2, and TSE3, as shown in Figure 2. Table 2 shows the pattern matrix resulting from factor loadings and Figure 2 depicts the SEM.

Table 2. Pattern Matrix

12 Empathy											
11 Gratitude											
10 Individualistic orientation											
9 Religiosity/Spirituality											
8 Collective Orientation											
7 Forgiveness.											
6 Meaning making											
5 Hope											
4 Self-regulation										962.	.735
3 Sense of belonging							.921	.921	.901		
2 Problem solving				.932	.929	.922					
1 Teacher efficacy	.955	.955	.955								
	Help other teachers with their teaching skills	To get through to the most difficult students	To overcome influence of adverse community conditions on students' learning	When I decide to do something, I go right to work on it	If I can't do a job first, I keep trying until can	When facing a problem, I identify options	I feel like a real part of my community	I feel proud of belonging to my school	I listen to ideas of others even if disagree	I set goals and keep track of progress	I usually plan how to reach goals

(Continued)

Table 2. Continued

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I pay attention to progress on resolutions to change	*;	.722							
I am able to remain hopeful in difficult times		.973	3						
I feel helpful		3965	5						
Hope outweighs anxiety		3965	5						
My life has clear sense of purpose			.720						
I have a good sense of what makes my life meaningful			707.						
I have discovered a satisfying life purpose			629.						
Likely to forgive someone independent of their religion				.782					
Likelihood to forgive a friend				.754					
Likelihood to forgive a neighbour				.739					
Pleasure is spending time with others					629.				
Peer gets prize, I feel proud					699				
Wellbeing of peers is important to me					.645				
How important is your religion in defining who you are?						.811			
How important is it for you to belong to a religious group?						208.			
How important is your religion for you?						708.			
									1

(Contimued)

Table 2. Continued

Rather depend on myself most of the time		'	765		
Often do my own thing			733		
Rather depend on myself			621		
A very long list of everything to be grateful for			•	629.	
Have so much to be thankful for				.674	
Grateful to a wide variety of people				.601	
Before criticizing try to imagine if in their place					.589
When I'm upset at someone I try to put myself in his/her place					.548
I try to understand my friends by imagining their perspective					.537

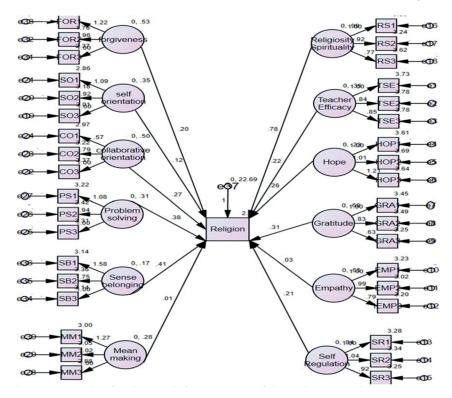


Figure 2. SEM Showing the Correlation Between Religion and Human Values and Competencies.

The fit indices show the goodness of fit of the SEM presented in Figure 2. It was noted that the test yielded a good Chi-square value of 1201.307 for 618 degrees of freedom, with a significant P-value (p = 0.000). Moreover, the value of the CFI, GFI and NFI were 0.971, 0.950 and 0.951 respectively and thus more than the minimum required value of 0.95. In addition, the AGFI value was 0.90 which is within the acceptable range of  $0.90 \le AGFI \le 0.95$ . The value for RMSEA was 0.043 which fits the acceptable value of less than 0.05 (Kenny & McCoach, 2015). We therefore concluded that the proposed structural model exhibited a good fit.

In the SEM, the one-way arrows show causal relations between the endogenous independent variables. According to Table 2 and the SEM,

with a P-value of 0.000 and for the regression weights and thus significant, it was noted that religion is positively correlated with the 11 extracted values and competencies, but negatively correlated with "self-orientation." This finding is aligned to the work of researchers such as Schnitker and Emmons (2007), DeBlaere, et al. (2011), and Krause (2006), who explained that self-orientation, or a focus on oneself, is not aligned to religiosity which encourages individuals to focus on something greater than themselves, such as a higher power or community, less self-centeredness, and reaching out to help others.

