

## **FACTORS INFLUENCING MONEY SAVINGS AMONG STREET CHILDREN: A SURVEY IN DHAKA CITY OF BANGLADESH**

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### **ABSTRACT**

*The purpose of this study was to determine factors that affect the money savings of street children in Dhaka City, Bangladesh. Information was collected from 1108 street children using a comprehensive questionnaire. The data were processed with a univariate and a bivariate tables and the analysis were made using percentages and proportions.  $\chi^2$  statistics was also used to find the association between money saving and background characteristics of street children. Multiple logistic regression analysis was utilized to identify the determinant of money saving among street children. It was found that types of street children, current age, types of work, currently attending school, working days per week and earning per day were significantly associated with the savings. Among above background characteristics the institutional care, small business, attending school and earning per day were important determining factors of the money savings of street children. Considering the above findings government of Bangladesh may be suggested to arrange institutional care, develop small business facilities and introduce formal or informal education for street children in Bangladesh.*

**Keywords:** *Street Children, Earning, Savings, Logistic Regression, Dhaka City*

### **1. INTRODUCTION**

Today's children are the future of a nation. The future development of a country depends on the present condition of the children. After a certain period of time they will contribute to the nation and they will play an essential role for socio-economical development of the country. The development

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of a country depends on children's health, education, recreation, types of work etc. However, the street children are deprived of those facilities in our country. They are engaged in different type of street related activities such as Tokai (A child who moves in different places to collect various used items like papers, bottles, shoes, cloths, etc is known as tokai.), cooli/minti (Registered persons who earn their livelihood by carrying baggages of others in the railway station, ferry terminal, bus terminal are called Cooli whereas Minti do the same job as that of a cooli but they are not registered.), small business and day labour etc. Maximum number of street children works on the street almost every day in a week and they earn some amount and they do not utilize of that money properly. A few researchers have conducted some studies regarding prevalence of street children of Bangladesh. The impact of socio-economic, demographic and behaviour factors on the money saving among street children in Bangladesh is not well addressed.

A published report estimated that the number of street children in Bangladesh was 445,226 of which 75% were in Dhaka city (UNDP, 2001). A recent official study estimated that 5, 00,000 children were living on the streets in the main cities of Bangladesh of which 75% were living in Dhaka city (Conticini, 2001). It was also found that 35%, 27%, 20%, 8% and 10% of the street children had very little or no savings, less than 30 taka per day, between 30 and 100 taka per day, between 100 and 200 taka per day and don't know respectively (Conticini, 2005). Barakat et al (2012) found that only around one-third of the street children involved in begging reported about attending school (Boy 36%; Girl 35%). In a conference it was reported that average daily income of street children was approx. USD \$0.55 (CSF Colombo Conference, 2001). Ahmed et al. (2003) found that overwhelming majority of the street children were living in Dhaka City. They also found that 97.5% were males whereas around 3% were females. Again the average age of female children was 11.5 years which was younger than males (12.2 years) and average age of both sexes was 12.1 years. Khatun and Jamil (2013) found that the average age of the street children was 12.1 years. They found that 85% of the street children were boys and only 15% of the street children were girls. They found that 44% of the street children were tokai, 10% of the street children were cooli and 18% of the street children were petty traders. They also found that the street children were working 6.5 hours in a day and the average daily earning was 44.9 taka. Subarna et al. (2014) found that the average age of the street children was 12.05 years. They found that 76.7% and 23.3% of the street children were males and females respectively and 85.3% of the street children did not ever go to school. They found that 20 %, 47.3% and 32.7 % of the street children were in the age group 6-9, 10-13 and 14-17 years respectively. They found that 18.7%, 13.3%, 38.7% and 21.3% of the street children were involved in begging, selling flowers and newspapers, the road collect things from dustbin and sell and collect old papers respectively. They also found that the average working time in a day was 10.62 hours and average weekly earning was 362 taka. Nasrin and Rashed (2013) found that the street children of age group < 10, 10-14 and 15-18 years were 13.3%, 42.0% and 44.7% respectively. McAlpine et al. (2009) found that 20% of the street children were females and 80% of the street children were males. A Zimbabwean study reported that the majority of children interviewed were "children of the street" while 31.4% were found to be "street working children" (UNICEF, 2002).

