Assessment the Impact of Zakat on Aggregate Consumption and Poverty: Evidence From Egypt

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Author's contribution

The only author performed the whole research work. Author HHA wrote the first draft of the paper. Author HHA read and approved the final manuscript.

ABSTRACT

This study aims at investigating the impact of Zakat on aggregate consumption and poverty alleviation in Egypt. To achieve this, the study presents the concept of poverty and the strategies of poverty alleviation in a conventional economy, and then discusses the concepts of poverty in Islam and the ability of Zakat to eliminate poverty in the Muslim community. The most important results are the potential Zakat collection in Egypt cannot eradicate poverty from the Egyptian economy and the other types of charities may play an important role in eradicating poverty in Egypt. The study recommends the need to pass legislation that requires the collection of Zakat from different sectors, organizations and institutions as well as individuals. Finally, the study emphasizes the need to voluntary charities as complementary tools in poverty eradicating. The study recommends also the Egyptian government to monitor and control the processes of collecting and distributing Zakat where the more directed to the poorest eligible (first of the eligible categories), the greater the effect on consumption then on poverty.

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1. INTRODUCTION

At the 2002 Johannesburg Summit, the report of the Secretary-General of the United Nations indicated that 15% of the world's population consume 54% of world production, while 40% of the poor in low-income countries consume 11% of the total world production, and that the poverty rate reached 23 percent in 1998 on the grounds that the minimum income to the poverty line equals to one dollar a day, and that there are 1.2 billion people living below the poverty line, and there are nearly 1.1 billion people do not have access to safe drinking water, 2.4 billion people have no access to proper sewer system services, and that 113 million children in developing countries, more than 60% of them are females, and finally in some of the poorest countries, one of every five children dies under the age of five. In some countries with high human development, the life expectancy at birth reached rates 79.6 years, 78.5 years, and 74.5 years in Norway, the United Kingdom and Bahrain respectively, while the same indicator stands at 56.5 years, 56 years and 43.3 years in Sudan, Senegal and Nigeria respectively, and school enrollment rate recorded 100% in Norway and 39.4% in Senegal [1]. Human development report shows that HDI value for Arab states, East Asia and Pacific, Europe and central Asia, and least developed countries are 0.588, 0.643, 0.702 and 0.386 respectively. It reports that dropout rate in Arab states, Latin America and the Caribbean, and South Asia are 9.5, 17.8, and 24.1 respectively through the period 2005 – 2008 [2].

Poverty is a global phenomenon prevalent in all countries of the world, but with varying degrees, however, economists, socialists and politicians always tried to define the meaning of a poor person, by identifying the so-called poverty line, and then the person is said to be poor if his income level falls below the income level of the poverty line. Fig. 1 shows the percentage of people who get less than two dollars per day, assuming that the poverty line is two dollars per day. The table Records that about 93% of the population of East Asia and the Pacific region received less than two dollars a day in 1981, but this percentage decreased gradually during the period 1981 to 1996 to roughly record 69% in 1981 in low-and middle-income countries, and kept declining to reach almost 58% in 1996. The same ratio fluctuated in the Africa sub-Saharan countries during the same period.
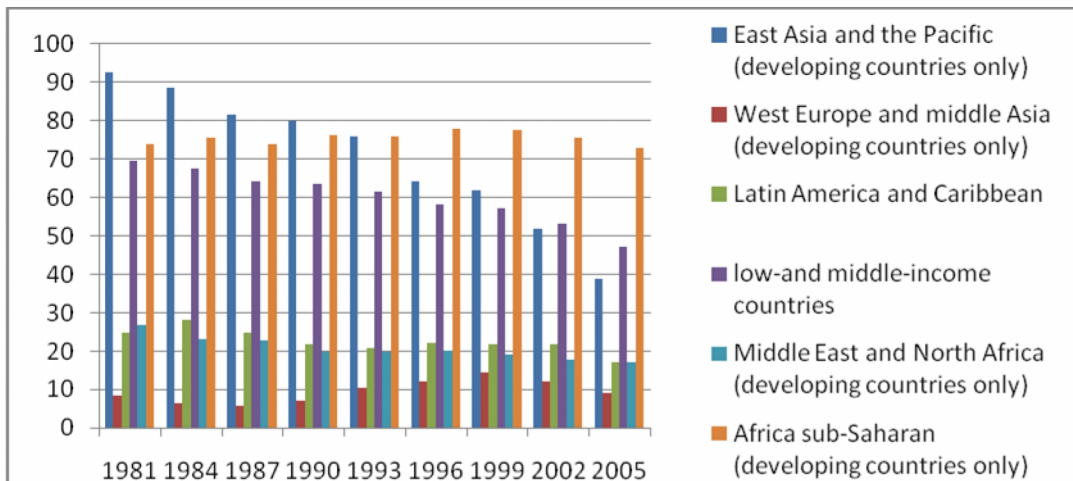

Fig. 1. Percentage of population who get less than US$ a day (1981 – 2005)
Source: UNDP, Human Development Report 2006

As for the Arab countries, the study carried out by the social sector in the Secretariat of the League of Arab States found that the total number of poor below the poverty line (two dollars a day) is about 78.6 million people in twelve countries namely Jordan, Tunisia, Algeria, Djibouti, Sudan, Somalia, Palestine, Lebanon, Egypt, Morocco and Yemen [3]. With regard to human poverty in the Arab, such countries could be split into four main categories: countries with low human poverty like Bahrain and Jordan; countries with medium human poverty like Syria, Lebanon, Libya, Tunisia, Saudi Arabia, Kuwait, Qatar and the UAE; countries with high human poverty like the Sultanate of Oman only and, finally, countries with very high human poverty which include Egypt, Sudan, Yemen, Morocco and Iraq [4].[1]

In sum, poverty is a phenomenon afflicts the majority of countries around the world, and despite the large number of studies and researches that have been made to explain this phenomenon and provide strategies to eradicate it, but these solutions have failed for various reasons. Now, does Islam offer a viable solution to eliminate poverty? On this basis, the objectives of the research are to show that for the Muslim community to conduct Zakat as was commanded by God the almighty would put an end to poverty in the community, which was failed to be done through policies and practices adopted by governments and nations in the conventional economies. The current study consists of seven sections. After the introduction, the author reviews, in details, the literature related to Zakat, macro consumption and poverty and Zakat issues. In sections three and four, the study shows the concept of poverty and strategies to fight poverty in the conventional economy. Section five is devoted to present the concept of poverty in Islam and shows the role of Zakat in eradicating poverty in the Muslim communities. In section six, the consumption function in Egypt is formulated and estimated to analyze the effect of Zakat on consumption and poverty. Finally, in section seven, the author displays the conclusion and policy implication.

