

## **Influencing Socio-Demographic Factors on Contraceptive Use in Bangladesh: Multivariate Approach**

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### **Abstract**

**Background:** Contraceptive use prevents pregnancy by interfering with the normal process of ovulation, fertilization and implantation.

**Objectives:** The main objectives of this study are to examine the influences of socio-demographic factors on contraceptive use among reproductive women in Bangladesh.

**Data and Methods:** Data of 13,951 ever married women were extracted from the Bangladesh Demographic and Health Survey (BDHS) 2011. Percentage distribution, chi-square test and binary logistic regression analysis were used as the statistical tools to analyze the data.

**Results:** There have found 93% women ever use and remaining 7% never use contraceptives. Resident of city corporation, town and rural women ever use contraceptives respectively 92%, 90% and about 86%. About 88% women never experienced son mortality, 10% experienced

single son mortality and about 2% experienced two or more son's mortality. No educated women taken 100% risk to pregnant, there have found incomplete primary, complete primary, incomplete secondary, complete secondary and higher educated women taken 58.3%, 41.6%, 38.6%, 26.7% and 21.9% lower risk to pregnant respectively. Service holder is the highest contraceptive user and businessman is the second highest contraceptive user. The women aged <20, 20-24, 25-29 and 30-35 years are ever using contraceptive method 3.403, 3.250, 2.712 and 1.980 times more respectively than that of women aged 35-49 years.

**Conclusions:** The son mortality percentages reflect the recent achievement in improving the child mortality level of Bangladesh. Education of women shows that the higher the educational attainment more the use of contraception. Age pattern of ever married women shows that the lower age group of women, higher the probability of getting ever use contraceptive method. The spousal desire for children illustrate that husband is the final decision maker and taker. Region of residence show that in order to achieve the replace level of fertility, the family planning program, rural education and adult education should be strengthened specially in Sylhet and Chittagong region as early as possible by the government of Bangladesh.

**Key words:** Ever use contraceptive, ever married women, Chi-square test, Logistic regression model, Bangladesh Demographic and Health Survey (BDHS).

## 1. Introduction

There have been found from the literature that there are influences of demographic, socio-economic and cultural factors on children ever born or fertility as well as on contraceptive use<sup>1</sup>. It is unlikely that the relationship among many of these variables and fertility, contraceptive use are straightforward<sup>2, 3, 4, 5</sup>. As many of these variables are interrelated, so we need to ascertain the variables, which have direct and indirect influences on contraceptive use. For the purpose of examining the relative importance of all the variables simultaneously and by partly, we need to apply multivariate technique<sup>3, 4, 5, 6, 7, 8, 9</sup>.

Again, we have found a large number of literature from across the developing world, including South Asia that women are likely to use contraception to plan not only the timing and number of children, but their decision about when and what type of contraception to use is also highly influenced by their preferences for the sex of any future children and the sex composition of their overall family<sup>10, 11, 12, 13, 14, 15, 16</sup>.

Overall, 61% of currently married Bangladeshi women ages 15-49 years are currently using a contraceptive method, 52% use a modern method and 9% use a traditional method. The pill (27%) is by far the most widely used method, followed by injectables 11%, periodic abstinence 7%, male condoms 6% and female sterilization 5%. About 1% each uses the IUD, male sterilization, implants, and withdrawal<sup>16, 17, 18, 19, 20</sup>.

Among young women, the use of any method increases with age, rising from usage among 47% of currently married women age 15-19 years to a peak usage of 72% at age 35-39 years. Then usage among currently married women decreases to 64% at ages 40-44 years and to 43% at ages 45-49 years. This reversed U-shaped pattern of contraceptive use by age is typical of

most countries<sup>17, 18, 19, 20</sup>. In Bangladesh, contraceptive uses among women ages 15-19 years have increased from 42% in 2007 to 47% in 2011<sup>20, 21</sup>.

The level of fertility in a society is directly influenced by a set of variables called intermediate variables or proximate determinants. Bongaarts<sup>22</sup> demonstrated that most of the variation in fertility was due to four intermediate variables which are marriage, contraception, induced abortion and lactational infecundability. If a proximate determinant such as contraceptive use changes, then fertility necessarily changes assuming the other proximate determinants remains constant<sup>6</sup>. An attempt was to identify the four intermediate variables namely proportion married among females, contraceptive use, fetal wastage and lactational infecundability and investigates their impacts on change in the level of fertility<sup>21</sup>. During 1975-2011 period decomposing Original Bongaarts Model and Revised Bongaarts Model (RBM) assessed the individual contribution made by each of the four intermediate variables to change the fertility level<sup>4, 21</sup>.

