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OPINION OF THE ZAKAH RECIPIENTS ABOUT THE ROLE OF ZAKAH ON THE HOUSEHOLD FOOD SECURITY: EVIDENCE FROM THE RURAL BANGLADESH

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Abstract

All economically solvent muslims according to the eligibility yardstick of giving zakah, are oblized to pay zakah. Payment of zakah is to distribute a certain part of once wealth among the poor, as per the Islamic philosophy, so that the poor can graduate from poverty utilizing this zakah fund. The prime objective of this study is to assess the opinion of the zakah recipients about the impact of zakah funds on their living- standard in terms of food security. Logit model is used to assess the opinion of the zakah recipients on their food security status. The study found no significant impact of zakah fund on the food security of some selected receipents in the rural areas of Bangladesh.

Keywords: Zakah, Food Security, Bangladesh

JEL Classification: A13, B59, C02, D14, M21, P46

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I. INTRODUCTION

Poverty alleviation has always been a target commitment of the Government of Bangladesh (GoB). Among the various attempts that the government takes to fulfil the target commitment, one is providing financial support to the rural poor through commercial banks. But the factors like, poor clientele services and collateral requirements stand as impediments in achieving the desired outcome. As a result, commercial banks in the developing countries fail in catering for the credit needs of the poor (Coleman, 1999; Presbitero & Rabellotti, 2014). In Bangladesh for example, the microcredit system has emerged as a tool of poverty alleviation. This system is free from any collateral (Garikipati, 2008; Dowla & Alamgir, 2003; Presbitero & Rabellotti, 2014; Mahmud, Hasan, Alam, Sohag, & Rafiq, 2014).

Primarily, microcredit provision targets the objective of upliftment of the overall living standard of the poor. But evidences can be found which suggest that the impact of microcredit on borrowers' living standard is marginal. It also fails to stop inequality (Hassan & Khan, 2007; Mahmud, Parvez, Hilton, Kabir, & Wahid, 2014). Moreover, microcredit program has failed to reach the ultra poor (Ahmed, 2009). So, an emergence of zakah system is considered as an alternative and effective tool for poverty reduction provided that the zakah fund is utilized for income-generating activities (IGAs). Nevertheless, the utility of zakah funds is ever been ignored by the Muslims and western thinkers as a weapon of poverty reduction strategies (Hassan & Khan, 2007). It is to mention that poverty reduction strategies adopted in the poverty reduction strategy paper (PRSP) increased the external debt burdens and dependency on the donor countries (Hassan & Khan, 2007).

It has been observed that zakah fund can increase the potential of taxation of the government through improvement of productivity, employment and output (Hasan & Khan, 2007). As per Islamic Philosophy, obtaining zakah is a right of the poor on the rich in the society (Mahmud, Parvez, *et al.*, 2014). If the provision of giving zakah is effectively implemented by the authority and wealthy people of a country, every year the collected zakah fund can partly be used for productive purposes to cater to the needs of

the society. The poor people in Bangladesh possess limited capital and low level of education and skill to required for IGAs (Mahmud, Hasan, *et al.*, 2014). Due to their high poverty level, a poor household in Bangladesh struggles to fulfil their basic needs, including food. One of the prime objectives of the MDG (Millenium Development Goal) is to eradicate extreme poverty and hunger.

Therefore, being consistent with the goals of MDGs, the Government of Bangladesh(GoB) has been operating various food assistance programs such as Food for Work (FFW), Food for Education (FFE), Vulnerable Group Development (VGD), Vulnerable Group Feeding (VGF), Test relief (TR) and Gratuitous Relief (GR) etc. to ensure food security for all the low income earners of the country. Despite these efforts of GoB, the food consumption scenario of the country is unsatisfactory. In each year GOB has to import food grain (mainly, rice and wheat) from abroad to meet the domestic requirements. For example, in 2014 the volume of import of rice and wheat were about 0.30 and 2.03 million metric tonnes respectively (Ministry of Finance, 2014).

In fact, the per capita food consumption is still quite low in Bangladesh. For example, as per the latest Household Income and Expenditure Survey-2010, the per capita per day intake of rice, wheat, beef, mutton, fish, was estimated to be about 416, 26, 7, 0.6, 49 grams respectively (Mahmud, Parvez, *et al.*, 2014). Various factors, such as lack of purchasing power of the people, inavailability of land for cultivation, lack of agricultural assets, lack of access to credit facilities, lack of farm inputs, poor infrastructural facilities, lack of access to notorious food, lack of agricultural production etc. were identified as the major causes of creating food insecurity in the developing countries (Malllick & Rafi, 2010; Ala & Belo 2010; Murshed-e-Jahan, Ahmed, & Belton, 2009; Mahmud, Parvez, *et al.*, 2014).

