Examining the Operations of Life Insurance Companies of Bangladesh from Ethical Perspective

Sadia Noor Khan^{*}

Abstract: This paper examines ethics in the insurance industry in Bangladesh and provides some policy measures for future development. Although insurance business is an integral part of the financial system of Bangladesh since nation's birth, this sector still does not catch much attraction of the policyholders. Insurance industry itself is a major catalyst for ethical dilemma and here with a half century old law and in new competitive work pressure insurance companies may involve in unfair means and seek more profit via any means. In the current situation people may not consider insurance as viable option and this ethical environment here play a great role. So some recommendations for both regulatory authority and insurance companies are provided for ensuring an ethical environment and thus attract more customers in an attainable way in this sector.

Keywords: Ethics, life insurance, claim settlement

1. Introduction

"Ethics is knowing the difference between what you have a right to do ... and what is right to do."

The insurance industry is a perfect example of the use of "grey areas" in the culture of business ethics. The use of business ethics couldn't be of greater importance then the companies that provide the actual policies themselves. Even with all of the regulations the Insurance Department puts on the insurance companies, agents, brokers, and adjusters there are still areas where discrepancies in the code of business practices exist.

The paper was based upon the ethicality of insurance companies in Bangladesh. This paper will help us know about the ethical environment and practice in insurance business in Bangladesh. Insurance is a system of spreading the risk of one to the shoulders of many. It can be defined as a co-operative device to spread the loss caused by a particular risk over a number of persons who are exposed to it and who agree to ensure themselves against that risk. It is a contract whereby the insurers, on receipt of a consideration known

^{*} Lecturer, Department of Banking and Insurance, University of Dhaka, Dhaka-1000

as premium, agree to indemnify the insured against losses arising out of certain specified unforeseen contingencies or perils insured against. It can play an important role in a country's economy. It is an old form of financial practice of sharing risk, which was introduced in this area in mid-18th century.

Insurance is not new business in Bangladesh. Almost a century back, during British rule in India, some insurance companies started transacting business, both life and general, in Bengal. Insurance business gained momentum in East Pakistan during 1947-1971, when 49 insurance companies transacted both life and general insurance schemes. These were mostly limited liability companies. The Government of Bangladesh nationalized insurance industry in 1972 by the Bangladesh Insurance (Nationalization) Order 1972. By virtue of this order, saves and except postal life insurance and foreign life insurance companies, all 49 insurance companies and organizations transacting insurance business in the country were placed in the sector under fie operations .The Jatiya Bima Corporation was an apex corporation only to supervise and control the activities of the other insurance corporations which were responsible for underwriting. The specialist life insurance companies or for a life portion of a composite company joined the Rupsa and Surma corporations while specialist general insurance companies or the general portion of a composite company joined The Tista and Karnafuli corporations. The basic idea behind the formation of four underwriting corporations, two in each main branch of life and general, was to encourage competition even under a nationalized system. But the burden of administrative expenses incurred in maintaining two corporations in each front of life and general and an apex institution at the top outweighed the advantages of limited competition. Consequently, on 14 May 1973, a restructuring was made under the Insurance Corporations Act 1973. Following the Act, in place of five corporations the government formed two: the SADHARAN BIMA CORPORATION for general business, and JIBAN BIMA CORPORATION for life business.

In Bangladesh, the Insurance business, after an early stage of dislocation, adventure and experimentation through half a century has now being established as a nascent industry distributed between the public and private sectors. Insurance business evolved in the Indian subcontinent late in nineteenth century when several business companies started their business and a few Christian missionaries began to operate mutual funds to serve their own community members. From Bangladesh perspective insurance business was not a promising sector in its early age but it is getting its pace day by day with the growth of overall economic condition of the country.

There are 18 life insurance company are now conduct their business under the JIBAN BIMA CORPORATION. IDRA (Insurance Development and Regulatory Authority) has the responsible to manage the authority over the insurance industry in Bangladesh. To strength the regulatory framework, IDRA time to time passed new laws and circulars for the insurance industry. But the insurance business is based on utmost good faith. Insurance companies may follow the law but there are chances of discrepancy and that mainly depends on the ethics of the insurance personnel. In this paper we tried to find out the ethical practice in the life insurance industry in Bangladesh.