RBM indicates that between 1989 and 2000, the amount of decrement of TFR was about 34% and it was about 36% between 1989 and 2004, 42% between 1989 and 2007, the amount of decrement of TFR was 38.4% between 1989 and 2011, 10% between 2004 and 2007 but the amount of increment of TFR was 6.6% between 2007 and 2011. These were primarily caused by an increase in the use and effectiveness of the contraceptive methods.

Therefore, the main objectives of the present study are to examine the influences of socio-demographic factors on contraceptive use among reproductive women in Bangladesh.

## **2. Methods and Materials**

### **2.1 Sources of Data**

Data have been extracted from Bangladesh Demographic and Health Survey (BDHS) 2011. The survey is nationally representative and the data have provided by the survey is of good quality.

### **2.2 Selection of Sample Size**

The complete list of enumeration areas (EAs) covering the whole country prepared by the Bangladesh Bureau of Statistics (BBS) for the 2011 population census of the People's Republic of Bangladesh. An EA is a geographic area covering on average 113 households. The sampling frame contains information about the EA location, type of residence like urban or rural, and the estimated number of residential households. The survey was conducted in 18,000 residential households, 6,210 in urban areas and 11,790 in rural areas. The sample was expected to result in about 18,072 completed interviews with ever-married women, 6,426 in urban areas and 11,646 in rural areas covered the entire population residing in private dwelling units all over Bangladesh and is divided into seven divisions. Each division is sub-divided into smaller zilas, thanas, unions, wards, and villages. An EA is either a village, or a group of small villages, or a part of a large village. A new household listing operation was carried out by Mitra and Associates in all selected EAs from 22 May to 5 October 2011.

### **2.3 Sampling Design and Processing of Data**

Sample was stratified and selected in two stages. In the first stage, 600 EAs were selected, with probability proportional to the EA size and with independent selection in each sampling stratum, 207 in urban areas and 393 in rural areas. In the second stage of selection, a fixed number 30 households per cluster were selected with an equal probability systematic selection from the newly created household listing. Data processing commenced on July 23, 2011 and ended on January 15, 2012. Data processing was carried out using the Census and Survey Processing System, a joint software product of the U.S. Census Bureau, ICF International, and Serpro S.A.

## 2.4 Statistical Analysis

In this study, after excluding all missing cases, 13,951 ever married women were included from 17,842 ever married women of BDHS 2011 data. Chi-square test is employed to determine the association of ever use of contraception among the background characteristics of the respondent. Moreover, binary logistic regression analysis was applied here to identify the socio-demographic factors that are influencing ever use of contraceptive methods among ever married Bangladeshi women. Ever use of contraception is treated as dependent variable (Y) and it is classified as follows:

$$Y = \begin{cases} 1, & \text{if ever use of contraception} \\ 0, & \text{otherwise} \end{cases}$$

It is noted that the predictors used in this model are demonstrated in the respective table. Statistical Package for Social Sciences (SPSS) for windows base 15.0 version was used to analyze the data.

## 2.5. Model Validation Technique

To try out the legitimacy of the model over the population, the CVPP,  $\rho_{cv}^2$ , is used in this paper. The mathematical formulation for CVPP is addressed by

$$\rho_{cv}^2 = 1 - \frac{(n-1)(n-2)(n+1)}{n(n-k-1)(n-k-2)}(1-R^2);$$

in which n is the number of classes, k is the number of regressors of the model and the cross-validated R is the correlation between observed and predicted values of the dependent variable (Stevens, 1996). The shrinkage of the model is the positive value of  $(\rho_{cv}^2 - R^2)$ ; where  $\rho_{cv}^2$  is CVPP and  $R^2$  is the coefficient of determination of the fitted model. As well, 1-shrinkage is the stability of  $R^2$  of the constructed model. The enumerated CVPP similar to their  $R^2$  and results on model fitting are shown at the bottom of the Table 2. It is noted that this technique is also used as model validation technique<sup>23-31</sup>.

