

Does Religiosity Affect Multidimensional Poverty? Evidence from World Values Survey (2010-2014)

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ABSTRACT. Based on macro-level observations that high religiosity is associated with lower economic growth, it is generally assumed that religiosity contributes to poverty. However, this conjecture may not be true because religion provides motivation to the poor, encourages cooperation in society, and influences preferences and habits in ways that could help reduce poverty. The present paper uses data from World Values Survey (WVS) covering 52 countries and 74,042 individuals, to construct a measure of multidimensional poverty based on deprivation counting approach and a measure of religiosity based on faith deprivation. It then addresses three questions: (a) Is religiosity similar among multidimensional-poor and non-poor? (b) Are there any differences in dimensions of deprivations among high religiosity and low religiosity people? (c) What is the impact of religiosity on multidimensional poverty? It finds that higher religiosity is associated with lower multidimensional poverty; faith-poor are more deprived in their protections of intellect and posterity than protections of life and wealth. A decrease in religiosity increases multidimensional poverty. An implication of the study is that a religious society would be less poor even if its economic growth is slow.

Keywords: Religion, *Maqāṣid al-Sharī'ah*, Poverty, Multidimensional poverty, Religiosity.

JEL Classification: N30, Z12

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1. Introduction

Does religiosity affect multidimensional poverty? There is no simple answer to this question because there is no simple relationship between poverty and religiosity. Poverty is affected by religion in so many different ways, positively and negatively, through different routes and channels, that no plain general argument can be built. Yet, it is a fact that poverty, and its feel to the people, is indeed affected by religion and religiosity of the people. In its influence and impact, the content of the religion as well as the practice of its followers greatly matter. The core beliefs, and the core dos and don'ts, form the content of a religion along with its substance. It would be interesting to analyze how the content of different religions would differently affect poverty.

However, the current state of research has not reached that stage yet. Even some more basic questions need to be answered that have not been studied and that could lead to improved understanding and open new avenues for further research. For example, we do not know whether the poor and non-poor are equally religious. We understand that poverty is multidimensional, that it is not only in income and wealth but also in other dimensions important for human life. In this case, what dimensions should matter? How the patterns of deprivation across these various dimensions differ between the religious and non-religious multidimensional-poor and what impact religiosity makes on multi-dimensional poverty?

The present paper attempts to provide first cut answers to these questions. It relies on publicly available data that can provide proxy measures for concepts of religiosity and multidimensional poverty. While more proper answers would require a purpose-made survey, collecting pertinent information to quantify religiosity as well as poverty in multiple key dimensions. Until then, we make use of the available data. To put things in perspective, and understand the gaps in literature, a succinct review is provided in section 2. Section 3 spells out the key questions. Our methodology and data is described in section 4. Analysis and core results of this paper are given in section 5. Lastly, section 6 concludes the paper.

2. Literature Survey

Literature on economics and religion is extensive and growing. This is evidenced through extensive surveys by Iannaccone (1998), Jackson and Fleischer (2007), and Iyer (2016) that have appeared over the past two decades.

While a considerable number of studies deal with religiosity and economic development (Barro & McCleary, 2003; Bettendorf & Dijkgraaf, 2010; Crabtree, 2010; Herzer & Strulik, 2017; Yusof, Budiman, & Amin, 2018; Ruck, Bentley, & Lawson, 2018), comparatively little is available on poverty and religion. The literature on religion and economic development usually brings out a negative relationship between religiosity and economic development. The relation between religiosity and poverty is not known but guessed to be the same. In the following three sub-sections we give a short survey of literature on the above two aspects and on the role of religion in poverty alleviation.

2.1 Religion and Economic Development

It is generally observed that the people in third world countries, compared to the economically developed countries, show more religiosity while the countries are relatively poor. Crabtree (2010) thus titled his findings 'Religiosity Highest in World's Poorest Nations'. Providing the analysis in Gallup News, he writes:

Each of the most religious countries is relatively poor, with a per-capita GDP below \$5,000. This reflects the strong relationship between a country's socioeconomic status and the religiosity of its residents. In the world's poorest countries – those with average per-capita incomes of \$2,000 or lower – the median proportion who say religion is important in their daily lives is 95%. In contrast, the median for the richest countries – those with average per-capita incomes higher than \$25,000 – is 47%. (Crabtree, 2010, para 2)

This observation can lead to the conclusion that religiosity is associated with poverty. Arguments given by Marx (1843) that religion is "the opium of the people"⁽¹⁾, and the ideas propagated by atheists and even some secular economists allude to this line of

(1) Marx stated: "Religion is the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the *opium* of the people" (Marx, 1843, para 4).

thinking. For example, Wiseman and Young (2014) used cross-sectional US state-level data to investigate the relationships between measures of religiosity and levels of entrepreneurial activity. They find that “several religious variables significantly and negatively correlate with a state’s productive entrepreneurship score” and that “the percent of individuals reporting as atheist/agnostic is positively associated with productive entrepreneurship” (p. 21). Similarly, Herzer and Strulik (2017) show that there exists a negative long-run relationship between the level of religiosity, measured by church attendance, and the level of income growth, measured by the log of GDP per capita. However, Guiso, Sapienza, and Zingales (2002) note that “on average, religious beliefs are associated with “good” economic attitudes, where “good” is defined as conducive to higher per capita income and growth” (p. 1).

More recently Ruck et al., (2018) examined the relationship between secularization (defined as decline in religion) and economic development (defined by GDP per capita). They created a long time-series data of religiosity and then used this data to conclude that the religious decline preceded economic growth in most countries. Their study rules out reverse causality from economic development to secularization by assuming that individuals’ religiosity is developed during their formative age and carries over. So, if any correlation existed between religiosity and GDP per capita in the future years, it cannot be due to income effecting religiosity. They further pinned the driver of development to the rise of secular norms of tolerance and attitudes toward divorce, homosexuality, and liberal values.

In general, these papers are about reinstatement of secularization hypothesis, i.e., how pervasive religion is as countries become richer. This hypothesis posits that economic development by increasing education, urbanization, and making available alternate arrangements for economic and social security, leads to lower religiosity. In other words, it associates irreligiosity and secularization as a requirement for development.

2.2 Religion and Poverty

There is comparatively small literature on religiosity and poverty. The analysis of how religion, its values, and religiosity, can influence poverty has not been

taken up to the same extent. This is despite the fact that religions are usually clear about the values they support, and clarity of values help in creating testable hypotheses. Part of the problem is in the abstraction of the concept of religiosity and a greater part of the problem is in the unavailability of data. One empirical study on the relationship between poverty and religion, albeit in the context of Britain, is by Heath and Li (2015) that uses UK Longitudinal Household Panel Study (also known as Understanding Society – Usoc) and finds differential incidence of poverty among different religious groups after controlling for differences in ethnicity and other factors. This too is only a report on one country, essentially separating poverty among different faith groups, Muslims, Sikhs, Hindus, Christians, and people with no religion. It looks at income poverty only. The intent of the report was to see how the immigrants belonging to different religious groups have adjusted, or not adjusted, in the British economic and social milieu.

A recent study by Yusof et al. (2018) is somewhat closer to ours. However, it focuses on the relationship between religiosity and wellbeing, not poverty. Collecting primary survey data from 461 respondents in South Kalimantan, Indonesia, it creates a multidimensional measure of Islamic religiosity by combining ritualistic, experiential, ideological, consequential and intellectual aspects of religion. The study finds that the more religious and more educated people are relatively better-off than the others in South Kalimantan.