2. Objective

The main objective of the report is to find out the ethical practice in the life insurance industry in Bangladesh.

There are some adjust objectives which are

- To Identify the reasons of unethical issues in Insurance Industry
- To suggest or recommend some necessary steps to solve the existing problems.
- To suggest necessary steps to develop proper ethical environment in a developing country like Bangladesh.
- To identify problems in implementing ethical standard in insurance industries.

I think this paper will also be beneficial for those people who need information about ethical practice in life insurance in Bangladesh.

3. Literature Review

Insurance is a competitive business and based upon utmost good faith. Any competitive business is based upon solicitation and service. In insurance clients are largely dependent on the agents or sales person of insurance companies. For the own benefit of the agents, there are some temptation/opportunity to conceal pertinent information, to misrepresent, or to use information for wrongful meaning. As the agents income is mainly based on commission it provides potential for abuse in information and conflict of interest. (Felsch, 2010)

A first way of developing insurance ethics is to look at the challenges facing core professions involved in insurance. Nicos Scordis (2011) presented a paper in world headquarters of Munich Reinsurance on ethics of risk modeling. According to Scordis, a risk modeling culture has evolved as the apparent exactness of pure mathematics is preferred over imperfection of human behavior. As a result of this culture, such risk models tend to underestimate risk and the result is not always justified. A critical

evaluation of the risk modeling process, however, suggests that in practice, ethical principles are fluid and vague and depend on particular contexts. Thus, moral guides that provide explicit instructions for responsible behavior are of limited practical value. Scordis identify some characteristics of prudent risk modeler and thus offer an important set of guidelines for risk modeling in an uncertain era.

Another way of developing the insurance ethics could start with the point that insurance in fundamentally about risk and responsibility sharing in large groups or pools. Alexandros-Andreas Kyrtsis (2011) discussed the roles and responsibilities of insurers in relation to large scale technological project. He argued that, although both insurers and related parties realized the risks to which they were exposed, they did not proceed to appropriate measures. His argument was that insurance can be an institutional driver towards ethics of sound technological and operational risk management.

Legal dimension of insurance has several characteristics which creates some ethical liability to the insurance company. The relation between the insured and insurer gives birth to a moral as well as ethical standard. Erosion of moral opportunity, loophole morality and moral neutralization are several negative ethical consequences which can affect the overall insurance contract. (Kvalnes 2011).

Solidarity is transformed through risk sharing and relationship is identified through insurance. Human life can be transformed into economic capital which can be measured in monetary value. (Ewald 1986). Insurance inevitably distributes wealth and brings social fairness and equality. Good Governance develops good corporate ethics therefore affecting the norms of the insurance and removing the moral hazard. (Diacon and Ennew 1996).

One possible area for the insurance industry to show leadership is in promoting and supporting micro insurance initiatives in the developing world. Ralf Radermacher from the Micro-insurance Academy in New Delhi and Johannes Brinkmann from the BI Norwegian School of Management used the interesting topic of micro insurance as a context to address ethical questions regarding insurance.

As Lesch and Brinkman (2011) see it, the interesting question is in what ways everyone could address insurance abuse more constructively. Insurance marketing is ideally about where companies meet their customers for maximizing joint benefits, or as it is called in modern marketing theory: co-creation of value. A key point is that it takes two parties to create value and that it takes two parties to destroy it.

Two sociologists from the University of Helsinki, Turo-Kimmo Lehtonen and JyriLiukko (2011), dealt with a different set of ethical challenges for insurers: the challenges of defining what constitutes equality and discrimination in the insurance context. They argued that insurance can be thought of as producing what sociologists call solidarity among everyone in risk pool, so that those in the pool become a community of people sharing risk.

