The Journal of Muamalat and Islamic Finance Research
ISSN: 1823-075X e-ISSN: 2948-5266
Vol. 23, No. 1, June 2026, Pp. 22-42
DOI: https://doi.org/10.33102/jmifr.648

UNIVERSITI SAINS ISLAM MALAYSIA
جَامِعَة العُلُوم الإِسْلَامِيَّة المَالِيزِيَّة
ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

Article

Incorporating Values in Economics through an Integrative Methodology

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ABSTRACT - To effectively address the issues of environmental and social sustainability, this study makes the case for an economics framework that is driven by values. Religious worldview and revealed knowledge shapes people's preferences and choices. It also establishes moral standards and guidelines for both individual and collective life. Through financial intermediation and redistribution, religious institutions also have an impact on markets, and exchange outside of them. As a categorical variable, religion is used as an institution in mainstream economics to examine its effects on economic outcomes. However, religiosity as a continuous variable is not incorporated in mainstream economics paradigm. Neoclassical economics can analyse how the faith-conscious agents behave in market segments like Halal food, Halal cosmetics, Halal medicines, Halal financial services, and so forth. However, when analysing the allocation and distribution of economic resources outside of markets, where the motivation goes beyond private self-interest, mainstream economics does not have a suitable and pluralistic paradigm. To maintain the analytical distinction between economic behaviour in markets and non-economic behaviour beyond market, this study advocates for methodological pluralism through an integrative methodology in Islamic economics.

ARTICLE HISTORY

Received: 24th Jan 2025
Revised: 26th Jan 2026
Accepted: 09th Feb 2026
Published: 01st June 2026

KEYWORDS

Islamic Economics, Self-Interested Behaviour, Utility Maximisation, Profit Maximisation, Marginal Analysis.

INTRODUCTION

There is a growing discontentment with neoclassical economics as it overly focuses on atomistic individualism and market-centric paradigm. Resultantly, humanity is reduced to a source of labour and a collection of insatiable desires; communities crumble into aggregates of individuals competing to achieve private desires and the ecology is commodified into a pool of resources to be exploited to satisfy those desires (Loy, 1997). The utility framework tends to view nature as having only instrumental value that is, its value is derived solely from its usefulness to humans in their individual private lives.

Standard economic models use a discount rate to weigh future costs and benefits against present ones. This method effectively devalues the well-being of future generations and makes it economically 'rational' to consume resources and pollute now, leaving the clean-up to those who come later. Environmental sustainability is fundamentally a public good, and environmental degradation is a negative externality. Markets fail in dealing with both public goods and negative externalities. The current academic literature of neoclassical economics is overly focused on agent behaviour in marketplace to such an extent that it has economised even altruism, family life and

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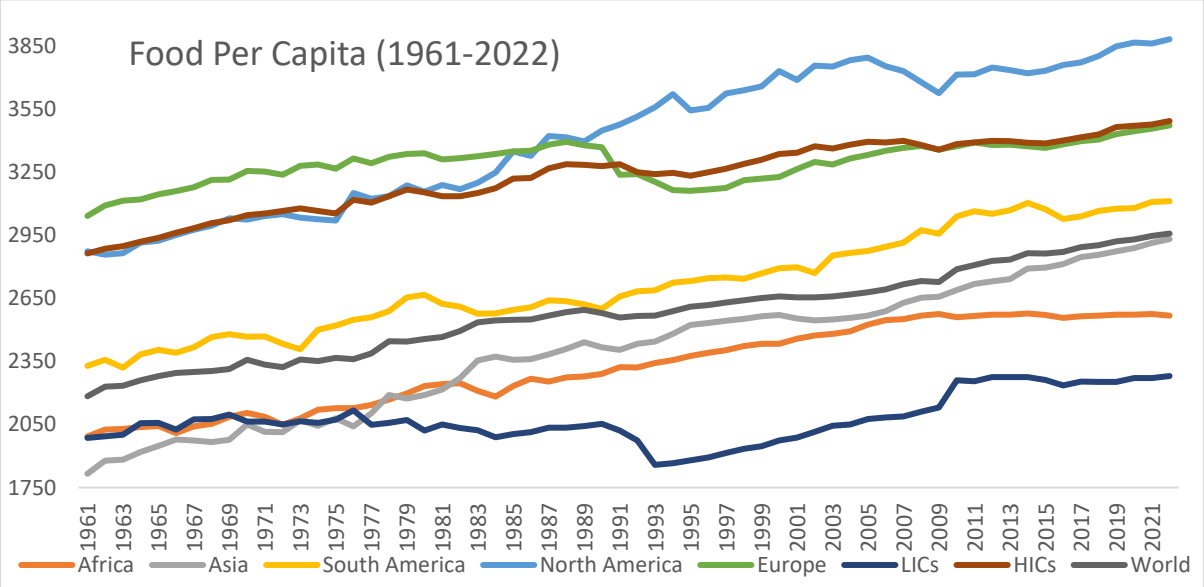
religion. Looking at parent-child relation under the rotten kid model is an example of commodification of children (Becker, 1974). The rotten-kid theorem explains that rotten kids only avoid squandering the wealth of generous father and remain loyal to them so that they can inherit the wealth without much diminution. Becker (1974) had also modelled marriage as a decision in marketplace with prices and opportunity costs. Kindness, empathy, care and justice are phenomena absent in economic models and hence mainstream academic economics discourse.

Challenges of environmental and social sustainability are enormous and it is unavoidable to confront and resolve them. Massive carbon emissions, deforestation and sea contamination have expedited climate change and its effects. Frequent heat waves, floods, earthquakes and a massive loss of marine and tropical forest species are all too frequent now. This situation is not the result of technological failure but rather a crisis of values. The self-centred pursuit of instinctive pleasures must give way to responsibility, humility, simplicity, and commitment. Nor is this situation merely the inevitable outcome of randomly interacting material forces. Our preferences and decisions are influenced by our worldview. Therefore, a social contract that can instil the values of responsibility, humility and simplicity in place of the selfish pursuit of instinctive pleasures is essential to the sustainable existence of life and life-supporting systems.

Moving on to social sustainability issues, there is unprecedented rise in income and wealth inequality. As per Oxfam, the wealth of each of the richest 10 men has grown by almost US$100 million a day in 2024 on average. The current economic system still extracts wealth from the Global South to the superrich 1% in the Global North at a rate of US$30 million an hour. The evidence shows that unequal growth by itself is not enough to provide well-being to the masses (Easterlin, 1995). Hedonic adaptation and social comparisons are fostered by individualism, which keeps people at bay from a consistently rising level of happiness.

Remarkably, as shown in Figure 1, the global per capita food supply increased from over 2,183 kcal per day in 1961 to over 2,957 kcal per day by 2022. However, it is ironic that still there are 733 million empty plates in 2023. On the other hand, 19 per cent of food available to the consumers is being wasted every year (United Nations Environment Programme, 2024). This waste inefficiency is not incorporated in price in the demand and supply model while the loss in aggregate potential and perceived economic value due to redistribution via tax is lamented as a deadweight loss, ignoring the value of distributive justice and its implications.