However, such a scenario can never be desirable for a developing country like Bangladesh. Zakah fund can be one of alternative options to improve the life standard of the poor people as it needs no collateral and it is obtainable with zero interest. Thus, it can be hypothesized that with the proper utilization of the zakah fund the poor household will be freed from the vicious circle of poverty. Therefore, the effectiveness of zakah program in

reducing poverty needs to be examined. In relation to this the zakah recipients were examined and their opinions were taken to find out effectiveness of zakah program on their living standard in terms of household food security. It is expected that zakah recipients will be able to utilize this fund properly on income generating activities (IGAs)? The assessments to the recipient of zakah are as follows:

(i) Does the household's food security status improve due to the zakah fund?
(ii) Are the males favoured in obtaining zakah as compared to female?
(iii) Is the zakah fund adequate to pursue IGAs?
(iv) Do the poor utilize the zakah fund on IGAs properly?

This study attempts to explore the answers to these questions. The prime objective of this study is to assess the opinion of the zakah recipients, with regards to the potential of zakah for improving their food security status.

II. LITERATURE REVIEW

The NGO's are one of the largest providers of microcredit in Bangladesh. As of June 2013, this sector has distributed USD 25 billion of credit to 19.27 million borrowers(Source: NGO-MFI in Bangladesh, Volume X, June 2013). Despite the fact that the microcredit institutions have grown in numbers and size but the critics question their success and effectiveness. Mesbahuddin (2010) states that due to charging of high interest rate microcredit failed to reach to the poor. In comparison to that, financing through zakah has provided instant capital to the poor at zero interest rate and it has also focused on social justice and equity. Again, Hassan and Ahmed (2003) state that social security program which takes contribution from working and young people regardless their possession of wealth, provides income to the elderly people of the society. The benefit of zakah is need-based, as it is indicated by the authors. Moreover zakah does not depend on contribution; rather it is based on the philosophy of solidarity of all members of society to materizlize this the rich are onligeds to support the poor in overcoming poverty.

Furthermore, the authors also add that zakah system can have a positive impact on the savings, expenditure, and employment of the poor. Several problems in zakah collection and disbursement process in Pakistan is identified by Shirazi (1996). These include (i) lack of information about the zakah organization, (ii) corruption of the official staffs, (iii) use of zakah fund for political purposes, and (v) inefficiency of the zakah institution to collect zakah fund. The observation by Raquib (2011) in Bangladesh suggests that zakah based financing system showed superior performance than the interest based conventional financing system. Hence, the author emphasises potentials of zakah in the poverty reduction strategy paper(PRSP) along with the microcredit system in reducing poverty. Wahab and Rahman (2012) describe the technical inefficiency of Zakah institutions in Malaysia. Their study emphasizes a more efficient use of inputs to improve the efficiency level. Mohit and Nazyddah (2011) assess the performance of Selangor Zakah Board (SZB) in Malaysia and find that social housing program operated by SZB became successful in ensuring benefit to the people. Another study by Mahmud, Parvez, *et al*., (2014) on Bangladesh observed that the zakah fund failed to create any significant impact on agricultural production and food expenditure of the households.

The previous studies show that zakah can play a significant role in improving household income, savings, employment, social security, and housing condition and has served as an effective tool in alleviating poverty. As of now, there has not been any study conducted in Bangladesh to assess the impact of the zakah fund on the food security status of the poor. Thus, this study focuses to assess the effectiveness of zakah program on their food security status.

III. CONCEPTUAL FRAMEWORK

Assuming that household utility function is:

$$U = f(F_h, F_m, D_h, W_h) \quad (1)$$

where,

U : utility gained from food consumption;
F_h : food items produced;
F_m : food items purchased;
D_h : demographic characteristics; and
W_h : total time spent on IGA by hired and family labor.

The farm household acts as both producer and consumer (Fardi & Wadood, 2010). The household, as both producer and consumer, is assumed to maximize its utility from the consumption of the goods subject to farm production (Q), income (Y) and number of rural infrastructural facilities (R), such as:

$$C(Q_i, Y_i, R_i) = 0 \quad (2)$$

It is also assumed that household produces and consumes a portion of the production. Thus the household surplus is $(Q_i - F_i)=S_i$, where Q is total household farm production of the household and F is the portion of farm production consumed by household. Household needs to purchase market goods for consumption at market price. Household uses its family members and also hires labor for farm activities. It is also assumed that household receives revenue from non-farm activities denoted by N. Therefore, household total revenue function is:

$$TR = P_i(Q_i - F_i) + wL_f + N \quad (3)$$

where, unpaid labor cost = wL_f

Assuming that, household has cost function:

$$TC = wL_h + B_c + F_c P_m + L_c \quad (4)$$

Thus, Profit:

$$\left[P_i(Q_i - F_i) + wL_f + N\right] - [TC = wL_h + B_c + F_c P_m + L_c\,] \quad (5)$$

where,
P_i : price received by the farmer for their production;
P_m : price of the food purchased from the market;
wL_h : wages paid to the hired labor;

B_c : cost of borrowing; and
L_c : cost of using land.