2. LITERATURE REVIEW

In this section, the study focused on the previous literature that related to Zakat and poverty alleviation.

2.1 Zakat and Poverty Alleviation

Ahmed [5] investigates the role of Zakat and Awqaf institutions in poverty alleviation at the macro-level and explains the appropriate institutional framework of Zakat and Awqaf to achieve the potential funds of Zakat and Awqaf collections. The study estimated the potential of Zakat collection and resources required for poverty alleviation for a sample of 24 IDB member countries. The study divided the sample into two groups and used a simple approach for estimating the required Zakat collection for poverty alleviation. The study assumes that transferring US$ 1 per day to a poor person in group 1 will move that person beyond the poverty line and US$ 1 transfers to people with an income above US$ 1 will bring them out of poverty according to S2 measure of poverty. Transferring $1 to people whose income is less $1 will move them up the $1 poverty line but still keep them in group 2. Shirazi, and Amin [6] drew two shortcomings on Ahmed's [5] study, i.e., first, the study assumes that every poor person has an income of zero and this is not true, where some of the poor people have money but is less than $ 1. The study used the poverty gap index instead of the poverty line for estimating Zakat and Aqwaf amount required. Second, the study did not make distinction between Muslim and non-Muslim population for the estimation

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[1]*Some people decide that the spread of corruption and marginalization in the Arab countries are key factors in the spread of poverty and inequitable distribution of income and wealth in those countries, see [7].*

of potential Zakat. To calculate the total amount required for poverty elimination for a country, the study first calculated the poverty gap index then secondly, the study rearranged the calculated poverty gap index to get the absolute resources shortfall of a country. The study estimated the resource required by 38 OIC member countries and the potential Zakat collections for poverty alleviation after dividing Zakat into the three categories conducted by Kahf [8] who estimated Zakat collection for eight Muslim countries by using National Income Accounts. Hassan [9] presents a model for integration of Zakat and Awqaf for poverty alleviation as a micro finance tools. The study started by defining poverty in a conventional economy. Then the study classified the anti-poverty programs into two strategies: (1) Indirect strategies, which deal with macroeconomic policies for enhancing economic growth, reducing unemployment, increasing per capita income, and achieving the objective of eliminating poverty. (2) Direct strategies which deal with policies for assisting the poor in the economy through providing assistance to ensuring credit access, improving education and health. The study distinguishes among three approaches for poverty eradication in Islam: (1) Positive measures which include income growth, functional distribution of income, and equal opportunity. (2) Preventing measures through controlling over ownership and preventing malpractices. (3) Corrective measures by redistribution of income and wealth in favor of the underprivileged population through compulsory transfers (Zakat), recommended transfers (charity), and state responsibility. The study shows how Zakat can be used to alleviate poverty. The study also classified Awqaf into three types: religious Awqaf, philanthropic Awqaf, and family Awqaf. He explains the weakness of traditional Zakat and Awqaf management. Hassan briefly discussed nine weaknesses of conventional micro finance then introduced the full framework of a model of integration of Zakat and Awqaf to eliminate poverty in an Islamic community. Mahmud et al. [10] investigated the role of Masjid Council for Community Advancement (MACCA) in Bangladesh in alleviating poverty. They showed full description of MACCA objectives and its programs. To assess the impact of MACCA programs on the living standard of MACCA's beneficiary, they collected data by questionnaire from the beneficiaries of *Hasana* program. They focused on three factors of the living standard: income, expenditure, and saving. The authors' results stated that the amount of Zakat provided to MACCA beneficiary failed to create significant effect on the household income, expenditure, and saving. Febianto et al. [11] analyze the impact of Zakat programs in Indonesia. Patmawati [12] studied the role of Zakat in reducing income inequality and poverty in the state Selangor, Malaysia. She used Lorenz curve and Gini coefficient for this purpose. The results showed that with Zakat Lorenz curve moved closer to the perfect equality line compared to the Zakat Lorenz curve before. Nuraman [13] examined the utilization of productive-based Zakat experimental program conducted by Zakat organization for poverty alleviation in Indonesia. He used United Nation Agency for Development index which is known as Human Development Index (HDI) to measure the utilization of the program. The main result of his study is that the average HDI Zakat-receiver is lower than the average HDI both in Jakarta and at the national level. Yaumidin [14] uses the methodology employed by Ahmed [5] to estimate the resources needed for poverty alleviation and potential Zakat collection for Malaysia and Indonesia. According to Mohamed and Rahim [15] Zakat acts as a unique measure vouchsafed by Islam to abolish poverty. In a descriptive study, they investigated the role of *Tabung Baitulmal* in reducing poverty through Zakat in Sarawak, Malaysia. They recommended that the Zakat recipients must be informed about the aspirations of Zakat as a socioeconomic tool and held accountable for accepting the funds.

2.2 Zakat, Poverty and Income Inequality

Bourguignon [16] investigates the dynamic of poverty in the macroeconomic context in terms of the triangle of "poverty-growth-inequality". His analysis emphasized the relationship between poverty and income distribution on one side, and the effects of growth and distribution of income and its changes on poverty on the other. Improving distribution of income leads to poverty reduction. The economic growth may affect the primary distribution of income. He formulated the change in poverty as a function of growth, distribution, and change in distribution. The hypothesis of Poverty-Growth-Inequality Triangle (PGIT) is examined by Grammy and Assane [17]. Their sample consisted of 66 countries and three time periods of 1970-79, 1980-89, and 1990-98. The results showed that improvement in income distribution reduced the absolute poverty. However, growth and distribution reflect insignificant effects on poverty reduction. But using variable capturing the interaction between growth and distribution, the effects become significant and positive. That means growth accompanied by improvement in income distribution works better than growth and distribution alone. Ahmed [18] investigates the role of macroeconomic factors and Zakat in affecting income distribution and poverty alleviation by using some simulations on Bangladesh. He analyzes the macro and micro dimensions of poverty then he formulated the income sources. He distinguishes between productive Zakat which is for investment purposes and non-productive Zakat which is for consumption purposes. He showed the micro and macro strategies of poverty alleviation. His methodology stands on putting some assumptions and running some simulations. Results stated that Zakat is an important tool for poverty reduction in Bangladesh. The impact of Zakat on poverty can be more effective if: (1) Zakat is complimented by macroeconomic policies that enhance growth and redistribute income in the favor of the poor and (2) larger amount of Zakat funds should be transferred to productive purposes.

