The Impact of Privatization in Insurance Industry on Insurance Efficiency in Iran

Shahram Gilaninia¹, Hosein Ganjinia, Azadeh Asadian³*

1. Department of Industrial Management, Islamic Azad University, Rasht Branch, Rasht, Iran
2. Department of Public Management, Islamic Azad University, Rasht Branch, Rasht, Iran
3. M.A. of Business Management, Islamic Azad University, Rasht Branch, Rasht, Iran (Corresponding Author)

ABSTRACT: Privatization and liberalizing has been as strategies that in the two decades 1980 and 1990 by the international monetary fund (IMF), the world bank and other international economic centers be recommended strictly to the various countries to enhance efficiency. Nowadays privatization is on the agenda of most countries. Since the insurance industry is one of the major institutions of the capital market and changes in insurance efficiency has a great impact in growth and economic development of the country, in this study trying to investigate the privatization effects of insurance industry on insurance efficiency in country Iran. At first definitions, will be expression goals, methods, privatization necessity of the insurance industry and the experience of some countries in the field of insurance privatization. Then two indices of the insurance influence coefficient and premium per capita will be introduce as important indicators of the efficiency of the insurance industry. Research conducted show that insurance governmental in the years after the revolution in the years after the revolution is causing to reduction the efficiency of the country insurance industry. Also war had a negative impact on the two indices. At the end of this study we reached to this conclusion that with the implementation of the privatization process, is increased efficiency insurance industry, and it should be noted to further privatization of insurance industry, been privatized insurance companies should to work under the central insurance.

KEYWORDS: Privatization, Insurance Industry, Insurance Penetration Rate, Premium Per Capita.

I. INTRODUCTION

The insurance industry of country as one of the financial institutions of country has a special place in privatization process so that the efficiency of this industry will be stimulus other economic sectors in allocation of the available funds. Privatization is strategy that in the fighting with deficiency has been used in many countries and has produced different results. (Roberts 2001) in order to assignment of public companies to private sector should be noted social conditions, political and economic any country and should be noted planning before privatization, planning during the privatization and planning and management after privatization. Privatization according to the definition in organization "Asian efficiency" is presented in 1993 is "ownership transmission or controlled the economic firms from government to private sector". Today, one of the reasons that makes privatization process be taken more seriously is the issues relating to global business and joining the organization WTO (World Trade Organization). One of the conditions to join the organization is reduction in government support of economic firms and economic freedom. (Outreville 1997) Also in order to presence in the market must have a high competitive power and internal companies in competitive environment must achieve to high efficiency to be able to compete with foreign competitors. (Zarrabi 2001) Since the two indicator insurance penetration rate and premium per capita are effective on
EFFICIENCY OF INSURANCE IN THE WORLD, WE ALSO IN ORDER TO EVALUATE THE EFFICIENCY ON EFFICIENCY OF INSURANCE BASED ON HYPOTHESIS, WILL EXAMINE THE IMPACT OF PRIVATIZATION ON THESE TWO INDICATORS.

II. PROBLEM STATEMENT

SINCE INSURANCE PENETRATION RATE AND PREMIUM PER CAPITA ARE CASES THAT HAVE EFFECTIVE ON EFFICIENCY THE INSURANCE INDUSTRY. THE MAIN QUESTION OF THIS RESEARCH IS: Dose privatization causes to increase insurance penetration rate and premiums per capita?