Source: Food and Agriculture Organisation Dataset

Figure 1: Food per capita availability (1961-2022)

Therefore, responsible behaviour, conservation, preservation, respecting planetary boundaries and maintaining a just and congenial relation with ecology and biodiversity requires strengthening values so that they guide preferences, choices and thus a required change in lifestyle. Self-interested paradigm giving undue force to consumer sovereignty promotes individualism, greed, avarice and accumulation. Godless worldview justifies this value system through survival instincts. Worldview of divine religions centres on Tawheed which creates humbleness, horizontal equity and subservience to the higher being, the Creator. Values given by divine religions are objective and universal. For values to be universal, they must be shared broadly across time and space. They should not be unduly influenced by only the present generation to avoid intergenerational injustice.

Divine justice in afterlife in two worldly views of Islam provides the permanent and active stimuli towards choosing morally upright behaviour. Since religious values are not influenced by humans individually or collectively by one generation, they are universally agreeable. In divine religions, values like caring for others, establishing justice, ensuring truthfulness, observing fairness and keeping trust are indeed universally agreed upon. Since these religious values have been held by all human generations, they are universal across time and space. Lastly, the values mentioned in divine scriptures are universal in the sense that these values are inculcated in innate human nature (Al-Quran: As-Shams: 8).

How religion becomes important for economics?

Welch (2001) identifies four cases of interplay between religion and economics, i.e. religion is separate from economics (the materialistic view), economics works in service of religion (to achieve higher moral ideals), religion works in service of economics (by strengthening social infrastructure and market norms) and economics and religion work in union.

Religious norms and values influence preferences and thus existence of markets through regulation and laws. Religious knowledge emphasises on morality and values in human conduct. Revealed knowledge and worldview impact preferences and behaviour of economic agents. Their choices are influenced by their preferences, and these choices lead to the creation of new markets, such as banking driven by faith, or the absence of markets for particular products and services, like alcohol and prostitution. If widely held, these norms also influence economic regulation, particularly in regions where the majority of the population is religious.

Secondly, religious redistributive institutions facilitate redistribution beyond markets. For instance, *Waqf* holds economic resources as common property. Additionally, *Zakāt* is an institution that transfers funds from endowment surplus individuals (those with wealth over the *Nisāb* threshold) to endowment deficient individuals (those with wealth below the *Nisāb* threshold) (Muhammad, 2019). Furthermore, Islamic inheritance laws ensure transfer of wealth across generations in each family unit. These institutions alter the endowments of individuals and can influence the optimal consumption and investment choices.

Thirdly, time is a resource in economics, and faith-conscious people invest their time in religiously influenced pursuits. Religious people spend time in prayers whereas time is recognised as an economic resource (DeVoe & Pfeffer, 2007). Additionally, religious people volunteer to provide healthcare, education and relief operations (Yeung, 2018). These decisions have an impact on the labour supply, which in turn affects employment and wages.

Finally, religious individuals use endowments for spending motivated by their faith, and economics acknowledges that endowments are scarce. Spending on traveling for the Hajj or Umrah, Halal food, Halal investments, Halal banking, Halal medical and Halal cosmetics are all examples of religiously motivated self-spending by religious individuals. Additionally, they spend money on charitable causes, both monetary and in-kind donations, motivated by their faith. Spending like this has an impact on the budget, which in turn influences the demand and optimal choices of other goods and services. The size of the Halal economy in different sectors is illustrated in Table 1. It is evident that the size of the Halal market segments is quite significant. In this

dimension, economics can incorporate analysis of agent behaviour in these market segments and the resulting market outcomes, but with refinements in the market economy framework.

Table 1: Halal economy size

Market Segment	2023 (bln $)	2028F (bln $)	CAGR
Islamic Finance	4,925	7,527.5	8.9%
Food	1,434	1,939	6.2%
Fashion	327	433	5.8%
Cosmetics	87	118	6.3%
Travel	217	384	12.1%
Media & Recreation	260	337	5.3%
Pharmaceutical	107.1	149	6.8%

Source: State of the Global Islamic Economy Report (2024)

LITERATURE REVIEW

Within mainstream economics as well, there are calls for reforms. Reardon (2019) thinks that mainstream economics needs reforms to address issues of climate change and underdevelopment by embracing a pluralistic approach. Al-Afandi (2019) argues that behavioural economics also favours moving away from narrow framework of rational behaviour with singular motive of maximising self-interest toward embracing multiple motives and complexity in choice behaviour.

Nienhaus (2019) cautions that secular mainstream rejects the validation of positive statements by reference to divine sources. Nonetheless, Islamic economics can contribute to areas where material considerations alone are insufficient, particularly with respect to environmental sustainability, distributive justice, equitable distribution of income and wealth, transparency in financial services, inclusive finance and sustainable growth. Despite its reliance on an additional source of knowledge in Islamic economics, i.e. revealed knowledge and its broader perspective of welfare that includes well-being in the hereafter, Siddiqui (2019) thinks that there is some common ground of analysis between Islamic and mainstream economics. Specifically, Islamic economics recognises the role of markets and private ownership of the means of production for the pursuit of profit and value from exchange.

Currently, micro-founded mainstream economics is unable to fully reflect the empirical evidence with real world data. Furqani (2018) argues that mainstream economics is characterised by an individualistic and materially reductionist approach, which leaves little room for embedding moral responsibility towards community, environment and even the family. Islamic economics can contribute by introducing morally grounded adjustments in preferences, choice sets and constraints.

This section reviews analytical contributions in Islamic economics in which economists have attempted to assimilate and integrate the norms and principles derived from the revealed knowledge into the mainstream economics paradigm and its methodological framework for analysing agent behaviour in a market economy. In these works, the underlying paradigm, axioms and methodological framework of individualistic self-interested behaviour remain largely intact. However, they attempt to incorporate norms and values derived from the revealed knowledge either into the choice set or into the constraint functions.

Analytical studies on consumption in Islamic economics framework

Muslim economists have used the instruments of conventional economics to explain consumption within the context of Islam. A survey of early research on consumption in the literature on Islamic economics is given by Hasan (2005). Several early attempts, such as by Khan (1986) and Iqbal (1985), use simple macroeconomic models in the Keynesian paradigm. However, Hasan (2005) informs that these studies include several important Islamic variables in the models.

According to Khan (1986), Islamic teachings on restraint in spending and morally guided choices in consumption will increase overall savings, particularly over the long term. According to Iqbal (1985), the advice to consume in moderation may limit consumption. However, shifting resources from low-Marginal Propensity to Consume (MPC) wealthy households to high-MPC impoverished households may lead to an increase in aggregate consumption (Ghassan, 2016). According to Iqbal (1985), the net effect is an empirical question that depends on several factors.

Iqbal (1985) argues that contrary to popular belief, the net effect of Islamic prohibitions on the marginal propensity to spend will be neutral, meaning that the MPC will not change appreciably from a comparable secular economy. In terms of the methodological choice in the descriptive studies, Iqbal's (1985) conclusion emphasises the significance of additional empirical research as well as the need for a flexible strategy in the pursuit of understanding Muslim consumption behaviour. Upon evaluating these efforts, Hasan (2005) finds that these pioneering research efforts in theoretical models contain conceptual errors and overdrawn conclusions. These early studies use the Keynesian framework without including micro foundations. They also do not model behaviour in an intertemporal context.