Survey of Mckinsey in year 2007 revealed that more than 66% of the agents have had no selling experience before becoming agents. They are heavily relaying on their association of Sales Managers. Untrained Agents and Sales Managers, who has a moral responsibility to train them, form a weak link in forming an ethical value chain in Indian Life Insurance Industry. (McKinsey & Co, Fortune Favors the Bold, 2007). Ethical behavior should be the first priority of any insurance agent but often they faces internal and external pressure to advice clients to purchase more insurance than they need or — the other extreme — underinsure a risk just to close the deal. (Gonzales, 2013)

In Bangladesh, the Insurance Act is too restrictive in the matter of investment. The current practice is that every company tries to promote its own products, but the benefits of life insurance as such are not highlighted. In other words, the publicity is itemized, not general. In life insurance, for the sales personnel particularly, importance of training cannot be overemphasized. But unfortunately the present facilities for training, despite what the Insurance Academy is doing, are meager. Whatever may be in theory, in reality a public sector corporation (PSC) engaged in life insurance business is not accountable to anyone. The controller of insurance (CI) cannot enforce its authority over the PSC, since the latter can easily disregard the CI without fear and any positive action. This gives the PSC, compared to private companies, many advantages. Of course, these so-called advantages are truly of an illusory nature since in the long run they will do much harm not only to the PSC itself but also to the life insurance industry as a whole. For those reason ethical discrepancy may occur. (Reza and Iqbal, 2007)

4. Methodology

An exploratory research has been conducted in preparing the paper. Theoretical and practical studies have been incorporated. There is no use of primary data in this research. All the data are collected from secondary sources. Data was collected from Insurance journal, reference books, internet, IDRA report etc. There was no scope for the researcher to physically visit different life insurance company. Relevant literature survey, observation method were used extensively. Regression analysis has been used for surfacing through data. As the amount payment on claim depends on total number of claim, we used total payment of claim as dependent variable and total claim as

independent variable. For the analysis Microsoft office suite and Statistical software were used. Numerical data have been analyzed and interpreted with concentration and relation to the main issue. Stationary and Non-Stationary tests for data also been performed by using the E-views statistical software. Heteroscedasticity tests also been performed. Data and information collected from different sources were critically compared and found negligible mismatching. Theoretical analysis along with numerical evidences has been used to substantiate the findings of the paper.

5. Findings and Analysis

5.1. Ethics in Life Insurance

Insurance is a highly distinctive and centrally important social institution, which thus needs a distinctive business ethics. (Aaron Doyle 2012). Business ethics is applied ethics. It is the application of our understanding of what is good and right to that assortment of institutions, transactions, activities, and pursuits that we call "business."

When discussing professional ethics, it is necessary to examine the core beliefs and underlying precepts that comprise our particular value system. Insurance business is a perfect example of grey areas in the culture of business ethics. Even with all of the regulations the Insurance Department puts on the insurance companies, agents, brokers, and adjusters there are still areas where discrepancies in the code of business practices exist. Ethical behavior is crucial to preserving not only the trust on which insurance transactions are based, but also the public's trust in the insurance industry as a whole. The central ethical issue in the insurance industry centers on money over customer support. Several facets differentiate those who see insurance as a vocation and those who view the profession as a means to a financial end. The Ethical dilemmas in Insurance industries are like,

Pressures of Profit Making / Bottom Line

Competitive/ financial forces often lead to ethical confrontation as agents are pushed to get more policy from the clients. Agents' income is also based on their client base. For that reason sometimes agents may follow unethical way to earn more profit.

Down selling

To increase own selling companies microprint a competitor's product to gain competitive edge

Twisting

Misrepresenting a policy or making incomplete comparisons of policies to induce a policy owner to change or replace an existing policy

Rebating

Offering percentage of commission or some other value to induce client into transaction

Low balling

Inducing transaction by offering lower price on policy without disclosing certain deductibles or other differences

Underwriting Information

Agents and brokers repeatedly asked to misrepresent information whereas complete and accurate discloser of all facts should be reported.