2.3 Zakat, Consumption and Consumption Function

Khan [19] starts his derivation of the macro consumption function in an Islamic framework by dividing the consumer expenditures into consumer's own worldly spending, E1, and consumer's spending in the way of Allah, E2. Based on the Muslim behavior and rational spending according to Islamic instructions, Khan put the consumer total spending equation to include both spending then he derived the consumer utility function as, $U = F(E1, E2)$, with the income constraint $Y = E1 + E2$. He assumed that the utility function has the following properties: 1- The marginal utility of E1 is positive, 2- The marginal utility of E1 declines as its volume increases, and 3- The marginal utility of E2 is positive constant for an individual with a specific God-consciousness. E2 will be done by people who can afford it. In Islamic terminology, this part will be spent by the owner of *Nisab* (the rich) to those who not the owner of the *Nisab* (the poor). This leads to two types of consumers in the Islamic society according to giving or taking the *Nisab*: the receiving and the payable consumers of the *Nisab*. The consumption of the first consists of his lower income and the transfers he is receiving (E2) as $CL = YL + E2$, where $E2 = F(a, Yu)$, $a = F(T)$ and $E1 = Cu + S$ where Yu is income of the upper level income (transfers payer), Cu is his consumption and S is his savings. The consumption function of the transfers payer can be written as: $Cu = (1 - \beta) F(E1)$, where $\beta = G(T)$. Tagel-Din [20] reported that the two types of spending should be treated in commodities rather than money values, so that the income function should be written as $Y = P1\ E1 + P2\ E2$ instead of what Khan has done. Tagel-Din reported as well that assumed assumptions of the second part of spending, E2, should be different than those for the first part, E1. Tagel-Din introduces the utility function with his assumed

assumptions as: U = F (E1) + a E2. Then Tagel-Din concludes that the utility function represented by Khan as a base of macro consumption function does not reflect the behavior of a genuine Muslim consumer for several reasons, but the main one is assuming higher levels of *taqwa* are inconsistent with spending in the way of Allah. Finally, Tagel-Din did worry about the possibility of transferring Zakat-receiver to Zakat-givers and mentioned that this possibility depends on "substitute effect" and "income effect" and asked to future research to clarify this point. But from our side, I think the treatment is in short-run and is under the static analysis, and this transformation would need longer time to be done. Hasan [21,22] did mention some pertinent weaknesses of Khan constructed macro-consumption function. The most important weaknesses are: the first is related to the concept of a rational consumer, stating that the consumer rationality means that the consumer will distribute his income among various uses in such a way to maximize his satisfaction. Second is related to the concept of hoarding. In the modern economics, the rational consumer will not hoard his wealth. On contrary, the Muslim consumer can hoard his wealth after paying the *Nisab* every year. The *Nisab* will spur the Muslim to push his hoarding back into the circular flow of money. Hasan contradicts reversing the two positions in secular and Islamic situations by Khan. Third, Khan stated that paying Zakat will induce Zakat-payers to put the major part of their saving into investment. Hasan reported that spurring a Muslim to invest his savings is the anti-hoarding injunctions of Islam not the Zakat institution. Forth, Khan states that, under the same circumstances, the consumption basket of a Muslim will be smaller in general and the savings will be larger, than that of a secular consumer, which is accepted by Hasan; but Hasan has doubted about Khan's elaborate structure to reach the said conclusion. Hasan counts three factors affect the division of a Muslim's income between E1 and E2 uses, and between consumption and savings for E1. These are (1) obligatory Zakat, Z, additional charity, Z1, and the fear of Allah, T. The first two factors affect exclusively on E1 whereas the third has a dual role in both E1 and E2. If T encourages E2 spending, it must reduce savings out of a given income. On the other side, if T helps shun *israf*, it must enhance the components of saving in E1. That means T pulls savings in the opposite direction and their net cannot be predicted. In his paper, Hasan [22] added two important issues related to the macro consumption function. First, he stated that if the marginal propensity to consume of the rich people in the Islamic consumption function is equal to the marginal propensity to consume in the secular consumption function, consumption under Islamic allowance would tend to rise at the cost of savings. Second, he concluded that Zakat or tax as a charge on income of the people leads to raise the marginal propensity to consume in any economy. However, considering the marginal propensity to consume constant with imposing tax or Zakat is understandable for the short-run perspective. Mahdi [23] also worried about the concept of rationality as pointed by Khan. Mahdi also commends about Khan's distinction between E1 as spending to achieve satisfaction in this world and E2 as spending for earning reward in the hereafter. Mahdi stated that a Muslim is always a Muslim, when he spends on both E1 and E2. Consequently, he rejects the relationship between God-fearing and total spending on E2 as Khan pointed in. Mahdi emphasizes that the spending in the way of Allah depends on many factors like income size, family size, personal and family needs and it does not depend on the God- fearing. Mahdi criticizes as well what may be understood from Khan's discussion that the Muslim should earn more money to increase his spending on E2 and Zakat and charity are the only ways to earn reward in the hereafter. Iqbal [24] introduced a review of some of the writings in the consumption function and Zakat area. To do so, he advised to not start with the same equation of consumption in a secular economy as: $C_S = a + b\,Y$, and then bifurcate it for Islamic economy because this equation includes one marginal propensities to consume of both groups : Zakat-payer and Zakat-receiver. Instead, he first divided the consumer in an Islamic economy into two groups: Zakat-payers (group 1) and Zakat-recipients (group 2). The marginal propensity to consume for group 1 is different