In the micro-founded literature on behaviour of Homo Islamicus in Islamic economics, Kahf (1980) incorporates indifference curves and budget lines in his model. Ahmed (2002) also incorporates Islamic injunctions into the model's assumptions and parameters using a utility framework. According to certain economists in the literature, 'social care' spending utility ought to be a part of the utility function itself (El Ashker and Wilson 2006; El Ashker 1985; Khan 1986).

Zarqa (1992) uses indifference curves to diagrammatically depict the Islamic worldview to address consumer behaviour within the Islamic framework. The diagrammatic model examines consumption from a moral standpoint. However, because it ignores all economic factors that influence consumption, such as wealth, income, and income distribution, the model is unsuitable for applied studies. Subjective ideas like 'prodigality frontier' and 'sufficiency threshold' can be used for conceptual mapping, but they do not offer a strong analytical foundation for empirical research on their own.

On the other hand, in recent works, divine economics framework is another attempt in the literature which tries to assimilate religion within the mainstream methodology as well as epistemology. Divine economics is defined as a "framework for the study of religion and economics in each other's perspective" (Hamdani et al., 2002; 2004). The framework of divine economics develops an empirical basis of comparing economic behaviour of agents with different levels of religiosity. Divine economics framework endogenizes religious attributes which may potentially enable the comparison of choices between religious and non-religious as well as less religious and more religious economic agents. Nonetheless, it seems to be an assimilative approach which incorporates the methodological framework as well as the underlying value-neutral framework of mainstream economics.

This framework economises religion rather than Islamising economics by placing religion as one category of the goods bought and sold like products in the market. In this approach, the choices have economic content, such as opportunity cost of time, relative prices, substitution effect and income effect. Nonetheless, this leads to the problem of determination of price of 'religious economic good' and its economic substitution with other goods. There is no problem in incorporating religiously labelled products, such as Halal food and *Ribā*-free banking in the choice set since they are traded in the markets. The issue comes in bringing attributes like *Taqwā, Tazkiā, Maslahā* and *Falāh* in the choice set with no corresponding supply side and market price.

However, in at least economic analysis of choices by Homo Islamicus in the marketplace, certain tools of mainstream economics can be explored with refinements. According to Hasan (2017), the consumer in the framework of Islamic economics also has the power to determine how much to spend on Halal goods and services. With the right adjustments, the mainstream economics paradigm can be used as a tool to comprehend Muslim consumers' economic behaviour. This strategy is used by Khan et al. (2012), who place charitable and religiously driven social spending

under budgetary constraints as opposed to the utility function. It is appropriate to use altruistic choices in a non-utilitarian, non-commercial, and beyond-market perspective because Islam promotes only genuine altruism. With appropriate adjustments to the framework of mainstream economics, this approach can assist in comprehending at least the economic choices of Homo Islamicus in the marketplace.

Analytical studies on firm's behaviour in Islamic economics framework

This section provides a brief overview of the theory of firm in Islamic economics literature, highlighting the differences between the neoclassical value-neutral economic framework and the Islamic economics framework in terms of goals and rules governing economic behaviour of firms.

According to Amin and Yusof (2003), the framework of Islamic economics assumes that economic agents follow Islamic principles. Because Homo Islamicus is answerable to Allah, a Muslim producer will base his production decisions on the idea of *'Maslahā'* (public good). He will regard the resources at his disposal as a trust and the production of socially essential commodities as a duty. According to the author, a producer in an Islamic market may still be motivated by profit, but his assessment of economic costs will change because of *Shari'ah* norms and rules. As a result, the producer's cost and objective functions will internalise the externalities.

According to Hasan (1983), there are specific areas where the Islamic economic system and the capitalistic system may coexist. Islam permits i) private property ownership, including the means of production, ii) the freedom of enterprise, and iii) the pursuit of profits. Its emphasis is on cooperation against unrestrained cut-throat competition, primacy of social benefits over private self-interested behaviour, and prohibition of unfair and speculative forms of economic exchange and enterprise, such as *Ribā* (interest), *Maysir* (gambling), and *Gharar* (uncertainty).

The Islamic approach to production theory also differs in that it places a strong emphasis on morality when choosing which goods to produce (Halal vs. Haram), how to use factors (avoiding exploitation, injury, and harm), how to produce goods (using Halal materials, processes, and methods), how to distribute economic gains (having fair returns to factors of production and no fixed remuneration to money capital that bears no risk in productive enterprise), and, finally, how to consume the goods (avoidance of Haram goods and services, as well as *Isrāf* (extravagance) and *Tabẓīr* (wasteful spending on illegal things). According to Azid et al. (2007), cooperation and competitiveness can be complimentary ideas on a moral level. Pursuing the optimal output to input ratio for attaining higher productivity and profits is not disallowed provided the *Shari'ah* norms and rules are complied with.

Metwally (1997) presents a model of a business firm in Islamic economics framework in which the firm would attempt to maximise utility, which is a function of the amount of earnings and the amount of spending on charity. According to the author, the utility should be used as a broad function with charity and net earnings as parameters. However, the profit would be at least a minimum amount that is 'safe' to keep the business operating once all taxes (*Zakāt* and other dues) have been paid. One issue with this approach to modelling businesses in an Islamic framework is that it treats altruism in a utilitarian manner, which compromises the integrity of altruistic motivation and action. According to the Metwally (1997) model, charitable donations are said to have a greater impact on prices. If this occurs because of a positive social image, then the integrity of charitable endeavour is called into doubt when the earnings donated to charity are recovered through increased prices.

In a different mathematical model, Bendjilali and Taher (1990) contend that if the monopolist cares about the welfare of society, he will be prepared to forgo some of his profits to achieve efficiency and reduce the loss to social welfare, even in the case of a monopoly or other imperfect market structure. Islamic worldview encourages businesses to respect moral principles and consider both positive and negative externalities when making decisions.

Therefore, it is apparent that several scholars have explained the expected behaviour of a business firm in Islamic economics framework. Islamic economic teachings promote empathy and

collective accountability to check the pricing power and internalise the externalities voluntarily by thinking beyond private profits.

METHODOLOGY

The empirical part of the study uses an inductive approach to provide evidence through the analysis of World Values Survey data from 66 countries or territories. World Values Survey data represents survey responses of respondents selected through random probability sampling. The sub-sample from each country has a minimum observation of 1,000 while the total observations from the 66 countries or territories are around 97,000. The data was collected by World Values Survey Association mostly through face-to-face physically administered questionnaire in local and regional languages (Haerpfer et l., 2022).

The analysis of the survey data in this study examines whether there is a strong case to incorporate values and norms consistent with revealed knowledge or not. The study employed non-parametric tests of association between categorical variables in cross tabulation, such as Pearson's chi-square test, likelihood-ratio chi-square test, Goodman and Kruskal's gamma, Kendall's Tau and Cramer's V. The data is in the form of observed frequencies. The relation between observed and expected frequency distribution is analysed using non-parametric tests of hypothesis at the 5% level of significance.