Income Disclosures

Market and ethical trend is full disclosure of all information, including disclosure of all income to client.

Gifts / Entertainment

Gifts of any significant value may affect objectivity and influence or appear to influence business relationships so gifts of any significant value should not be accepted or offered in connection with any business dealings

Client Information and Sharing

Client information is often confidential but sometimes disclosure should be necessary. In that case before providing the information be clear in communications with client and make sure Information should never be used for personal benefit.

5.2 Practices in Bangladesh

Despite the passage of sweeping financial services reform legislation recently, insurance as a product and as a business will continue to exist as critical components of the financial service industry in future. As such many of the ethical challenges currently encountered in the insurance industry will continue to face the financial service industry in Bangladesh. But till now the proper ethical environment is not in practice for the insurance industry in Bangladesh. People are still not trusting insurance as a way of investment.

Claim Settlement

Baker's (1994) analysis of insurance process and case law surrounding adjudication of bad faith claims show some anxiety between the parties of an insurance contract. There is relation of faith between the insurer and insured in which insured as assured about the payment of claims. Insurer's ability to pay when the claim are make the insured more trustworthy in the insurance industry. A way of developing insurance ethics is focusing more in the contribution of the insurance in reducing the risk and taking responsibility from social and institutional perspectives.

Some insurance companies create harassment on the policy holders or sometimes on the dependents of the policy holders when they want back their money after death or maturity. The insurance companies show different causes in order to make delay to return back the money at expected time. Sometimes they are eager to pay less than the desired amount by creating various circumstances such as they try to say that the disaster of the subject matter of the policy is not responsible due to their activities. According to the information around 70-80 percent of the claim is actually paid. So here we try to find if there is any relation between the amount claim and paid claim so that we can dig out in ethical issues.

SUMMARY OUTPUT

Regression St	atistics							
Multiple R	0.501652248							
R Square	0.251654978							
Adjusted R Square	0.002206637							
Standard Error	156.412591							
Observations	5							
ANOVA	df	SS	MS	F	Significance F	_		
					5,	-		
Regression	1	24681.31682		1.008846	0.38918136)		
Residual	3	73394.6959	24464.9					
Total	4	98076.01272				-		
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	ower 95.0%	Upper 95.0%
Intercept	1238.27704	87.91933606	14.08424	0.000775	958.4784739	1518.076	958.4785	1518.075606
Payment	0.01944295	0.01935752	1.004413	0.389181	-0.042161316	0.081047	-0.04216	0.081047216

The regression equation can be derived from the output which is,

Net Claim Payment = $1238.27704 + (0.01944295 \times Claim)$

Which imply that for 1% change in claim there will by 0.019% change in net claim payment.

Here, \mathbb{R}^{\bullet} , which is the coefficient determination, is 0.2516 which means 25.16% variation in the dependent variable can be explained by the changes in independent variable. Here, payment is the dependent variable. So, 25.16% variation in net claim is actually explained by payment on claim. In another way, we can say that 74.84% variation in net claim is due to other sources other than payment on claim.

But if we look at the adjusted \mathbb{R}^2 we see it is only 0.22%. The deference between \mathbb{R}^2 and adjusted \mathbb{R}^2 is too high. The reason being that the total sum squared error of the model is too high.

We can test whether payment claim effectively estimate the net claim. For this we can conduct t-test. It is important because after conducting the test we will get to know whether or not payment on claim has any value in explaining any variation in net claim. For the conduction of the hypothesis we first have to state the null hypothesis and then the alternate hypothesis.

$$H_0: b = 0$$
$$H_1: b \neq 0$$

The null hypothesis state that regression coefficient is zero and is of no use in estimating the dependent variable. If the null hypothesis is true then we can conclude that payment on claim has no ability of explaining the variation in dependent variable net claim.

At 3 degrees of freedom and 5% significance level, the critical value of t can be obtained from Appendix B.2 Student's t distribution which is 3.182. We will reject the null hypothesis if t is less than -3.182 or greater than 3.182. From the table we see the computed t-value is 1.004413. So, it is not greater than the critical t. We cannot reject the null hypothesis. Hence we can conclude that payment on claim has not effect on the net claim.