2.3 Role of Religion in Poverty Alleviation

Before moving further in some organized way in context of the present study on religiosity and poverty, we need to understand that the role of religion is quite diverse in relation to poverty (Beyers, 2014). However, in tackling poverty, the role of religion can be divided into three operating channels:

- (a) Soothing or functional role of religion, as it provides psychological help to the poor in coping with the difficulties of poverty.
- (b) The attention giving and poverty alleviation role of religion as it encourages others to help the poor or it creates institutions to help the poor.
- (c) The development and incentivizing role, as religion encourages the poor to exert themselves actively to come out of poverty. The religion also

helps in inculcating behaviors and developing preferences and habits that save the people from falling into the poverty trap.

All these factors affect the behavior of the poor and non-poor in the society individually and collectively.

Mostly, the conventional economics literature on religion and poverty takes only the first listed functional role of religion. That is, people rely more on religion when poor because it provides solace, an idea of comfort in destiny, and gives them another dimension to consider and maximize, which is the after-life. In essence, this strand of literature attempts to explain religiosity as a function of poverty rather than poverty as a function of religiosity.

The literature in this strand points out that the higher mean personal religiosity tends to be associated with worse 'social environments'. It conjectures a possible reason for this in that the exposure to stressful situations (i.e. personal insecurity) increases personal religiosity. Norris and Inglehart (2004) and Rees (2009) are two examples.

Norris and Inglehart (2004) find a strong positive correlation between income inequality and religiosity in a multinational panel. Since the distribution of wealth differs across nations even when they have similar average wealth and similar material advancement, hence, they argue that it may be the inequality that is a determinant of cross-national differences in religiosity. Rees (2009) uses income inequality (as a proxy for personal insecurity) and religiosity (operationalized as the mean frequency of prayer) to get similar results. He finds importance of personal insecurity as a driver of religiosity along with other national-scale determinants of religiosity.

The other two roles listed above in b (the attention giving role of religion) and c (the incentivizing role of religion) are often ignored in the economics literature.

The literature on *zakah* in the context of Islamic finance takes up the 2nd role to some extent (i.e. providing attention and channeling other peoples' help to the poor) as it analyzes the role of *zakah* (an obligatory religious charity) in poverty alleviation. It sheds light on the consideration for others and the role of religion in obligating and encouraging others to help the poor by individual efforts as well as by creating state institutions for this purpose. The

literature on charity and *awqāf* also falls in this category as charity and giving (*sadaqāt*) is not obligatory but encouraged by religious teachings. Religion also promotes considerate behavior towards poor.

Closer to the incentivizing role of religion (the 3rd channel), but with a slightly different angle, is the literature that discusses how religion or religious beliefs influence opinions about ways people become poor. Norcia and Rissotto (2013) is an example of how religion through individuals' attributions influences poverty. The policy implications of this literature would be to influence individuals' attributes through religion in order to influence poverty.

From the discussion in the above sections it is now clear that the literature has primarily discussed religion and development, religion and well-being, and religion and inequality but little on religion and poverty. To the extent the literature on religion and poverty exists, it has either asked the reverse question that how religiosity is determined by poverty or it has focused only on income poverty.

3. Objective and Key Questions

The present paper is not concerned with the rationalization of religion in economic decision making or modelling the religious behavior. Rather, its focus is on poverty and its relationship to religiosity. It builds form data on individual level behavior to arrive at macro-level conclusions. The paper asks very simple but important questions:

- Q1. Is religiosity similar among multidimensional-poor and non-poor?
- Q2. Are the poor among the religious people different in their deprivations from the poor among non-religious people? That is, are there any differences in dimensions of deprivations among high religiosity and low religiosity people?
- Q3. What is the impact of religiosity on multidimensional poverty?

These are not just issues of curiosity but hold importance both from academic and policy perspectives. Answers to these questions will educate us whether poverty is an inseparable aspect of religiosity or not. It will provide evidence-based understanding whether societies can achieve socio-economic development while being religious. It can also potentially provide policy guidance on which deprivations matter for multidimensional poverty alleviation in religious and non-religious societies.

However, to proceed with answering these questions requires a working-definition of religiosity and also a definition of religious and non-religious people. These are defined in the next section. The paper provides analysis using individual level data and controlling for fixed country effects and other possible influences.

Moving forward, there are several possibilities of relationship between religiosity and poverty. Either religion is causing poverty, hence, a cause of underdevelopment; or poverty is giving rise to religiosity, a concern in the present global context; or there is a bi-directional relationship each re-enforcing the other which would require causality analysis. However, in this paper we are mainly concerned with correlations only and to some extent with the first possibility i.e., the impact of religion on poverty. Even in this simplified form, the analysis of the relationship can pose significant issues. For example, the existence of association between poverty and religiosity analyzed in this way may not be correct because poverty can be a consequence of a number of country specific factors, such as poor governance, prevalence of injustice, or it may be due to natural factors that vary across countries. The differences that are found across countries in this relationship could be due to differences in these observed and unobserved factors that are affecting both; thus, creating a spurious relationship between high religiosity and poverty. We need to devise a strategy to control for these.

We proceed by first analyzing if there is any relationship between poverty and religiosity. To disentangle and control for the possible spurious effects we use ungrouped and grouped-by-country data. The model is estimated using all individual level observations using data from World Values Survey (WVS) wave-6 (this is the ungrouped analysis). Then the analysis was repeated with data separated by countries (this is the grouped analysis). This within country analysis using individual level data has the advantage that, to a great extent, it automatically controls for country specific effects. For example, weak governance, prevalence of injustice, other natural factors, etc., will be equally affecting poor and non-poor in a given country.

Another key aspect to note is that, poverty is not simply of income or lack of material things such as food, shelter, and clothing. Poverty is multidimensional in existence as well as in feeling. Cognizance of multifaceted poverty has given rise to the Human Development Index (HDI) and the Multidimensional Poverty Index (MPI). The HDI uses health, education and income aspects while the MPI uses health, education, and standard of living dimensions to define poverty. However, these indices still focus on material things and at most on three dimensions that have been arbitrarily selected given the available data. It is also hard to arrive at a common understanding of which dimensions matter most for the measurement of development and, by its reverse image, the measurement of poverty.

We abstract away from human thinking and take some key protections, which are enjoined by divine Islamic law, as the necessary dimensions that should be guarded for human welfare. This is referred to as *maqāṣid al-Sharī'ah*, i.e., the objectives of Islamic law. Al-Juwayni [d.1085], al-Ghazali [d.1111], and al-Shatibi [d.1388] were among the earliest articulators of these objectives. They identified safeguarding of faith, human self, human intellect, progeny, and wealth of individual and society as the primary objectives of the divine law (for details, see: al-Ghazali, 1937; Chapra, 2007). We think that development and progress of societies should be measured along these dimensions. A society is progressing if adequate protections are provided to the individuals, and to the society, for their faith, life, intellect, progeny and wealth. Accordingly, a society or an individual is poor if it falls short in these five protections from some minimum acceptable threshold level in some or in all dimensions. A *maqāṣid al-Sharī'ah* based development index was created by us on experimental basis on these lines (see Ali & Hasan, 2014). We will refer to that index as MSDI. Since we want to analyze the impact of religiosity on multidimensional poverty, we do not include deprivation in the protection of faith in the calculation of *maqāṣid al-Sharī'ah* (MS) based multidimensional poverty for this paper. We then analyze how the religiosity can affect the incidence and severity of poverty across religious and non-religious groups.

