

Methodology for Theory Building in Islamic Economics¹

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Abstract

Islamic economics has its roots in the divine sources of Islam. Despite a respectable body of literature on the subject, a little progress has been made in developing theory of Islamic economics. The paper proposes a methodology for making a beginning in this direction. The divine sources of Islam are sacrosanct. However, human understanding of the divine texts is not. The paper argues that the Muslim economists can proceed toward developing theory by translating human understanding of the divine texts into hypotheses. The format of the hypotheses should allow verification or falsification in light of empirical data or rational reasoning. The hypotheses which cannot be verified or which are falsified would be rejected. The process would allow accumulation of a body of hypotheses which can be extended for more general application under varying assumptions. The paper demonstrates application of the proposed methodology by suggesting a number of hypotheses on five themes of the Qur'an which have some content for developing economic theory. These themes are: *riba*, *infaq*, *shukr*, *tauba* and *taqwa*. The proposed hypotheses are only examples and would require refinement before they are adopted for actual testing. Once the methodology is accepted, it would be possible to develop similar hypotheses on other subjects in the Qur'an and *hadith*.

Economic theory, in general, purports to explain the real-world phenomenon and makes predictions about future outcomes and trends. Most of the work on Islamic economics so far falls short of this general criterion for being a theory. At best, the Muslim economists have re-stated the Islamic economic teachings in the economic jargon, which makes the literature intelligible to professional economists. By itself it

¹ I am greatly indebted to Profs. Volker Nienhaus and Rafiqul Islam Molla who made substantial comments on an earlier draft. I have also benefitted from Nienhaus's as yet unpublished paper, "Religion and development", which he very kindly made available. My thanks are also due to Islamic economists, Zamir Iqbal, Syed Abdul Hamid al-Junid, and Aydin Necati, who made valuable suggestions for revising the draft. I need not say that I am solely responsible for all errors and omissions in the paper.

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is no mean task. The primary sources of Islam are written in difficult language and making them accessible to Western-trained economists is a yeoman's task, which the writers on Islamic economics have performed. However, in the heaps of literature accumulated so far, there is hardly any material that can be termed as 'Islamic economic theory'. That does not belittle the work done so far. We think, development of an economic discipline is an evolutionary phenomenon. Before professional economists could develop economic theory, statement of Islamic economic teachings from authentic divine sources was an essential first step. That step has been taken by now and time is ripe for developing Islamic economic theory. The present paper makes an attempt in suggesting a possible methodology for developing economic theory from the Islamic economic teachings. First, the paper presents a methodology for developing Islamic economic theory. Second, it illustrates application of the methodology by proposing a number of hypotheses in five significant areas. The hypotheses proposed are only examples and can be further refined before extending the research on any subject dealt with in the hypotheses.

1. Understanding Economic Concepts and Statements of The Qur'an and Hadith³

The Qur'an makes several statements about the economic aspect of life. These statements are in the nature of divine laws stated by God. The Muslims believe that these laws operate in this life through the divine will of God. But how these laws actually take effect is not evident from the Qur'an directly. Some examples of these divine laws mentioned in the Qur'an are as follows:

Q⁴. 2:155 says: *'And most certainly shall We try you by means of danger, and hunger, and loss of worldly goods, of lives and of fruits. . . .'* Q. 7:130 says: *'And indeed We punished the people of Pharaoh with years of drought and*

³ *Hadith* (pl. *ahadith*) refer to the sayings, actions or silent approvals of the Prophet (pbuh). They are documented in a vast body of literature and transmitted to the present time through reliable transmitters.

⁴ In this paper, references to the Qur'an have the following format: Q. refers to the Qur'an. The number(s) before the colon refer to chapter number and after the colon refer to verse number. For example: Q. 2:155 means, chapter two and verse 155 of the Qur'an.

*shortness of fruits (crop, etc.) that they might remember (take heed)*⁵.’

There are other verses in the Qur’an that have a similar message (e.g. Q. 7:168, Q. 9:26). These verses indicate that poverty and misery could be either a trial by God to judge human conduct at times of adversity or a form of divine punishment for past human sins.

- Q. 2:276 says that God diminishes *riba* and increases charity (*yamhaqu Allah al--riba wa yurbi al-sadaqaat*). The verse mentions the decrease (*mahq*) caused by *riba* and increase in wealth through charitable spending.
- Q. 3:178 says: ‘*And they should not think – they who are bent on denying the truth – that Our giving them rein is good for them: We give them rein only to let them grow in sinfulness; and shameful suffering awaits them.*’ The verse says that in some cases material prosperity is not substantive but only a form of some latitude given by God for testing people.
- Q. 5:66 says: ‘*and if they (followers of the Bible) would but truly observe the Torah and Gospel and all [the revelation] that has been bestowed from on high upon them by their Sustainer, they would indeed partake of all the blessings of heaven and earth. . . .*’ The verse relates worldly prosperity with following of the divine guidance.
- Q. 11:3 says: ‘*Ask your Sustainer to forgive your sins, and then turn towards Him in repentance – [whereupon] He will grant you a goodly enjoyment of life [in this world] until a term set [by Him is fulfilled]; and [in the life to come] He will bestow upon everyone possessed of merit [a reward for] his merit. But if you turn away, then, verily, I dread for you the suffering [which is bound to befall you] on that awesome Day.*’ Q. 11:52 says: ‘*Ask your Sustainer to forgive your sins, and then turn towards Him in repentance – [whereupon] He will shower upon you heavenly blessings abundant, and will add strength to your strength: only do not turn away [from Me] as lost in sin.* These verses relate repentance to increase in wealth

We can cite more examples from the Qur’an which refer to such laws of material prosperity and misery, distribution of income and wealth (*rizq*), the effects of charitable spending (*infaq*), and so on. The moot point is that these ethical laws are statements of facts but we do not understand exactly how these laws operate in physical terms.