The attitudes and values are compared across religious affiliations, such as the attitude and values towards importance of good manner, feeling of responsibility and unselfishness in the morality domain (the results are presented in Table 3). In documenting the attitude towards market, these spectrums are used, i.e. income equality vs. incentives for individuals, private vs. state ownership of business and whether competition is good or harmful. The association between attitudes on this spectrum and religious affiliation is explored through non-parametric tests (the results are presented in Table 4). Finally, the attitudes and values towards dimensions of social-interest and self-interest are also compared across religious affiliation as illustrated in Table 5. In testing the association between an attitude/value towards morality, market, social-interest or self-interest dimension across religious affiliation of the respondents (Muslim vs. non-Muslim), the generalised null and alternate hypotheses involving non-parametric test of nominal-level data are:

Ho: There is no association between attitude/values towards morality, market, self-interest, social-interest and religion of the respondents (Muslim vs. non-Muslims)

H1: There is an association between attitude/values towards morality, market, self-interest, social-interest and religion of the respondents (Muslim vs. non-Muslims)

The chi-square and likelihood ratio chi-square test statistics are computed as:

$$\chi^2 = \sum \frac{(F_{ij} - E_{ij})^2}{E_{ij}} \quad \text{--- (i)}$$

$$Likelihood\ \chi^2 \quad \text{--- (ii)}$$

Where F_{ij} is observed frequency in row 'i'and column 'j' and E_{ij} is expected frequency in row 'i'and column 'j'. The approximated z-value formula for Goodman and Kruskal's gamma is computed as:

$$z = \frac{\frac{C-D}{C+D}}{ASE} \quad \text{--- (iii)}$$

Where C is number of concordant pairs, D is number of discordant pairs and ASE is Asymptotic Standard Error. The z-value formula for Kendall's Tau is computed as:

$$z = \frac{3\tau\sqrt{n(n-1)}}{\sqrt{2(2n+5)}} \quad \text{--- (iv)}$$

Finally, the Cramer's V is computed as the square root of the ratio of Pearson's chi-square and the product of number of observations times a minimum of $(r-1, c-1)$ where r is number of rows and c is number of columns.

$$V = \sqrt{\frac{\chi^2}{n.\min(r-1,c-1)}} \quad \text{--- (v)}$$

The study also uses mathematical modelling through differential calculus to show how to incorporate norms and values found in and derived from the revealed knowledge in mathematical economic models, such as utility function with positive and negative consumption externalities, profit function with positive and negative externalities and utility function with a public good.

RESULT

This section looks at whether differences in values across Homo Islamicus and Homo Economicus are huge or not. After that, it can be decided whether to choose an integrative approach or a distinctive approach to develop Islamic economics as an analytical discipline. The non-parametric tests of association reveal evidence for association between the categorical variables in all cross tabulations at the 5% level of significance.

Table 2 looks at the contrast in some of the attitudes and values towards religion and morality among Muslims and non-Muslims by looking at the data from "World Values Survey 2022 seventh wave". Unsurprisingly, Muslim respondents give more importance to religion in their lives as compared to non-Muslims. Muslim respondents are keen to pass on God-consciousness to their children as well. Nonetheless, there is not much difference among Muslims and non-Muslims when it comes to universal morality. It shows that universal values are transcendent and are recognised and respected in humanity at large.

Table 2: Values and attitudes towards morality and religion

Attitude and Values	Response
Panel A: Attitude towards Religion	
Importance of Religion	81.20% Muslims regard religion as very important in life as compared to 34.78% non-Muslims
Important Child Qualities: Religious Faith	61.95% Muslims regard religion as very important as compared to 25.20% non-Muslims
Importance of God in Life	93.45% Muslims regard God as very important in life as compared to 64.91% non-Muslims
Panel B: Values towards Morality	
Important Child Qualities: Good Manners	79.26% Muslims mention this as important as compared to 76.97% non-Muslims.
Important Child Qualities: Feeling of Responsibility	62.15% Muslims mention this as important as compared to 65.99% non-Muslims.
Important Child Qualities: Unselfishness	27.47% Muslims mention this as important as compared to 28.59% non-Muslims.

Source: Calculations Based on "World Values Survey Seventh Wave 2017-22"

On one hand, it shows that values need to be recognised in making assumptions about preference structure. Even though economists claim that their analysis is value-neutral, but trying to understand every allocation of economic resource within the market economy framework is a non-neutral value judgement. Not every allocation of an economic resource is necessarily

channelled through markets and with the marginal analysis and economic pricing as guide. Ignoring this will not only handicap analysis of faith conscious economic agents, but also human beings in general as some moral values even transcend religious identities.

Table 3 summarises the analysis of attitude towards market among Muslims and non-Muslims. There is not much difference in the attitude towards market except that Muslim investors are slightly less sceptical of the role of government as compared to the non-Muslims. Nonetheless, almost two-thirds of the respondents think that it is important to have incentives for individuals than ensuring income equality. Most respondents regard competition as healthy. Thus, the consensus is that competitive markets work well with incentives for private sector to thrive with minimal role of government in business.

Table 3: Attitude towards market

Attitude and Values	Response
Incomes Equality vs. Incentives for Individuals	37.49% of Muslims give more priority to equality as compared to 39.78% of non-Muslims. Moreover, 62.51% of Muslims give more priority to incentives for individuals as compared to 60.22% of non-Muslim respondents.
Private vs. State Ownership of Business	45.14% of Muslims vote in favour of private ownership as compared to 54.65% of non-Muslims. Moreover, 54.86% of Muslims vote in favour of government ownership as compared to 45.35% of non-Muslim respondents.
Competition: Good or Harmful	71.62% of Muslims regard 'competition as good' as compared to 75.17% of non-Muslims. Moreover, 28.38% of Muslims regard 'competition as harmful' in comparison to 24.83% of non-Muslim respondents.
Government Acts in Its Own Interest	65.35% of Muslims think that government acts selfishly as compared to 52.55% of non-Muslims. Moreover, 34.65% of Muslims think that 'government does not act selfishly' in comparison to 47.45% of non-Muslim respondents.
Government Does the Right Things	51.26% of Muslims think that 'government acts rightly' as compared to 50.84% of non-Muslims. Moreover, 48.74% of Muslims think that 'government does not act rightly' in comparison to 49.14% of non-Muslim respondents.
People in Government Show Poor Judgement	56.04% of Muslims think that 'government shows poor judgement' as compared to 59.69% of non-Muslims. Moreover, 43.96% of Muslims think that 'government does not show poor judgement' in comparison to 40.31% of non-Muslim respondents.