4. Methodology and Data

To carry out this analysis, the following steps were taken: The first is to define some measure of religiosity. The second is to define multidimensional poverty. The third aspect would be to find whether any relationship does or does not exist between them.

4.1 Religiosity

Defining the concept of religiosity in some measurable terms is also part of the analysis. Instead of basing the measurement of religiosity on some single aspect, the paper uses multiple indicators capturing the belief. This is done by using two types of indicators: the indicators that capture the pronouncement of belief, and the indicators that capture action on the direct obligations of those beliefs. These indicators include (i) belief in God, (ii) a person's own testification whether he describes himself/herself as a religious, non-religious or atheist person. These two constitute the pronouncement of belief. The other two indicators are (iii) attendance in religious services and (iv) frequency of prayers. These are measured on a Likert scale and constitute the action on the obligations of the belief part. These indicators are then combined to form a single index of religiosity. Our approach is closer to Islam's emphasis on belief testified by the required practice of it to determine religiosity. Since WVS asks limited number of questions on religiosity, we used a combination of these two dimensions i.e. belief in God and attendance of religious services. Rees (2009, pp. 14-16) also stresses the importance of combining belief and attendance to religious services as a joint measure of religiosity. However, our way of combining them is different in that we utilize a cut-off approach. Our approach is also different to that of Yusof et al. (2018). They collect primary data (from one province of Indonesia) and make use of a combination of five different dimensions to measure the religiosity of a person.

4.2 Deprivations, Faith-Deprived, and Multidimensional Poverty

Ali and Hasan (2014) have developed axioms for a *maqāsid al-Sharī'ah* based measure of poverty. They then chose indicator variables from the available World Values Survey data for each of the five dimensions (faith, life, intellect, posterity, and wealth). We use the same procedure in this study except that

we keep the faith dimension separate from the measurement of multidimensional poverty. As before, we selected multiple indicators for each dimension. An averaging of deprivations in indicators within each dimension can give the average deprivation in that dimension.

We utilize the Alkire-Foster (AF) dual-cut methodology to identify the poor (Alkire & Foster, 2011). First, we defined deprivation cut-offs, the minimum required in the provision of adequate protection of faith, life, intellect, posterity and wealth, respectively. These cut-offs were defined at the indicator level (not at dimension level). Then, for each individual, we measured the level of protection enjoyed by him/her in each of the five dimensions by aggregating the indicators within each dimension by weighted averaging method and marked the level of deprivation in each dimension, if any, for every individual. Each dimension was given equal weight. These weights were then divided among the indicator variables in each dimension. The number of indicator variables are not equal in each dimension. Deprivation is then defined as having less than the adequate level of protection – the cut-off mentioned above. The *maqāsid al-Sharī'ah* based multidimensional poverty measurement is developed in Ali and Hasan (2014) and used for policy ranking in Ali and Hasan (2018) where the rationale for the choice of indicators and their weights cut-off thresholds are discussed.

A person is then identified as 'multidimensional material-poor' (MD-Poor), if his/her total deprivation in the four dimensions of life, intellect, posterity, and wealth was greater than or equal to 40% of the maximum possible total deprivations of the four dimensions. All cutoffs are arbitrary in the poverty analysis. It is based on prudential assessment that a very low cutoff will identify a very small percentage of the population as multidimensional poor. Similarly, a very high cutoff will identify a very large portion of the population as poor. Based on the Global Multidimensional Poverty Index methodology of the UNDP, a cutoff of 40% to 45% is judged reasonable. Our earlier effort in the creation of the MSDI also showed that a cutoff range of 40% to 45% is reasonable. Further, we tested the robustness of results by varying the cutoff and seeing if it changes the ranking

of countries in MSDI. We found that it is robust: variation in cutoff preserves the ranking despite the change in poverty head-count.

Deprivations in the faith dimension were calculated but not used in identification of the multidimensional material-poor (MD-Poor). It is used in later analysis to identify faith-deprived (or religiously-poor) persons.

The indicators used to capture these four material dimensions and faith as the fifth dimension along with their cut-off levels are given in Table 1. These indicators and the cut-off levels are based on the responses to the World Values Survey, wave-6

questionnaire. WVS wave-6 data set covers 52 countries, surveying 74,042 individuals during 2010-2012 (the list of countries appears later in Table 3, first column).

A person is 'religiously-poor' (or faith-deprived) if he falls below the respective thresholds in three out of the four indicators of faith dimension given in Table 1. These indicators are chosen in such a way that mere statement of belief in God is not sufficient to indicate religiosity, but confirmation of the belief through the act of worship and attendance in religious services is also a required feature in measuring the religiosity of the individual. The definition of material-poor is already given above.

Table (1) *Maqāsid al-Sharī'ah* Dimensions and their indicators in WVS 2010-2012

Dimension	Variable ID Number	Indicator hint (see full question in the survey)	Range of Values	Deprivation Cut-Off Point
FAITH	V145	attendance in religious services	1 to 7	6
	V146	frequency in prayer	1 to 8	8
	V147	religious, non-religious or atheist person	1, 2, 3	3
	V148	belief in God	1, 2	2
LIFE	V55	freedom of choice in life	1 to 10	6
	V177	preferred not to go out at night	1, 2	2
	V179	victim of crime last year	1, 5	5
	V180	immediate family victim of crime last year	1, 5	5
	V183	a war involving my country	1 to 4	3
	V184	a terrorist attack	1 to 4	3
	V185	a civil war	1 to 4	3
	V188	gone without enough food to eat	1 to 4	3
	V189	felt unsafe from crime in your home	1 to 4	3
INTELLECT	V182	not being able to give my children a good education	1 to 4	3
	V248	highest level of education	1 to 9	6
	V172	alcohol consumption in streets	1 to 4	4
	V175	drug sale in streets	1 to 4	4
POSTERITY	V203	Homosexuality: justifiable	-10 to -1	-2
	V203A	Prostitution	-10 to -1	-1
	V204	Abortion	-10 to -1	-2
	V205	Divorce		
	V206	sex before marriage	-10 to -1	-1
	V209	parents beating children	-10 to -1	-4
WEALTH/PROPERTY	V59	satisfaction with financial situation	1 to 10	9
	V171	occurrence of robberies	1 to 4	4
	V181	worry about losing job or not finding a job	1 to 4	3
	V239	which income group you belong to	1 to 10	5

Notes:

MD-Poverty cutoff $k = 40\%$

Faith-Poor cutoff $k' = 40\%$ of the maximum possible deprivation in faith.

Note that in the present paper all calculations/measurements are performed at the level of individuals (i.e., our unit of analysis), and we will continue the analysis at the individuals' level. However, to give the picture of MD-Poverty (i.e. multidimensional poverty with four dimensions of

maqāṣid al-Sharī'ah, without accounting for faith) among different countries we provide in Table 2 the Adjusted Headcount Ratio of MD-Poverty (M_0 of MD-Poverty) in each country and mean deprivation in faith (Headcount Ratio of faith deprived).