### 3. Results and Discussion

#### 3.1 Percentages and Bivariate Analyses

Table 1 reveals the association of ever use of contraceptive methods among several selected variables. It is found that, there are 14 independent variables such as: de-facto place of residence, women current age, husband's current age, number of dead sons, women educational attainment, region/division, number of living children, spousal desire for children (SDC), husband's occupation, women currently working (WCW), husband's educational attainment, wealth index, women age at first birth and children ever born are associated with ever use of contraception. Out of 17 independent variables, these 14 variables are highly statistically significant with  $p < 0.01$ . Other 3 independent variables such as: currently breastfeeding, religion and women age at first marriage are not associated with ever use of contraception that is statistically insignificant.

In de-facto place of residence, we found 65.4% lives in rural area, 11.2% in City Corporation and 23.4% in town (Table 1). Resident of City Corporation, town and rural women ever use contraceptive methods respectively 92%, 90% and about 86%. This indicates that there is very few difference between urban-rural users of the ever use of contraceptive methods. Out of 13,951 women, 93% ever use contraceptive methods and remaining 7% never use contraceptive methods. The ever use of contraceptive methods by women current age: <20, 20-24, 25-29, 30-34 and 35-49 years are found respectively 7.3%, 20.3%, 21.2%, 16.6% and 34.6%.

Considering the number of dead sons: about 88% is found never experienced the son mortality, 10% is found ever experienced single son mortality and about 2% is ever experienced two or more sons' (Table 1). These reflect the recent achievement in improving the child mortality level.

**Insert Table 1 about here**

#### 3.2 Binary Logistic Regression Analysis

Table 2 presents the estimated value of the regression coefficient  $\beta$ , p-value, odds ratio (OR) that are calculated for each of the categorical variable and 95% confidence interval (C.I) for odds ratio (OR). It was found out from model validation method that shrinkage coefficient of the fitted logistic model was very small (0.00186) which indicates the better fit of the model. Moreover, the stability of R square of this model is 99.82% which furthermore expresses the good fit of the model. Among 14 independent variables, only one variable found insignificant, namely: wealth index. The remaining 13 variables have found significant in binary logistic regression analysis which provides an approximate indication of the representative of the data.

In accordance with the variables importance, women and husband educational attainment, numbers of living children, total children ever born and women currently working have statistically negative significant effect on ever use of contraceptives. Also, de facto place of residence, women and husband current age, region of residence, number of sons died, spousal desire for children, husband's occupation and women age at first birth have statistically positive significant effect on ever use contraceptives.

There are always variations among living standards of city corporation, town (other than city corporation) and rural areas population. The people living in city corporation and town get some extra facilities about health care services and all other standards of living. These symbols are also reflected in this study. For de facto place of residence, considering rural area as reference category, the results illustrate that women in the city corporation and town are using contraceptive method respectively 2.303 and 1.397 times more than rural women.

From the results, it is observed that women current age is the most significant factor affecting ever use of contraceptives. It has also been found from bivariate analysis that women age at first birth is the highest among those women who belong to the age group <20. Table 2 indicates that by age: <20, 20-24, 25-29, and 30-34 years have ever use of contraceptive method 3.403, 3.250, 2.712 and 1.980 times more respectively in accordance of reference category of age 35-49 years. It means lower the age of women, higher the usage of contraceptive methods.

For husband age group age 55+ years have been taken as the reference category, the odds ratios of husband age 15-24, 25-34, 35-44 and 45-54 years are 2.750, 2.796, 2.290 and 2.154 times respectively more uses contraceptive method. Age 25-34 years is the highest contraceptive user group, since this age group is vital working group in any sector.

For women educational attainment, we took no education (0) as the reference category, then the values of regression coefficients of incomplete primary, complete primary, incomplete secondary, complete secondary and higher education are -0.874, -0.538, -0.487, -0.311 and -0.247 respectively. Again, incomplete primary, complete primary, incomplete secondary, complete secondary and higher educated women are took  $(1.000-0.417) \times 100 = 58.3\%$ , 41.6%, 38.6%, 26.7% and 21.9% lower risk to getting pregnant respectively than no educated women (assume 100% getting risk to pregnant). We seen from our educational difference, the deviation between incomplete and complete primary is  $(58.3-41.6) \% = 16.7\%$ , deviation between complete primary and incomplete secondary is 3%, deviation between incomplete secondary and complete secondary is 11.9%, deviation between complete secondary and higher education is 4.8% and deviation between no education and incomplete primary is 41.7% which is higher than any other deviation.