Source: Calculations Based on "World Values Survey Seventh Wave 2017-22"

Table 4 summarises the analysis of attitude towards self-interest and social interest among Muslims and non-Muslims. In pro-social values, attitudes and actions, there is hardly any difference among Muslims and non-Muslims. In fact, more non-Muslims stated that they had contributed to donations and causes. It shows that people have regard for social interest and it is not correct to undermine or even negate pro-social preferences. It has been documented in literature that people prefer fairness and egalitarian distribution (Bolton & Ockenfels, 2000; Fehr & Schmidt, 2000). It is not a correct approach to model humans as atomistic individuals pursuing only selfish self-interest (Kjosavik, 2003; Nalle & Ismail, 2024; Weber, 2007).

Table 4 also sheds light on Easterlin Paradox (1995). There is some evidence that happiness has an association with economic variables like relative income and financial wellbeing in cross sectional data (McBride, 2001). Until the threshold level of happiness is reached, the diminishing returns to happiness do not set in. Nonetheless, people are more satisfied as individuals when they are simultaneously satisfied with the wellbeing of their families (Chi et al., 2019). Finally, the thrift behaviour is also present as illustrated in Table 4. Overall, the results show that a human being is a complex social being. While it has animalistic needs and wants, it also has an emotional and

morally conscious dimension of existence. Thus, single preference structure under the premise of pursuing selfish self-interest as an atomistic individual is not a solid micro-foundation for economic behaviour of Muslims as well as non-Muslims.

Table 4: Attitude towards Self-Interest and Social Interest

Attitude and Values	Response
Panel A: Attitude towards Social Interest	
Membership: Charitable Organisations	9.22% Muslims stated 'active member' as compared to 8.78% non-Muslims.
Membership: Self-Help, Mutual Aid Group	6.08% Muslims stated 'active member' as compared to 7.41% non-Muslims.
More Importance: Freedom or Equality	49.81% of Muslims regard freedom as more important as compared to 59.58% of non-Muslims. Moreover, 50.19% of Muslims regard equality as more important in comparison to 40.42% of non-Muslim respondents.
Social Activism: Donation to Group / Campaign	20.25% Muslims stated they have done as compared to 34.12% non-Muslims.
Panel B: Attitude towards Self-Interest	
Happiness & Income	91.96% of high-income Muslims (77.46% of low-income) stated to be happy as compared to 92.22% of high-income non-Muslims (77.06% of low-income).
Satisfaction & Income	87.70% of high-income Muslims (58.38% of low-income) stated to be satisfied with life as compared to 89.07% of high-income non-Muslims (66.14% of low-income).
Individual and Family Satisfaction	90.17% Muslims who are satisfied with their family well-being, they are also satisfied individually in comparison to 92.11% ratio of this indicator for non-Muslims.
Important Child Qualities: Savings	28.59% Muslims mention this as important as compared to 30.74% non-Muslims.

Source: Calculations Based on "World Values Survey Seventh Wave 2017-22"

Currently, mainstream economics does not discuss preference formation along moral axioms (Aydin, 2018). Muslim population constitutes almost one-fourth of world's population while global population with people connected to some form of organised religion is almost four-fifth of the total human population. Rather than taking the normative position that people do not have religious or moral motivation behind economic choices, it is a more realistic position to admit the possibility that people do have such motivations. It is not a clash between positive and normative, but one normative view incongruent with reality and another normative view which is consistent with observed behaviour.

Citing Hands (2012), Sadr (2019) contends that 'ought' is sometimes incorporated as 'can' if there is supportive evidence, even if not universal. He gives the example that when economy is below full employment level and short run aggregate supply is flatter and horizontal, increase in government spending 'can' get the economy out of crisis. This was regarded as a potent economic policy in mainstream economics during the 1930-1970 period and some still subscribe to it. Therefore, a socially, morally or religiously motivated 'ought' has the potential to become 'is' and affect choices. There is no loss to realism when this possibility is recognised with 'can' even if not 'ought'. Friedman (1953) contends that assumptions used to build ideal models need not be realistic, if the theory can explain and predict the real events. Nonetheless, given that models are not having high predictive ability; it is pertinent to bring realism in models rather than ignoring the reality.

Towards an integrative methodological approach in Islamic economics

Islamic economics can integrate behaviour in the marketplace and behaviour beyond the marketplace by acknowledging pluralism of values. Economising religion under the market-based approach would neither do justice to the explanation of religious impulse nor aid mainstream economics to improve its potential to match theory with evidence. In the economics of religion literature, religion is studied under the demand and supply framework of the market.

As an example of the limitation of this brand of literature, consider the evidence presented by Barro and McCleary (2003) who find that economic growth depends on the extent of believing relative to belonging (church attendance). They take belief as output of the religious sector and practicing prayers as input to this sector. The neoclassical explanation is that engagement in religious activities take up time and skills away from the productive economic pursuits while beliefs shaping traits are non-rival to time and economic resources. Thus, in their model, while the cost of religiosity may not have direct positive effect on the growth, but by strengthening beliefs which shape traits and moral conduct, religion has a positive effect on growth in a holistic perspective. Nonetheless, this approach of economising religion is problematic by looking at religion in the demand and supply framework. Belief and practices are intertwined in Islamic epistemology and both are necessary and sufficient conditions for a Homo Islamicus. Thus, in the integrative approach, it is suggested to make a clear separation between choices with an economic motive and choices beyond markets without the economic motive of maximising self-pleasure. The remainder of this section provides examples of using the integrative approach.

<u>*Religion as Institution:*</u> Mainstream economics focuses on economic behaviour and its outcomes in the market. In contrast, institutional economics has a more flexible analytical framework and can be used to evaluate the influence of religious norms as rules or as institutions. Religious institutions could be market-based, such as interest free banking and cooperative insurance. On the other hand, the religious institutions can be redistributive institutions, such as *Zakāt* and *Waqf*. In this approach to bring religion as institutions, *Zakāt*, for example, can be added to endowments as a proportionate or lump-sum tax. In an infinite planning horizon, a consumer with a bequest motive can include *Waqf* as a choice allocation. The constraints of two-period consumption model with *Zakāt* and bequest is illustrated in equation (vi) and (vii).

$$s_t + c_{1,t} = w_{1,t} - z_{1,t} + b_{1,t} \quad \text{---(vi)}$$

$$(1+n)b_{2,t+1} + c_{2,t+1} = w_{2,t+1} - z_{2,t+1} + (1+r_{t+1})s_t \quad \text{---(vii)}$$

In this model, Homo Islamicus receives wages from Halal occupations in both periods, i.e. $w_{1,t}$ and $w_{2,t+1}$. Wages can be used on Halal consumption in both periods, i.e. $c_{1,t}$ and $c_{2,t+1}$. Part of the endowments not consumed (s_t) can be invested as savings in *Shari'ah* compliant investment options to yield a rate of return i.e. r_{t+1}. Homo Islamicus receives bequests ($b_{1,t}$) in youth from family *Waqf* and inheritance share. He also leaves bequests in old-age for future generations, $(1+n)b_{2,t+1}$. Homo Islamicus also pays lumpsum *Zakāt* in both periods, i.e. $z_{1,t}$ and $z_{2,t+1}$. For people who have endowments below the Nisāb limit and who receive Zakāt, $z_{1,t}$ and $z_{1,t}$ would be negative.