Table (2) Adjusted Headcount Ratio of MD-Poverty (on four dimensions from *maqāṣid al-Sharī'ah*) and mean faith deprivation, by country

Country	M_0 MD-Poverty as per our approach	Mean deprivation in faith as per our approach	Country	M_0 MD-Poverty as per our approach	Mean deprivation in faith as per our approach
VF2	<i>M0nf_cntry_40</i>	<i>mean_mwfaith_nf</i>	VF2	<i>M0nf_cntry_40</i>	<i>mean_mwfaith_nf</i>
Algeria	0.197017	0.076035	New Zealand	0.257372	0.13629
Armenia	0.078709	0.091257	Nigeria	0.204724	0.060569
Australia	0.282363	0.142275	Pakistan	0.149725	0.071136
Azerbaijan	0.048643	0.116822	Palestine	0.07401	0.076042
Belarus	0.231739	0.125817	Peru	0.308264	0.08877
Chile	0.28243	0.105036	Philippines	0.304333	0.077059
China	0.144209	0.175147	Poland	0.187536	0.089162
Colombia	0.252579	0.085449	Qatar	0.01767	0.05
Cyprus	0.11165	0.104545	Romania	0.131085	0.09504
Ecuador	0.228128	0.092085	Russia	0.283784	0.119228
Egypt	0.128142	0.05	Rwanda	0.358448	0.071519
Estonia	0.241181	0.153213	Singapore	0.177272	0.117411
Germany	0.187757	0.15402	Slovenia	0.134032	0.125487
Ghana	0.152236	0.065333	South Korea	0.135183	0.153016
Iraq	0.125558	0.082983	Spain	0.22238	0.138032
Japan	0.243254	0.142103	Sweden	0.199602	0.156311
Jordan	0.063258	0.073786	Taiwan	0.236284	0.125896
Kazakhstan	0.195787	0.117857	Trinidad	0.152873	0.083471
Kuwait	0.033331	0.05	Tunisia	0.099361	0.098742
Kyrgyzstan	0.13804	0.088714	Turkey	0.069695	0.09507
Lebanon	0.165483	0.098387	Ukraine	0.265573	0.116153
Libya	0.087194	0.069663	United States	0.156151	0.115135
Malaysia	0.128992	0.090433	Uruguay	0.32113	0.115008
Mexico	0.284395	0.094938	Uzbekistan	0.088387	0.107951
Morocco	0.177017	0.064948	Yemen	0.0935	0.092143
Netherlands	0.238838	0.150824	Zimbabwe	0.21368	0.07321

5. Analysis

5.1 Slicing by Multidimensional Poverty

To address our first question, “Is religiosity similar among multidimensional-poor and non-poor?”, we separated the results into two groups, i.e., the individuals identified as Multidimensional-Poor (MD-Poor) and the individuals identified as Multidimensional-Non-Poor (MD-Non-Poor). Then, for each individual we calculated faith deprivation. An individual is faith-deprived if his score is below the thresholds in at least 2 out of the 4 indicators of faith. The four indicators of faith and their respective thresholds are given in Table 1. Each indicator is censored to 1 if the individual falls below the indicator specific threshold level, and 0 otherwise. The censored indicators are then multiplied by the weight of each indicator (in this case, the 4 indicators were equally weighted). The weighted sum of all four censored indicators of faith shows the intensity of deprivation of each individual in the faith dimension. Then, for each poor and non-poor group we calculated the mean level of faith deprivation. We then compare these means to check if they are equal or they are different (i.e., the mean of the intensity over all the individuals in the MD-Poor group is compared with that for the MD-Non-Poor group). This provides us a way to assess the difference in religiosity associated with poverty. We also performed the test of statistical significance of this difference.

We found that the mean of faith deprivation of MD-Poor group is 0.095348 which is greater than the mean of faith deprivation of MD-Non-Poor group that is 0.081321. The difference has 99 percent statistical significance; therefore, we conclude that the multidimensional poor (MD-Poor) are less religious than the MD-Non-Poor group (see Appendix Table A2 for the statistical test details).

The overall test with data pooled over all 52 countries would obscure the differences that may exist across countries. Therefore, we did the same analysis country by country. Dividing the population in MD-Poor and MD-Non-Poor for each country and testing

the difference of means. The detailed results are reported in Table 3.

As it turned out, 25 countries show results with high statistical significance (99% and 95% significance level) that, on average, faith deprivation is higher among MD-Poor groups of people than among MD-Non-Poor groups of people in these countries. That is, poor are less religious than non-poor. Only in three countries it is the opposite, i.e., in three countries the more religious people are MD-Poor. It is interesting to note that these three countries are Azerbaijan, China, and Uzbekistan. Here the deprivation may be government enforced, not the outcome of personal, societal, or economic factors (it should be noted that if a person or group is more intensely deprived in faith, it is less religious). In the rest of the 24 countries, either the differences of means are not statistically significant or the differences in means are negligible in magnitude. These results, taken together, give the picture that higher religiosity is not associated with higher MD-Poverty; rather, higher religiosity is associated with lower MD-Poverty. One is tempted to say that the conclusion points to the possibility that religion reduces poverty. However, the present paper is not geared towards the testing of causality of this relationship.

Our results contrast with earlier studies in that those studies did not look at the relation between poverty and religion but analyzed the relation between religiosity and insecurity in the context of explaining religiosity as a consequence of ‘societal insecurity’. According to those studies, religiosity and ‘societal insecurity’ are positively correlated. However, our results showing the relationship between poverty and religiosity are congruent with the Islamic teachings that poverty is undesirable because poverty can lead to disbelief. In the Islamic context, extreme poverty is bad because not only it is a social evil that affects wellbeing in this world, it is also dangerous for life in the hereafter because it can lead to shaking the true belief in Allah.

Table (3) Association of Faith Deprivation with MD-Poverty

Test of equality of means of faith deprivation in the MD-Poor and MD-Non-Poor groups in each country						
Country	Difference in Mean	t-value	p-value	Significance	Color Code	Conclusion
Algeria	0.006044	2.386429	0.017167	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Armenia	-0.00274	-0.93949	0.347687			Very small negative difference
Australia	0.015431	4.66639	3.34E-06	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Azerbaijan	-0.01343	-3.27972	0.001075	***		faith deprivation of poor group is lower than faith deprivation of non-poor group
Belarus	0.008385	3.547367	0.000401	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Chile	0.006422	2.254844	0.024359	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
China	-0.00867	-3.80113	0.000148	***		faith deprivation of poor group is lower than faith deprivation of non-poor group
Colombia	0.005555	2.269518	0.023377	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Cyprus	-0.00069	-0.21766	0.827735			No difference between the two groups
Ecuador	0.003733	1.386789	0.165764			Very small positive difference
Egypt	0.001426	1.042477	0.297356			Very small positive difference
Estonia	0.007455	2.779136	0.005517	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Germany	0.011133	4.629795	3.89E-06	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Ghana	0.003542	1.786532	0.074209	*		Very small positive difference
Iraq	0.012426	3.950764	8.25E-05	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Japan	0.000717	0.395825	0.692269			No difference between the two groups
Jordan	0.006319	1.643593	0.100523			faith deprivation of poor group is higher than faith deprivation of non-poor group
Kazakhstan	0.00065	0.29527	0.767828			No difference between the two groups
Kuwait	0.002404	1.032745	0.301915			Very small positive difference
Kyrgyzstan	0.005875	2.314566	0.020771	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Lebanon	0.001946	0.59923	0.549133			Very small positive difference
Libya	0.005393	2.391344	0.016873	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Malaysia	0.006977	2.110335	0.03502	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Mexico	0.00631	2.774382	0.005582	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Morocco	-0.003	-1.72494	0.084797	*		Very small negative difference
Netherlands	0.004853	1.600168	0.109728			faith deprivation of poor group is higher than faith deprivation of non-poor group
New Zealand	0.019705	4.642504	3.99E-06	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Nigeria	-0.00222	-1.41916	0.156029			Very small negative difference
Pakistan	0.006744	3.09003	0.002047	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Palestine	3.11E-05	0.007774	0.993799			No difference between the two groups
Peru	0.004107	1.586166	0.112963			Very small positive difference