The moral laws influence the nature of the economic problem faced by man. Without studying the influence of these laws, the study of the economic problem remains partial and incomplete. It does not provide a comprehensive explanation of

⁵ We have used translation of the Qur’an by Muhammad Asad, *Message of the Qur’an*, (Gibraltar, 1980).

the differences between material possessions and the causes of prosperity and misery among people. The conventional economics does not recognize the operation of any moral laws that influence the economic problem of man. The methodology of conventional economics does not help in understanding the moral laws, because they are invisible, are not measurable and operate in a complicated manner. They are not amenable to economic analysis in the usual manner. The conventional economic analysis does not take into account invisible factors that influence the process of generation and distribution of wealth.

The Qur'an refers to various economic laws but our present knowledge also does not go much beyond what the text of the Qur'an says. Although the moral laws influence the material conditions significantly, man has not as yet discovered actual operational mechanics of these laws. An illustration from the field of physical sciences will explain the point. The law of gravity was operational in the universe even before Isaac Newton (1642–1727) discovered it. Bacteria caused infection even before Louis Pasteur (1822–95) discovered their existence and the treatment of certain diseases caused by the bacteria. Similarly all developments in physical sciences explain various natural phenomena which existed even before they were discovered. Human beings struggled hard to unfold the mysteries of nature and understand the physical laws. In the process various physical sciences have also developed methodologies to confirm or refute hypotheses propounded by scientists. In the field of moral laws, this work is yet to be done. Firstly, human beings are not quite aware of the moral laws that are operating in the universe. These laws are difficult to discern by the physical senses and material experimentation. They require divine guidance to begin with. Secondly, they are extremely complicated and have backward and forward linkages with the physical world. The moral laws deal with human behaviour, but changes in human behaviour can also influence the operation of these laws. Thus it is a two-way relationship. The moral laws influence and are in turn influenced by changes in human behaviour. That complicates the situation further. Thirdly, the divine time scale is much longer than the usual human time scale. The Qur'an mentions the length of one divine day as equal to one thousand years by our reckoning (Q. 22:47). The moral laws may have linkages with human behaviour at points of time which are not discernible easily at the present moment.

The exact functioning of these laws is not yet known. We need to discover it by introspection, experimentation and dialogue. We think this should be the main task before the Muslim economists if they are to develop Islamic economics as a distinct social science. They should take up the task of expanding the frontiers of economics by discovering the actual operation of these moral economic laws and enriching the pool of human knowledge⁶. This can be done in the following manner:

⁶ It may be interesting to note that a number of hypotheses of the relation between religious behavior and economic performance have already been analyzed in conventional economics, in particular, in the sub-disciplines of economics of religion, economics of systemic transformation [after the collapse of the Soviet Union and the systemic reorientation of many former socialist countries] and development economics. For example, Innaccone (1998), Mc Cleary (2008), Witham (2010), Mitchell (2011), Marshall and van Saanen (2007), Haynes (2007).

- (a) Step one: The Muslim economists should take verses of the Qur'an or various economic statements in the *hadith* literature as immutable and unchangeable. Since each of the verse or *hadith* dealing with divine economic laws can be interpreted in more than one way, our objective should be to understand the cause-effect or operational process of these verses. The challenge before us is to arrive at an interpretation which can be tested and verified empirically or rationally. *It is not that we need to test the Qur'anic or ahadith statements. It is the human interpretation and explanation of these statements that we need to test empirically or rationally for understanding these statements.*
- (b) Step two: We should identify key terms in each statement spotted in the first step. Examples are *riba, zakah, infaq, al-afw, israf, tabdhir, bukhl, sadaqa, baraka, fasad fil ard, shukr, taqwa, tauba, rizq, hatyat tayyeba, hasanaat*, etc. By a process of research, discussion, brainstorming and intensive thinking we can list down all possible meanings for each term that come to our mind at this stage of our understanding. The meanings of the terms would remain subject to revision as more people think around them.
- (c) Step three: Based on our understanding of the key terms we can develop hypotheses relating to each economic statement of the Qur'an or *hadith*. There could be several hypotheses for each statement and these could increase or decrease with the passage of time as our understanding evolves. Similarly, several Qur'anic statements could be combined to arrive at a single hypothesis. We should present various hypotheses in a format which can be either verified by empirical testing or cannot be falsified by facts and rational thinking.
- (d) Step four: The hypotheses should be available for testing and verification in varied conditions. The results of hypotheses testing should be widely published inviting the world community of knowledge to examine and comment on this research.

Most of the data required for testing of hypotheses would pertain to socio-economic behavior of people. In some cases, the testing would require information on long-term basis. That should not discourage us. There are traditions of long-term research in other disciplines. For example in health sciences data are collected over long-periods such as five, ten, fifteen, twenty and even thirty years on large numbers consisting of a variety of individuals, situations and assumptions. Information collection continues until the researchers are able to conclude on certain trends and hypotheses. Since the economic subjects in the Qur'an and *ahadith* also deal with human behavior, in some cases data would be required for representative and unbiased samples (preferably for large numbers) over extended periods of time. In most cases, five years would be too short a period. We think that process of

hypotheses building should take place at levels of institutions such as universities, academies and research institutions which should collect and analyze data over long periods of time.

After years of research and introspection operation of some of the moral laws would be discovered and we shall be able to present our understanding in a format that can be used in wider economic analysis. The suggested procedure will enable Islamic economics extend frontiers of the conventional economics. However, it will have a distinct research agenda for itself and have no dispute with the conventional economics. Both social sciences can complement findings of the other and live side by side. One of the contributions of Islamic economics to human knowledge would be to develop a methodology for making the Qur'anic economic laws manifest in human situations. It will add a new dimension toward understanding and analyzing the human economic problems.

2. Research Challenges

The methodology suggested above can pose several serious challenges to researchers: First, understanding and interpretation of the Qur'anic verses and *ahadith* of the Prophet (pbuh) requires specialized knowledge and skills in Islamic religious sciences. This challenge can be partly mitigated by a team of researchers who collectively possess this competence, though all members of the team may not be fully accomplished in this field.

Second, understanding of the Qur'an and *hadith* would pose a problem to segregate the general from the specific, this-worldly from the other-worldly, facts from metaphors and allegories, temporal from universal, rules from observations, etc. There have been debates and discussions among the exegetes about these subjects. Now that the economists would be approaching the Qur'an and *hadith* with a specific objective of deriving economic theory from their statements, a fresh look would be required on these debates and some sort of near-consensus would be necessary before proceeding to formulate the hypotheses.