<u>*Religious Impulse Affecting Exogenous Preferences and Parameters:*</u> Between ends, economics is neutral. It would consider the time spent outside of the job market as leisure, no matter whether it is motivated by religious impulse or pure entertainment. Economics takes preferences as exogenous. Therefore, a person's labour supply curve would not be considered irrational if it bent backwards beyond a particular income threshold. Labour supply for Homo Islamicus may bend backward sooner than for Homo Economicus. It may also depend on the size of the family and the number

of dependents. Labour supply decisions by Muslim women may involve other factors, such as flexible work design, privacy and family responsibilities. In economic models, parameters like patience and measures, such as intertemporal elasticity of substitution would reflect a consumer's preferences. Equation (viii) presents the example of incorporating subjective time preference through the parameter β in the lifetime utility function of a consumer.

$$U = \sum_{t=0}^{T} \beta^t u(c_t) \qquad \text{--- (viii)}$$

Equation (ix) presents the formula to measure elasticity of substitution from the partial derivatives of the utility function.

$$\sigma(c) = -\frac{u'(c)}{cu''(c)} \qquad \text{--- (ix)}$$

This approach would not specifically incorporate religious impulses and inclinations as institutions or choice variables, but it would allow them to play out their role in decisions through the exogenous parameters. With a two-worldly view of life, Homo Islamicus is expected to have greater patience, perseverance, conservation and faith-inspired internal moral restraints. The willingness of depositors to keep deposits in Islamic banks in spite of relatively below-market rates of returns demonstrate a glimpse of this viewpoint (Shaikh, 2025).

On the other hand, some unobservable factors are also incorporated in the mathematical analysis, such as subjective time preference, risk aversion, inequality aversion and the concept of balance. A Muslim consumer may have lower risk aversion given that Islamic principles do not allow fixed interest on capital. This may even explain voluntary financial exclusion from *Ribā*-based banking and use of Islamic deposit schemes. For constant absolute risk aversion, the exponential utility function can be used as shown in equation (x).

$$\mu(c) = \begin{cases} \frac{(1-e^{-ac})}{a}, a \neq 0 \\ c \qquad\quad , a = 0 \end{cases} \qquad \text{--- (x)}$$

For constant relative risk aversion, iso-elastic utility function can be used as shown in equation (xi).

$$\mu(c) = \begin{cases} c^{1-\delta} - 1, \ \delta \geq 0, \delta \neq 1 \\ \ln c \qquad\qquad , \delta = 1 \end{cases} \qquad \text{--- (xi)}$$

Therefore, marginal analysis can still be carried out on goods and services that are traded in the market. Even if a person spends only a fraction of income on self-consumption, he/she would still try to economise resources by not paying more than what is necessary for a particular Halal good and service, all else equal. Among the Halal goods and services, the economic choices of Homo Islamicus can be analysed through the marginal rate of substitution and price ratios.

Islamic economics literature classifies needs into *Zarūriyyah* (necessitates for survival), *Hajiyya* (necessities other than for survival) and *Tehsīniyya* (comforts and luxuries). In comparative statics, while classifying goods with respect to the effect of change in income, the nomenclature of normal and inferior goods can be reclassified as *Hajiyya* (income elasticity is positive but less than 1) and *Tehsīniyya* (income elasticity is more than 1) for normal and *Zarūriyyah* for inferior goods (income elasticity is negative). Therefore, the income effect can be incorporated in analysis. The demand for *Zarūriyyah* will be price inelastic while for *Hajiyya* and *Tehsīniyya*, the demand is expected to be relatively more price elastic. Indifference curve for Homo Islamicus would be steeper with quantity of *Tehsīniyya* on y-axis and quantity of *Zarūriyyah* on x-axis.

Religiously Defined Market Segments: This strategy incorporates faith-inspired market segments in the market economy framework, such as Halal food, Halal banking, Halal investments, Halal insurance, Halal cosmetics, Halal pharmaceuticals, Halal travel etc. In markets, religiously motivated spending would lead to the purchase of products and services, where common factors like relative price and income would affect the decision. Heterogeneity in tastes can be accommodated and these variations will be reflected in the size of income effect, substitution effect and elasticity measurements.

Islamic economics has to develop an alternate analytical framework beyond rhetoric (Siddiqi, 2008). Some of the criticism on neoclassical economics is quite appropriate, but quite a lot of critics misunderstand the approach of mainstream economics (Hasan, 2002). In the integrative approach, there is possibility of integrating mainstream tools to explain only the economic decisions in the marketplace with necessary refinements. Table 5 gives a summary of consumer behaviour axioms from Islamic and neoclassical perspectives. For instance, take the assumption of completeness. If it is compared against the concept in Islamic epistemology that only Allah has complete knowledge, then a dilemma appears. Likewise, if non-satiated preferences are interpreted as greediness, then a problem appears. Finally, if continuity assumption is understood as continuous pursuit of pleasure by counting even infinitely small quantities, then it may exhibit hedonism.

However, there is another way to look at these assumptions. For mathematical tractability, these assumptions postulate that when a consumer is making an economic choice to spend part of the budget set aside for spending on oneself, the consumer knows "his" own preferences among the alternatives (completeness) and "his" own preferences are consistent (transitive) at the time of making an economic choice. The choices are made at least with an attempt in hindsight to be precise (continuity), balanced (convexity) and efficient (exhausting budget). Qur'an advises Muslims to seek goodness in both worlds (Al-Quran: Al-Baqarah: 201) rather than have concave preferences for goodness in this world versus goodness in the life hereafter. Monotonicity assumption is problematic if it encompasses all spending from the total budget. However, if a distinction is made between market (self-interested economic behaviour) and beyond market spending (based on non-economic impulse), then it is not problematic. Homo Islamicus can avoid missing opportunity of enhancing utility when it is possible within the threshold limit of Halal budget reserved for spending on Halal choice set.

Table 5: Relevance of consumer behaviour axioms for Homo Islamicus

Consumer Behaviour Axioms	Possible Dilemma	Plausible Explanation
Completeness	Allah has complete knowledge	In making a choice to spend budget set aside for spending on oneself, the consumer knows HIS own preferences among the alternatives
Monotonicity	Innate greediness	Limit it to economic decisions in the market; not beyond markets
Continuity	Precision in greediness	Precision in resource use without waste
Transitivity	Mechanic preferences	Consistent preferences at the time of making decision
Convexity	Lust for variety	Preference for balance (i.e. *Wasatiyyah*)

The integrative approach creates a clear separation between non-economic and economic choices. This approach limits the scope of economic analysis to the economic aspects of behaviour in the marketplace. Economic choices made in the market can be analysed in descriptive studies using the mainstream tools for analysis of market behaviour. All else the same, one would prefer to economise on airfare, accommodation and food while even planning for Hajj and Umrah travel. One would use marginal analysis while choosing the airline, hotel, and transportation services. Non-economic pursuits like taking care of one's family and participating in spiritual activities are

all included in the category of leisure. The focus of market oriented economic analysis should be on how such labour-leisure trade off decisions affect market wages and employment levels, rather than figuring out deeper motivation behind the personal choices in a self-interested market-economy paradigm.