## 2. OBJECTIVES OF THE STUDY

The specific objectives of the study are:

- (i) To study the inter-relationship between the money savings of the street children with their background characteristics.
- (ii) To identify the determinants of money savings of street children using multiple logistic regression analysis.

## 3. METHODOLOGY

In this study, the street children have been classified into four classes on the basis of United Nations Children's Fund (UNICEF), 2003 and World Health Organization (WHO), 1993. These types are (i) "Street Living Children" (the children who ran away from their families and live alone on the streets) (ii) "Street Working Children" (children who spend most of their time on the streets, fending for themselves, but returning home on a regular basis) (iii) "Children from Street Families" (children who live on the streets with their families) (iv) "Children who are in Institutional Care" (children who have come from a situation of homelessness and are at risk of returning to a homeless existence).

For collecting data, a cross-sectional study which was conducted in different places in Dhaka City during May-September 2014. Though it was very hard to have exact number of the street children in Dhaka City, it can be assumed from the previous studies that there may be around 3,00,000 street children in Dhaka City. The information of 1108 (0.37%) street children was collected using purposive sampling technique with structured questionnaire. SPSS was used to analyze the collected data. Some tables and cross tables were prepared and some proportions and percentages were calculated to study the distribution of the street children. Some cross tables were prepared to study the association of the savings of the street children and background characteristics.  $\chi^2$  statistic was used to test the significance of the association between the money savings of the street children and their background characteristics. To identify the determinants of the money savings of street children in Bangladesh a logistic regression model was also fitted. Here, savings is treated as dependent variable which is as follows:

$$Y = \text{Savings} = \begin{cases} 1, \text{yes (if he / she saves money)} \\ 0, \text{otherwise} \end{cases}$$

On the other hand, types of street children, children current age, types of work, currently attending school, working days per week, working hours per day and earning per day were considered as explanatory variables in logistic regression model.

## 4. ANALYSIS AND FINDINGS

Distribution of street children in Dhaka city of Bangladesh by their background characteristics are presented in Table 1. The Table showed that 42.3% of the street children saved money and 57.7% did not save money. It was found that 24.4%, 44.9%, 9.9% and 20.8% of the street children were of type "street living children", "street working children", "children from street families"

and “institutional care” respectively. It was also found that 19.0%, 65.8% and 15.2% of the street children were in the age group 5-9, 10-14 and 15-18 years respectively which gave the average age was 11.73 years. It is a closer estimate of Ahmed et al. (2003) and Khatun and Jamil (2013). We observed that 84.9% of the street children were male and 15.1% of the street children were female which also indicated the closer estimate of Khatun and Jamil (2013). We also observed that 74.0% of the street children came from rural area and 26.0% of the street children came from urban area. The data revealed that 15.8%, 30.7%, 17.7%, 14.5%, and 8.8% of the street children were in the occupation small business, tokai, colli/minti, available job and day labours respectively. This study demonstrated that 41.8% of the street children went to school and 58.2% of the street children did not go to school. It was found that 37.6%, 21.8%, 13.4%, 8.4%, 8.1% and 10.7% of the street children were living  $\leq 12$ , 13-24, 25-36, 37-48, 49-60 and 60+ months respectively in the street. It was also found that 10.1%, 7.7%, 14.4% and 67.8% of the street children were working  $\leq 4$ , 5, 6 and 7 days per week respectively which indicated that the maximum numbers of street children were working 7 days per week. We found that 16.3%, 40.6%, 24.6% and 18.5% of the street children were working  $\leq 3$ , 4-7, 8-11 and 12+ hours per day respectively which gave the average working hour per day was approximately 7.32 hour which indicated the closer estimate of Khatun and Jamil (2013). We also found that 32.1%, 31.9%, 14.3%, 12.1% and 9.6% of the street children were earning  $\leq$  Tk.50, 51-100, 101-150, 151-200 and 201+ per day respectively which gave the approximate average income Tk.92.89 per day, it was almost double amount found by Khatun and Jamil (2013) and Subarna et al., (2014), it may be possible due to the living of the children in the capital city.