Test of equality of means of faith deprivation in the MD-Poor and MD-Non-Poor groups in each country						
Country	Difference in Mean	t-value	p-value	Significance	Color Code	Conclusion
Philippine	0.004188	1.513284	0.130471			Very small positive difference
Poland	0.010787	3.469405	0.000545	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Qatar	0.004174	1.563976	0.118122			Very small positive difference
Romania	0.0081	2.964503	0.00308	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Russia	0.002278	1.157214	0.247296			Very small positive difference
Rwanda	-0.00353	-1.45976	0.144563			Very small negative difference
Singapore	0.009658	3.422278	0.000634	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Slovenia	0.004371	1.201498	0.229825			Very small positive difference
South Korea	0.009767	2.11262	0.03484	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Spain	0.011739	4.126031	3.95E-05	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Sweden	0.002923	1.006845	0.314212			Very small positive difference
Taiwan	0.00908	3.476276	0.000526	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Trinidad	0.000404	0.123919	0.901404			No difference between the two groups
Tunisia	-3.4E-05	-0.00851	0.993213			No difference between the two groups
Turkey	0.014318	4.225686	2.52E-05	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Ukraine	0.009749	3.820489	0.000139	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
United States	0.020216	7.572549	5.33E-14	***		faith deprivation of poor group is higher than faith deprivation of non-poor group
Uruguay	0.008396	2.441601	0.014795	**		faith deprivation of poor group is higher than faith deprivation of non-poor group
Uzbekistan	-0.01118	-5.06482	4.60E-07	***		faith deprivation of poor group is lower than faith deprivation of non-poor group
Yemen	0.004087	1.106318	0.268855			Very small positive difference
Zimbabwe	0.007199	3.194533	0.00143	***		faith deprivation of poor group is higher than faith deprivation of non-poor group

Notes:

Asterisks represent: *** significance at 99%, ** at 95%, and * at 90% level of confidence.

5.2 Slicing by Faith Poverty

To take up the second question, “Is there any difference in dimensions of deprivations among high religiosity and low religiosity people?”, we move to analyze the data by slicing it in another way. This time we slice it into two groups: Faith-Poor and Not-Faith-Poor, by defining a 40% cutoff for the faith dimension. That is, any person who is deprived in faith equal to or more than 40% of the maximum possible deprivations is classified as Faith-Poor. We then analyze how the Faith-Poor compare with Not-Faith-Poor in their other four dimensions of poverty. The results for global average deprivations in each of the

dimensions are reported in the following tables 4a and 4b.

As can be seen, on the global average, the faith-poor are more deprived in intellect and posterity and less deprived in life and property, compared to non-faith-poor. This shows that faith affects (or faith is associated with) multidimensional poverty through different dimensions and in different ways. Two tailed t-tests for difference in means across the two groups (Table 4c), for each dimension, reject the null hypothesis of equality of means and accept the alternative hypothesis of unequal means.

It may be the case that, the faith-poor are less conscious of posterity protection because of their liberal views and responsibility-free attitude about sex, marriage, divorce, and rearing of children. They are also falling short in the protection of mind/intellect by living in neighborhoods that are prone with alcoholic consumption and sale of drugs on streets. While the present paper does not analyze neighborhood as a reason explicitly, we are able to make this preliminary judgment because the questions in the WVS about alcohol consumption and drug use were asked relating them to the neighborhood of the respondent. For example, the question: “How frequently do the following things occur in your neighborhood?”

(a) Alcohol consumption in the streets. (b) Drug sale in streets”. This provides a clue to possible reasons. The faith-poor may be concerned about these, but they have not corrected the situation in their neighborhoods or, failing it, not moved to better places. This is either because they are unable to correct or that they are unable to move. It can also be that they can afford to move but see the cost of continuation of living in their present neighborhoods less than the cost of moving. Correlation analysis between these four dimensions also shows that intellect deprivation and posterity deprivation are positively correlated among the faith poor group.

Table (4a) Summary Statistics for Faith-Poor (global data, that is all countries)

Summary Statistics of the four dimensions of deprivations when person is classified as Faith-Poor				
Deprived in	Life	Intellect	Posterity	Wealth
Variable Name	<i>fpwlife_nf</i>	<i>fpwintelle~f</i>	<i>fpwposteri~f</i>	<i>fpwpropert~f</i>
Observation	41183	41183	41183	41183
Mean	0.068703	0.101059	0.093598	0.116341
Std. Dev.	0.042858	0.051947	0.061191	0.050176
Min.	0	0	0	0
Max.	0.2	0.2	0.2	0.2
		>	>	

Table (4b) Summary Statistics for NOT Faith-Poor (global data, that is all countries)

Summary Statistics of the four dimensions of deprivations when person is classified as NOT Faith-Poor				
Deprived in	Life	Intellect	Posterity	Wealth
Variable Name	<i>nfpwlife_nf</i>	<i>nfpwintell~f</i>	<i>nfpwposter~f</i>	<i>nfpwproper~f</i>
Observation	32859	32859	32859	32859
Mean	0.081225	0.094018	0.055388	0.120128
Std. Dev.	0.040603	0.053683	0.058028	0.050466
Min.	0	0	0	0
Max.	0.2	0.2	0.2	0.2
		>	>	