from that for group 2. The consumption function in Islamic economy, therefore, becomes: C_l = a + b [β Y – α Y] + c [(1- β) Y + α Y)], Where b and c are marginal propensity to consume of group 1 and 2 respectively. βY is income of group 1, (1- β) Y is income for group 2, and αY is the amount of Zakat paid. From this equation, Iqbal assumed that a Zakat-receiver is able to save out of his/her income, one more issue is Iqbal assumed, incorrectly, that is payable on Y but in fact it is payable on β Y. The consumption function should be corrected to: C_l = a + b [β Y – α β Y] + c [(1- β) Y + α β Y)] [22]. Iqbal accepted the two assumptions that are assumed by Metwally [25] which are: 1- marginal propensity to consume of the Zakat-receiver is higher than that of the Zakat-payer. And 2- there are enough poor in the Islamic society to receive Zakat. Iqbal correlated between the positive effect of Zakat on aggregate consumption and marginal (and average) propensity to consume and degree of inequality in the income distribution and stated that if the Zakat is transferred to absolutely poor persons, the effect on aggregated consumption be considerable. The effect of Zakat on aggregate consumption can be calculated by the difference between marginal propensity to consume of the Zakat-receiver and marginal propensity to consume of the Zakat-payer, multiplied by the amount of net transfer to the poor. The author concludes that in the short-run, Zakat has a positive effect on aggregate consumption even if by a small magnitude which is rejected by Darwish and Zain [26]. In the long–run, marginal propensity to consume may or may not decline because of increasing income due to the effect of Zakat on investment. To find the effect of moderation on aggregate consumption, Iqbal considered f refers to *israf* (extravagance) and *tabdhir* (squandering) and he finalized that the effect of both Zakat and moderation on aggregate consumption depend on the values of (d-c) σ and cf(β–σ) and stated as well that the net effect of Zakat and moderation on marginal propensities to consume of Zakat-payer and Zakat-receiver depend on these values as well. Iqbal has made the same error of considering zakat to be payable on Y not on β Y. In his paper about the general equilibrium and macroeconomic policies in an Islamic economy, Metwally [25] analyzed the effect of Zakat on consumption and formulated the consumption function for that purpose. There is no big difference between his analysis and what are written beyond. The main point in his paper is starting an analysis assuming that marginal preponsity to consume of Zakat-receiver is higher than that of Zakat- payer, and he formulated the consumption functions in two ways: once as a linear function and as a non-linear one. He concluded that Zakat affects consumption by increasing both the intercept and the slope of the function. His paper is critizied by many writers [26, 27, 28, 29]. The main contribution comes in Abdellah's comments [29] which is related to dividing the population into only two categories; Zakat-payer and Zakat-receiver. Abdallah explains that there is a third category of people who neither receive nor pay Zakat because they are not eligible to, which makes them neither receiver nor payer. Abdallah suggested that people should be divided into the three classes. Consequently, income and marginal (and average) propensities to consume should also be divided into three for the three categories. He introduces a new consumption function as: C = a + s x Y + b Y (1- x – m) + h m Y + b n m Y, where 'a' is the intercept, 's' refers to the marginal propensity to consume of the category neither receives nor pays Zakat, 'b' is the marginal propensity to consume of Zakat-receiver, 'h' is the marginal propensity to consume of Zakat- payer. Where b > s > h, mY is the Zakat-payer income, nmY is the Zakat amount, xY is the income of the category neither receives nor pays Zakat, and Y (1- x – m) is the income of Zakat-receiver. Among their comments on Metwally's paper, Darwish and Zain [26] stated that Zakat may affect consumption function by increasing its slope with the constant of the intercept.

From the above discussion, consumption function in an islamic economy and the affect of Zakat on consumption and then on Islamic economy can be concluded in the following points:

1- The Islamic community population should be divided into three categories; Zakat-payer, Zakat-receiver and niether Zakat-payer nor Zakat-receiver.
2- The national income in the Islamic community should also divided into three parts of the three categories mentioned above.
3- Marginal (average) propensity to consume affected by two opposite effects; zakat and moderation (avoiding *israf*) and they work in the opposite direction of each other. So, in the short run, Zakat may increase or decrease but in the long-run, its statutes can not be predicted.
4- Zakat has an effect on poverty and this depends on the net transfers of Zakat funds to its eight categories with a very high priority to the poor and needy.
5- Literature is using the static analysis. Consequently, they do not deal with the possibility of transferring of some Zakat-receiver to Zakat payer or even to the third category neither payer nor receiver of Zakat.

3. THE CONCEPT OF POVERTY IN CONVENTIONAL ECONOMY

There are many concepts of poverty. The objective definition of poverty means establishing the level of income or expenditure that separates the poor and non-poor and is called the line of income, which is the minimum level of income necessary to spend on food and non-food items to the individual or the household. The self-definition of poverty measures poverty from the perspective of the poor themselves. The World Bank defines poverty as the inability to provide a minimum standard of living [30]. In spite of the difference between the concept of poverty and the concept of income distribution, but both affect each other significantly, as weak mechanisms for the equitable distribution of income inevitably leads to increase the number of the poor and the spread of poverty. Absence or reduction of poverty has a positive impact on income distribution [31].

3.1 Strategy to Fight Poverty in Conventional Economy

Countries practice many policies to affect poverty. Those policies include a package of price policies, income and wage policies, labor market and production policies, as well as a package of policies that are characterized by specific programs and strategies such as structural adjustment programs and economic stabilization. Those policies exercise their impact on poverty directly and indirectly. Direct impact comes through government's use of employment policies, and subsidies to influence the income of workers in the formal sector. The indirect impact of these policies comes through the use of policies affect demand and supply. The World Bank provides three approaches to fighting poverty [30,32]: the first is to strengthen economic growth, which calls for procedures and policies that increase employment, especially for the poor. Those policies include encouraging small and medium businesses, support rural development and the agriculture sector and increase the flow of investment in the poorer areas, but experience has shown that effects of such policies has been limited. The second approach is through human development, which means increased investment in human capital to enhance the production of the poor in the economy; this requires increased spending on education, training and health and requires the provision of adequate food and health for the poorest. Such policies aim at reducing dropout rates, increase the efficiency of public spending in the field of literacy, support infrastructure in the

area of health, extend health insurance to include the poor areas, provide clean water and sanitation to poor areas, support civil society institutions, increase decentralization and participation in political life. But those policies conflict with the deflationary policies that form the pillars for the economic reform programs supported by the international monetary Fund and the World Bank, as well as low public investment in general in these countries due to lower public revenues available. The third approach is through social welfare, which depends mainly on the transfer payments for the benefit of the poorer classes in society, which aims at providing support to include all needy groups with guaranteed access for support. Again, this approach is contrary to policies of economic reform programs.

In sum, the strategies proposed by the World bank -internationally responsible to fight poverty- are marred by a lot of shortages and even conflicts with each other, they are demanding an increase of government spending to support the poor, increase transfer payments, follow the policies of price discriminations in the health sector and increase public investment to push the economic growth, particularly in rural areas. All those strategies are contrary to the general characteristics of the capitalist system which control the economic reform programs imposed on the countries required to follow strategies for fighting poverty. Consequently, the final results confirm the weaknesses of those strategies.