Asymmetric Information

In case of both the policy and financial affairs insurance companies are not always truthful. They may not provide the whole information about the policies to a client and they may not also provide different policies rather strict to most beneficial policy for them.

Unfair means

Some field officials also create some illegal acts. They often try to give false information to the people for buying a policy. And these kind of illegal acts create bad reputation to the insurance companies and hindrance the overall insurance business.

Sales of insurance

Marketing for insurance is still not in proper practice in Bangladesh. For that reason agents' misrepresent their policy to increase the sales. There is no proper marketing or ethical guideline for this.

Ignorance of need

Sometimes the insurer ignores the need of the client and let him buy more policies or a costly policy than usual. Insurer may not identify the clients' needs according to their profile rather work for their own benefit which creates conflicts of interest.

Regulatory Issue

In Bangladesh, IDRA work as the regulatory authority in insurance industry. But their role is still vague. They provide some law and circular time to time but proper inspection is not in order. There is no proper ethical guideline and any punishable act in case of fraudulent is yet to be established.

Although the ethical issues are still at large and some people who are harassed by insurance companies suggest other to not to take the insurance policy the insurance industry it still growing and ready to work as import part of financial market in Bangladesh.

5.3 Problems in Implementing Ethical Standards in the life Insurance Industries

Every organization needs a set of ethics policies and procedures to describe how the ethical values are to be implemented. These policies and procedures are the means by which the organization communicates expectations and requirements to its employees But in Bangladesh it is tough for us to maintain proper ethical standard in our work places. There are some problems regarding the implementation of the ethical practice.

• Lack of ethical climate and safeguards in place:

Corporations are composed of culture. Ethical standards come from the core of the corporate culture. In Bangladesh, ethical work culture is not in practice for most of the

organization. Also in insurance industry most of the organizations do not follow any strict ethical guideline. They do not have any whistle blowing system or compliance system for ethical issues.

• Work without proper accountability

In Bangladesh, like most of the places, there is a little accountability in insurance industry. There is lack of peer to peer communication. For profit or own accord, sometimes organization or employees put unnecessary schemes to their customers. There are also some hidden charges which should have been surfaced.

• Lack of proper ethical regulations:

Regulatory bodies are not strict enough in Bangladesh in ethical issues. They should have post some code of ethics in every department of insurance companies and that is just the first part. There are not any quarries further to see if there is any breach in these codes. There should have some third parties to see if there is any violation in rules.

- Lack of transparency in workplace: In Bangladesh going public with ethical issues are not in practice. Corporations that are open about their ethical standards and conduct seem to be more trustworthy than those who stay silent. Some issue an annual report of their ethics accomplishments and the challenges they faced. But there are nothing more than that. So the transparency is not properly maintained.
- **Briefcase Auditors are at arm's reach:** In Bangladesh, you can always manipulate you public documentations. So insurance companies can take benefits with that and there is no strict action against that either.
- Absence of Proper guidelines to the insurance agents: Insurance agents are trained with only for sale of goods not for any ethical issues. They should have trained with the following things in focus but which is not followed or checked.

Integrity	Objectivity
Professional competence and due care	Confidentiality
Professional behavior	Self interest
Self-review	Advocacy
Familiarity	Intimidation

5.4 Recommendations

As the Insurance is an integral part of financial system and there is a little trust in insurance industry among people some protective measure should be taken.

For The Regulatory Authority

IDRA in Bangladesh should take some measure to strengthen the ethical condition in the industry. They are solely responsible for regulating insurance industry and enforcing insurance codes and for investigating conduct of companies, brokers & agents. So they have to manage close supervision of legal and ethical issues so that proper ethical environment would sustain.

For Insurance Company

Insurance companies have to be very careful in case of ethical dilemmas. If any cases arise they have to go through the following checklist.