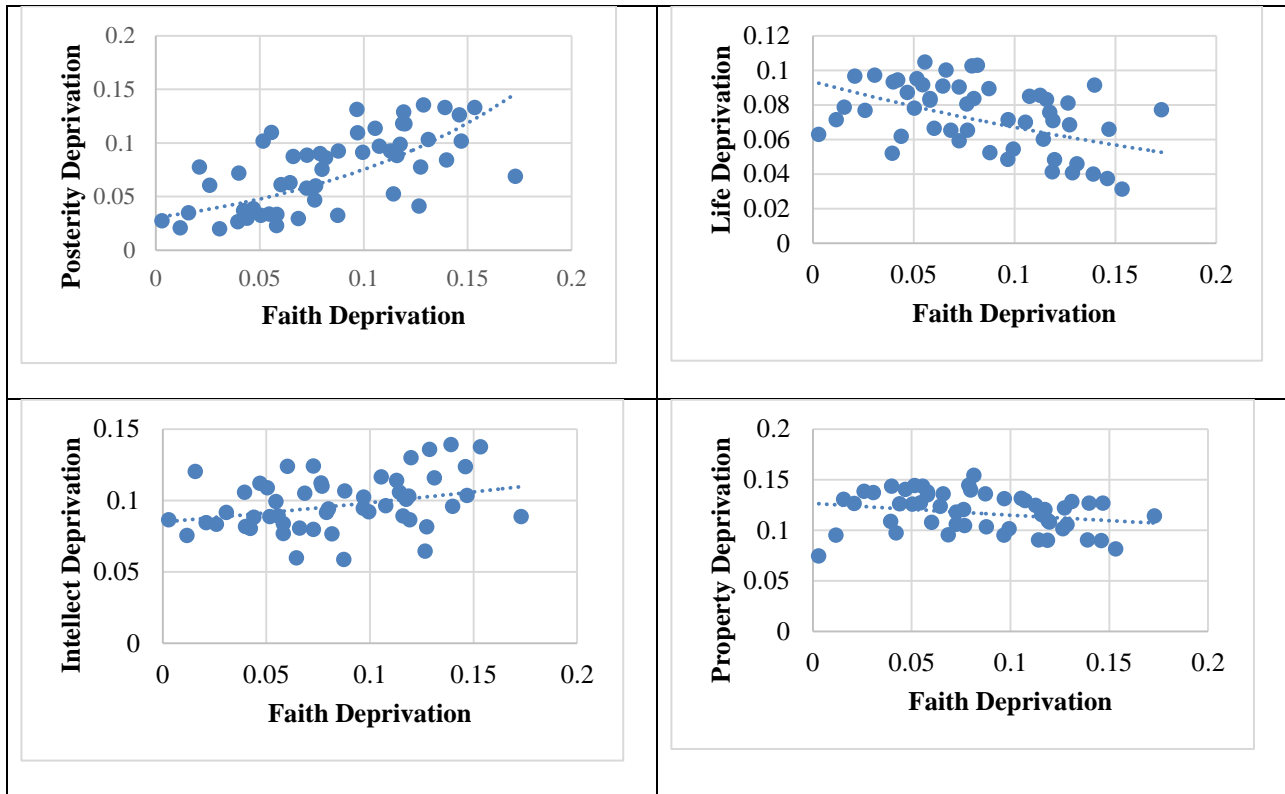
Table (4c) Test of Difference in Means. Ho: Equal Means

Deprived in	Life	Intellect	Posterity	Wealth
Mean1-Mean2	-0.01252	0.007041	0.03821	-0.00379
SE Standard Error	0.000308	0.000391	0.00044	0.000372
t-statistic	-40.6753	17.98725	86.88688	-10.1707

Knowing that the pattern of deprivations among faith-poor and Not-faith-poor may vary across different countries. We can also do country-wise analysis of difference of means among the two groups in each country. This is deferred for future research in order to be able to focus on one issue at a time. However, in order to show a general picture of how the four dimensions vary across the countries in

their relationship to faith deprivation, we plot four graphs with each dot representing a country (see Figure 1). It is found that, overall, both posterity deprivation and intellect deprivation increase with the increase in faith deprivation. While both life deprivation and property deprivation fall with the increase in faith deprivation.

Figure (1) Plot of Faith Deprivation vs deprivation in other four dimensions-Cross Country data



5.3 Cross-Country Analysis

Note that until now we have worked with simple correlations only, as questions Q1 and Q2 require just that. We now take up the third question, “What is the impact of religiosity on multi-dimensional poverty?”.

To account for other determinants of multidimensional poverty along with religiosity, we perform cross-country regression analysis. Regressions involve partial correlations conditional on other variables remaining fixed.

Our basic regression model-1 is:

$$\text{MSI Poverty} = c + b(\text{mean Faith Deprivation}) + \mu \quad (1)$$

where, the data is by country and the regression is estimated for the full sample of 52 countries.

It can be augmented to include some control variables to control for the country specific affects. In particular, GDP per capita (defined as log of mean value of GDP per capita during 2010 to 2012, that is the period of WVS wave-6 survey) was used to control for country specific affects that can influence MSI Poverty. However, the number of countries were reduced due to missing data on control variables for some countries.

The use of GDP per capita averaged over the survey period seems a useful control to capture a variety

of country specific factors. In many studies, GDP per capita has been identified as an important determinant of income poverty. GDP per capita is also influenced by governance and other country specific factors. Therefore, variation across countries in the GDP per capita averaged over a three-year period could well capture the variations in key exogenous country specific factors. Our approach is also consistent with Bettendorf and Dijkgraaf (2010) who found heterogeneity across countries in relating religion to income: more developed (high income) countries exhibiting positive relationship and less developed (low income) countries exhibiting negative relationship. Thus, our control variable GDP per capita seems useful to capture and isolate that effect.

The general form of the augmented model is as follows:

$$\text{MSI Poverty} = c + b (\text{mean Faith Deprivation}) + d (\text{Country Specific Variable}) + \varepsilon \quad (2)$$

However, in regressions, the coefficients are conditional covariances and the conditionality has some hint of causality in theory, if not in its empirics. The issue of endogeneity between multidimensional poverty and faith deprivation could be relevant here in equations 1 and 2. That is, if average faith deprivation in a country (the right-hand side variable) is affected by multidimensional poverty in that country (the left-hand side variable), then there is a feed-back effect and hence an endogeneity that needs to be corrected. The source of this endogeneity is that the errors in multidimensional poverty (the term ε) now contains errors of the explanatory variable, i.e., average faith deprivation in equation 2. Therefore equations 1 and 2 are not reported as such but after modification to account for endogeneity issue.

To correct for the endogeneity problem, several approaches are possible. One approach is to continue working with a single equation such as equation 2 above but use an appropriate instrumental variable for mean Faith Deprivation which is not correlated with the error term. We created two innovative instrumental variables that we used one after the other in the analysis as explained in subsections 5.3.1 and 5.3.2 below. Another approach is to create a simultaneous equation model with one equation having MSI Poverty as the dependent variable and the other equation having mean Faith Deprivation as the dependent

variable and use 2SLS method with appropriate instruments. This is also done and analyzed in subsection 5.3.3 below.

5.3.1 Using faith of non-poor as proxy

To correct for endogeneity problem, we regress multidimensional MSI Poverty on mean faith deprivation of non-poor (equation 3a) and its augmented form with GDP per capita (equation 3b)

$$\text{MSI Poverty} = c1 + b1 (\text{mean Faith Deprivation of non-poor}) + \varepsilon \quad (3a)$$

$$\text{MSI Poverty} = c1 + b1 (\text{mean Faith Deprivation of non-poor}) + d1 (\text{Country Specific Variable}) + \varepsilon \quad (3b)$$

We further checked if it makes any difference by running the regression of multidimensional MSI Poverty on mean faith deprivation of the poor (equation 4a) and its augmented form with GDP per capita included (equation 4b)

$$\text{MSI Poverty} = c2 + b2 (\text{mean Faith Deprivation of poor}) + \varepsilon \quad (4a)$$

$$\text{MSI Poverty} = c2 + b2 (\text{mean Faith Deprivation of poor}) + d2 (\text{Country Specific Variable}) + \varepsilon \quad (4b)$$

Note that in equations 3a and 3b, the left-hand side variable (either a headcount H or a severity adjusted headcount M_0) pertains to the poor people. While the right-hand side of the same equation incorporates faith deprivation of non-poor. Therefore, the error terms across the two groups, poor and non-poor, may not be correlated in equations 3a and 3b.

