

An Inquiry Into The Rapid Growth And Satisfaction Level Of The Policy Holders At Insurance Business Of Bangladesh

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Abstract: An Inquiry into the rapid growth of the life insurance Business of Bangladesh and the satisfaction level of the policyholders are the main study in my research project. In this study, we will try to evaluate the performance of insurance business in Bangladesh especially the life insurance business which includes individual life, Group insurance, Gono Bima, Grameen and others. In doing so, I will try to explore the matters such as amount of premium, number of policies offered by different companies, number of policy holders and the overall increase in the business of insurance all over Bangladesh. After collecting primary and secondary data, Information were arranged in different tables and analyzed by using many test and logistic regression model.

Keywords: Rapid growth, Life insurance Business, Satisfaction level, policy holders, Bangladesh.

1 HISTORICAL BACKGROUND OF INSURANCE IN BANGLADESH

In this Indian subcontinent, Christian Mutual was established in Lahore in 1847 and Widows fund in 1849. These two insurance organizations were the first distinct and registered insurance organization in this area. Bombay mutual was established on December 3, 1870 and the Oriental government a Security life Insurance company was established in 1874. This was how the history of insurance begins in the subcontinent.

For the proper direction and control the British Govt. enacted the insurance Act in 1912 for the first time. In 1983 another Supplementary Insurance act was enacted. The famous public leader Abdur Rahaman Siddiki established the Eastern Federal Union Insurance Company Ltd. in 1932. After 3-year with the leadership of poet Allama Iqbal 'The Muslim India Insurance Company' was formed in 1935. Later on during the Second World War Habib Insurance Company was formulated. The first insurance company funded by the Banalees was established in 1958 named Homeland Insurance Company Limited. Mojibur Rahman was the founder of this company.

In 1971 Bangladesh was emerged as an independent country. Then out of 67 registered companies 15 were Bangladeshi, 29 were Pakistani and 23 were foreign companies. In 1972 the Govt. employed administrator to direct the 29 Pakistani companies by the presidential order no. 95, more specially

known as the Bangladeshi Insurance order, 1972. After few days govt. employed custodian for each local and foreign companies as prerequisite of nationalization.

In accordance with denationalization of the govt. of Bangladesh 5 sole proprietorship insurance companies were established for 24 insurance business after 1985. In July 1999, 30 more companies received govt. permission, of which 19 were general insurance and 11 were life insurance companies. For the growth and development of insurance business, Bangladesh insurance companies was established in November 29, 1973 under the Ministry of Commerce. Now there are more than 60 listed insurance companies and numerous unlisted insurance companies in Bangladesh. According to a record on December 31, 2005 there are 19 life insurance and 43 general insurance companies exist

in Bangladesh .Now there are more than 65 listed insurance companies and numerous unlisted insurance companies in Bangladesh.

Insurance is defined as a cooperative device to speared the loss caused by a particular risk over a number of persons who are exposed to it who agree to ensure themselves against that risk. Risk is the uncertain financial loss. While it becomes somewhat impossible for one to bear by himself the 100 percent loss to his own property or interest arising out of an unforeseen contingency. It is a method or process, which distributes the burden of the loss on a number of persons within the group, formed for particular purpose or is a scientific method off handling risks.

Life insurance provides a monetary benefit to a decedent's family or other designated beneficiary, and many specifically provide for income to an insured persons family, burial, funeral and other final expenses. Life insurance policies often allow the option of having the proceeds paid to the beneficiary either in lump sum cash payment or an annuity.

2 OBJECTIVES OF THE STUDY

In this study, we will try to evaluate the performance of insurance business in Bangladesh especially the life insurance business which includes individual life, Group insurance, Gono Bima, Grameen and thers. In doing so, we will try to explore the matters such as amount of premium, number of policies offered by different companies, number of policy holders and the overall increase in the business of insurance all over Bangladesh.

The main objective of the study are as follow:

1. To know Income and expenditure pattern of the policy holders.
2. To know the relation between educational qualification and incomeof the policy holders.
3. To guess the main occupation of the policy holders.
7. To know the satisfaction level of the policy holders about life insurance business.
8. To explore the insurance business considering the number of insurance companies, amount of premium and number of policy holder of insurance industry in Bangladesh.
9. To identify any trend in the insurance business.
10. To identify the growth factors if any in the insurance business.
11. To identify the present position of insurance business.