3.2 Concepts of Poverty in Islam

In this part, the concepts of poverty in Islam, and then how the Zakat, as one of the pillars of Islam, can eliminate poverty [33].

3.2.1 What does poverty mean in Islam?

Islam urges people to go for the legitimate (HALAL) productive work and consider that the best way to make money, as God almighty said, and when the Prayer is finished, then may be disperse through the land, and seek the Bounty of Allah. And celebrate the Praises of Allah often (and without stint): that may prosper. (Al-Jumaa, verse 10 as well as many of the prophet's sayings (*Hadith*) that urges people to work, like" the best earning for a man is what he makes with his hands and whatever a man spends on himself, his sons and his servants is charity" (way of *Sunan* Ibn Majah, chapter of motivation to gain, No. 2137). Also the Holy Prophet said that " the best food eaten by a man is from the work of his hands, and that Prophet of God David was eating from the work of his hand" (Fath-albari to explain Sahih Al-Bukhari, Ibn Hajar, book of sales, chapter of earning of the man, section 9, p 154). The basic principle in Islam is for the man to eat from a legitimate productive work to fulfill his needs through the exploitation of his energy and potential no matter how modest they were.

Islam forbids beggary, except for three cases: extreme poverty, or the debtors or those fined due to blood money. Begging without an urgent need is illegitimate (HARAM) in Islam. The Prophet (peace be upon him) said "he who ask people for their money to grow his money is just asking a firebrand, so he might ask for more or less", (Muslim *Saheeh*, the chapter of hatred of Begging, section 2, p 720).

However Islam acknowledges poverty and considers it a danger to the family and the society as a whole, Islam also considers poverty as scourge and we should seek refuge in Allah from its evil. The Holy Prophet used to seek refuge saying "O Allah, I seek refuge in You from the trials of fire, torment of the grave, and seek refuge in You from the temptation of wealth, and seek refuge in You from the trials of poverty" also the Prophet (peace and blessings be upon him) used to pair seeking refuge from poverty and disbelief saying "O

Allah, I seek refuge in You from disbelief and poverty, I seek refuge in You from the torment of the grave, there is no god but You". (narrated by Abu Dawood). Poverty in Islam means need or want, God Almighty says "O mankind, you are those in need of Allah "in the sense you are in need of God. God also said "and God is rich and you are the poor who need him" in the sense of the need for the necessities of life. Islam differentiates between the poor and needy, the poor is who have what is not enough, the needy is who have nothing to take shelter with. Islam also distinguishes between different types of poverty, relative poverty means variation of people's income which is recognized as a universal norm due to the varying capacities of individuals and the amount of efforts they put in their work, God almighty says, " And it is He who has made you successors upon the earth and has raised some of you above others in degrees [of rank] that He may try you through what He has given you" (165, al-Anaam),also God almighty says," Do they distribute the mercy of your Lord? It is We who have apportioned among them their livelihood in the life of this world and have raised some of them above others in degrees [of rank] that they may make use of one another for service. But the mercy of your Lord is better than whatever they accumulate" (32, Zukhruf).

The goal behind the variation in livelihoods is tribulation, dedication of work and order to set life straight, people vary in their abilities, their skills and efforts, and then their works, revenues and incomes. Then there is class Poverty which means the inability of the individual to satisfy his needs, in other words, the inability to achieve sufficiency. Sufficiency means the necessary money to provide the basic needs of the individual, to set his life straight and live according to the prevailing living standards, , hence sufficiency is a dynamic concept that changes from one society to another and from time to time within the same society. For the Muslim community to live in harmony, peace and security Islam imposes many forms of mandatory and redundancy worships to reduce poverty in the Muslim community on the one hand and to ensure full security between rich and poor on the other, in order to ensure minimum standard of living for the poor, which guarantees them sufficiency.

3.2.2 The role of Zakat in eradicating poverty

In this part, the author tries to demonstrate that Zakat is an important tool, if performes as it should, can eliminate poverty in Muslim societies.

3.2.2.1 The objectives of Zakat

God almighty imposes Zakat, as He says "So establish regular Prayer and give regular Charity; and obey the Messenger that ye may receive mercy,"(Al-Nur, verse 56). From Zakat many effects are resulted on the individual and society, it cleanses the heart of the one who performes Zakat and removes rancor and hatred from the heart of the one who deserves Zakat, and then establishes security and tranquility in the community, and addresses many other social problems. In addition, Zakat blesses and develops the money and increases the merits of the performer. God almighty said, "The parable of those who spend their substance in the way of Allah is that of a grain of corn: it growth seven years, and each ear Hath a hundred grains. Allah gives manifold increase to whom He pleases: And Allah cares for all and He knows all things." (Al Baqara, verse 261). Objectives of Zakat are many; those can be summarized into moral, social and economic objectives. The moral objective is visualized in cleansing of the Zakat funds; the social objective is visualized in the redistribution of income in favor of the eight social groups especially the poor and needy. The economic objectives is visualized in fighting hoarding and moving the cash flow to support the

necessary expenditure at the expense of luxury spending, fighting consumer loans and encouraging non-usury loans for those in bondage or heavily indebted (AL GHARMEEN).

3.2.2.2 Compulsory Zakat

Islam identifies Zakat as one of the five pillars. Muslim must pay Zakat as long as its two conditions: the required amount of money/ wealth (*Nisab*) and the time period the money / wealth existed (*Al Hawel*). The Holy Qur'an determines the certain ratios of Zakat on different types of assets and incomes.

3.2.2.3 Can Zakat eradicate poverty?

Zakat plays an important role in reducing the problem of poverty in the Muslim community, in addition to its vital and influential role in its development through redistribution of income and wealth for the benefit of the poorest. The main important issue is that, Zakat will not be accepted by God unless they were from a good legitimate source (halal), the Prophet (pboh) says: "God the almighty only accepts charity from good money, and a charity from a good source given by a man would be accepted and developed by God as if someone is developing and caring for his foal".