Profit or surplus earning of the household:

$$Y^* = Y^*\left(Q_i, P_i, P_m, wL_h, B_c\ , L_c\ , N, wL_f\right) \quad (6)$$

It is assumed that household uses labor, agricultural land, agricultural credit, zakah, fertilizer, pesticides and irrigation as inputs for household agricultural production. Thus household input function is:

$$I = I(P_r, wL_h, Z, C_r, L_d, T, g) \quad (7)$$

where,
I : demand for input;
P_r : average price of inputs used for producing Si;
wL_h : wage for hired labor;
Z : amount of zakah;
C_r : amount of credit;
L_d : total land;
T : available technology; and
g : grant recived by household from government or donor agencies.

Household farm production will depend on the household input demands. Thus:

$$Q_i = Q(I)$$
$$Q^* = Q^*(P_r, wL_h, Z, C_r, L_d, T, g) \quad (8)$$

From equation (6), it can be written:

$$Y^* = Y^*(Q_i, P_i, P_m, wL_{h,} B_{c,} L_c\ , N, wL_f)$$
$$Y^* = Y^*[(P_r, wL_h, Z, C_r, L_d, T, g), P_i, P_m, wL_{h,} B_{c,} L_c\ , N, wL_f)]$$
$$Y^* = Y^*\left(P_r, wL_h, Z, C_r, L_d, T, g, P_i, P_m, B_{c,} L_c\ , N, wL_f\right) \quad (9)$$

Consumption demand can be solved in terms of income, amount of zakah, quantities produced and amount of credit and household demographic characteristics:

$$C *= C * [Q_i(\mathrm{Pr}, \mathrm{wLh}, \mathrm{Z}, \mathrm{Cr}, \mathrm{Ld}, \mathrm{T}, \mathrm{g})]$$
$$Y^*[(P_r, wL_{h,}Z, C_r, L_d, T, g, P_i, P_m, B_{c,}L_c, N, wL_f)R_i, D_h] \quad (10)$$

It is to be noted that this framework has been adopted and modified from Faridi and Wadood (2010); Mahmud, Parvez, *et al*., (2014).

IV. METHODOLOGY

Primary data had been collected from the zakah recipients, through survey using questionnaire method. The collected data were mainly based on their socioeconomic status, demographic status, opinion on zakah system and its effects on their living-standard, and rural infrastructural facility in the village. Few criterion were set to select the target group for this study which were as follows: (i) households who received zakah during the period from January 2014 to December 2014, (ii) households utilized zakah fund at least for the 6 months for income generating activities (IGAs) and (iii) households having land up to 2.5 decimal. Based on the above mentioned criterions, a comprehensive list of the zakah recipients had been prepared from the two upazillas (lowest administrative unit) of Chittagong district of Bangladesh. From this list of 204 zakah recipients using Simple Random Sampling (SRS) technique a total 133 zakah recipients were selected as samples. Sample size was determined using an online survey calculator conceiving five percent of error at the five percent confidence level. Survey has been conducted during May to July 2015.

The logit model was used by the various authors to assess the opinions of the project beneficiaries on the economic well-being, female empowerment and food security status (Mahmud, Mohamed, Ismail, Shamsudin, & Hilton, 2007; Weber, 2014; Mahmud, Parvez, *et al*., 2014). The logit model is appropriate to use when the dependent variable is dichotomous (Mahmud, Parvez, *et*

al., 2014). In this study, the dependent variable "Food Security" had two categories. Household family members capable of taking three meals per day was considered as food secured and coded as "one" otherwise coded as "zero".

$$Ln[P_i - (1 - P_i)] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \mu \quad (11)$$

where,

P_i : probability that the household would be food secured
$1 - P_i$: probability that the household would not be food secured
X_1 : years of schooling of the zakah recipient (number)
X_2 : family members involved in on-farm activity in 2014 (number)
X_3 : family members involved in off-farm activity in 2014 (number)
X_4 : total land possessed by the household in 2014 (decimal)
X_5 : amount of zakah received by the zakah recipient in 2014 (BDT)
X_6 : visit to the rural market by the zakah recipients in 2014 (number/ month)
X_7 : access to electivity in the village in 2014 (dummy; yes=1; no=0)
β_0 : constant
β_i : coefficient to be estimated
μ : error term of the equation eleven