**Table 1:** Distribution of Street Children by Their Background Characteristics in Dhaka City of Bangladesh

Background Characteristics	Number of respondents (%)	Background Characteristics	Number of respondents (%)
<b>Savings</b>		<b>Currently attending school</b>	
yes	469 (42.3)	yes	463 (41.8)
no	639 (57.7)	no	645 (58.2)
<b>Type of street children</b>		<b>Duration of living on Street (Month)</b>	
street living children	271 (24.4)	$\leq 12$	416 (37.6)
street working children	497 (44.9)	13-24	242 (21.8)
children from street families	110 (9.9)	25-36	149 (13.4)
children who are in institutional care	230 (20.8)	37-48	93 (8.4)
<b>Current Age (Year)</b>		49-60	90 (8.1)
5-9	211 (19.0)	61+	118 (10.7)
10-14	729 (65.8)	<b>Working days per week</b>	
15-18	168 (15.2)	$\leq 4$	112 (10.1)
<b>Sex of Street children</b>		5	85 (7.7)
male	941 (84.9)	6	160 (14.4)

female	167 (15.1)	7	751(67.8)
<b>Place of Birth</b>		<b>Working hour per day</b>	
rural	820 (74.0)	≤ 3	180 (16.3)
urban	288 (26.0)	4-7	450 (40.6)
<b>Types of work</b>		8-11	273 (24.6)
Business	175 (15.8)	12+	205 (18.5)
Tokai	340 (30.7)	<b>Earning per day (Taka)</b>	
Colli/MIinti	196 (17.7)	≤ 50	356 (32.1)
Available job	160 (14.5)	51-100	353 (31.9)
Day labour	98 (8.8)	101-150	159 (14.3)
Others	139 (12.5)	151-200	134 (12.1)
		201+	106 (9.6)
Note: () indicates percentage of respondents			

Bivariate distribution of savings of the street children with the background characteristics has been presented in Table 2. We observed that those who saved money 40.6%, 41.0%, 29.1%, and 53.5% of the street children were “street living children”, “street working children”, “children from street families” and “under institutional care” respectively. It was found that 28.9%, 44.2% and 51.2% of the street children who saved money were in the age group 5-9, 10-14 and 15-18 years respectively. It was also found that 42.4% and 41.9% of the street children who saved money were male and female respectively. It was revealed that 42.7% and 41.3% of the street children who saved money came from rural and urban areas respectively. It was also revealed that 60.6%, 40.0%, 39.3%, 36.9% and 51.0% of the street children who saved money were in the occupation small business, tokai, colli/minti, available job and day labour respectively. It was observed that 46.9% of the street children who saved money went to school and 39.1% of the street children who saved money did not go to school. It was also observed that 42.1%, 38.0%, 40.3%, 47.3%, 53.3% and 42.4% of the street children who saved money were living on street for ≤12, 13-24, 25-36, 37-48, 49-60 and 61+ months respectively. It was found that 20.5%, 35.3%, 42.5% and 46.3% of the street children who saved money were working ≤4, 5, 6 and 7 days per week respectively. We found that 39.4%, 45.1%, 45.1% and 35.1% of the street children who saved money were working ≤3, 4-7, 8-11 and 12+ hours per day respectively. We also found that 29.5%, 45.9%, 44.7%, 50.0% and 60.4% of the street children who saved money were earning per day were ≤Tk.50, 51-100, 101-150, 151-200, and 201+ per day respectively.

The  $\chi^2$ - test demonstrated that the association between money savings and types of street children ( $p<0.01$ ), current age ( $p<0.01$ ), types of work ( $p<0.01$ ), currently attending school ( $p<0.05$ ), working days per week ( $p<0.01$ ) and earning per day ( $p<0.01$ ) were statistically significant.