Analysis of Table 2 and the SEM also revealed that though religion is positively correlated with most human values and competencies, the degree of correlation varies. The strongest correlation was noted for religiosity and spirituality (0.78), followed by problem solving, sense of belonging, gratitude, and then mean-making, among others. Despite the limited representation of non-Muslim participants in the Mauritian sample, the study's findings were aligned with the work of several other researchers. In fact, the high correlation between religion and religiosity, which refers to an individual's level of engagement, commitment, and devotion to their religious beliefs and practices, was earlier purported by several other studies (Henningsgaard & Arnau, 2008; Johnson, et al., 2015), which found that religiosity was significantly and positively correlated with attendance at religious services, frequency of prayer, and belief in God. One possible explanation for this relationship is that religious institutions and communities provide a social and cultural context that fosters religiosity, as per Stark and Bainbridge's (1985) social exchange theory of religion.

Aligned to Idler, et al. (2003), use of religion and religiosity interchangeably and backed by the high correlation between religion and religiosity among the sampled Mauritian participants of this study, the correlation between religion and human values/competencies will be explained through the religiosity of the participants, which according to Koenig, et al. (2012) refers to the degree of devotion and commitment to religious beliefs and practices. Table 3 shows the correlation between religiosity/spirituality and the set of human values and competencies.

**Table 3.** Correlation Between Religiosity/spirituality and the Set of Human Values and Competencies

Human Values an	nd Competencies	Correlation with Religiosity/ spirituality				
Forgiveness	Pearson Correlation	0.037				
	Sig. (2-tailed)	0.246				
	N	971				
Individualistic	Pearson Correlation	0.114**				
Orientation	Sig. (2-tailed)	0.000				
	N	971				
Collectivistic Orientation	Pearson Correlation	0.161**				
	Sig. (2-tailed)	0.000				
	N	971				
Self-efficacy	Pearson Correlation	0.051				
	Sig. (2-tailed)	0.115				
	N	971				
Problem Solving	Pearson Correlation	0.111**				
	Sig. (2-tailed)	0.001				
	N	971				
Meaning Making	Pearson Correlation	0.310**				
	Sig. (2-tailed)	0.000				
	N	971				
Sense of Belonging	Pearson Correlation	0.115**				
	Sig. (2-tailed)	0.000				
	N	971				
Норе	Pearson Correlation	0.214**				
	Sig. (2-tailed)	0.000				
	N	971				
Life Satisfaction	Pearson Correlation	0.212**				
	Sig. (2-tailed)	0.000				
	N	971				
Gratitude	Pearson Correlation	0.369**				
	Sig. (2-tailed)	0.000				
	N	971				

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Emotion Regulation	Pearson Correlation	0.306**
	Sig. (2-tailed)	0.000
	N	971
Empathy	Pearson Correlation	0.314**
	Sig. (2-tailed)	.000
	N	971
Self regulation	Pearson Correlation	0.261**
	Sig. (2-tailed)	0.000
	N	971

With the exception of self-efficacy and forgiveness, Table 2 shows significant positive correlation between spirituality/religiosity and the other human values and competencies, in the context of Mauritius. In fact, considering the high correlation between religion and religiosity/spirituality in the Mauritian culture, which is also depicted in the SEM, we assume that religion cum religiosity/spirituality affect the development of human values and competencies.

Religion and religiosity have also been found to have a positive impact on individuals' problem-solving skills, which is aligned to the work of Krause and Hayward (2014). They argued that religious involvement may provide individuals with the cognitive resources and social support needed to cope with challenging life situations. As far as sense of belonging is concerned, research has consistently found that religious participation is associated with a stronger sense of social support and community belonging (Krause, 2006; Ellison, 1991). For example, a study by Krause (2006) found that religious participation was positively associated with social support among older adults.

Gratitude has also been linked to religious involvement. Emmons and McCullough (2003) found that individuals who reported higher levels of religious involvement also tended to report greater gratitude. They suggested that religious involvement may facilitate the development of a gratitude-oriented worldview. Referring to meaning-making, Park (2010) argued that religious involvement can provide individuals with a framework for understanding and interpreting their life experiences, thereby promoting a sense of meaning and purpose.

Now that we have established and explained how religion of a person influences the most strongly correlated human values and competencies, it

is important to analyze details of the link between religion and the set of values and competencies in relation to the different religious groups found in Mauritius, depicted in Table 4. The main religious groups found in the country are Muslims, Hindus, and Christians.