- Identify the Issue: Is it legal vs. ethical?
- Are there moral considerations?
 - What are they?
 - What conclusions do they lead to?
- Which parties will benefit by the decision and which will be harmed?
 - Are you harming a party to which you owe a duty of loyalty?
- Is someone or some organization being used for your personal gain or your company's gain?
 - o Is it fair?
 - Do they know about it?
- What might happen if the considered outcome was industry practice?
 - Would the industry be better off?
- Can the decision be professionally defended, as compared to rationalize?

- How would you feel if you candidly discussed your conduct with your peers, management, a judge, your family?
 - Would you feel uncomfortable or embarrassed?
 - What if the issue were on the cover of a major newspaper or publication?

6. Conclusion

Insurance business is based on utmost good faith. For that reason ethics is an important factor in insurance industry. But in Bangladesh, ethical practice is neglected all across the industry and there is no proper guideline for ethical practice yet. By observing the ethical dilemma and tension in the insurance industry it is suggested to the regulatory authority to establish a proper ethical code of conduct for insurance companies and the company must comply with the guidelines and manage an internal control unit for compliance and whistle blowing.

References

- Kevin L. Eastman, Jacqueline K. Eastman, Alan D. Eastman, (1996), *The ethics of insurance professionals: Comparison of personal versus professional ethics*, Journal of Business Ethics September 1996, Volume 15, Issue 9, pp 951-962
- Robert W. Cooper, Garry L. Frank, (2002), *Ethical Challenges in the Two Main Segments of the Insurance Industry: Key Considerations in the Evolving Financial Services Marketplace*, Journal of Business Ethics March 2002, Volume 36, Issue 1-2, pp 5-20
- 3. Ahmed, T, (2006), Overall insurance company's problems and prospects in Bangladesh.
- 4. Flesch F, (2010), Ethics in Insurance.
- 5. Gonzales, J,(2013), *The Importance of Being Ethical in the Insurance Industry*, www.Noozhawk.com
- 6. Brinkmann J and Doyle A, (2011), Insurance, Ethics and Corporate Social Responsibility, Nordisk Försäkringstidskrift.
- 7. Theodore M. Pappas, (2008), *Ethics in the Insurance Industry*, NAMIC commercial Line seminar Presentation.
- Erik Cohen (2011, 12). The Insurance Industry and Business Ethics. StudyMode.com. Retrieved 12, 2011, from http://www.studymode.com/ essays/The-Insurance-Industry-And-Business-Ethics-863616.html
- 9. Mishra, M. N., (2002-2003), Insurance: Principles and Practice, 10th edition S. Chand & Co.
- 10. Zeithaml, V.A. and Bitner, M. J. (2000). Services Marketing: Integrating Customer Focus across the Firm, 2nd ed. New York: McGraw-Hill.

- Rahman, Md. Masudur & Khondkar, Dr. Mubina, *Marketing Orientation in the Insurance Companies of Bangladesh*, Dhaka University Journal of Marketing, Vol. No. 03, June' 2000.
- 12. Kausal M. and Vachhrajani H. (2009). Factors Affecting Sales Ethics in Life Insurance Sector of India: A Critical Review of Literature. Ministry of Finance, People Republic of Bangladesh. Functions of Banks and Financial Institutions. Dhaka: Various Issues.
- 13. Ewald, F. (1990). Norms, discipline, and the law. Representations, 30, 138–161.
- 14. Yvind Kvalnes (2011) Blurred Promises: Ethical Consequences of Fine Print Policies in Insurance
- 15. Aaron Doyle (2012) Introduction: Insurance and Business Ethics, Journal of Business Ethics
- 16. S. R. Diacon and C. T. Ennew (Jun., 1996), Can Business Ethics Enhance Corporate Governance? Evidence from a Survey of UK Insurance Executives, Journal of Business Ethics.
- Laczniak, G. 1983, "Business Ethics: A Manager's Primer", Business Magazine, January-March, 23-29.
- 18. Journal of Banking and Finance, 26: 1821-35.
- 19. Brenkert, G. G. (2010). Marketing Ethics, UK: Blackwell Publishers.