3 DATA COLLECTION AND METHODOLOGY

The very nature of this study demanded the use of both primary and secondary data.For collecting primary data, survey method was used .For this purpose a questionnaire was formulated in the light of the objectives of the research. Secondary data were collected from annual Reports of the sample publication, relevant books, journal, booklets of insurance companies relevant to this topic, the insurance Academy and internet website. In this research we use simple random sampling method for drawing our sample. our population is all the policy holders of the life insurance and our sample is 108 policy holders of 16 life insurance company limited in Bangladesh. We have done univariate and bivariate analysis.We use Chi square,t-test,Correlation coefficient. Also Regression equation and ANOVA is applied in our study. The graphical representation of the tables also included.

4 TABLES, GRAPHS AND COMMENTS

Simple tabulation is mostly used to identify the nature and pattern of various characteristics of the study. Tables are made from the different questions of the questionnaire from where we can get a distinct picture of the policy holders in the life insurance company Ltd.

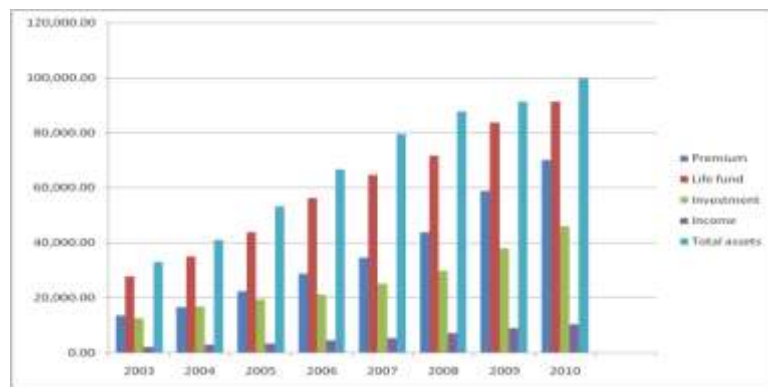


Fig. 1 Financial Information of Life Insurance Business (Taka in Million)

Comment: From the above figure we observed that the amount of premium, life fund, investment and income are slowly increasing during the year 2003 to 2006 but more increase during the year 2007 to 2011.

Table 1. Number of Insurance Companies in Bangladesh

Year	Number of life Insurance Companies	Number of General Insurance Companies.	Total Number of Insurance Companies
2001	6	25	31
2002	8	25	33
2003	8	25	33
2004	9	31	40
2005	10	33	43
2006	11	36	47
2007	13	38	51
2008	14	41	55
2009	16	42	58
2010	19	42	61
2011	19	43	62

Comment: From the table it is observed that there is a strong increasing trend first in the year 1997 to 2000. It is also remain constant through in years for 2001 to 2010.

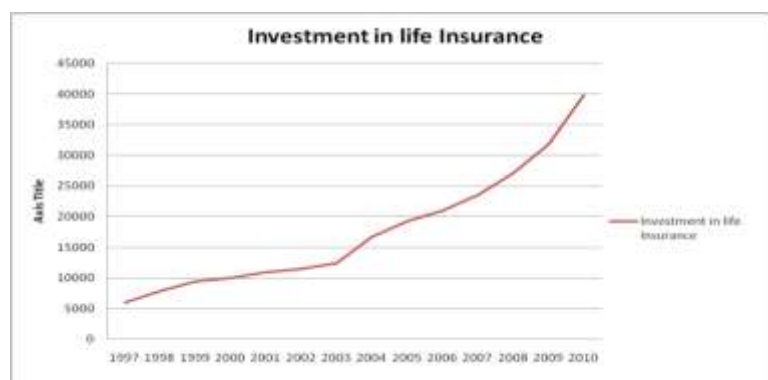


Fig. 2. Investment in life Insurance Business (Taka in Million)

Comment: From the above figure we see that investment in life insurance is increasing yearly.

Table 2. Year-wise Life Insurance Information (Million in Taka)

Year	Policy Sold	Claim Intimated	Claim Paid
2001	799.25	85.59	75.50
2002	810.00	86.50	76.66
2003	822.50	92.35	77.50
2004	854.12	104.36	89.78
2005	901.25	150.78	130.58
2006	942.36	168.25	140.23
2007	975.36	175.80	152.36
2008	998.68	258.23	196.23
2009	1087.32	279.12	223.12
2010	1154.19	301.22	276.19
2011	1315.56	377.23	302.97

Comment: From the above table we see that the amount of policy sold is increasing with respect to time. Same conclusion of claim intimated and claim paid.