V. RESULTS AND DISCUSSION

5.1 Food Security Status of the Zakah Recipients Households

Zakah recipients have provided their opinion that most of the households were food secured during 2014. It is found that out of 133 households 88 (66.17 percent) of the zakah recipients households could manage three times a meal per day in each month in 2014 (Table 1). On the other hand, 45 households (33.82 percent) were unable to have three meals per day and according to this study these households are considered as the food insecure households for this study (Table 1). This study also shows that out of these 45 food insecure households, majority (about 21 percent) of the households were food insecure in the month of November 2014. The zakah recipients have also identified, lack of income as

the major cause of creating food insecurity followed by seasonal unemployment (Table 2).

Table 1.
Meals Taken by Zakah Recipients in 2014

Categories	Number	Frequency
Three meals/day	88	66.17
Two meals / day	39	29.32
One meal/day	6	4.51
No meals /day	0	0.00
Total	133	100

Source: Survey, 2015

5.2 Amount of Zakah Received

This study shows that on average the zakah recipients received 4000.8 BDT (BDT indicates currency of Bangladesh) as zakah in 2013. As it can be seen from the table 2, majority (39.10 percent) of them are found in category 2 followed by category 1 and category 3. It is also observed that a very small proportion (4.51 percent) of the zakah recipients received zakah within the range of 12001 BDT to 15000 BDT (Table 3). The mean amount of zakah received by the male and female recipients are 4324.39 BDT and 3820.29 BDT respectively. Existing patriarchal norms in the rural society of Bangladesh could be seen as one of the major causes of providing more zakah support to the male members of the society than the female members.

Table 2.
Causes of Food Insecurity (number)

Causes of food insecurity	Feels as a cause	Feels not as a cause	Total
Inadequate household income	90	43	133
Seasonal unemployment	74	99	133
Increase in the food price	49	84	133
Natural hazard	64	69	133
Lack of support from government	40	93	133
Lack of post harvest crop management technology	37	96	133

Source: Survey, 2015

Table 3.
Amount of Zakah Received in 2014 (BDT)

Categories		Number	Frequency
Up to 3000 BDT	(category 1)	37	27.82
3001 to 6000 BDT	(category 2)	52	39.10
6001 to 9000 BDT	(category 3)	25	18.80
9001 to 12000 BDT	(category 4)	13	9.77
12000 to 15000 BDT	(category 5)	6	4.51
Total		133	100

Source: Survey, 2015

Note 1: BDT indicates Currency of Bangladesh
Note 2: 1 US$ = approximately 77.74 BDT in 2014 (Ministry of Finance, 2014)

5.3 Opinion on the Effect of Zakah Fund on the Living-standard

Zakah recipients provide their opinion on nine issues which were closely associated with their living-standard (Table 4). As can be seen from the Table 1; zakah recipients income, expenditure, agricultural production were boosted by the zakah fund. For example; an overwhelming proportion (68.42 percent) of the zakah recipients opined that their household income and food buying capacity increased by 60.15 percent as a result of the zakah fund they obtained (Table 4).

Table 4.
Opinion of the Zakah Recipients on the Selected Indicators (number)

Statement	Agree	Disagree	Neutral	Total
My family income increased	91	11	31	133
My investment on IGAs increased	64	33	36	133
Number of IGAs of the household increased	63	31	39	133
My agricultural production increased	52	30	41	133
My ability to diversify agricultural activities increased	28	19	39	133
MY ability to buy food increased	80	22	31	133
My ability to spend on health care increased	65	25	43	133
My ability to spend on children education increased	57	26	50	133
My borrowing from non-formal sources has reduced	62	31	40	133

Source: Survey, 2015

5.4 Factors of Food Security

It is observed that out of the seven variables, two variables could create significant impact on the food security status of the zakah recipients. These two variables are: (i) access to electricity; and (ii) total land area possessed by the household. In the context of Bangladesh, land is considered scarce resource and expensive too. Rural people usually have very small or no piece of land of their own. Landlessness can be conceded as the major hinderence in the pursuit of vibrant economic activities by the rural poor. Possession of land increases the bargaining power and risk management capacity of poor household and also assists in using modern technology for farming or non-farming activities leading to higher production, income and expenditure. It can be logically assumed that a household having more land is advantageous position as compared to household owning a small piece of land or no land in terms of food security status. This study shows that possession of land was significantly and positively related with the dependent variable 'Food Security". It indicates that the probability for the household being food secured would increase as the possession of land increases.