**Table 4.** Mean and Standard Deviation of the Level of Likelihood of Different Values and Competencies, Related to Religion

				Rel	igion			
Items	Mu	slim	Chri	stian	Hiı	ıdu	Other	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Forgiveness	2.10	0.59	2.23	0.66	2.18	0.58	2.21	0.57
Individualistic Orientation	2.80	0.44	2.79	0.41	2.88	0.45	2.66	0.41
Collectivistic Orientation	3.22	0.45	3.14	0.47	3.08	0.47	2.91	0.45
Self-efficacy (School Student, University Student)	3.02	0.35	2.91	0.40	3.03	0.37	2.78	0.44
Problem Solving (School Student, University Student)	2.89	0.50	2.77	0.47	3.01	0.43	2.81	0.45
Meaning-making	3.00	0.40	2.86	0.42	2.85	0.38	2.72	0.46
Sense of Belonging (School Student, University Student)	2.96	0.41	2.84	0.41	2.85	0.42	2.64	0.45
Religiosity/ spirituality	3.61	0.53	3.39	0.67	3.03	0.83	2.57	1.07
Teacher Self-efficacy (Teacher/Instructor)	2.94	0.49	2.80	0.23	2.84	0.43	2.77	0.22
Hope (University Student, Teacher/Instructor)	3.17	0.39	3.06	0.40	2.97	0.52	2.72	0.68
Life Satisfaction ((University Student, Teacher/Instructor))	2.91	0.46	2.98	0.48	2.76	0.56	2.98	0.62
Gratitude	3.11	0.41	3.04	0.42	3.08	0.41	2.96	0.43
Emotion Regulation	2.96	0.42	2.93	0.44	2.92	0.40	2.89	0.51
Empathy	2.83	0.37	2.78	0.42	2.82	0.39	2.72	0.41
Self-regulation	2.83	0.37	2.72	0.39	2.74	0.38	2.63	0.38

According to Belle, et al. (2022), analysis of the table revealed that all mean values are greater than 2 indicating that respondents of all religious groups have high likelihood for all the constructs (values and competencies). However, when comparing the mean values, it was observed that the Muslim community in Mauritius has a greater likelihood and is more agreeable toward most of the values and competencies as compared to the other communities, though the differences may not be significant. In fact, greater mean values are noted for the Muslim community for human values and competencies, namely collectivistic orientation, meaning-making, sense of belonging, religiosity/spirituality, teacher self-efficacy, hope, gratitude, emotion regulation, empathy, and self-regulation. Christian shows higher means for forgiveness and life satisfaction, Hindu for individualistic orientation, self-efficacy, and problem solving, and other grouped religions for life satisfaction. These findings are important as they allow stakeholders to take stock of the current levels of values and competencies among Mauritians as a whole but also in their respective communities, so that contextualised action plans may be developed, implemented, monitored, and evaluated in view of furthering the development of human values and competencies in all communities in Mauritius. By so doing, the multiculturality and multi-ethnicity of Mauritius will be more valued by each member of the country.

# CONCLUSIONS

Through the correlations between religion and the different human values and competencies showcased in the SEM, this study revealed that the Mauritian Muslim community has a high affinity to most of the values and competencies, excluding forgiveness, life satisfaction, individualistic orientation, self-efficacy, and problem solving. Moreover, the SEM provides important baseline data that inform policymakers and other educational stakeholders on the way forward to further the development of human values among Mauritian students and other educational stakeholders, as a whole and in their respective communities. To cultivate human values and competencies within Mauritius, several critical factors are required. First, the success of such an initiative relies heavily on genuine collaboration and representation from all stakeholders, including government bodies, educational institutions, civil society, and the private sector. Without comprehensive participation and engagement, the endeavor risks

becoming disconnected from the diverse needs and perspectives within Mauritian society. Second, a forum or platform with a clear strategic framework and sustained commitment to implementation is key. It is essential to outline concrete objectives, methodologies, and evaluation mechanisms to ensure that efforts translate into tangible outcomes and meaningful societal change. In addition, the sustainability of initiatives aimed at fostering values and competencies necessitates long-term investment in both financial resources and institutional support.