Summary Statistics of Observed Data:

	Mean	Standard Deviation
Amount of Policy Sold	951.9812	195.7612
Claim Intimated	163.2671	101.12874
Claim Paid	138.1562	81.98765

Comment : It is observed that the insurance company pay an amount of 138.1562 million taka on an average to the insured while the average amount of policy sold by the company in 951.9812 million taka per year and the amount of intimated claim is on average 163.2671 million taka. It is observed that in the three cases the standard deviation is less than the mean of the amount of policy ,intimated claim and claim paid. It is also observed that in case of claim paid the mean is more than three times of the standard deviation while in two other cases it is found to be a little more than two times.

Table 3. Percentage distribution of policy holders according to their age group:-

Age interval of the Policy holder (in year)	Frequency	Percentage (%)
Below-30	3	2.7
31-40	29	26.9
41-50	34	31.5
51-60	33	30.6
61-70	9	8.3
Total	108	100.0

Comment: From the above table we see that most of the Policyholders in the study area lie between the age group 41-50 years which is highest 31.5% and Below 30 is the lowest 2.7% which means that the influenced of this aged people is dominant on the insurance.

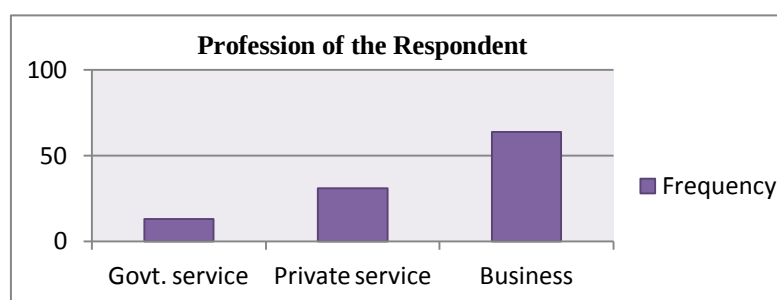


Fig.3 Frequency distribution of the policy holders according to their professions

Comment: From the figure it is found that maximum policy holders are taking business which is 64 as a profession and 31 of the policy holders belongs to the private service and Govt service belongs to 13 policy holders.

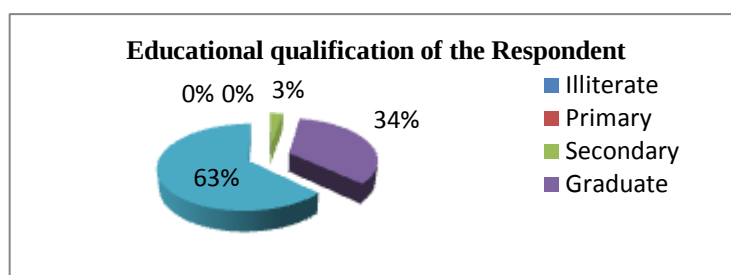


Fig.4 Frequency distribution of educational qualification of policy holders

Comment : From the figure we see that post graduate policy holders are 63% which is the highest percentage , 34% are the Graduate and 3% are the Secondary of the policy holders.

Table 4. Shows the percentage distribution of policy holders to their monthly income

Income level(in taka)	Frequency	Percentage (%)
Below-40000	14	12.9
41000-50000	21	19.5
51000-60000	31	28.7
61000+	42	38.9
Total	108	100.0

Comment: From the above table we see that 38.9% of the policy holders have at mostly 'Tk.61000 monthly income and 12.9% have lowest Below Tk.40000 monthly income. And middle income percent 19.5% ,28.7% respectively of the policy holders.

Table 5. Shows the percentage distribution of policy holders to their monthly expenditure

Expenditure level(in taka)	Frequency	Percentage (%)
Below-35000	17	15.7
36000-45000	25	23.1
46000-55000	29	26.9
56000+	37	34.3
Total	108	100.0

Comment: From the above table we see that 34.3% of the policy holders have at mostly 'Tk.56000 monthly expenditure and 15.7% have lowest Below Tk.35000 monthly expenditure. And middle expenditure percent 23.1% ,26.9% respectively of the policy holders.

Table 6. Frequency distribution of the policy holders opinion about life insurance

Opinion of the policy holders	Strongly agree	Agree	Neither agree nor disagree	Total
The service is satisfactory	5	12	6	23
Claims are paid timely	9	21	11	41
Amount of claims is properly provide	4	26	14	44
Total	18	59	31	108

Comment: From the above table we see that , the statement_“Amount of claims is properly provide”, The policy holders whose opinion are “Agree” is 26 and it is the

highest frequency among all the opinion of policy holders. “Claims are paid timely” is the second highest frequency whose opinion are “Agree”.