In utility functions, the Haram products can be axiomatically filtered out. Homo Islamicus faces budget constraints as well as moral restraints while making allocation decisions. Haram goods are like 'Bads' for Homo Islamicus as consumption of such goods will bring disutility. Even if the Haram products provide temporary and instinctive pleasures, the exponent over quantity of Haram goods will be zero in Cobb-Douglas utility function as shown in equation (xii). The exponent over quantities of goods consumed represents the proportion of budget spent on the goods.

$$U(x, y, \text{Haram}) = x^{\alpha} y^{\beta} \text{Haram}^{0} \quad \text{--- (xii)}$$

The price effect for Haram goods will be zero with inelastic demand at zero level of quantity for the Homo Islamicus. In the constraint function, just like the budget is affected by taxes, it can be influenced by *Zakāt* and Sadqā. Rather than taking *Zakāt* and *Sadqā* as economic goods exchanged in market economy with utility enhancing features, they shall be exogenously treated through a reduction in the constraint function to leave the motive as pure.

Un-Economising Religious Choices beyond Markets: Price mechanism fails in the case of public goods and externalities. Bliss and Egler (2020) argue that markets are not appropriate for governing the production or distribution of entities that are non-rival, non-excludable, not produced for sale, essential need satisfiers, or culturally important. Markets do not serve justice, sustainability, or value pluralism, the foundations of ecological economics.

Mainstream economics has limited theoretical tools to incorporate externalities in the mathematical model, but it lacks a strong and effective policy tool to affect prices under externalities. Jaeger (1995) argues that demand for the goods reflects the desire of individuals to raise their own relative standing. It creates a bias against non-positional goods, including non-rival goods, such as the environment. Consider two persons, Ahmed and Saleem, and two goods, x and y. Ahmed's consumption of good x creates a negative externality for Saleem. Utility function of Ahmed is represented as:

$$U_1(x_1, y_1) \quad \text{--- (xiii)}$$

Here, x_1 and y_1 are the quantities of goods consumed by Ahmed. Moreover, $\frac{\partial U_1}{\partial x_1} > 0$ and $\frac{\partial U_1}{\partial y_1} > 0$. Utility function of Saleem is represented as:

$$U_2(x_2, y_2, x_1) \quad \text{--- (xiv)}$$

Here, x_2 and y_2 are the quantities of goods consumed by Saleem. Moreover, $\frac{\partial U_2}{\partial x_2} > 0$ and $\frac{\partial U_2}{\partial y_2} > 0$. But, $\frac{\partial U_2}{\partial x_1} < 0$. It means that as Ahmed consumes more of good x, Saleem's utility decreases. Consider, consumption externalities such as loud music, smoking, barbecue in non-designated area, loud noise of generator, playing or recreation around the time of sleep, smoke emitting from chimney, and using pump to fetch water and gas from a common source for own consumption etc. This framework can also be adapted for production externalities, such as oil spilling in river, air pollution, smoke from factory, toxic emissions, waste etc.

Consider the profit function of a shipping company. The profit depends on number of ships carrying the containers coming to and from the port. The shipping firm's profit function can be represented as:

$$\pi(S) = F_s \, x \, Q_s - C_s \qquad \text{--- (xv)}$$

The profit $\pi(S)$ depends on fee charged for every kg of goods shipped (F_s) times the total quantity shipped (Q_s). Profit function of fishermen can be represented as revenue minus the cost of shipment (C_s):

$$\pi(F) = P_f \, x \, Q_f - C_d - C_i \qquad \text{--- (xvi)}$$

The profit $\pi(F)$ depends on price charged for each kg of fish (P_f) times the total quantity shipped (Q_f). Cost includes the direct cost of fishing (C_s) and the indirect cost of fishing (C_i), which is avoided by the shipping company and borne by the fishermen. The more activity at ports reduces the availability of fish near the port in a given time period for fishermen. It raises their costs including time to catch the fish. This demonstrates market failure, as the shipping company's decisions do not account for the costs it imposes on the fishermen, leading to an over-production of the shipping service at the market price. As an example of incorporating positive externalities, consider two persons, Muzammil and Shayan, and two goods, x and y. Muzammil's consumption of good x creates a positive externality for Shayan. Utility function of Shayan can be represented as:

$$U_2(x_2, y_2, x_1) \qquad \text{--- (xvii)}$$

Here, x_2 and y_2 are the quantities of goods consumed by Shayan. Moreover, $\frac{\partial U_2}{\partial x_2} > 0$, $\frac{\partial U_2}{\partial y_2} > 0$ and $\frac{\partial U_2}{\partial x_1} > 0$. It means that as Muzammil consumes more of good x, Shayan's utility also increases. Consider, positive consumption externalities such as gardening, streetlight, road repair etc. This framework can also be adapted for positive production externalities, such as renewable energy to reduce load on grid to avoid peak-hour load shedding in the area, fire alarms, announcements of weather alerts etc.

In the context of Islamic economics, the consumers and firms are made aware of their personal and social responsibilities and accountability for the actions in the life hereafter. Moral consciousness is part of rationality of Homo Islamicus whereas market depends on instrumental rationality and material motivation for self. Even if the market fails to price the positive and negative incentives, the two-worldly view of life with deterministic justice shapes the preferences of Homo Islamicus and influences his actions. *Tawhidic* epistemology broadens the decision horizon of Homo Islamicus from atomistic self to family and to community in space as well as time. Along with that, the government in an Islamic economic framework is expected to be responsible for maintaining justice in the wider context of social justice, distributive justice and environmental justice through *Hisbā*. Even in the contemporary practice, the firms are opting for green accounting and governments are also legislating to ensure green practices. Consumers are also informed about carbon footprint of the electronics, automobiles and the transport services. Often, consumers opt to compensate for the carbon footprint in air travel.

Another important issue is how to incorporate spending of economic resources for welfare. In the mainstream economics literature, the two main ways to model charity are pure altruism and impure altruism (i.e. warm glow). In a pure altruism model, an individual's utility is not derived from the act of giving itself, but rather from the total amount of the public good or the total well-being of the recipient. Consider a utility function:

$$U_i(x_i, G) \quad \text{--- (xviii)}$$

Here, U_i is utility of an individual i, x_i is the individual's consumption of a private good, G is the total amount of a public good. $G = g_i + \sum_{j \neq i} g_j$, where g_i is individual i's donation and $\sum_{j \neq i} g_j$ is the sum of donations from all other individuals.

In this model, the individual is indifferent whether the charity's output is funded by their own donation or by someone else's. For example, if a government tax increases public funding for a charity, a purely altruistic person would reduce their private donation by an equal amount. From the Islamic economics perspective, the problem with this model is complete crowding out. It is also an empirical fact that complete crowding out does not happen. Furthermore, since Islamic teachings encourage anonymous charitable giving, it is also plausible that an individual donates his contribution without thinking and/or knowing the contribution by others.