But the important question now is: is performing Zakat alone in the manner intended by God Almighty sufficient to achieve these two objectives: eradication of poverty and the achievement of equal distribution? We try to answer this question through the following points:

First of all, The Zakat - If performed as imposed by God Almighty -would be enough to eradicate poverty in Muslim societies. It is sufficient to note that the financial assets in banks for the wealthy Arabs – their number is estimated at two hundred thousand - is more than 1190 billion dollars [34], and then value of Zakat levied on those amounts is 29.8 billion dollars. These amounts are capable of eradicating poverty in Arab countries, and create employment opportunities for the unemployed in all Arab countries. Therefore following the principles of Islam through one pillar only (Zakat) can guarantee the eradication of poverty and then income and wealth inequality in Islamic communities.

Islam has exclusively determined the eight groups to whom Zakat funds could be given, and it is noted that these groups are the poorest in society, consequently, expenditure on necessary consumption increases thus increasing the aggregate demand in the community. Employers respond to this increase by increasing employment and production in the next stage which increases income. Depending on the income, a new cycle of increased demand and employment, production and income starts and so on. Due to spending multipliers in the community, income will be multiplied accordingly, and the national economy will be revived. On the other hand, the marginal utility of money for the rich is lower than that of the poor, and therefore the latter will be keen to spend Zakat funds received to purchase the necessary goods only as already mentioned. Also increased spending leads to increased marginal propensity to consume in the community, thereby increasing the value of the multiplier, and then increase the strength of its effect on the national economy.

One of the forms of giving Zakat is to the indebted (*AL GHARM*). *AL GHARM* is a person who cannot meet a debt he has which is not the result of sin or wrong doing, this form also include a person who lost his business, his factory or his goods. Hence the direction of Zakat to them means to re-integrate them into the production process, and hence the

community will continue to benefit from them and the production is not affected by their circumstances[2].

Since Zakat was imposed on saved money, the lack of investment of such money leads to erosion year after year which is an irrational behavior that Islam does not approve, so 'Umar ibn al-Khattab said (Do trade in the property of orphans so as not to be eaten by Zakat)[3]. Also holding the money and not performing Zakat on that money is forbidden in Islam. Thus, the saved money would move into investment which would benefit the community, through the revitalization of demand and production and then employment and income. Metwally [25] stated that because of Zakah, the demand for investment will always be higher in an Islamic economy than in a non-Islamic one at any level of expected profit rate. Investment in an Islamic economy can take place even if the expected profit rate is zero and positive. The expected profit rate is as: $r = \varepsilon / (\eta - 1)$ where ε is the rate of Zakat on idle assets and η is the rate of Zakat on net returns.

Zakat-payer must go to where there is Zakat-receiver to give him his due, and here is where the greatness of Islam is shown, this consolidates in the owner of the money that there is a due to be paid and he needs a Zakat-receiver to give him this right, on the other hand, it saves the face of the person entitled to Zakat. And economically, this means the absence of evasion from payment of Zakat as is the case of tax, and also eliminates the expenses of collection.

Zakat may be required to pay when needed, for example, the payment of Zakat may be asked to pay in the case of economic recession, which will help to avoid recession through payment of debts, production, employment and income. It is also allowed to pay the full Zakat in one of its eight forms to ensure the achievement of its objectives.

Zakat does not remove once you do it for one time, but it remains mandatory as long as its two conditions: the required amount of money and the time period exist. Also the diversity in Zakat forms means that it could be performed throughout the year.

4. ZAKAT AND POVERTY ALLEVIATION IN EGYPT

In this part, the study displays the poverty in the Egyptian economy, estimation the potential Zakat collection in Egypt, formulate the consumption function in Egypt, then uses some simulations to find the impact of Zakat and consumption on poverty alleviation in Egypt.

4.1 Poverty in the Egyptian Economy

Table 1 records poverty headcount of 19.37%, 18.46% and 15.43% of total population in years 2000, 2005 and 2008 respectively. Poverty level is defined as an income level of US$2 per day. These figures will change to 1.81%, 1.99%, and 1.69% in the same years respectively if the poverty income level decreases to US$1 per day. The share of the lowest 20% people of total population in total income rises from 8.95% to 8.96% then to 9.24% during the same period of time [36].

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[2]*Mujahid said - a Mujahid bin Jabr Al Imam Sheikh of readers and commentators - in share of debtors: " debtors are Three: A man flood wipes his money, a man fire went away with his money, and a man with children and no money, he is indebted and spends on his family" and this year we don't exempt someone lost his investment and lost his money, or someone who borrowed for investment business and lost for one reason or another".*
[3]*"See Imam Malik bin Anas al-Muwatta, number (588), (103/2), the Arab Book House, Beirut, 1988." [35]*

Table 1. Poverty in Egypt 2000-2008

Year	GDP per capita US$	Income Share held by						Poverty headcount (% population)	
		Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%	Lowest 20%	US$ 2 /day	US$ 1.25 /day
2000	1476	12.47	15.83	20.65	42.1	28.34	8.95	19.37	1.81
2005	1209	12.64	16.05	20.89	41.64	27.62	8.96	18.46	1.99
2008	2079	13.02	16.37	21.03	40.34	26.58	9.24	15.43	1.69

Source: World Bank [36].

4.2 Estimation the Potential Zakat Collection in Egypt

Egypt's population consists of Muslim and non-Muslim population. There is no formal information about the exact number of non-Muslim population in Egypt. For estimation of the potential Zakat collection, we divided the population into three groups; Zakat-payer, Zakat-receiver and neither Zakat-payer nor Zakat-receiver. We consider any individual in the highest 20% of total income bracket as Zakat-payer, people under poverty line of US$2 per day as Zakat-receiver, and the others as neither Zakat-payer nor Zakat receiver. The study calculated headcount of each group by multiplying the correspondent ratio of a group by total population. Then the study calculated the Zakat amount can be collected by multiplying the total income of Zakat-payer by Zakat rate. The estimated potential Zakat were US$ 1050.8 million, 933.6, and 1642 million for years 2000, 2005, and 2008 respectively. The potential Zakat as percentages to GDP were 1.05 %, 1.04% and 1% for years 2000, 2005 and 2008 respectively. Zakat-receiver is determined as a poor, whose income falls within poverty line of US$ 2 per day and a Zakat-payer belongs to the highest 20% of total income bracket. Both people are not included in the previuos two groups and Non-Muslim people are included in niether Zakat-payer nor Zakat-receiver group. From Table 2, Zakat does not enough to eradicate poverty in the Egyptian economy (as shown in the last column in the table). Zakat contributes by US$ 0.233, 0.196 and 0.387 per day in years 2000, 2005 and 2008 respectively and this not due to transfer the poor to be non-poor. In this situation, voluntary charities may play an important role in alleviating poverty in Egypt.