In essence, while the proposal underscores the importance of prioritizing human values and competencies in Mauritius, its realization demands a holistic and critical approach that acknowledges the complexities of social transformation. By addressing systemic barriers and fostering genuine collaboration, Mauritius can aspire to become a nation deeply rooted in ethical principles and empowered individuals.

# RECOMMENDATIONS

Considering the multicultural and multi-ethnic character of Mauritius, the following recommendations may be considered in furthering the development of human values and competencies among the population to maintain a harmonious and inclusive society.

- Foster intercultural communication skills: Encouraging individuals to learn
  and practice effective intercultural communication skills can promote mutual
  understanding and respect among diverse groups. This can include learning
  about different cultural norms and customs, and how to communicate effectively across cultural boundaries (Wang & Lin, 2020). This will enhance the
  open-mindedness of participants.
- Promote cultural sensitivity and empathy to help individuals appreciate and
  understand different perspectives and experiences. This can involve creating
  opportunities for individuals to engage with people from different cultural
  backgrounds and expose them to diverse cultural expressions, such as art and
  literature (Mandelbaum, 2019). Another example is to bring people of different communities together to listen, understand and help those in difficulty in a
  collective way. This will enhance their collective orientation and responsibility
  toward people in need.
- Encourage diversity in leadership to provide role models for individuals
  from different cultural backgrounds and promote a sense of belonging and
  inclusivity. This can also help challenge stereotypes and promote a more
  nuanced understanding of diverse experiences (Valk, 2018), and further values
  and competencies grouped under open-mindedness, responsibility, and collective orientation (Belle, et al., 2022)

- Promote further integration of diverse religions and culture-related content into school curriculums to provide opportunities for students to learn about all the communities making up the Mauritian society and develop critical thinking skills about social and cultural issues. This can promote tolerance, understanding, and respect for diversity (Nieto, 2017).
- Foster community participation and engagement by encouraging individuals from
  diverse backgrounds to participate in community events and activities that will
  promote a sense of belonging and social cohesion. This can also provide opportunities for individuals to share their cultural traditions and experiences with others,
  promoting cultural exchange and understanding (Tajfel, 1982).

# References

- Abdul-Jabbar, W. K. (2022). Medieval Muslim philosophers and intercultural communication: Towards a dialogical paradigm in education. Taylor & Francis.
- Atchia, S. M. C. (2022). A shift in discourse towards "public understanding of sustainability science" (PUSS). Journal of Education and Research, 12(1), 57–86.
- Atchia, S. M. C., & Chinapah, V. (2023). Factors influencing the academic achievement of secondary school students: A structural equation model. *International Journal of Instruction*, 16(1), 999–1020.
- Aumeerally, N., Chen-Carrel, A., & Coleman, P. T. (2022). Learning with peaceful, heterogeneous communities: Lessons on sustaining peace in Mauritius. *Peace and Conflict Studies*, 28(2), 3.
- Avise, J. C., & Ayala, F. J. (2010). In the light of evolution: Volume IV: The human condition. National Academy Press.
- Belle, L. J., Hosenally, M., & Atchia, M. S. C. (2022). Mapping of values associated with open-mindedness, responsibility, and the collaborative collective in the Mauritian education Population. *Journal of Education in Muslim Societies*, 4(1), 58–86.
- Broido, E. M. (2000). The development of social justice allies during college: A phenomenological investigation. *Journal of College Student Development*, 41(3), 257–273.
- Brown, S. (2018). Resistance to new ideas among religious individuals. In K. Thompson (Ed.), *Critical thinking and religion* (pp. 67–82). Cambridge University Press.
- Brown, K. (2020). Parental involvement in education: A critical analysis. Journal of Family and Community, 25(3), 234–246.
- Carneiro, A., e Sousa, H. F. P., Dinis, M. A. P., & Leite, Â. (2021). Human values and religion: Evidence from the European social survey. *Social Sciences*, 10(2), 75.
- Cota, A. A., Longman, R. S., Holden, R. R., & Fekken, G. C. (1993). Comparing different methods for implementing parallel analysis: A practical index of accuracy. *Educational and Psychological Measurement*, 53(4), 865–876.
- Davies, L. (2016). Security, extremism and education: Safeguarding or surveillance? *British Journal of Educational Studies*, 64(1), 1–19.
- DeBlaere, C., Pargament, K. I., & Vera, E. M. (2011). Narcissism and self-construal in the assessment of religious and spiritual struggles. *Mental Health, Religion & Culture, 14*(3), 209–224.
- Dhunnoo, S., & Adiapen, V. (2013). Value-based education and teacher education in Mauritius: Analysing the pertinence of value-based education at school to reconstruct society. *PURUSHARTHA-A journal of Management, Ethics and Spirituality, 6*(1), 123–135.