The table indicates that in higher order of magnitude contraceptive user by regions are Rangpur, Rajshahi, Khulna, Barisal, Dhaka, Chittagong and Sylhet, i.e., the values respectively are 5.201, 4.861, 4.456, 4.252, 3.215, 1.666 and 1.0. It is evident from the data of 2011 that there are identical variation of ever use of contraception with Sylhet division from other divisions.

According to reference category no son died, the odd ratio of one son died is 1.428 times less use contraceptive method and at least two sons died is 1.180 times less use contraceptive method. It may be concluded that if the experience of one son died then about 57% women stop usage contraceptive method, on the other hand, in case of at least two sons died experience, 82% women stop usage contraceptive method comparing with no son died. From the result indicated earlier, we may arrive at a conclusion that when women lost their sons, they reduced the use of contraceptive method. So, it is needed to prevent infant mortality and should be strengthening child and mother health care facilities.

For the number of living children, assuming no living children (0) as reference category, the odds ratio for one living children, two living children, (3-4) living children and (5-10) living

children are 0.029, 0.165, 0.607 and 0.992 times respectively took less risk the use of contraceptive methods. It means that, the number of living children increases then contraceptive uses also increases.

The spousal desire for children is found statistically significant with  $p < 0.01$  positive effective factor of ever using contraceptives. The values of odds ratios of both want same, husband want more and husband want fewer are: 2.655, 2.257 and 4.246 times more respectively use of contraceptives than that of reference category. Thus, the result illustrated that in our society the desire about children, husband is the final decision maker and taker.

For husband occupation, we consider others (Imam/Religious leader / student) as reference category, the odds ratios of agricultural worker, non-agricultural worker, service holder and businessman are 2.171, 1.651, 2.990 and 2.385 times more respectively uses contraceptive methods than that of reference category. This means that, agricultural worker, non-agricultural worker, service holder and businessman are uses contraceptives respectively 2.171, 1.651, 2.990 and 2.385 times more than that of the reference category.

The women works as a housewife (0) has been taken as the reference category, then the regression coefficient for women works outside home (service) is -0.397 and the odd ratio is 0.672. This indicates that the woman who works outside home uses contraceptive method 67.2% higher than the women who works in house as a housewife.

#### **Insert Table 2 about here**

On the basis of this analysis, we have found that currently breastfeeding is not associated with ever use of contraception but this variable gave significant result in binary logistic regression analysis. Again, wealth index is associated with ever use of contraception but this variable gave insignificant result in binary logistic regression analysis.

#### **4. Conclusions**

In conclusion, we can say that incomplete primary, complete primary, incomplete secondary, complete secondary and higher educated women have 58.3%, 41.6%, 38.6%, 26.7% and 21.9% lower risk to getting pregnant respectively compared to no educated women. In terms of working status service holder is the highest contraceptive user and businessman is the second highest contraceptive user with comparing other category (Imam/ leader/students). The spousal desire for children illustrate that husband is the final decision maker and taker. This is an indication of humiliating social system which should be changed as early as possible.

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**Table 1** Univariate and Bivariate analyses of variables using BDHS 2011, Bangladesh

Background Characteristics	Ever use of contraception		Total cases	%	Pearson's $\chi^2$	p-values		
	No	Yes						
<b>De-facto place of residence</b>								
City	122	1439	1561	11.2	71.208	0.000		
Town	333	2934	3267	23.4				
Rural area	1296	7827	9123	65.4				
<b>Women current age</b>								
<20	163	860	1023	7.3	197.73	0.000		
20-24	315	2519	2834	20.3				
25-29	238	2717	2955	21.2				
30-34	203	2113	2316	16.6				
35-49	832	3991	4823	34.6				
<b>Husband's current age</b>								
15-24	74	423	497	3.6	322.074	0.000		
25-34	411	3520	3931	28.2				
35-44	424	4081	4505	32.3				
45-54	429	3004	3433	24.6				
55+ (55-96)	413	1172	1585	11.4				
<b>Number of dead sons</b>								
No son died	1406	10841	12247	87.8	114.895	0.000		
=1 (one son died)	276	1165	1441	10.3				
>1 (at least two sons died)	69	194	263	1.9				
<b>Women educational attainment</b>								
No education	651	2816	3467	24.9	544.399	0.000		
Incomplete Primary	311	2275	2586	18.5				
Complete Primary	209	1497	1706	12.2				
Incomplete secondary	439	3925	4364	31.3				
Complete. secondary	65	669	734	5.3				
Higher	76	1018	1094	7.8				
<b>Region/Division</b>								
Barisal	149	1525	1674	12			544.399	0.000
Chittagong	396	1897	2293	16.4				
Dhaka	260	2109	2369	17				