However, spurious correlation can be found in equations 4a and 4b because MSI poverty (on left) and mean Faith Deprivation of Poor (on right) pertain to poor only and, hence, the errors in these two variables may be correlated.

The regressions (equations 3a, 3b, and even 4a, and 4b) show that religiosity (as measured by low deprivation in faith) does matter in its impact on multidimensional poverty. An increase in deprivation of faith (i.e. a decrease in religiosity) increases multidimensional poverty. Though we have not searched for the route through which religiosity can influence multidimensional poverty, however, some thoughts can be offered. Religiosity increases satisfaction with one's financial situation and decreases concerns about relative income compared to others. It also

increases concern for the wellbeing of children and changes attitudes towards sex, marriage, and divorce. Because religions always have something to say about these issues, they directly influence these aspects of human life. Faith and religiosity also contribute in defining the values and morals of the society. Hence, it has an influence on crime rate, life

protection, and knowledge seeking behavior. It is true that religious conflict can sometimes bring about violence which increases threat to life and property, but that too comes with the objective of providing protection in the perception of believers in one or the other religion.

Table (5) Regression of MSI Poverty on faith deprivation and other variables

		1	2	3	4	5	6	7
		(eq4a)	(eq4b)	(eq3a)	(eq3b)	(eq4a)	(eq4b)	(eq5 & eq6)
		----- With full sample -----				With restricted sample of		2SLS
						stable age population		model
Variables	Variable Name							
Mean Faith deprivation among <i>poor</i>	<i>mean_mwfaith_nf</i>	0.779**	1.043**			0.724**	0.987**	0.427***
		(0.335)	(0.414)			(0.329)	(0.415)	(0.0628)
Mean Faith deprivation among <i>non-poor</i>	<i>mean_mwfaith_nfp0</i>			0.712**	0.897**			
				(0.344)	(0.446)			
GDP Per-capita	<i>gdp_pc</i>		-0.0134		-0.107		-0.0138	-
			(0.0106)		(0.011)		(0.0111)	0.005***
	<i>Constant</i>	0.0991**	0.191**	0.108***	0.184***	0.106***	0.202**	0.215***
		(0.0385)	(0.0812)	(0.0375)	(0.0814)	(0.0386)	(0.0844)	(0.0029)
	<i>Observations</i>	52	51	52	51	52	51	72804
	<i>R-squared</i>	0.088	0.119	0.073	0.093	0.079	0.109	0.084

Notes: Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

5.3.2 Using faith of stable-age group as proxy

Another way to control for endogeneity is to restrict the sample to the age group of 24 to 56 years old individuals in each country for the entire analysis. The logic for this is the fact that religiosity does not change quickly. The changes take place relatively fast in the early developmental phase of life and it is set by the early 20 years of life.

In a recent paper, Ruck et al. (2018) tracked religiosity and economic development over a century. They utilized a similar kind of logic stating that religiosity is developed in the first or second decade of life and then it is carried over. Using the data of religiosity and age of people from recent surveys, they used birth cohort approach to attribute the religiosity of each cohort to the decade in which the respondents were around 20 years old. Thus, they

created a retrospective time series of religiosity that is independent of present-day level of economic development.

Religiosity also changes in the late phase of life due to long experience and more time after retirement for contemplation to search for purpose in life (Hayward & Krause, 2015). During the age of 24 to 56 years, religiosity is expected to be more stable and not quickly affected by changes in the poverty status of the person. Thus, poverty can be explained by religiosity as a factor, but religiosity will not be considerably affected by poverty during that period of life. That is, chances of reverse causality from poverty to religiosity are small during this period.

Restricting the sample in this way reduces the individual respondents in the dataset from 74,042 to 46,941 with a minimum of 463 respondents and a

maximum of 1,574 respondents from any country (see Appendix Table A3 for country-wise details). This is still a large number per country to satisfactorily calculate poverty and faith deprivation values for each country.

Table 5, columns 5 and 6 show the results of re-estimation of the same model as that in columns 1 and 2 but with the sample restricted to the age group of 24 to 56 years old in each country. The coefficient of mean faith deprivation of the poor is 0.987, which is positive and statistically significant. The result confirms that the poverty of the poor is increased by increase in irreligiosity (the deprivation of faith).

5.3.3 Using two-stage least square estimation

As an additional way to control for endogeneity, we also applied instrument variable approach using 2SLS method. It is hard to find suitable instruments for faith deprivation from within the data set we use. Moreover, so far, our approach was to measure faith deprivation as directly as possible to capture this difficult variable. Creating an instrument for faith deprivation would now add a further layer of indirectness which we wanted to avoid. Nevertheless, we used V55, V242 and V170 from WVS-6 (i.e. lack of control in life, age, and insecurity, respectively) as instruments for faith deprivation among non-poor. The theory behind selecting these variables is that people become more inclined towards religion when they: feel lack of control over many things in life; when they age and hence gain more experience or may now have more free time available with age to think; and when they feel more insecure. This choice of instruments is aligned with the earlier literature. For example, Rees (2009, p. 12) shows that personal insecurity can increase the intensity of religious belief. According to him, religiosity is a consequence of personal insecurity. He uses income inequality as proxy for personal insecurity. Earlier, Norris and Inglehart (2004) also promoted the same idea. We used 'lack of control in life' and 'insecurity' directly from the survey data instead of using income inequality. Had we used income inequality, it would have become a proxy for the proxy for our desired variable.

Specifically, the following simultaneous equation model represented by equations 5 and 6 was estimated⁽²⁾, and the results are summarized in column 7 of

Table 5.

$$\text{MSI Poverty} = c3 + b3 (\text{Faith Deprivation of poor}) + d3 (\text{GDP per Capita}) + \epsilon \quad (5)$$

$$\text{Faith Deprivation of poor} = g + h1 (V55) + h2 (V242) + h3 (\text{insecurity}) + \mu \quad (6)$$

The estimation results also show that the faith deprivation impacts MSI-poverty. An increase in faith deprivation increases poverty. The high Wald Chi square statistic = 112.31 indicates validity of instruments.

In short, multidimensional poverty defined in a more comprehensive sense, as in this paper, is influenced by religion and religiosity of the people. A religious society is less poor multidimensionally than a society with lesser religiosity. Future research can formulate ways to capture the main content of a religion itself and determine how its teachings and beliefs help reducing poverty.

6. Conclusion

There is a realization now that poverty is a multidimensional phenomenon. The present paper created a multidimensional poverty measure synthesizing deprivations in four key dimensions of human life. That is, deprivations from a minimum threshold in the protection of (i) life, (ii) intellect, (iii) progeny, and (iv) property/wealth. This measure was applied to 52 countries based on the data from World Values Survey wave-6 covering the period 2010-2012. It also created a measure of religiosity taking into consideration both the faith/beliefs and practice of those beliefs in life. It then attempted to see the association between religiosity and multidimensional poverty defined in the above sense.