- Ellison, C. G. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior*, 32(1), 80–99. doi: 10.2307/2137101
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377–389. doi: 10.1037/0022-3514.84.2.377
- Eriksen, T. H. (1997). Multiculturalism, individualism and human rights: Romanticism, the Enlightenment and lessons from Mauritius. In Wilson, R. (Ed.). *Human rights, culture and context: Anthropological perspectives,* 49–69. Pluto Press.
- Eriksen, T. H. (1990). Linguistic diversity and the quest for national identity: The case of Mauritius. *Ethnic and Racial Studies*, 13(1), 1–24.
- Fish, L. J. (1988). Why multivariate methods are usually vital. *Measurement and Evaluation in Counseling and Development*, 21, 130–137.
- Garcia, L. (2018). School administration and the role of values and religion in education. Journal of School Administration, 98(2), 123–136.
- Helliesen, J. (2012). The role of the family in the development of children's morality. *International Journal of Humanities and Social Science Research*, 2(2).
- Henningsgaard, J. M., & Arnau, R. C. (2008). Relationships between religiosity, spirituality, and personality: A multivariate analysis. Personality and Individual Differences, 45(8), 703–708.
- Higgins, V. L. (2014). Culture and development: A critical relationship. *International Journal of Humanities and Social Science Research*, 2(1), 11–22.
- Idler, E. L., Musick, M. A., Ellison, C. G., George, L. K., Krause, N., Ory, M. G., & Pargament, K. I. (2003). Measuring multiple dimensions of religion and spirituality for health research: Conceptual background and findings from the 1998 General Social Survey. Research on Aging, 25(4), 327–365.
- Inglehart, R., & Welzel, C. (2018). The World Values Survey: Concepts, methods, and empirical findings. Springer.
- Johnson, R. (2017). Teacher autonomy and the role of values and religion in the classroom. Journal of Teacher Education, 68(4), 456–467.
- Johnson, B.R., Jang, S.J., Larson, D.B., Li, S.D., & Miller, Y.D. (2015). Does adolescent religiosity/ spirituality moderate the relation between trauma and substance use? *Journal of Child & Adolescent* Substance Abuse, 24(4), 211–221. doi: 10.1080/1067828X.2013.840475
- Jones, M. (2019). The impact of student views on values and religion in the classroom. Journal of Educational Psychology, 111(1), 123–136.
- Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The performance of RMSEA in models with small degrees of freedom. *Sociological methods & research*, 44(3), 486–507.
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of Religion and Health* (2nd ed.). Oxford University Press.
- Krause, N. (2006). Exploring the stress-buffering effects of church-based social support and secular social support on health in late life. *Journal of Gerontology: Social Sciences, 61*(1), S35–S43. doi:10.1093/geronb/61.1.S35
- Krause, N., & Hayward, R. D. (2014). Religion, problem-solving, and coping with everyday stress. Journal of Religion and Health, 53(2), 373–384. doi: 10.1007/s10943-012-9651-2
- Leung, M. (2019). Cultural values in Mauritius: A sociological perspective. International Journal of Cultural Studies, 15(2), 210–228.
- Mandelbaum, J. (2019). Art and empathy: Artistic expression as a tool to promote empathy and multicultural understanding. *Journal of Intercultural Communication Research*, 48(2), 156–173. doi: 10.1080/17475759.2019.1572284