Khulna	179	1880	2059	14.8		
Rajshahi	163	1887	2050	14.7		
Rangpur	151	1763	1914	13.7		
Sylhet	453	1139	1592	11.4		

<b>Number of living children</b>						
No living	52	44	96	0.7		
1	600	3048	3648	26.1	384.985	0.000
2	366	4109	4475	32.1		
(3-4)	450	3923	4373	31.3		
(5-10)	283	1076	1359	9.7		
<b>Currently breastfeeding</b>						
No	1204	8493	9697	69.5	0.527	0.468
Yes	547	3707	4254	30.5		
<b>Spousal desire for children (SDC)</b>						
Both want same	1341	9784	11125	79.7		
Husband wants more	218	1274	1492	10.7	152.708	0.000
Husband wants fewer	86	934	1020	7.3		
Don't know	106	208	314	2.3		
<b>Husband's occupation</b>						
Agriculture	448	3247	3695	26.5		
Non-agriculture	755	4794	5549	39.8		
Service	66	877	943	6.8		
Business	311	2885	3196	22.9		
Others	171	397	568	4.1		
<b>Women currently working (WCW)</b>						
Works as housewife	1607	10731	12338	88.4	21.819	0.000
Works outside home	144	1469	1613	11.6		
<b>Husband's educational attainment</b>						
No education	594	3377	3971	28.5		
Incomplete Primary	275	1968	2243	16.1	58.694	0.000
Complete Primary	228	1389	1617	11.6		
Incomplete secondary	369	2753	3122	22.4		
Complete. secondary	112	829	941	6.7		
Higher	173	1884	2057	14.7		
<b>Religion</b>						
Muslim	1578	10828	12406	88.9	2.901	0.089
Non-Muslim	173	1372	1545	11.1		
<b>Wealth index</b>						
Poorest	369	1987	2356	16.9		

Poorer	341	2252	2593	18.6	35.497	0.000
Middle	310	2398	2708	19.4		
Richer	375	2581	2956	21.2		
Richest	356	2982	3338	23.9		
<b>Women age at first marriage</b>						
<20	682	4903	5585	40		
20-24	897	6293	7190	51.5	5.302	0.151
25-29	143	842	985	7.1		
30 <sup>+</sup> (30-45)	29	162	191	1.4		
<b>Women age at first birth</b>						
<20	1181	9280	10461	75		
20-24	436	2414	2850	20.4	80.098	0.000
25-29	103	421	524	3.8		
30 <sup>+</sup> (30-45)	31	85	116	0.8		
<b>Children ever born</b>						
1	563	2839	3402	24.4		
2	338	3756	4094	29.3	217.746	0.000
(3-4)	456	3936	4392	31.5		
5 <sup>+</sup>	394	1669	2063	14.8		

**Table 2** Results of binary logistic regression analysis for the simultaneous effects of all factors used in the model of ever use of contraception, using BDHS 2011 data, Bangladesh.

Background characteristics	Coefficients ( $\beta$ )	p- values	Odds ratio (OR)	95% C. I. of (OR)	
				Lower	Upper
<b>De facto place of residence</b>					
City	0.834	0.000	2.303	(1.858	2.854)
Town	0.334	0.000	1.397	(1.212	1.610)
Rural area (R)	–	–	1.000		
<b>Women current age</b>					
<20	1.225	0.000	3.403	(2.395	4.834)
20-24	1.179	0.000	3.250	(2.456	4.301)
25-29	0.998	0.000	2.712	(2.145	3.430)
30-34	0.683	0.000	1.980	(1.609	2.436)
35-49 (R)	–	–	1.000		
<b>Husband current age</b>					
15-24	1.012	0.000	2.750	(1.855	4.079)
25-34	1.028	0.000	2.796	(2.121	3.686)
35-44	0.828	0.000	2.290	(1.842	2.846)
45-54	0.767	0.000	2.154	(1.818	2.552)