Even if the government is maintaining a responsive and comprehensive social security system, people still contribute to charity. To explain the incomplete crowding out, economists also use impure altruism model where it is accepted that the individual also receives private utility from the act of giving. The model posits that a person receives utility from two sources: the total amount of the public good and the private satisfaction or 'warm glow' derived from the act of giving itself. To illustrate the warm glow model, consider a utility function:

$$U_i(x_i, G, g_i) \quad \text{--- (xix)}$$

Here, a new term g_i is the individual's personal donation, which is a normal good for the person and he derives private utility from it independent of the amount of the public good and other people's contribution. This model does not quite satisfy Kant's categorical imperative which says, 'respect other's dignity as an end, rather than merely as a means to an end'. Here, the donor is deriving utility from the desperate situation of the poor. If there are no opportunities to contribute to poverty, the individual will be worse off! Ending poverty becomes an instrument of private pleasure than a social or moral goal. The warm glow model is also oblivious to the impact since the increase in private utility occurs, no matter whether the poor people achieve poverty exit or even relief.

Therefore, a problem comes in explaining the motivation for warm glow. The motives identified in the neoclassical literature are various, such as the warm glow that comes from seeing someone happy (Andreoni, 1990), the desire for prestige (Harbaugh, 1998), peer pressure (Reyniers & Bhalla, 2023), social influences (Meer, 2011), avoiding the perception of being seen as unfair (Andreoni & Bernheim, 2009), and anticipating reciprocity (Kolm, 2006). Mainstream economics defends this approach by claiming that institutional and corporate donations are typically not anonymous and are made with the goal of enhancing reputation, such as in the form of sponsorships, scholarships and establishing a chair in educational and medical institutions. Mainstream economics argues that pure altruism is rare and inconsequential in affecting aggregate outcomes. However, this approach is flawed, and people can be genuinely caring, driven by non-economic impulse and faith-inspired internal moral restraints.

The motivation for Homo Islamicus can be seeking pleasure of Allah and spiritual contentment. What the model is trying to do is to explain the incomplete crowding out, the presence of which is empirically valid and normatively desirable as per Islamic ethos. Hence, to explain incomplete crowding out, there can be positive reasons, such as lack of information about the contribution made by anonymous donors and normative reasons, such as seeking Allah's pleasure and contributing to wider needs beyond a particular region, time, space and species. When it comes to *Waqf*, Homo Islamicus also donates for future well-being of family, community, environment and other species. In the mainstream model of impact philanthropy, the consumer maybe only interested in the impact philanthropy and not in covering the overhead costs as in the

pure altruism model. But Islamic economics has the instruments for enhancing impact philanthropy (*Zakāt* to *Asnāf*) as well as covering the overhead costs through *Waqf*. Therefore, when it comes to motivations, one can reinterpret them for Homo Islamicus.

Nonetheless, even the pure altruism model taking charity as a public good implicitly informs the students of economics to free ride when possible. Under modern monetary theory, an economist or someone having studied economics may think that if government can fund the public good by increasing fiat money supply, why shall he bother about parting with real hard-earned money which has multiplicity of wants. Conversely, In Islamic economics, the pure altruist shall not be even a non-rival co-beneficiary of a material public good.

An alternate approach is to not analyse religious choices outside of the market within the self-interested paradigm. Charitable giving and donations do not necessarily have economic and selfish motives, especially for Homo Islamicus. At the same time, such choices should not be discarded, deemed irrational or assumed away just because these choices do not carry any additional utility-enhancing attributes in selfish paradigm or lack a market-driven supply side. This approach of adjusting only the budget would reduce the budget of consumer and producer by the amount of spending that is used up on faith-inspired allocation beyond markets. Some decisions are made involuntarily, such as paying taxes. One does not ask addition to private utility from the payment of taxes. Hence, the questions about utility comparisons using equi-marginal principle do not apply to beyond-market actions without economic motives behind such actions. Just to maintain tractable analysis in general equilibrium analysis, there is no reason to put the condition that all resources must be allocated in the marketplace.

Adjusting only the budget, the consumer may move to a lower indifference curve, but it is the best possible outcome given the net budget allocation on private pursuit of self-interested welfare while making Halal economic choices under marginal analysis. Likewise, if a firm donates some part of its cost budget in *Waqf*, then such choices shall not be regarded as irrational. The firm may move to a lower iso-quant, but it is the best possible outcome given the net cost budget allocation on private pursuit of Halal profits while keeping intact marginal analysis.

CONCLUSION

This study highlighted the need for a values-driven framework in economics to effectively address the environmental and social sustainability challenges by embedding moral imperatives and acknowledging exchange beyond markets for non-economic motivations. The study discussed areas in which religion and economics intersect. The interactions happen in the market as well as beyond markets. The approaches to incorporate religion in economics so far are not integrative or even assimilative in the mainstream economics literature. This study discussed how assimilative and integrative methodological approach to Islamic economics attempts to capture the interaction between religion and economics. There is a need for methodological pluralism and separating economic and non-economic behaviour in and beyond markets. This can yield a more effective integrative framework for analytical studies in Islamic economics in future research.

Market-driven framework is inadequate to address negative externalities and undersupply of public goods. In the mainstream economics, atomistic individual is conceived as an accidental specie pursuing private self-interest in a short life span having tremendous control over the ecological resources. This is a shallow framework to acknowledge and address the social and environmental sustainability challenges. Markets are inadequate to address issues of equity, justice and sustainability. It is important to acknowledge pluralistic motivation, role of values, commitment as a learnt and reinforced behaviour and the role of religious impulse to derive values of commitment, perseverance, conservation, empathy, simplicity, humility, morality and socio-economic justice.

In long-run macroeconomic models, family utility function instead of individual utility function shall be used. The analysis presented in the study affirms that individual's well-being is

intertwined with family's wellbeing. Since Muslim consumers give more importance to religion as illustrated from the analysis of World Values Survey, it is appropriate to use overlapping generations model and infinite planning horizon. The choices transcend self and individual's own lifespan. There is also need for developing data for economic analysis in Islamic economics. This requires adjustments in normal household income-expenditure surveys and living standard measurement. In Muslim majority regions, the survey instrument needs to incorporate the vital data that is pertinent to analyse the behaviour of faith-conscious economic agents.

Beyond providing theoretical foundations and expositions, the empirical analysis focusing on determinants of profits, risk, stability and efficiency of institutions can be carried out using empirical data and econometric tools. Khan (2018) emphasises on developing testable hypothesis for theory building. In testing hypothesis, Susamto (2020) thinks that methods in conventional economics can be used for further analyses in Islamic economics. Within the limits of Shari'ah rules and norms, the research agenda in Islamic economics from the policy perspective ought to be 'analysis of how to facilitate and achieve need fulfilment at micro and macro level'. Even in mainstream economics, agenda setting in development discourse and policymaking incorporates normative elements. Hence, policy and action-oriented research in this domain can use methodological pluralism, which is even embraced now in mainstream economics. The future research may delve into cross-country comparisons of values and their effect on socio-economic outcomes.

ACKNOWLEDGEMENT

The paper is part of the project CIE25-003-0003 funded by the Centre for Islamic Economics, International Islamic University Malaysia (IIUM).

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