Third, it is generally agreed among the Muslims that the guidance provided the Qur'an and *hadith* is valid for all times to come and for all people. However, the social reality keeps on changing, which necessitates need for re-examination and review of earlier understanding and interpretation of the divine texts. It means examination and re-examination of hypotheses and theories would remain be a constant research agenda.

Fourth, finding a cause-effect relationship may pose problems. For example, there could be multiple causes for a phenomenon, one of which could be the cause stated in

the divine statements. Vice versa, there could be multiple effects of a cause, one of which could be the effect mentioned in the Qur'an or *hadith*. For example, *zakah* expenditure could be a stimulus for employment. But employment could also be influenced by several other factors. How do we measure the contribution of *zakah*, if any, toward, employment boosting? In brief, the question will arise: how do we measure the cause-effect relationships to prove or disprove our hypotheses? This would be a serious problem. One starting point could be to just discern the relationships in series of data and indicate certain trends, without being assertive about cause-effect. However, we would suggest that the economists should do some more thinking on this question.

3. Applying the Methodology on Some Economic Statements and Terms in the Qur'an

In the following discussion we shall illustrate the above methodology by developing a few hypotheses from some economic statements of the Qur'an. The hypotheses presented here are only by way of illustration of the suggested methodology. They are not our hypotheses. It is too early for anyone to profess formulation of proper hypotheses. That would require extensive discussions and debates on meaning and interpretation of the divine texts. It would be, therefore, an unfair criticism if someone considers these hypotheses as implausible and rejects them out of cuff. Of course, some of the proposed hypotheses can be argued away and set aside. But that does not defeat the methodology proposed in this paper. It would only mean that more plausible hypotheses should be formulated. No more and no less.

While presenting some hypotheses below we shall proceed as follows:

First, we shall take up selected verses of the Qur'an on five subjects: interest or usury (*riba*), charitable spending (*infaq*), gratitude (*shukr*), repentance (*tauba*), and God-consciousness (*taqwa*) sequentially. Second, for each subject, we shall present our understanding of these statements. Need not be said that this understanding is only tentative and at individual level. As we have discussed earlier, a proper application of the methodology would require extensive discussion of the verses of the Qur'an and *ahadith* to arrive at more plausible understanding. Second, we shall translate our understanding into testable hypotheses. Third, we shall reflect on the type of analysis for testing the proposed hypotheses.

The hypotheses presented in this paper are available for further research. As a result of research, a particular hypothesis would either be verified or rejected. The

verification would mean that the human understanding of the economic statements or terms of the Qur'an is valid. Rejection of a hypothesis would mean that the human understanding of the Qur'anic statement is invalid and requires further thinking and reflection. As a result of further thinking, the hypotheses would be revised and the whole process of verification would be repeated. This would continue until we are able to arrive at hypotheses which are valid under specified conditions. Once that stage arises, the set of valid hypothesis would become available for more extensive application and testing. That would pave the way for development of theory in Islamic economics. Since the theory would have undergone familiar process of scientific development, it would be available for incorporation in the wider knowledge of economics as understood and taught in the contemporary world.

A. ECONOMIC STATEMENTS ON *RIBA*

The Muslim economists have discussed the concept of *riba* and *riba*-free finance at length in the literature on Islamic economics. In fact, the whole movement of Islamic finance owes its origin to the thinking and discussion on *riba*. The essence of contemporary movement the Islamic finance is that all types of interest is *riba* and thus illegal and should be abolished and replaced by other modes of finance. However, there are dissenting voices to this primary interpretation of the concept of *riba*. The Qur'an does not define the concept of *riba* directly. Fortunately, there are statements in the Qur'an that can lead us to formulate hypotheses which can be tested. Validity of a particular hypothesis would confirm or falsify our understanding of the term '*riba*'.

Q. 2:276 says: '*God deprives riba of all blessings (yamhaqu Allah al--riba) whereas He blesses charities (yurbi al--sadaqaat) manifold.*' This statement has two parts: deprivation of blessings (*mahq*) in *riba* and enhancement of blessings in charity. We take only the first part in illustrating the proposed methodology:

- (a) The key terms in the first part of the statement are (i) *riba* and (ii) decrease (*yamhaqu*). The challenge for us is to determine an interpretation of the term '*riba*' that meets the Qur'anic criteria of *mahq*, that is, deprivation of blessings. For this purpose we also need to interpret the term '*mahq*'.
- (b) Tables 1 and 2 below list the meanings of the terms '*riba*' and '*mahq*' that come to our mind for this illustration. A similar exercise by other people may lead to different sets of meanings.

Table 1 Possible meanings of the term ‘riba’

	<i>Riba</i> means:
1	Interest on all types of loans
2	Interest on consumption loans only
3	Compound interest only
4	Exorbitant rates of interest
5	Interest from poor and needy borrowers
6	Interest on institutional loans to individuals
7	Interest on inter-governmental loans (bilateral governmental loans)
8	Interest on loans from multilateral institutions
9	Interest on deferred payment in a sales contract
10	Interest on bonds and <i>sukuk</i>
11	Interest in a financing lease
12	Interest in an operating lease

Table 2 Possible meanings of the term ‘mahq’

	<i>‘Mahq’</i> means:
1	Physical destruction of assets
2	Reduction in the income of the lender over time
3	The lender subject to losses and accidents apparently unrelated to the lending business
4	Reduction in aggregate economic wealth of the society
5	Reduction in satisfaction from the use of wealth
6	Social strife and hostilities among various sections of the population
7	Lack of happiness and peace of mind
8	Level of earnings from interest being lower than profit from trade for the same capital
9	Higher levels of wastage and inefficiencies in the production process employing interest-based capital as compared to equity capital
10	Interest-bearing international loans increasing the level of poverty in borrowing countries
11	Interest adding to the cost of production and causing inflation and hardship for the poor
12	Interest leading to the accumulation of wealth in a few hands, leading to deprivation of the masses

The lists in Tables 1 and 2 can lead to a large number of postulates ($12 \times 12 = 144$) based on combinations and permutations of the items in each list. A review of these

combinations can help in short-listing the most plausible of the combinations. From the above understanding of the term *riba* we can short-list the following hypotheses:

Hypothesis A. 1 :

***Riba* - Interest on transactions of financial institutions**

Average rate of return on capital invested as interest-bearing loans tends to decline in the long-term, other things remaining the same.