In summary, the results indicate that the general perception that religion contributes to poverty or that poor people tend to be more religious is not true when poverty is measured in a more comprehensive multidimensional form. Similarly, the perception that the countries where religious values are given more importance are constraining themselves ending up with more poverty than others is also not true. Specifically, higher religiosity is not associated with higher multidimensional-poverty; rather, higher religiosity is associated with lower multidimensional-poverty. Out of 52 countries analyzed, 25 countries showed with high statistical significance (99% and

(2) In terms of STATA specification: `ivregress 2sls M0nf_centry_40 gdp_pc (wfaith_nf = V55 V242 insecurity).`

95% significance level) that, on average, faith deprivation is higher among multidimensional-poor groups of people than among multidimensional-non-poor groups of people. In 3 countries, the results are opposite, and in 24, the difference in faith deprivation of the two groups is either very small or statistically insignificant.

On average, with all countries taken together, the faith-poor are more deprived in intellect and posterity and less deprived in life and property dimensions, compared to non-faith-poor. This shows that faith

affects (or relates) to multidimensional poverty through different dimensions and in different ways.

The regressions with cross section data over countries show that religiosity (as measured by low deprivation in faith) does matter in its impact on multidimensional poverty. An increase in deprivation of faith increases multidimensional poverty.

A policy implication of these findings is that a religious society would be less poor and more inclusive even if its economic growth is slow.

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Appendix

1.1 Slicing by Multidimensional Poverty

Are faith deprivation series statistically different in their means conditional on MSI-Poverty?

Is the mean level of faith deprivation among the Multidimensional-Poor group different from that of Multidimensional-Non-Poor group?

Table (A1) Criteria for Assessment

MD Status	Multidimensional Poor (MD-Poor)	Multidimensional Non-Poor (MD-Non-Poor)
	mwfaith1 = faith deprivation of MD-Poor	mwfaith0 = faith deprivation of MD-Non-Poor
Faith Deprivation Result	If mean of faith deprivation of MD-Poor > Mean of faith deprivation of MD-Non-Poor Then, MD-Poor are more non-religious than MD-Non-Poor.	
	If mean of faith deprivation of MD-Poor < Mean of faith deprivation of MD-Non-Poor Then, MSI-Poor are more religious than MSI-Non-Poor.	

Table (A2) Sample Means of Faith Deprivation of MD-Poor and MD-Non-Poor Groups

Variable	Observation	Mean	Std. Dev.	Min.	Max.
wfaith1	28858	0.095348	0.062133	0	0.2
wfaith0	45184	0.081321	0.063678	0	0.2

Test of Difference in Means

. ttest wfaith1 = wfaith0 , unpaired

Two-sample t test with equal variances

Variable	Observation	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
wfaith1	28858	0.095348	0.000366	0.062133	0.094631	0.096065
wfaith0	45184	0.081321	0.0003	0.063678	0.080734	0.081908
Combined	74042	0.086788	0.000233	0.06345	0.086331	0.087245
Difference		0.014027	0.000475		0.013095	0.014959

Notes:

diff = mean(wfaith1) - mean(wfaith0)

t = 29.5095 , Ho: diff = 0 , degrees of freedom= 74040

Ha: diff < 0

Ha: diff! = 0

Ha: diff > 0

Pr(T < t) = 1.0000

Pr(T > t) = 0

Pr(T > t) = 0.0000

Table (A3) Number of Respondents by Country

Country	Number of Respondents in stable-age group (age 24 to 56)	Total Respondents	Country	Number of Respondents in stable-age group (age 24 to 56)	Total Respondents
Algeria	783	1,200	Palestine	682	1,000
Armenia	656	1,100	Peru	752	1,210
Australia	711	1,477	Philippines	815	1,200
Azerbaijan	697	1,002	Poland	520	966
Belarus	939	1,535	Qatar	787	1,060
Chile	616	1,000	Romania	848	1,503
China	1,528	2,300	Russia	1,492	2,500
Colombia	966	1,512	Rwanda	1,234	1,527
Cyprus	606	1,000	Singapore	1,198	1,972
Ecuador	749	1,202	Slovenia	600	1,069
Egypt	1,063	1,523	South Korea	814	1,200
Estonia	811	1,533	Spain	702	1,189
Germany	1,127	2,046	Sweden	564	1,206
Ghana	911	1,552	Taiwan	720	1,238
Iraq	847	1,200	Trinidad	570	999
Japan	1,309	2,443	Tunisia	759	1,205
Jordan	792	1,200	Turkey	1,149	1,605
Kazakhstan	1,054	1,500	Ukraine	856	1,500
Kuwait	1,032	1,303	United States	1,231	2,232
Kyrgyzstan	1,078	1,500	Uruguay	571	1,000
Lebanon	801	1,200	Uzbekistan	1,073	1,500
Libya	1,574	2,131	Yemen	735	1,000
Malaysia	936	1,300	Zimbabwe	1,022	1,500
Mexico	1,339	2,000			
Morocco	897	1,200	Total	46,941	74,042
Netherlands	914	1,902	Minimum	463	841
New Zealand	463	841	Maximum	1574	2,500
Nigeria	1,177	1,759	Median	847.5	1269
Pakistan	871	1,200			

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هل يؤثر التدين على الفقر متعدد الأبعاد؟ أدلة من المسح العالمي للقيم (٢٠١٤-٢٠١٠م)

سلمان سيد علي

كبير الاقتصاديين، المعهد الإسلامي للبحوث والتدريب
البنك الإسلامي للتنمية، جدة، المملكة العربية السعودية

حامد حسن

أستاذ مساعد، المعهد العالمي للاقتصاد الإسلامي
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المستخلص. يوجد انطباع عام بأن التدين يساهم في الفقر انطلاقاً من الملاحظات على المستوى الكلي التي تشير إلى أن التدين مرتبط بانخفاض النمو الاقتصادي. ومع ذلك، قد لا يكون هذا الانطباع صحيحاً لأن الدين يحفز الفقراء، ويشجع على التعاون في المجتمع، ويؤثر على السلوكيات والعادات بطرق قد تساعد على الحد من الفقر. ويستخدم هذا البحث بيانات المسح العالمي للقيم الذي شمل ٥٢ دولة و ٧٤,٠٤٢ فرداً، لإنشاء مقياسٍ للفقر متعدد الأبعاد قائمٍ على مؤشر الحرمان، ومقياسٍ للتدين قائم على الحرمان من الإيمان. وبناء عليه، حاول البحث الإجابة عن ثلاثة أسئلة: (أ) هل ثمة تشابه بين تدين الفقير بالمقياس متعدد الأبعاد وتدين غير الفقير؟ (ب) وهل هناك اختلافات في أبعاد الحرمان بين الأشخاص الأكثر تديناً في مقابل الأقل تديناً؟ (ج) وما تأثير التدين على الفقر متعدد الأبعاد؟ وقد توصل البحث إلى أن التدين يرتبط عكسياً بالفقر متعدد الأبعاد، وأن الفقراء الأشد حرماناً من الإيمان هم أيضاً أشد حرماناً من حيث حفظ العقل والنسل مقارنة بحفظ النفس والمال، وأن انخفاض التدين يزيد من الفقر متعدد الأبعاد. وخلص البحث إلى أن المجتمع المتدين يكون أقل فقراً، حتى ولو كان نموه الاقتصادي بطيئاً.

الكلمات الدالة: الدين، مقاصد الشريعة، الفقر، الفقر متعدد الأبعاد، التدين.

تصنيف JEL : N30, Z12

تصنيف KAUIE: B5, H47, N5