Table 2. Contribution of Zakat in eradicating poverty

Year	group share in total population (million)			Potential Zakat collection (million US$)	Zakat Collection % of GDP	Per capita Zakat received (US$)	Per capita Zakat received per day (US$)
	Zakat-payer	neither Zakat-payer nor Zakat-receiver	Zakat-receiver				
2000	12.77	38.95	12.37	1050.8	1.053	84.95	0.233
2005	14.15	43.86	13.06	933.63	1.041	71.4	0.196
2008	15.05	48.9	11.61	1642.02	1.009	141.43	0.387

Source: calculated by the author based on data from World Bank [36].

4.3 Consumption Function for Egypt

The study thus divided national income into three parts: Y_1 for Zakat-payer, Y_2 income of Zakat-receiver, Y_3 income of Muslim neither pays nor receives Zakat and non-Muslim people. $Y = Y_1 + Y_2 + Y_3$, where $Y_1 = (\beta_1 Y - \mu \beta_1 Y)$ where μ is Zakat rate and $\mu \beta_1 Y$ is the total Zakat collection, $Y_2 = [(1 - \beta_1 - \beta_2) Y] + [(\mu \beta_1 Y) \delta]$ where δ is the Zakat amount goes

to Zakat-receiver and $Y_3 = (\beta_2\ Y)$. By the same token, total consumption is divided into three parts representing the same three categories. Each category has a different marginal (and average) propensity to consume. Finally, we assume that a part i.e. δ of total Zakat funds i.e. $\mu\ \beta_1\ Y$ will be received by the Zakat-receiver. Consumption functions of the Egyptian economy one without and one with Zakat are considered below:

4.3.1 Consumption function without Zakat

$$C_{No} = a + \rho_1 (\beta_1\ Y) + \rho_2 [(1- \beta_1 - \beta_2)\ Y] + \rho_3 (\beta_2\ Y) \qquad (1)$$

where ρ_1, ρ_2, and ρ_3 are marginal propensities to consume of the three categories respectively. $\rho_2 > \rho_3 > \rho_1$, 'a' is the intercept, β_1, β_2, and β_3 are income share for each category.

4.3.2 Consumption function with Zakat

The total consumption function with Zakat can be written as:

$$C_{Yes} = a + \rho_1 (\beta_1\ Y - \mu\ \beta_1\ Y) + \rho_2\ [(1- \beta_1 - \beta_2)\ Y + (\mu\ \beta_1\ Y)\ \delta] + \rho_3 (\beta_2\ Y) \qquad (2)$$

The difference between consumption with and without Zakat is the net transfers to the poor multiplied by the difference between marginal propensity to consume of the Zakat-receiver and the marginal propensity of Zakat-payer as follows:

$$C_{Yes} - C_{No} = [(\mu\ \beta_1\ Y)\ \delta\ ] [\rho_2 - \rho_1] \qquad (3)$$

The effect of moderation on consumption can be captured by adding the moderation effect or avoiding *israf* coefficient in the consumption function as:

$$C_{Yes} = a + (1- s)\ \rho_1 (\beta_1\ Y - \mu\ \beta_1\ Y) + \rho_2\ [(1- \beta_1 - \beta_2)\ Y + (\mu\ \beta_1\ Y)\ \delta] + \rho_3 (\beta_2\ Y) \qquad (4)$$

where **s** is *israf* coefficient and it ranges from zero to one. The marginal and average propensity to consume are as follows:

$$APC = a/Y + (1- s)\ \rho_1\ \beta_1\ (1 - \mu) + \rho_2\ (1- \beta_1 - \beta_2) + \rho_2\ \mu\ \beta_1\ \ \delta + \rho_3\ \beta_2 \qquad (5)$$

$$MPC = (1-s)\ \rho_1\ \beta_1\ (1 - \mu) + \rho_2\ (1- \beta_1 - \beta_2) + \rho_2\ \mu\ \beta_1\ \ \delta + \rho_3\ \beta_2 \qquad (6)$$

The affect of Zakat on consumption depends on net transfer Zakat collection to the poor, the marginal propensities to consume of the groups, and the moderation magnitude. The study used three different simulations to find the effect of Zakat on consumption as shown in Table 3.

Table 3. Simulations

Simulations	ρ_1	ρ_2	ρ_3	Δ	S
Simulation 1	0.8	1	0.9	0.3	0.05
Simulation 2	0.7	0.9	0.9	0.25	0.1
Simulation 3	0.6	0.8	0.8	0.2	0.15

Results of the above simulations for year 2008 states that the consumption of Zakat-payer and of neither zakat-payer nor Zakat-receiver group with zakat are less than those without Zakat. However, the consumption of Zakat receiver with zakat is more than that without Zakat. The total consumption with Zakat is less than the total consumption without Zakat. This is because of the opposite effects of high marginal propensity to consume and moderation. The negative effect of moderation is relatively higher than the positive effect of the marginal propensity to consume. Increasing net transfer to the poor and decreasing moderation lead to increase the total consumption in the economy (see Table 4).

Table 4. Simulations' results for year 2008

Consumption Values Without Zakat					
Simulations	**A**	**$\rho_1 (\beta_1 Y)$**	**ρ_2** **$[(1- \beta_1 - \beta_2)Y]$**	**p1 β1 Y**	**Total**
Simulation 1	54917.17	54837.17	79780.92	13041.74	202577
Simulation 2	54917.17	47458.25	74088.79	11429.84	187894.05
Simulation 3	54917.17	39408.52	73671.98	4037.89	172035.56
Consumption Values With Zakat					
Simulations	**A**	**(1-s) ρ1** **(β1 Y − μ β1Y)**	**p2[(1- β1 − β2) Y** **+ (μ β1 Y)δ]**	**ρ3 β2 Y**	**TOTAL**
Simulation 1	54917.17	50792.93	80295.02	12317.2	198322.32
Simulation 2	54917.17	41632.82	74474.37	10159.86	181184.22
Simulation 3	54917.17	32623.27	73946.16	3785.52	165272.12

*We assume that the value of (**a**) is a lump-sum of the amount of US$ 2/day multiplied by 365 multiplied by population in year 2008.*

5. CONCLUSION AND POLICY IMPLICATION

The research aimed at showing that the problem of poverty is a global phenomenon. Despite the attention of researchers and politicians to discuss and suggest policies to alleviate it, they failed to achieve the desired results. The study explained how can the third pillar of Islam "the Zakat" can contribute in eradicating poverty in Muslim communities. The study estimated the potential Zakat collection in Egypt and stated that Zakat collection cannot eradicate poverty from the Egyptian economy alone. The study estimated the effect of Zakat on aggregate consumption in the Egyptian economy. Finally, the results stated that the more net transfers to the poor, the greater the effect will be on consumption, then on poverty. The study recommended the need to pass legislation that requires the collection of Zakat from different sectors, organizations and institutions as well as individuals. The study emphasized the need to voluntary charities as complementary tools in poverty eradicating. The Egyptian government should monitor and control the processes of collecting and distributing Zakat where the more directed to the poorest eligible (first of the eligible categories), the greater the effect on consumption then on poverty.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1.   UNDP. Human Development Reports; 2006.