Testing of the hypothesis will require:

- (a) A sample of financial institutions providing finance for investment in development projects or commercial ventures. Most of the conventional banks are engaged in this type of financing. Selection of sample will only require consent of the selected institutions for providing information.
- (b) Although a global rate of return on all finance provided by a bank would be sufficient, yet a segregated rate of return on different streams of financing would provide greater insights into the causes of variations in the average rate of return.
- (c) The period should not be less than five years, although a longer period such as ten or twenty years would provide greater insights in the trends and causes of variations in the average rate of return.

Hypothesis A. 2:

***Riba* - Interest on consumption loans**

Aggregate value of assets of money-lenders whose major source of income is interest earned on consumption loans tends to decline in the long-term, other things remaining the same.

Testing of hypothesis would require:

- (a) Define the term “aggregate value of assets” and take it as an assumption. Since the period involved is long-term, questions of depreciation, inflation, currency exchange rate, etc should be taken into account while deciding about the definition of ‘aggregate value of assets.’
- (b) Identification of a sample of people who are engaged in granting consumption loans on interest. The people in the sample should be willing to share information on their assets and income (which could be a problem).
- (c) Since the focus variable is ‘income from interest on consumption loans’, we shall

have to segregate income from other sources for the sampled individuals.

- (d) Cut-off dates for beginning and end of period for which data would be required. The period should be long enough for arriving at reliable trends. The longer the period, the greater will be problems of data collection and analysis. But a short period (less than five years) may not take us to any conclusive finding.
- (e) Information on value of wealth (aggregate assets) of the money-lenders engaged in extending consumption loans on interest for all periods will be required.
- (f) Analysis of the data should even out any extraordinary happenings in the financial state of individuals in the sample. For example, if an individual in the sample receives extraordinary income which leads to a boost in his assets such as from sale of some property or from inheritance, the effect of such income on the assets of the individual should be excluded.
- (g) The data analysis should focus on reasons for changes in the aggregate value of the assets and not merely on trends.

Hypothesis A. 3:

***Riba* - Interest as part of credit prices**

Average rate of return on the cost of goods sold on deferred payment basis that includes interest in the sale price on the delayed payment tends to decline in the long-term, other things remaining the same.

Testing of the hypothesis would require:

- (a) Definition of 'cost of goods sold', deciding about the direct, indirect, marginal, fixed and variable costs. A percentage of the cost of goods sold or a percentage of the sale price.
- (b) Definition of 'average rate of return' need to be decided in the beginning.
- (c) A sample of business firms willing to cooperate and participate in the exercise. Preferably the business firms should deal in similar products.
- (d) A sample of transactions of each business firms sold on cash and credit basis and information on the mark-up added while selling on credit. The selected samples of transactions should consist of deals in the same product for all business firms selected in the sample.
- (e) Information for long term (three-five years) for each business firm.

Hypothesis A. 4:

Riba – Interest on projects financed by international donors

On an average, development projects financed by international donors as interest-bearing credit lead to lower than planned rates of net present value and internal rate of return, other things remaining the same.

Testing of hypothesis would require:

- (a) A sample of development projects mainly financed, such as up to 90 percent or so, by interest-bearing finance
- (b) Information on internal rate of return (IRR) and net present value (NPV) on the planned data of costs and revenues of the projects
- (c) Information on actual costs and revenues of the sampled projects
- (d) Information on variation between planned and actual data for costs, revenues, time taken for each project in the sample
- (e) Analysis of the variation in IRR and NPV due to uncontrollable factors such as inflation, changes in rates of exchange and in scope of work for each project
- (f) Actual data comparable to planned data after smoothing out effect of all uncontrollable factors for each project
- (g) Calculation of Internal rate of return (IRR) and net present value (NP) on actual data for each project
- (h) Comparison of planned and actual NPV and IRR for each project

The above list of hypotheses on *riba* is only for sake of illustration. Many more hypotheses can be formulated on the subject in a similar manner. Before undertaking research, the language of these hypotheses can be further refined to enable collection and verification of data. Testing of these hypotheses would open doors for developing a theory on *riba*. The verified hypothesis will give us conclusive meanings of the Qur'anic statement and also inform us about the true meanings of the terms '*riba*' and '*mahq*'.

B. ECONOMIC STATEMENTS ON CHARITABLE SPENDING (INFAQ, ZAKAH AND SADAQAT)

Like all religions Islam places a great emphasis on spending to meet the needs of others. It is technically known as '*infaq*'. It refers to spending willingly and voluntarily on the needs of family members, friends, relatives and the community and to promote the common good or social welfare. Spending on others is equal to

spending in the cause of God. It must be with the intention of getting a reward from God in the hereafter and not expecting anything in return from the beneficiary (Q. 92:18–19). God treats *infaq* as a loan upon Himself and promises to return it with manifold increase (Q. 2:245, 2:262, 8:60, 57:11, 57:18, 64:17, 73:20). While spending on others is a desirable trait of character, it is closely linked to the resource endowment of the person spending on others. The *infaq* should be from what a person can spare from his or her resources (Q. 2:219) and should be at a moderate level so that there are no regrets later on (Q. 17:26–27, 25:67, 47:36–37). The Qur'an makes several statements on *zakah* and *sadaqaat*, sometime using the two terms interchangeably. We need not reproduce these statements here as they are too well-known to any student of Islamic economics.