55 <sup>+</sup> (R)	–	–	1.000		
<b>Women education</b>					
No education (R)	–	–	1.000		
Incomplete primary	-0.874	0.000	0.417	(0.309	0.563)
Complete primary	-0.538	0.001	0.584	(0.430	0.793)
Incomplete secondary	-0.487	0.003	0.614	(0.448	0.843)
Complete secondary	-0.311	0.035	0.733	(0.548	0.979)
Higher	-0.247	0.169	0.781	(0.541	1.129)
<b>Region of residence (RR)</b>					
Barisal	1.447	0.000	4.252	(3.426	5.277)
Chittagong	0.510	0.000	1.666	(1.408	1.970)
Dhaka	1.168	0.000	3.215	(2.675	3.864)
Khulna	1.494	0.000	4.456	(3.629	5.471)
Rajshahi	1.581	0.000	4.861	(3.939	5.999)
Rangpur	1.649	0.000	5.201	(4.193	6.451)
Sylhet (R)	–	–	1.000		
<b>Number of dead sons (NDS)</b>					
No sons died (R)	–	–	1.000		
One son died	0.356	0.011	1.426	(1.040	1.961)
At least two sons died	0.156	0.026	1.180	(0.841	1.654)
<b>Number of living children</b>					
No child (R)	–	–	1.000		
1	-3.532	0.000	0.029	(0.017	0.049)
2	-1.1800	0.000	0.165	(0.130	0.209)
(3-4)	-0.499	0.000	0.607	(0.493	0.747)
(5-10)	-0.008	0.929	0.992	(0.827	1.189)
<b>Spousal desire for children</b>					
Both want same	0.977	0.000	2.655	(2.026	3.481)
Husband wants more	0.814	0.000	2.257	(1.663	3.063)
Husband wants fewer	1.446	0.000	4.246	(2.978	6.053)

Don't know (R)	–	–	1.000		
<b>Husband's occupation</b>					
Agricultural works	0.775	0.000	2.171	(1.722	2.737)
Non-agricultural works	0.502	0.000	1.651	(1.321	2.064)
Service holder	1.095	0.000	2.990	(2.101	4.255)
Business	0.869	0.000	2.385	(1.875	3.032)
Others (R)	–	–	1.000		
<b>Women currently working</b>					
Household works (R)	–	–	1.000		
Outside home works/service	-0.397	0.000	0.672	(0.552	0.819)
Intercept	-1.215	0.000	0.297		
<b>Husband's education</b>					
No education (R)	-	-	1.000		
Incomplete Primary	-0.753	0.000	0.471	(0.379	0.586)
Complete Primary	-0.571	0.000	0.565	(0.450	0.709)
Incomplete secondary	-0.749	0.000	0.473	(0.375	0.596)
Complete. secondary	-0.558	0.000	0.572	(0.466	0.704)
Higher	-0.546	0.000	0.579	(0.447	0.751)
<b>Wealth index</b>					
Poorest	-0.0214	0.024	0.807	(0.671	0.972)
Poorer	-0.039	0.668	0.961	(0.803	1.151)
Middle	0.064	0.478	1.066	(0.894	1.271)
Richer	-0.124	0.139	0.884	(0.716	1.041)
Richest (R)	-	-	1.000		
<b>Women age at first birth</b>					
<20	1.529	0.000	4.612	(2.795	7.608)
20-24	1.02	0.000	2.773	(1.679	4.579)
25-29	0.477	0.066	1.611	(0.969	2.681)
30+ (R)	-	-	1.000		
<b>Children ever born</b>					
1	-0.056	0.512	0.945	(0.799	1.118)
2	0.719	0.000	2.053	(1.723	2.446)
(3-4)	0.544	0.000	1.723	(1.473	2.016)
5+ (R)	-	-	1.000		

**Model Summary:** -2log likelihood: 8927.745; Cox & Snell  $R^2=0.109$ ; Nagelkerke  $R^2=0.206$ ;

Model chi-square ( $\chi^2$ ): 1612.592; p-value: 0.01; Degrees of freedom (d.f.): 36

Shrinkage coefficient of the model=0.001855142, Stability of R Square = 0.998145