2. UNDP. Human Development Reports; 2010.
3. League of Arab States. Development and Erasing Poverty paper presented to ministry of foreign affairs. Department of multi- parties' relationship; 2007.
4. Al-Liethy H. Policies of Poverty Alleviating. Arab Forum for Population; 2004. Bruit, 19 – 21 Nov.
5. Ahmed H. Role of Zakat and Awqaf in Poverty Alleviation. Occasional Paper. Islamic Research and Training Institute, Islamic Development Bank Group. Jeddah, Saudi Arabia. 2004;(8).
6. Shirazi N, Amin MF. Prospective of poverty elimination through potential Zakat collection in OIC-member countries: Reappraised. Journal of Islamic Economics, Banking and Finance. 2010;6(3).
7. Abdel Shafee. Basic View on Poverty and Income Distribution in the Arab Community: Methodological Framework of Policies and Quantitative Approach. Arab economic journal. 2009;46.
8. Kahf, Monzer. Zakat: Unresolved issues in the Contemporary Fiqh. Journal of Islamic Economics. 1989;2(1):1-22.
9. Hassan K. An Integrated Poverty Alleviation Model Combining Zakat, Awqaf and Micro Finance. Paper presented in seventh international conference- the Tawhidi Epistemology: Zakat and Awqaf economy, Bangui; 2010.
10. Mahmud, K.T., et al. Impact of Zakat in Alleviating Rural Poverty: a Case Study of MACCA in Bangladesh. 8th international conference on Islamic Economics and Financel; 2011. Qatar.
11. Febianto I, Ashany AM, Kautsar A. An Analysis on the Impact of Zakah Programs in Poverty Alleviation: Case Study in Bandung, Indonesia. 8th international conference on Islamic Economics and Finance; 2011. Qatar.
12. Patmawati I. Economic Role of Zakat in Reducing Income Inequality and Poverty in Selangor. PhD thesis, University Putra Malaysia; 2006.
13. Nuraman MS. Zakat and Human Development: An Empirical Analysis on Poverty Alleviation in Jakarta, Indonesia. 8th international conference on Islamic Economics and Finance; 2011. Qatar.
14. Yaumidin KU. Islamic Alternative Comparative Study between Indonesia and Malaysia. Paper presented in the international conference on Islamic Economics and Economics of the OIC countries. 28-29 April. Kuala Lumpur; 2009.
15. Mohamed NH, Rahim S. Role of Zakat in Reducing Poverty in Sarawak. Universiti of Malaysia Sarawak (UNIMAS), Working Paper Series No. 1203; 2012.
16. Bourguignon F. The Poverty-Growth-Inequality Triangle. Paper Presented at the Indian Council for Research on International Economic Relations New Delhi; 2004.
17. Grammy A, Assane D. The Poverty-Growth-Inequality Hypothesis: An Empirical Examination. Journal of Policy Modeling; 2006.
18. Ahmed H, Zakah, Macroeconomic Policies and Poverty Alleviation: Lessons from Simulations on Bangladesh. Thoughts on Economics. 2010;18(3).
19. Khan MF. Macro Consumption Function in an Islamic Framework. J. Res. Islamic Economics. 1984;1(2):3-25.
20. Tagel-Din SEI. Comments: Seif E.I. Tagel-Din. J. Res. Islamic Econ. 1984;2(1):51-54.
21. Hasan Z. Comments: Zubair Hasan. J. Res. Islamic Econ., 1984;2(2):71-73. Arabic
22. Hasan Z. Treatment of Consumption in Islamic Economics: An Appraisal. Journal of KAU. Islamic Economics. 2005;18(2):29-46.
23. Mahdi SI. Comments: Sayed Iqbal Mahdi. J. Res. Islamic Econ. 1985;2(2):67-70.
24. Iqbal M, Zakat, Moderation and Aggregate Consumption in an Islamic Economy. J. Res. Islamic Economics. 1985;3(1):45-61.

25. Metwally MM. General Equilibrium and Macroeconomic Policies in an Islamic Economy. J. Res. Islamic Econ. 1983;1(1):3-33.
26. Darwish AF, Zain MS. Comments on Metwally. Journal of Research in Islamic Economics. 1985;2(2):121-130. Arabic.
27. Donia SA. Comments on Metwally. Journal of Research in Islamic Economics. 1985;2(2):149-152. Arabic.
28. Eid YE. Comments on Metwally. Journal of Research in Islamic Economics. 1985;2(2):153. Arabic.
29. Abdellah MH. Comments on Metwally. Journal of Research in Islamic Economics. 1985;2(2):155-158. Arabic.
30. World Bank. Egypt: alleviation poverty during structure adjustment. Washington. DC: The World Bank. 1991;19.
31. Abdelbaki H. Income Distribution, Education and Poverty in Bahrain. Trade and Finance Journal. 2011;1(2). Arabic.
32. World Bank. Arab Republic of Egypt: a poverty reduction strategy for Egypt, Egypt: Middle East and North Africa Region. 2004;6.
33. Abdelbaki H. The Impact of Zakat on Poverty and Income Inequality in Bahrain. Review of Integrative Business & Economics Research. 2013;2(1).
34. Boulard B. GCC Outward Investment Flows, Inward Investment Needs. paper presented at the Middle East conference. London. UK; 2001.
35. Imam Malik bin Anas al-Muwatta.. The Arab Book House. Beirut. Arabic. 1988;588:103/2
36. World Bank. Data for Egypt. CD. Washington, DC: The World Bank; 2012.