The Qur'an stipulates that *infaq* is a vehicle for an increase in wealth at the individual and social levels. For example, verses Q. 2:261-74 and 30:39 discuss the multiplier effect of charitable spending. Similarly, Q 2: 276 says that God multiplies charitable spending (*sadaqaat*). A society that withholds *infaq* treads a path of destruction (Q. 2:195). There is no conclusive explanation for the multiplier effect of charitable spending. Some of the explanations which we come across in the literature or which we can ourselves think of are as follows:

- (a) The mechanism of the increase in social wealth is now quite well understood after Keynesian theory. It operates through the consumption multiplier effect. When the rich (who have a lower propensity to consume) spend on the poor (who have a higher propensity to consume), the poor increase aggregate demand, which stimulates investment.
- (b) At individual level a person who spends on others on a regular and consistent manner gets better economic opportunities than the one who does not. These opportunities in the business could be unexpected boost in sales, higher efficiency of employees, enactment of some favourable laws and regulations by the government, favourable climate and environmental factors, minimization of wastes, obsolescence and accidents, etc. But all these are mere speculations and there is no conclusive evidence to prove or disprove such explanations.

Based on the above understanding we present the following hypotheses for testing. If any of these hypotheses is validated, it will be available for further examination under different assumptions and different set of variables.

Hypothesis B. 1:

Charitable spending and macro level prosperity

Spending from collective receipts of obligatory *zakah* at the national level leads to increase in employment level at macro level through multiplier

effect of the increased consumption of the recipients in the long-term, other things remaining the same.

Testing of the hypothesis would require:

- (a) A state, such as Iran, Kuwait, Indonesia, Pakistan, Saudi Arabia, Sudan, and Yemen where *zakah* payment is either obligatory or is collected by state machinery from those who volunteer to pay.
- (b) Information on *zakah* collected and distributed by the *zakah* management agencies
- (c) Information on average propensity to consume of a sample of population receiving the *zakah*
- (d) Information on public sector projects and government spending on these projects. These projects are likely to increase aggregate demand and stimulate investment.
- (e) An econometric model that isolates the effect of public expenditure other than *zakah* on aggregate demand, concluding on the effect of *zakah* expenditure on aggregate demand and investment stimulation.
- (f) Concluding on the multiplier effect of *zakah* expenditure on aggregate demand, investment and employment.

Hypothesis B. 2:

**Charitable spending – Individual prosperity and growth of business firm
Systematic and sustained charitable spending by an individual or a business firm has a positive correlation with gross income or economic growth of the giver, other things remaining the same.**

Testing of the hypothesis would require:

- (a) Selection of a sample of individuals and firms which volunteer to cooperate.
- (b) Segregated information on *zakah* and other charitable spending (voluntary charity) over a period of, say, five years.
- (c) Information on annual gross income of the individuals and firms in the sample
- (d) Information on value of assets of the individuals and firms in the sample
- (e) Correlation of time series of *zakah*, voluntary charity and gross income and value of assets for the sampled individuals and firms
- (f) Conclusion on the relationship of charitable spending and gross income

Hypothesis B. 3:

Charitable spending – *Zakah* payments over years

Regular and systematic payment of *zakah* by an individual or a business firm enhances the volume of *zakah* obligations of the giver in successive years through increase in income and wealth liable for *zakah*, other things remaining the same.

Hypothesis testing would require:

- (a) Selection of a sample of individuals and firms which volunteer to cooperate
- (b) Information on *zakah* due and paid over a period of, say, five years for all individuals and firms in the sample
- (c) Comparison of *zakah* paid over successive years with reference to (i) base year (ii) each previous year
- (d) Conclusion on the relationship of charitable spending and *zakah* paid over successive periods.

C. ECONOMIC STATEMENTS ON GRATITUDE (*SHUKR*)

Gratitude (*shukr*), besides an expression of thanksgiving through word of mouth, involves an attitude of mind. The Qur'an says that an attitude of gratitude (*shukr*) leads to prosperity (e.g. Q. 14:7). That raises the question: what is meant by gratitude (*shukr*)? How does it lead to prosperity? An exact understanding of this term would require an excursion into the path of hypothesis building and its empirical verification. A tentative understanding of the concept and its relationship with prosperity at this stage of learning could be as follows:

- (a) A person who expresses gratitude (*shukr*) also recognizes that the resources are bounties of God and should be preserved and put to the best use by maximizing their utility. Thus a person who expresses *shukr* tries to make the most efficient use of resources, minimizing waste and getting maximum benefit out of them. *Shukr* becomes an engine of efficiency. The attitude brings in the whole host of internal controls, cost accounting and good management practices for safeguarding assets and reducing waste and mismanagement.
- (b) An attitude of *shukr* leads to contentment with what one gets through honest means and shuns illegal and immoral means. Besides creating a state of inner peace (which in fact is a state of perennial happiness, joy and prosperity), contentment creates respect for the property of others, reduces jealousies and minimizes negative strife. From the reverse side, it means all avenues of injustice and exploitation (*zulm*) are closed for a person who expresses *shukr*.

Once institutionalized, it creates an enabling environment for economic activity through which markets flourish and material prosperity abounds.

- (c) A person with an attitude of *shukr* would not be indifferent to productive opportunities and would treat them as bounties of God. *Shukr* generates a sort of dynamism in character which is the soul of all enterprise.
- (d) *Shukr* creates awareness that everything belongs to God and human beings are only trustees (Q. 102:8). The concept creates a culture of accountability, which is woven in the entire economic fabric of society. It governs all institutions as a basic value. It is the soul of a good code of conduct.
- (e) *Shukr* generates the realization that resources are bounties of God and not the mere result of hard work or the ability of the owner. It infuses a sense of humility that encourages a caring attitude towards other creatures and environments. It motivates the owner of the resources towards charitable spending on those who are unable to take care of themselves. *Shukr* becomes the engine of prosperity through an injection of purchasing power and boosting consumption.

The above discussion shows that gratitude is a multi-dimensional concept. For sake of brevity we can say that an attitude of gratitude has following dimensions, though as a result of further thinking the list can change:

- (a) Internal controls framework to minimize waste, safeguard assets, optimum utilization of resources, and increased efficiency and effectiveness in the use of resources
- (b) Fair-dealing, keeping promises and meeting commitments, delivering fair value for the price, protecting interests of other stakeholders and ethical behaviour at all levels of the organization
- (c) Enterprise and risk taking, availing of emerging opportunities and remaining alert to internal and external risks
- (d) Caring for other creatures and environments through philanthropic spending

These dimensions are with reference to a business firm. Similar dimensions can be conceived for individuals, government and public sector organizations. Multiple hypotheses can be framed for each dimension. In the following we shall propose some hypothesis for business firms:

Hypothesis C. 1:

Gratitude- Internal controls

Degree of actual implementation of a robust internal control framework

in a business firm has a positive correlation with the rate of return on investment in a business firm.