**Table 2:** Bivariate Distribution of Street Children in Dhaka City by Savings and Their Background Characteristics

Variables	Savings		$\chi^2$ - values, p values
	Yes (%)	No (%)	
<b>Types of Street Children</b>			20.279, 0.000
Street living children	110 (40.6)	161 (59.4)	
Street working children	204 (41.0)	293 (59.0)	
children from street families	32 (29.1)	78 (70.9)	
children who are in institutional care	123 (53.5)	107 (46.5)	
<b>Current Age (Year)</b>			21.981, 0.000
5-9	61 (28.9)	150 (71.1)	
10-14	322 (44.2)	407 (55.8)	
15-18	86 (51.2)	82 (48.8)	
<b>Sex of Street children</b>			0.014, 0.907
male	399 (42.4)	542 (57.6)	
female	70 (41.9)	97 (58.1)	
<b>Place of birth</b>			0.162, 0.687
rural	350 (42.7)	470 (57.3)	
urban	119 (41.3)	169 (58.7)	
<b>Types of work</b>			39.715, 0.000
Business	106 (60.6)	69 (39.4)	
Tokai	136 (40.0)	204 (60.0)	
Colli/MIinti	77 (39.3)	119 (60.7)	
Available job	59 (36.9)	101 (63.1)	
Day labour	50 (51.0)	48 (49.0)	
Others	41 (29.5)	98 (70.5)	
<b>Currently attending school</b>			6.715, 0.010
yes	217 (46.9)	246 (53.1)	
no	252 (39.1)	393 (60.9)	
<b>Duration of living on Street (Month)</b>			7.525, 0.184
≤ 12	175 (42.1)	241 (57.9)	
13-24	92 (38.0)	150 (62.0)	
25-36	60 (40.3)	89 (59.7)	
37-48	44 (47.3)	49 (52.7)	
49-60	48 (53.3)	42 (46.7)	
61+	50 (42.4)	68 (57.6)	
<b>Working days per week</b>			28.461, 0.000
≤ 4	23 (20.5)	89 (79.5)	
5	30 (35.3)	55 (64.7)	
6	68 (42.5)	92 (57.5)	
7	348 (46.3)	403 (53.7)	

<b>Working hour per day</b>			7.233,
≤ 3	71 (39.4)	109 (60.6)	0.065
4-7	203 (45.1)	247 (54.9)	
8-11	123 (45.1)	150 (54.9)	
12+	72 (35.1)	133 (64.9)	
<b>Earning per day (Taka)</b>			43.585,
≤ 50	105 (29.5)	251 (70.5)	0.000
51-100	162 (45.9)	191 (54.1)	
101-150	71 (44.7)	88 (55.3)	
151-200	67 (50.0)	67 (50.0)	
201+	64 (60.4)	42 (39.6)	
Note: () indicates the percentages			

In the multiple logistic regression analysis only significantly associated factors were considered as independent variables. The results of multiple logistic regression analysis were presented in Table-3. The regression coefficients of the money savings of the street children who were “children who were in institutional care” was 0.726 ( $p < 0.01$ ) with corresponding odds ratio was 2.067 [95% C.I. (1.277, 3.347)] which indicated that the street children who were “children who were in institutional care” was 2.076 times more saving money than the street children who were “street living children”.

Types of work of the street children was the significant factor affecting savings money of street children. The regression coefficient of street children whose occupation were tokai, colli/minti and available job were -0.480 ( $p < 0.05$ ), -0.701 ( $p < 0.01$ ) and -0.682 ( $p < 0.01$ ) with corresponding odds ratios were 0.619 [95% C.I. (0.412, 0.930)], 0.496 [95% C.I. (0.318, 0.774)] and 0.506 [95% C.I. (0.316, 0.811)] respectively which indicated that the street children whose occupation were tokai, colli/minti and available job were 0.619, 0.496 and 0.506 times less savings money than the street children whose occupation were small business.

Currently attending school of street children was the most significant factor affecting savings money of street children. The regression coefficient of street children who went to school was 0.429 ( $p < 0.05$ ) with corresponding odds ratio was 1.536 [95% C.I. (1.101, 2.144)] which indicated that the street children who went to school was 1.536 times more saving money than the street children who did not go to school.

Working days per week of the street children was the significant factor affecting savings money of the street children. The regression coefficients for the street children whose working days per week were 6 and 7 days were 0.831 ( $p < 0.01$ ) and 0.933 ( $p < 0.01$ ) with corresponding odds ratios were 2.295 [95% C.I. (1.259, 4.182)] and 2.541 [95% C.I. (1.505, 4.290)] respectively which indicated that the street children whose working days per week were 6 and 7 days were 2.295 and 2.541 times more saving money than the street children whose working days per week were  $\leq 4$  days.