Appendix: 1

Total net claim over the years from different insurance companies: (In Million Taka)

Company/Year	2008	2009	2010	2011	2012
National Life Insurance	235.6038	218.484	302.0842	317.4782	334.875
Delta Life insurance Company	161.2026	114.444	151.0421	124.2306	139.65
Rupali Life insurance Company	86.8014	72.828	96.1177	96.6238	95.475
Pragati Life Insurance Company	86.8014	72.828	82.3866	82.8204	106.875
Prime Life Insurance Company	99.2016	83.232	82.3866	110.4272	119.7
Meghna Life Insurance Company	111.6018	93.636	123.5799	124.2306	128.25
Progressive Life insurance Company	124.002	104.04	164.7732	124.2306	139.65
Popular life insurance Company	136.4022	114.444	164.7732	165.6408	156.75
Fareast Life insurance company	111.6018	93.636	123.5799	124.2306	98.325
Padma Life Insurance Company	86.8014	72.828	82.3866	110.4272	105.45

Company/Year	2008	2009	2010	2011	2012
National Life Insurance	147.5624	132.651	185.3699	198.769	199.5
Delta Life insurance Company	130.2021	101.439	144.1766	99.38448	109.725
Rupali Life insurance Company	69.44112	70.227	72.08828	88.34176	79.8
Pragati Life Insurance Company	78.12126	62.424	61.78995	77.29904	89.775
Prime Life Insurance Company	69.44112	70.227	72.08828	88.34176	109.725
Meghna Life Insurance Company	95.48154	85.833	92.68493	99.38448	89.775
Progressive Life insurance Company	78.12126	85.833	154.4749	110.4272	59.85
Popular life insurance Company	69.44112	54.621	123.5799	143.5554	109.725
Fareast Life insurance company	78.12126	54.621	72.08828	99.38448	69.825
Padma Life Insurance Company	52.08084	62.424	51.49163	99.38448	79.8

Total Payment on Claim Over the years by different insurance companies: (In Million Taka)

Disclaimer: This information did not collect from the respective insurance companies rather it is collected from Insurance Development Regulatory Authority (IDRA). Most of the information has been collected through conversation and discussion as there is no public record of this information in Bangladesh.

Appendix: 2 Test of Data and Hypothesis

Augmented Dicky Fuller Test in Level data (Deterministic structure is Intercept Only)

Null Hypothesis: PAYMENT_ON	N_CLAIM has a un	it root			
Exogenous: Constant					
Lag Length: 0 (Automatic - based	on SIC, maxlag=0)			
			t-Statistic	Prob.*	
Augmented Dickey-Fuller test stati	stic		1.413218	0.9877	
Test critical values:	1% level		-6.423637		
	5% level		-3.984991		
	10% level		-3.120686		
*MacKinnon (1996) one-sided p-	values.				
Warning: Probabilities and critic sample size of 4	al values calculate	d for 20 observatio	ons and may not be	e accurate for a	
Augmented Dickey-Fuller Test Ed	quation				
Dependent Variable: D (PAYME)	NT_ON_CLAIM)				
Method: Least Squares					
Date: 05/01/14 Time: 05:48					
Sample (adjusted): 2009 2012					
Included observations: 4 after adju	ustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
PAYMENT_ON_CLAIM(-1)	21.02125	14.87474	1.413218	0.2931	
С	-17601.05	14194.06	-1.240029	0.3407	
R-squared	0.499648	Mean depe	ndent var	2276.747	
Adjusted R-squared	0.249472 S.D. dependent var 4398.144				
S.E. of regression	3810.246	Akaike info criterion 19.63563			
Sum squared resid	29035946	Schwarz	criterion	19.32878	
Log likelihood	-37.27126	Hannan-Qu	inn criter.	18.96226	
F-statistic	1.997185	Durbin-Wa	atson stat	2.976798	
Prob (F-statistic)	0.293142				

Here, p-value = 0.9877 which is greater than 0.05. As the p-value 0.9877 > 0.05; we would not reject the null hypothesis, concluding payment on claim has at least one unit root. Hence the data set is non-stationary.