All business firms have some sort of internal controls. However, the degree of actual implementation of internal controls varies. It is therefore quite difficult to measure with mathematical accuracy the degree of actual implementation of internal controls. Despite that, the discipline of performance evaluation has progressed sufficiently ahead to provide a tool-kit for measuring actual implementation of internal controls in business organizations. Testing of this hypothesis would require, therefore, interdisciplinary skills. The economists would need to learn techniques of evaluation from auditors and evaluators. A starting point could be as suggested below.

In 1985, five private sector organizations of the USA, namely, *Institute of Management Accountants (IMA)*, *the American Accounting Association (AAA)*, *the American Institute of Certified Public Accountants (AICPA)*, *the Institute of Internal Auditors (IIA)* and *Financial Executives International* sponsored the *National Commission on Fraudulent Financial Reporting* under the chairmanship of James C. Treadway, Jr., Executive Vice President and General Counsel, *Paine Webber* and a former Commissioner of the *U.S. Securities and Exchange Commission*. The Commission got its name from the Chairman and was widely known as *Treadway Commission*. In 1987, as a result of its initial study on financial reporting system, the Commission set up Committee of Sponsoring Organizations (COSO) for making recommendations on integrated internal control framework. In 1992, the COSO published a four-volume report, and re-issued it with some modifications in 1994⁷. Since then the integrated framework proposed by the COSO is generally accepted as best practice criteria for internal control framework. The economists who plan to undertake validation of the above hypothesis can benefit from the COSO framework of internal control, though they can adopt some other criteria for evaluation if they have reasons for doing that.

The COSO framework has following five components and the evaluation would target each component distinctly before aggregating the results. Since all components are not of equal importance, evaluation would require some guide for weight of each component.

- Control environment

⁷ <http://www.coso.org/Publications/NCFRR.pdf>. and <http://www.coso.org/IC-IntegratedFramework-summary.htm>

- Risk assessment
- Control activities
- Information and communication
- Monitoring

Testing of hypothesis would require:

- (a) Deciding about evaluation design, evaluation criteria and weights to be assigned to various components of the internal control framework, scoring system and scoring guide, interview questionnaires, procedures for field work and analytical techniques.
- (b) Selection of a sample of business firms which agree to participate in the exercise and would allow evaluation of their internal control framework.
- (c) Orientation and training of the field staff for undertaking the evaluation
- (d) Detailed planning for field work to be undertaken
- (e) Data collection on actual existence and operation of various components of the internal control framework
- (f) Analysis of the data with a view to arriving at a summary conclusion (preferably a single digit) about actual implementation of the internal control framework.
- (g) Information on rate of return on investment for the firm
- (h) Calculating coefficient of correlation for score of internal control implementation and return on investment

Hypothesis C. 2:

Gratitude - Fair dealing

Degree of fair dealings by a business firm with suppliers, customers, competitors and government has a positive correlation with the rate of return on investment.

We did not come across a fair dealing framework similar to the COSO framework for internal control. However, we can think of a few points which can be adopted as a framework of fair dealing. Following is the suggested framework of fair dealings for evaluating the degree of gratitude.

Business firms buy goods and services from suppliers and agree to make payments. Fair dealing would expect keeping up promises and meeting payment schedules without default and reminders. Acceptance of any benefits, gifts, or payments of any sort is indications of 'kickbacks' and examples of unfair dealings. Indicators of unfair dealing would be such factors as interest or penalty paid due to delay in making the payment, or extensions for meeting

the target dates.

A fair deal with customers would mean, at least, to deliver goods and services on time, be true to quantity and quality, redress complaints and have hassle-free cancellation and return policy. Indicators of unfair dealing would be number of complaints received from customers and number of product returns after the sale.

Fair dealing with competitors would require competition in quality, price, delivery services, maintenance policies, self-reliance with research and methods, etc. It excludes any attempts in making untrue statements about products and services of competitors, plagiarism or underhand dealing with competitors' staff for stealing trade secrets and other valuable information, etc. All advertising should be honest and truthful. Collusion, price-fixing and other practices which undermine competition should be avoided. Indicators of unfair dealing would be any court cases by competitors, notices received from regulators regarding uncompetitive behaviour, untrue advertising and any complaints received from competitors.

Fair dealing with the government means to pay all taxes on a timely basis, cooperate with the regulatory regime and follow all rules and laws. It means providing fair and true information to government and regulatory bodies as required under the law. Offering bribes, gifts or undue hospitality to government functionaries for getting business gains are indicators of unfair dealings. Indicators of fair dealing with government are any notices of non-compliance with rules from government agencies, any fines paid to the regulators, any penalties paid with taxes, etc.

The indicators suggested above are only by way of illustration. In actual practice, the evaluators will decide about the indicators of fair dealings. Once indicators are decided, benchmarks or cut-off levels for each indicator would have to be decided for arriving at various levels of compliance with fair dealing.

Testing of the hypothesis would require:

- (a) Deciding about evaluation design, evaluation criteria, and weights to be assigned to various components of fair dealing, scoring system and scoring guide, interview questionnaires, procedures for field work and analytical techniques

- (b) Selection of a sample of business firms which agree to participate in the exercise and would allow evaluation of their practices relating to fair dealing
- (c) Orientation and training of the field staff for undertaking the evaluation
- (d) Detailed planning for field work to be undertaken
- (e) Data collection on actual existence and operation of various components of fair dealing framework
- (f) Analysis of the data with an objective to arrive at a summary conclusion (preferably a single digit) about the actual implementation of the fair dealings.
- (g) Information on rate of return on investment for the firm
- (h) Calculating coefficient of correlation for score of fair dealing framework and return on investment

Hypothesis C. 3:

Gratitude- Enterprise and risk taking

The degree of enterprise, dynamism and risk-taking by a business firm as expression of sustained and systematic attitude of gratitude has a positive correlation with the rate of return on investment.