- Mc Givern. R. (2014). Religion. In Little, W., Vyain, S., Scaramuzzo, G., Cody-Rydzewski, S., Griffiths, H., Strayer, E., & Keirns, N. (2014) Introduction to sociology–1st Canadian edition. *BC Campus: Victoria, BC, Canada*. On
- McKay, R. & Whitehouse, H. (2015). Religion and morality. Psychological Bulletin, 141(2), 447-473.
- Nasser, I., Saroughi, M., & Shelby, L. (2021). Advancing education in Muslim societies: Mapping the Terrain of education report (2019–2020). International Institute of Islamic Thought. https://iiit.org/en/mapping-the-terrain/
- Ministry of Education (2017). The nine years continuous basic education programme policy document-Inspiring every child. https://planipolis.iiep.unesco.org/sites/default/files/ressources/mauritius\_nycbe.pdf
- Nieto, S. (2017). Schools for diversity: Teaching for cultural and linguistic competence. Teachers College Press
- O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior research methods, instruments, & computers, 32*(3), 396–402.
- Paloutzian, R. F., & Park, C. L. (2013). Handbook of the Psychology of Religion and Spirituality. Guilford Press.
- Parandeh, A., Khaghanizade, M., Mohammadi, E., & Nouri, J. M. (2015). Factors influencing development of professional values among nursing students and instructors: A systematic review. *Global Journal of Health Science*, 7(2), 284.
- Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136(2), 257–301. doi: 10.1037/a0018301
- Poorchangizi, B., Borhani, F., Abbaszadeh, A., Mirzaee, M., & Farokhzadian, J. (2019). The importance of professional values from nursing students' perspective. BMC nursing, 18, 1–7.
- Rogers, D. S., Duraiappah, A. K., Antons, D. C., Munoz, P., Bai, X., Fragkias, M., & Gutscher, H. (2012). A vision for human well-being: Transition to social sustainability. *Current Opinion in Environmental Sustainability*, 4(1), 61–73.
- Said, A. (2003). Human development and education reform in the Arab world: Towards a research agenda. Prospects, 33(3), 323–335. doi: 10.1007/BF02683952
- Schnitker, S. A., & Emmons, R. A. (2007). Gratitude in positive psychology: An examination of the relationship between gratitude and religiousness/spirituality. *Journal of Positive Psychology*, 2(2), 133–141.
- Schwartz, S. H. (2007). Basic human values: Theory, methods, and application. Basic Human Values, 1000–1023.
- Smith, J. (2010). The role of religion in providing individuals with a sense of identity and purpose. Journal of Psychology and Religion, 48(3), 245–258. DOI:10.1080/00223980.2010.501265
- Smith, J. (2015). Harmful and discriminatory values promoted by religious traditions. In M. Johnson (Ed.), Social Issues and Ethics in Religion (pp. 135–154). Springer.
- Stark, R., & Bainbridge, W.S. (1985). The future of religion: Secularization, revival and cult formation. University of California Press.
- Steinberg, S. (2001). The ethnic myth: Race, ethnicity, and class in America. Beacon Press.
- Tajfel, H. (1982). Social psychology of intergroup relations. Annual Review of Psychology, 33(1), 1–39.
- Thakkar, J. J. (2020). Structural equation modelling. Application for Research and Practice. Springer.

- Thompson, B. (1994). Why multivariate methods are usually vital: Some basic concepts. Paper presented at the biennial Meeting of the Southwestern Society for Research in Human Development, Austin, TX. (ERIC Document Reproduction Service No. ED 367 687).
- Thompson, B. (2000). Canonical correlation analysis. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and Understanding More Multivariate Statistics* (pp. 285–316). American Psychological Association
- Thoresen, C. E., & Harris, A. H. (2002). Spirituality and health: What's the evidence and what's needed? *Annals of behavioral medicine*, 24(1), 3–13.
- Valk, J. (2018). Assyrian Collective Identity in the Second Millennium BCE: A Social Categories Approach (Doctoral dissertation, New York University).
- Vithilingem, S. (2019). Ancestral values: The erosion of our respect for things and people. *Express Journal*. https://lexpress.mu/idee/347651/ancestral-values-erosion-our-respect-things-and-people
- Wang, Y., & Lin, C. (2020). Intercultural communication competence: A systematic review of its conceptualization, development, and assessment. *International Journal of Intercultural Relations*, 78, 38–51. doi: 10.1016/j.ijintrel.2020.01.006
- Younger, P. (2010). New homelands: Hindu communities in Mauritius, Guyana, Trinidad, South Africa, Fiji, and East Africa. OUP USA.
- Yogi, C. M. (2009). Value–Based Education. http://www.uri.org/files/resource\_files/Value%20Based% 20Education%20by%20Dr.%20Yogi.pdfviewed 23th December 2012.