Energy crisis can be considered as one of the major problems in Bangladesh. The country has been battling with this problem for long time and it has been hindering all efforts towards accelerating the countries development. In fact, many parts of the rural areas of the country are yet to be provided with electricity. Rural peoples' lack of access to the electricity facility create obstacles in the production, processing, and marketing activities of the rural areas which in turns affect the general economic growth of the country. Moreover, the rate of adoption of the modern technology to a greater extent, depends on the uninterrupted supply of the electricity. It can be hypothesized that a household having access to electricity will have greater scope to be food secured due to getting a comparative advantage in technology use, production, processing and marketing activities than the household having no access to the electricity. This study shows that household's access to electricity was positively and significantly related to the dependent variable. It indicates that the probability for the household of being

food secured increases as the access of the household to the electricity increases.

Table 5.
Factors of Food Security

Variable	Coefficient	Wald	P-value	Odd ratio
Constant	-2.255	3.862	.049	0.105
Years of schooling (number)	0.067	.420	.517	1.069
Family members in on-farm activities (number)	0.060	.178	.673	.942
Family members in off-farm activities (number)	0.129	1.341	.247	1.138
Possession of total land (decimal)	0.070	3.339	.068	1.073
Amount of zakah received in 2014	0.000	.845	.358	1.000
Number of visit to the rural market per month	0.119	.410	.522	.888
Access to electricity (dummy: yes =1 ; No =0)	2.897	6.701	.010	18.124
H-L Chi square: 9.757 with 8 df				
Overall parentage of accuracy : 85.5				
Cox and Snell R-square: 0.221				
Nagelkerke R-square: 0.308				

Source: Survey, 2015

Note: $Probability = [odd/(1 + odd)]$

VI. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

It is observed through this study that zakah fund received by the household failed to create significant impact on their food security status. It occurred probably due to reason that most of the household received a small amount (BDT 4000) of the zakah which proved inadequate to pursue their economic activities. Besides, lack of training with respect to capacity building by zakah providers might create an obstacle in obtaining a substantial level of production and income to enhance their food security. However, the sign has been appeared as positive, which indicates that the zakah fund has the potentials to improve their food security status

if properly utilized. The study also shows that possession of land and access to electricity by the rural household had a positive impact on their food security status.

6.2 Recommendations

The policy makers should emphasis on the following aspects in order to improve the food security status of the poor households under the zakat program:

(i) It is important to take necessary steps to disburse zakat fund on time to the households emphasizing on women as they are more vulnerable than their male counterparts. Adequate amount of zakat should be provided as per the needs of the households and the nature of the IGAs pursued by them.

(ii) Actions should be taken by the government to reform the land policy. Focus should be provided on ensuring the access of landless people to the land by encouraging community farming. New laws should be introduced in order to ensure women's equal share on land property. Existing laws prohibiting the destruction of agricultural land should be implemented strictly.

(i) By creating job opportunity household income should be increased. Building effective partnership among the government agencies, Non-Government Organizations (NGOs) and donor agencies can be fruitful for establishing agro-based industries in the rural areas. It will assist in employment generation and creation of earning opportunities for the rural households. It is also important to ensure that labor laws of the country are strictly followed so that the poor rural households can receive fair price by selling their labor.

(ii) It is also important to ensure electricity supply to the poor at lower cost. Theft of electric cable and the destruction of essential electric supply equipments need to be stopped by ensuring law and order. It is also important to develop the rural infrastructure (such as roads, markets, banks, processing units, etc.) for accelerating IGAs among the rural poor households.

(iii) Necessary training facilities on modern post-harvest crop management system should be provided to the poor households for improving their skills in processing and storing of food items. These trainings must be need-based. Training centers should be established in the nearby areas for easy access. Trainings should be conducted by experienced trainers who are well-conversant with the rural community and culture. It is also important to provide adequate training allowances to the participants to motivate them for future training programs.

(iv) Necessary steps are to be taken to stabilize the food price in the rural areas. It is important to ensure the supply of the necessary food-items in the rural markets. Adequate subsidy should be provided to the extreme-poor households for buying food-items. Price ceiling should be set for the food items. Laws against hording should be strictly implemented.

(v) Natural calamity is a common phenomenon in Bangladesh which causes massive loss to the agricultural production and lives. Therefore, focus should be provided on introducing the rural insurance facilities for the poor. It would assist to improve their risk-management capacity in pursuing their IGAs.

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