The hypothesis uses 'expression of enterprise, dynamism and risk-taking'. It includes various initiatives for developing business. An attitude of gratitude creates awareness that the earth and its resources are bounties of God and one should try to avail of these resources to the best of one's ability. Remaining indifferent to these resources is an indication of ingratitude. Gratitude, thus, inculcates a sort of dynamism and enterprise for developing resources of the earth. For a business firm, gratitude would mean initiatives to develop its resources further. Examples of these initiatives are as follows:

- (a) Initiative to have access to cheaper finance for developing the business further. The indicator would be formal efforts to explore availability of cheaper finance with various financial institutions
- (b) Initiative to upgrade products, processes and functions for improving quality and productivity and offering new products and services. Indicators would be investment made on offering new products or services, research and development, training of employees and staff into new technology adopted by the firm, etc.
- (c) Initiatives to implement ethical, social and environmental procedures for

managing risks, reducing costs, and improving quality. Indicators would be any tangible cost reductions and cost of products and service, internal or external risks avoided or mitigated and savings realized, etc.

- (d) Initiative to capture new business opportunities and investment channels. Indicators would be any diversification in investment, setting up new branches, opening up franchises, etc.
- (e) Seeking new business partnerships and links for expansion. Indicators would be new agreements for joint actions, joint products and services, market segmentation, mutual transfer of business opportunities, etc

These are only some examples of enterprise and dynamism that gratitude instils in the environment of a business concern. The testing of hypothesis would require:

- (a) Deciding about evaluation design, evaluation criteria, weights to be assigned to various components of enterprise development, scoring system and scoring guide, interview questionnaires, procedures for field work and analytical techniques.
- (b) Selection of a sample of business firms which agree to participate in the exercise and would allow evaluation of their business development strategies and operations.
- (c) Orientation and training of the field staff for undertaking the evaluation
- (d) Detailed planning for field work to be undertaken
- (e) Data collection on actual existence and operation of various components of enterprise development framework.
- (f) Analysis of the data with an objective to arrive at a summary conclusion (preferably a single digit) about the actual implementation of enterprise development framework.
- (g) Information on rate of return on investment for the firm
- (h) Calculating coefficient of correlation for score of enterprise development framework and return on investment

Hypothesis: C. 4:

Gratitude- Caring for others

The amount of expenditure by a business firm for protection of environments and caring for other creatures has a positive correlation with the rate of return on investment.

A dimension of gratitude is awareness that all resources are endowments of God and while utilizing the resources one should remain careful about their impact on

environment and other creatures. The attitude obliges owners of the resources to monitor any negative impact of their business decisions and make appropriate investments for protecting the environment and other creatures. Strictly speaking, this is not an aspect of charity or philanthropy but a response to one's stewardship toward the betterment of the earth and its resources. The principal indicator of this dimension of gratitude is the investment that a business firm makes for minimizing negative impact of its operations on environment and other creatures. Validity of the hypothesis will support the conclusion that an increasing amount of investment for environmental protection brings in an increased amount of prosperity. Testing of the hypothesis would require:

- (a) Selection of a sample of business firms which agree to participate in the exercise and agree to provide information on their expenditure for environmental protection
- (b) Information on expenditure for environmental protection by the firms in the sample
- (c) Information on rate of return on investment for the firms
- (d) Calculating coefficient of correlation for score of expenditure on environmental protection and rate of return on capital.

D. ECONOMIC STATEMENTS ON REPENTANCE (*TAUBA*)

The Qur'an says that repentance (*tauba*) for past sins leads to prosperity [Q. 11:3, 11:52; 71:10-12]. A tentative understanding of repentance and its relationship with prosperity is as follows:

- (a) Repentance (*tauba*) for past mistakes indicates an attitude of self-analysis. It bestows the person with some sort of inner benchmark for distinguishing good from evil, positive from negative, right from wrong, and so on. At the macro-level, if a society adopts this value as a normal behaviour, it is likely to make better choices in its socio-economic and political life.
- (b) The habit of self-analysis inculcates the ability to review one's past and the heritage from one's parents and earlier generations and then decide the extent to which they made appropriate choices during their lifetime. Invisibly, this trait of character takes away the tendency of following one's forefathers blindly. A generation that is endowed with this faculty is enriched with creativity and innovation and the ability to develop appropriate responses to the developments of their own times. The creativity, ultimately, is the engine of all development and progress. In brief, the habit of seeking God's forgiveness through self-analysis endows society with a treasure of creativity that leads to growth,

development and prosperity.

- (c) Willingness to amend past mistakes is an indicator of humility. An arrogant person never feels sorry for his or her behaviour and will seldom bow down to seek forgiveness. Humility, in turn, is the source of all learning. A humble person is likely to excel in learning, as he or she likes to acquire it, as compared to an arrogant person, who displays indifference toward learning.
- (d) Repentance (*tauba*) introduces a person to a behaviour pattern that gives the courage to try new ideas. The fear of making mistakes does not deter him or her. The possibility of making amends remains open. The tendency to venture into new fields with the ability and hope to get oneself right if one goes wrong is the soul of all enterprise. It encourages a person to take risks and remain ready to commit mistakes but hopeful to reap dividends in the form of the right course.
- (e) The attitude of repentance (*tauba*) has a built-in ambition: 'I can improve in the future if I retract from my past mistakes.' This ambition accelerates the engine of progress and growth. If people as a whole have this positive attitude they are likely to perform better in future.
- (f) In interpersonal relations if a person causes some harm or injury to someone else and then seeks God's forgiveness, he or she also has to undo the damage done to the other person before the repentance (*tauba*) is accepted by God. Thus it creates willingness to give back what one has taken wrongly. The attitude of 'giving what is due to others' adds harmony to social life and creates a society of 'givers' rather than 'takers'.
- (g) Q. 25:71 says that one who repents actually turns towards God. It means he or she enjoys the company of God, who guides the person to the right path. The right path does not mean only religious rituals. It means the right path in professional matters as well. A politician on the right path will make the right policy choices with God's guidance. A scientist gets God's guidance in finding solutions to research problems, and so on. Repentance (*tauba*) shortens the path to success, as God's help comes quickly. It saves the circuitous route of a person who is trying all by him-- or herself.