(rend)				
Null Hypothesis: PAYMENT_	ON_CLAIM has a u	nit root		
Exogenous: Constant, Linear T	rend			
Lag Length: 0 (Automatic - bas	sed on SIC, maxlag=))		
			t-Statistic	Prob.*
Augmented Dickey-Fuller test	statistic		0.152285	0.9420
Test critical values:	1% level		-10.66657	
	5% level		-6.482609	
	10% level		-4.819859	
*MacKinnon (1996) one-sided	p-values.			
Warning: Probabilities and crissample size of 4	tical values calculat	ed for 20 observation	ons and may not b	e accurate for
Augmented Dickey-Fuller Test	Equation			
Dependent Variable: D(PAYM	ENT_ON_CLAIM)			
Method: Least Squares				
Date: 05/01/14 Time: 06:00				
Sample (adjusted): 2009 2012				

Augmented Dicky Fuller Test in Level data (Deterministic structure is Intercept + Trend)

Included observations: 4 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PAYMENT_ON_CLAIM(-1)	5.075207	33.32711	0.152285	0.9038
С	-7981.550	24217.20	-0.329582	0.7973
@TREND(2008)	2183.663	3817.826	0.571965	0.6692

R-squared	0.622986	Mean dependent var	2276.747
Adjusted R-squared	-0.131043	S.D. dependent var	4398.144
S.E. of regression	4677.448	Akaike info criterion	19.85260
Sum squared resid	21878520	Schwarz criterion	19.39232
Log likelihood	-36.70520	Hannan-Quinn criter.	18.84255
F-statistic	0.826210	Durbin-Watson stat 2.46	

So, from here we can again see that the data set is non-stationary as p-value 0.9420 > 0.05.

Heteroskedasticity Test: ARCH							
F-statistic	0.630307	Prob.	0.5105				
Obs*R-squared	0.958530	Prob. Chi-	-Square(1)	0.3276			
Test Equation:							
Dependent Variable: RESID^2							
Method: Least Squares							
Date: 05/01/14 Time: 07:22							
Sample (adjusted): 2009 2012							
Included observations: 4 after a							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	27293.31	15290.29	1.785010	0.2162			
RESID^2(-1)	-0.490950	0.618389	-0.793919	0.5105			
R-squared	0.239633	Mean dep	18291.42				
Adjusted R-squared	-0.140551	S.D. depe	19210.68				
S.E. of regression	20516.35	20516.35 Akaike info criterion					
Sum squared resid	8.42E+08	Schwarz	22.69583				
Log likelihood	-44.00537	Hannan-Q	22.32932				
F-statistic	0.630307	Durbin-W	0.594685				
Prob (F-statistic)	0.510477						

Heteroskedasticity Test: White

F-statistic	0.633105	0.6123		
Obs*R-squared	1.938347	1.938347 Prob. Chi-Square(2)		
Scaled explained SS	0.443076	Prob. Chi-	-Square(2)	0.8013
Test Equation				
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 05/01/14 Time: 07:24				
Sample: 2008 2012				
Included observations: 5				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	84136.66	83876.92	1.003097	0.4215
PAYMENT_ON_CLAIM	-76.12263	96.57124	-0.788254	0.5131
PAYMENT_ON_CLAIM^2	0.006786	0.008849	0.766920	0.5233
			•	1
R-squared	0.387669	Mean dep	endent var	14678.94
Adjusted R-squared	-0.224661	S.D. depe	18494.26	
S.E. of regression	20466.56	Akaike int	22.97468	
Sum squared reside	8.38E+08	Schwarz criterion		22.74034
Log likelihood	-54.43670	Hannan-Quinn criter.		22.34574
F-statistic	0.633105	Durbin-Watson stat		2.263475
Prob (F-statistic)	0.612331			