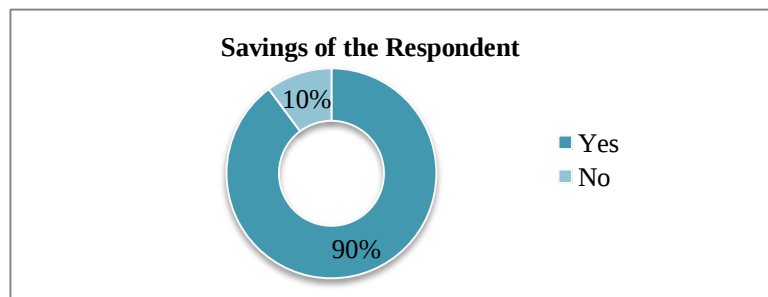


Fig.5. Percentage distribution of the policy holders according to their propensity to savings

Comment: From the above figure it is evident that 10.0% do not has the propensity to savings and the rest 89.0% has the propensity to savings.

Table 7. Percentage distribution of factors that causes growth of insurance in Bangladesh

<i>Causes</i>	<i>Frequency</i>	<i>Percentage</i>
Economical	87	80.6
Social	21	19.4
Political	0	0.0
Total	108	100.0

Comment: From the table we see that Economical factors that causes growth of insurance in Bangladesh are 80.6% which is the highest percentage and 19.4% are the Social cause.

Table 8. Shares of different types of life insurance

<i>Types of Life Insurance</i>	<i>Percentage of Shares of different types of Life Insurance</i>
Individual Life	51%
Group Insurance	8%
Gono Bima	13%
Grameen and Others	28%
Total	100

Comment: From the above table we see that Individual life are 51% which is the highest percentage, Grameen and Others 28 percentage. The lowest percentage of Group Insurance 8% and Gono Bima 13%.

Table 9. Distribution of the types of policy of insurance companies

<i>Types of Policy</i>	<i>Frequency</i>	<i>Percentage</i>
Endowment assurance plan	31	21.1
Islamic Life Insurance	52	31.6
Three payment endowment	18	10.6
Others	7	36.7
Total	108	100

Comment: From the above table we see that Islamic life insurance policy is 31.6% which is the highest percent and Three payment endowment policy is only 10.6 percent. Others are 36.7% and Endowment assurance plan are 21.1%.

5 ANALYSIS, TESTS AND COMMENTS

5.1 chi-square test

A chi-square test is a statistical test commonly used for testing independence and goodness of fit. Testing independence determines whether two or more observations across two populations are dependent on each other (that is, whether one variable helps to estimate the other). Testing for goodness of fit determines if an observed frequency distribution matches a theoretical frequency distribution. In both cases the equation to calculate the chi-square statistic is

$$X^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i}$$

Where, O_i is the observed frequency, E_i is the expected frequency, n is the number of cells.

The effect of Yates' correction is to prevent overestimation of statistical significance when at least one cell of the table has an expected count smaller than 5. The following is Yates' corrected version of Pearson's chi-squared statistic:

$$\chi^2_{\text{Yates}} = \sum_{i=1}^N \frac{(|O_i - E_i| - 0.5)^2}{E_i}$$

5.1.1 Cross tabulation and test for association between income and Education of Policy holder:

Education	Income				Total
	Below 40000	41000-50000	51000-60000	Above 61000	
Up to H.S.C	2	1	00	00	3
Graduate	3	6	11	17	37
Post Graduate	2	10	20	36	68
Total	7	17	31	53	N=108

Let us consider the following hypotheses:

H_0 : There is no association between income and Education.

H_1 : There is association between income and Education.

Chi Square (χ^2)	d.f	p-value	N
26.12	6	.000	108

Comment: Since p value is .000, so we conclude that our test is highly significant. i.e., Income is influenced by the Education of the policy holders. If Education is high then Income is high and if Education is low then Income is also low.

5.1.2 Cross tabulation and test for association between income and propensity to savings of the policy holders:

Savings	Income				Total
	Below-40000	41000-50000	51000-60000	61000+	
Yes	8	14	24	32	78
No	7	9	6	8	30
Total	15	23	30	40	N=108

Let us consider the following hypothesis:

H_0 : There is no association between income and propensity to savings.