In brief, like gratitude, repentance is also a multi-dimensional concept. In the perspective of a business firm, it has at least the following dimensions:

- (a) Lesson-learning from the past mistakes
- (b) Creative and innovative approach toward future, weaning away from the blind following of mistakes of the earlier generations
- (c) Compensating others for the harm done

Learning lessons from the past mistakes is an important segment of the culture of successful organizations. Those business firms which take stock of their past mistakes and document best practices for improving their performance have a greater likelihood of success in business results. Indicators of this organizational culture are (i) documentation of mistakes and lessons learnt; (ii) a code of ethics that encourages monitoring and reporting on mistakes; (iii) a system of information and communication throughout the organization to keep all concerned informed of the past mistakes with advice for avoiding the mistakes in future; (iv) rewarding for the humility to admit mistakes and making amends

Hypothesis D.1:

Repentance (*Taubah*) – Relation with rate of return

Degree of the practice of repentance (*tauba*) on past mistakes by a business firms has positive correlation with the rate of return on investment.

Hypothesis testing would require:

- (a) Deciding about evaluation design, evaluation criteria, and weights to be assigned to various indicators of repentance, scoring system and scoring guide, interview questionnaires, procedures for field work and analytical techniques.
- (b) Selection of a sample of business firms which agree to participate in the exercise and would allow evaluation of its practices regarding repentance on past mistakes.
- (c) Orientation and training of the field staff for undertaking the evaluation
- (d) Detailed planning for field work to be undertaken
- (e) Data collection on practice of repentance by the firms
- (f) Analysis of the data with an objective to arrive at a summary conclusion (preferably a single digit) about practice of repentance by the business firms in the sample
- (g) Information on rate of return on investment for the firms

ECONOMIC STATEMENTS ON GOD CONSCIOUSNESS (*TAQWA*)

God consciousness (*taqwa*) refers to belief in the Oneness of God, angels and prophets and being aware that God is omnipotent and omnipresent, being constant in prayers, being mindful of accountability on the Day of Judgement, behaving ethically in all situations, showing magnanimity toward others in mutual dealings, being patient at times of adversity, fulfilling commitments and promises, being fair and just in dealings, and refraining from *riba*. *Taqwa* is consciousness of God the Omnipresent that restrains an individual from committing acts forbidden by God. It is an inner state of heart that demands unflinching obedience to God. The Qur'an

mentions a number of virtues that cultivate *taqwa* in a person: the keeping of trusts (*amana*) (Q. 2:283); faithfulness (*al--wafa*) (Q. 3:76); and patience (*al--sabr*) (Q. 3:186). The Qur'an relates *taqwa* to the good life (*hasanat*) on this earth besides rich rewards in the hereafter (Q. 7:96, 10:63–64, 39:10). God relates *taqwa* to material ease in this life and creates circumstances favourable to one's sustenance in a manner that is beyond one's expectations (Q. 65: 2-3). However, the exact mechanism for how it happens is not conclusively known. It would require an understanding of the concept of *taqwa* that allows empirical verification.

God consciousness (*Taqwa*) translates into following dimensions

- (a) God consciousness creates a sense of respect for the property of others. The higher the degree of God consciousness among people, the greater would be sanctity of the private property in the society.
- (b) God consciousness leads to fair dealing in commercial transactions, making sure that the dealing parties do not commit an injustice upon each other willingly and voluntarily.
- (c) God consciousness prepares business firms adhere to their commitments on financial transactions, product quality and service delivery standards.

Hypothesis E.1:

God consciousness (*Taqwa*)- Respect for private property rights

Degree of respect shown for property rights of others by a business firm has positive correlation with the rate of return on investment.

Hypothesis: E.2:

God consciousness (*Taqwa*)- Honesty and integrity in dealings

Degree of adherence to honesty and fairness in business dealings has positive correlation with the rate of return on investment.

Hypothesis: E.3:

God consciousness (*Taqwa*)- Honoring commitments

Degree of adherence to commitments made by a business firm has positive correlation with the rate of return on investment.

The three dimensions of God consciousness (*taqwa*) are interrelated. A comprehensive evaluation exercise can cover all the dimensions. Indicators for God consciousness would be similar to the following:

- (a) Number of complaints received from others for infringements of their respective property rights
- (b) Number of court cases challenging property rights of the sample firms
- (c) Number of frauds and misappropriation cases and the amounts involved pointed out by auditors and regulators in operations of the sample firms
- (d) Number of cases and the amounts involved where services were not delivered as agreed or commitments were not honored

These are some of the indicators which we can think of at this moment. In actual practice, the evaluators will decide about the indicators of God consciousness.

Testing of the hypotheses would require:

- (a) Deciding about evaluation design, evaluation criteria, and weights to be assigned to various indicators of God consciousness, scoring system and scoring guide, interview questionnaires, procedures for field work and analytical techniques.
- (b) Selection of a sample of business firms which agree to participate in the exercise and would allow evaluation of its practices regarding God consciousness.
- (c) Orientation and training of the field staff for undertaking the evaluation
- (d) Detailed planning for field work to be undertaken
- (e) Data collection on practice of God consciousness by the firms
- (f) Analysis of the data with an objective to arrive at a summary conclusion (preferably a single digit) about practice of God consciousness by the business firms in the sample
- (g) Information on rate of return on investment for the firms

4. Concluding Remarks

The above list of hypotheses is only an attempt to illustrate application of the methodology presented in this paper. The present paper does not argue that these are valid hypotheses. In fact, validity of these or similarly formulated hypotheses would be tested by appropriate statistical and evaluation techniques. We hope that the universities and research organizations engaged in development and study of Islamic economics would examine these hypotheses and refine them in a manner that allows their testing. The language and format of the hypotheses would require in-depth examination. As a result, a different list of hypotheses may emerge which becomes basis for further research. Post-graduate and doctoral students can take up some of these hypotheses as part of their research for degree requirements. The process once adopted would pave way for developing Islamic economics as a social science. It would

detach the subject from its present adherence to Islamic economic teachings, which is more a subject of theology. The methodology would also unfold a mechanism to arrive at the true and undeniable meanings of the economic statements of the Qur'an and *hadith*.

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