Earning per day was an important factor affecting the savings of street children. The regression coefficient for the street children whose earning per day were Tk.51-100, 101-150,

151-200 and 201+ were 0.713 ( $p < 0.01$ ), 0.739 ( $p < 0.01$ ), 0.997 ( $p < 0.01$ ) and 1.395 ( $p < 0.01$ ) with corresponding odds ratios were 2.040 [95% C.I. (1.433, 2.905)], 2.093 [95% C.I. (1.347, 3.252)], 2.710 [95% C.I. (1.689, 4.347)] and 4.034 [95% C.I. (2.380, 6.836)] respectively which indicated that the street children whose earning per day were Tk.51-100, 101-150, 151-200 and 201+ were 2.040, 2.093, 2.710 and 4.034 times more saving money than the street children whose earning per day were  $\leq$  Tk.50.

**Table 3:** Effects of selected background characteristics on savings of street children in Dhaka City of Bangladesh Using Multiple Logistic Regression Analysis

Explanatory variables	Coefficients ( $\beta$ )	S.E of $\beta$	P-values	Odds ratio (OR)	95% C.I. for OR	
					Lower	Upper
<b>Types of Street Children</b>						
Street living children (r)	.....	.....	.....	1.000	.....	.....
Street working children	0.062	0.166	0.707	1.064	0.769	1.473
children from street families	-0.216	0.267	0.418	0.805	0.477	1.360
children who are in institutional care	0.726	0.246	0.003	2.067	1.277	3.347
<b>Current Age (Year)</b>						
5-9 (r)	.....	.....	.....	1.000	.....	.....
10-14	0.255	0.194	0.245	1.252	0.857	1.831
15-18	0.319	0.254	0.209	1.375	0.837	2.261
<b>Types of work</b>						
Business (r)	.....	.....	.....	1.000	.....	.....
Tokai	-0.480	0.208	0.021	0.619	0.412	0.930
Colli/MIinti	-0.701	0.277	0.002	0.496	0.318	0.774
Available job	-0.682	0.241	0.005	0.506	0.316	0.811
Day labour	-0.172	0.266	0.519	0.842	0.499	1.419
Others	-0.909	0.272	0.001	0.403	0.237	0.686
<b>Currently attending school</b>						
No (r)	.....	.....	.....	1.000	.....	.....
Yes	0.429	0.170	0.011	1.536	1.101	2.144
<b>Working days per week</b>						
$\leq 4$ (r)	.....	.....	.....	1.000	.....	.....
5	0.523	0.351	0.136	1.687	0.848	3.355
6	0.831	0.306	0.007	2.295	1.259	4.182
7	0.933	0.267	0.000	2.541	1.505	4.290
<b>Earning per day (in Taka)</b>						
$\leq 50$ (r)	.....	.....	.....	1.000	.....	.....
51-100	0.713	0.180	0.000	2.040	1.433	2.905
101-150	0.739	0.225	0.001	2.093	1.347	3.252
151-200	0.997	0.241	0.000	2.710	1.689	4.347
201+	1.395	0.269	0.000	4.034	2.380	6.836



Model Summary:	-2 Log likelihood = 1378.529 Cox & Snell R Square = 0.112 Nagelkerke R Square = 0.150
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Note: r represents the reference category, CI represents the confidence interval

## 5. CONCLUSION AND RECOMMENDATION

The economic activities of the street children in Dhaka City, Bangladesh were investigated in this study. Socio-economic, demographic and behavioral information were collected from 1108 street children who were living in Dhaka city. Multiple logistic regression model was used to establish the relationship among saving money and some selected factors of street children. The present study demonstrates that 43.8% street children saved money. The logistic model illustrates that types of street children, children current age, occupation, attending in school and earning per day were the important predictors for saving money of street children in Dhaka City of Bangladesh. Hence it can be recommended to the government, agencies and policy maker to undertake a massive program to bring the street children into the institutional care. Despite that the street children should be engaged into some small business to enhance their savings and in turn change their life style. In order to develop the solvency of the street children a formal or informal education program should be introduced among the street children.

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