H_1 : There is association between income and propensity to savings.

Chi Square (χ^2)	d.f	p-value	N
17.13	3	.014	108

Comment: Here $P=.014<.05$ (5% level of significance), so our test is significant. i.e., there is some sort of association between income and propensity to savings. The policy holders who have high income, Saving tendency is high and so on.

5.2 Correlation coefficient test

Correlation coefficient are used in statistics to measure how strong a relationship is between two variables. The quantity r , called the linear correlation coefficient, measures the strength and the direction of a linear relationship between two variables.

$$r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \sqrt{n(\sum y^2) - (\sum y)^2}}$$

where, n is the number of pairs of data. The simplest formula for computing the appropriate t value to test significance of a correlation coefficient employs the t distribution:

$$t = \frac{r\sqrt{(n-2)}}{\sqrt{(1-r^2)}} \text{ with } (n-2) \text{ degrees of freedom}$$

Where, r is the correlation coefficient.

5.2.1 Cross tabulation and test for the Correlation Coefficient between income and expenditure of the policy holders:

Income	Expenditure				
	Below 35000	36000-45000	46000-55000	56000+	Total
Below 40000	2	1	0	0	3
41000-50000	6	3	1	0	10
51000-60000	24	14	3	1	42
61000+	21	19	9	4	53
Total	53	37	13	5	108

Let us consider the following hypotheses,

H_0 : There is no correlation between income and expenditure.

H_1 : There is correlation between income and expenditure.

By using the SPSS 16.0 we find the correlation between income and expenditure of the household. The correlation co-efficient is, $r = 0.812$. Then we have,

t- test	d.f	p-value	N
24.54	9	.013	108

Comment: From this test it is clear that our result is significant. i.e., there is correlation between income and expenditure.

5.2.2 Bivariate Analysis for Amount of Policy and Claim paid (Correlation Analysis)

We consider the data on claim paid and amount of policy for bi-variate analysis purpose.

		Claim Paid	Amount of Policy
Pearson Correlation	Claim Paid	1	.922
	Amount of Policy	.922	1
Significant (one tailed)	Claim Paid	-	.000
	Amount of Policy	.000	-

Comment: The result suggested that the amount of policy and claim paid are highly positively correlated. The co-efficient of determination, $r^2 = 0.85$ which implies that, 85 percent of variation of claim paid is explained by the amount of policy sold of the Insurance Companies.

5.3 Linear Regression Model

The original specification involved a linear regression line specified for the amount of policy sold and claim paid considering policy as independent variable and claim as dependent variable.

The simplest form of the model, using 11 years of amount of policy and amount of claim paid is defined by

$$Y_i = \beta_0 + \beta_1 X + \epsilon \quad i=1,2,3,\dots,11$$

Where,

Y= Claim Paid (Dependent Variable)

X= Amount of Policy

β_0 =is the intercept term

β_1 =is the slope of the model

ϵ = The error term

Model Summary Statistics:

Model	β_0	β_1	R	R Square	Adjusted R Square	Std. Error of the Estimate
$Y_i = \beta_0 + \beta_1 X$	-208.32	.382	.922	.851	.838	32.63

The estimated model is

$$Y = -208.32 + .382X$$

Comment: The regression Coefficient suggested that for one unit change in the amount of policy, the claim paid will change in .382 unit and it indicates a weekly correlation between the claim paid and amount of policy.

5.4 Analysis of Variance (ANOVA)

A statistical analysis tool that separates the total variability found within a data set into two components: random and systematic factors. The random factors do not have any statistical influence on the given data set, while the systematic factors do. The ANOVA test is used to determine the impact independent variables have on the dependent variable in a regression analysis.

Analysis of variance(ANOVA) for Amount of policy and Claim paid are as follows:

we use the Fisher's F statistic

$$F = (RSS/d.f) / (RESS/d.f)$$

Follows the Fisher's F statistic with 1 and 9 degrees of freedom where RSS is the regression sum of square and SERR is the residual sum of square.

ANOVA

Model		Sum of Squares	df	Mean Square	F	P-value
$Y_i = \beta_0 + \beta_1 X$	Regression	72756.481	1	72756.481	68.325	.000
	Residual	12778.300	9	1064.858		
	Total	85534.781	10			

Comment: It is observed that the calculated value of Fisher's F statistic is 68.325 while P-value is .000, which shows that the result is highly significant. so we may reject the null hypothesis. Thus we may conclude that the amount of policy is influenced by the claim paid.

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