III. PREVIOUS RESEARCH

A RESEARCH HAS BEEN DONE BY ABASZADEGAN, SEVED MOHAMMAD IN 2001 AS" EVALUATE THE PERFORMANCE OF THE COUNTRY INSURANCE INDUSTRY" THE ROLE OF INSURANCE INSTITUTIONS INVESTIGATES IN FINANCIAL MARKETS OF DEVELOPED COUNTRIES AND DEVELOPING. BASED ON REVIEW THAT DOES, REACHES THE CONCLUSION THAT INSURANCE PENETRATION RATE (RATIO OF PREMIUM TO GDP) IN DEVELOPED COUNTRIES WHICH ARE AS THE MOST IMPORTANT DETERMINING FACTOR THE SHARE OF THE INSURANCE INDUSTRY IN THE NATIONAL ECONOMY, RELATIVELY 95% FROM COUNTRIES ARE IN MORE DEVELOPING AND THIS PERCENT SHOWS THAT DYNAMICS AND OPTIMIZED THE EFFECTIVE ROLE OF INSURANCE COMPANIES FINANCIAL MARKETS IN THESE COUNTRIES. A RESEARCH HAS BEEN DONE AZZI FIROOZEH IN 2001 AS" ROLE OF INSURANCE INSTITUTIONS IN COUNTRY FINANCIAL MARKETS" AND REACHES THE CONCLUSION THAT IN IRAN MONEY MARKET OVERCOMES ON CAPITAL MARKET. HENCE THE ROLE OF CAPITAL MARKET PARTICIPANTS PARTICULAR INSURANCE AGENCIES IS LOW IN MARKET. A RESEARCH HAS BEEN DONE AKBARZADEH REZA IN 2000 AS" PRIVATIZATION IN INSURANCE INDUSTRY, OPPORTUNITIES AND THREATS" FIRST PROVIDES PRECEDENT FROM PRIVATIZATION AND HE OFFERS IN ENDED HIS ARTICLE THAT PRIVATIZATION BE DONE IN TWO STAGES. FIRST WITH RELEASING, BOTH GOVERNMENTAL INSURANCE AND PRIVATE INSURANCE DO ACTIVITY WITH TOGETHER BY LIBERALIZATION. PROGRESSIVELY THAT BECAME PROVIDED PRIVATIZATION CONDITIONS, PERFORMS OWNERSHIP PRIVATIZATION.

IV. THE RESEARCH HYPOTHESES

THE FIRST HYPOTHESIS: PRIVATIZATION OF INSURANCE INDUSTRY INCREASES PREMIUM SHARES IN GDP.
THE SECOND HYPOTHESIS: BECOMING GOVERNMENTAL OF INSURANCE COMPANY HAS BEEN REDUCED THE EFFICIENCY OF INSURANCE INDUSTRY AFTER THE REVOLUTION SO FAR.

V. THEORETICAL RESEARCH

PRIVATIZATION: OWNERSHIP TRANSMISSION OR CONTROLLED THE ECONOMIC FIRMS FROM GOVERNMENT TO PRIVATE SECTOR.
INSURANCE INDUSTRY: INSURANCE IS MARRY THAT WHEREBY ONE SIDE. COMMITTED THAT IN EXCHANGE FOR PAYMENT MONEY OR FUNDS FROM OTHER, IN CASE OF OCCURRENCE OR INCIDENCE AN ACCIDENT, COMPENSATE DAMAGE ENTERED ON HIM OR PAY CERTAIN FUNDS.
INSURANCE PENETRATION RATE: IS EQUAL TO RATIO OF PREMIUM TO GROSS DOMESTIC PRODUCT(GDP).
PREMIUMS PER CAPITA: INDICATES THE AMOUNT OF COSTS THAT PURCHASES INSURANCE SERVICES FROM INSURANCE COMPANY COMPARED TO ANY PERSON WITHIN COUNTRY.(GAJERATTI & DAMOODAR 2004)

VI. RESEARCH METHODOLOGY

THIS STUDY IS IN TERMS OF PURPOSE IS AN APPLIED AND IS TYPE OF DESCRIPTIVE- ANALYTICAL AND IN TERMS OF DATA COLLECTION IS LIBRARY METHOD AND DATA GATHERING TOOLS IN THIS STUDY IS QUESTIONNAIRES. SAMPLING METHOD IN THIS STUDY IS ALL INSURANCE COMPANIES IN GILAN PROVINCE.
VII. Validated of Questionnaire

The most usual test of internal consistency reliability, is the Cronbach’s Alpha coefficient which is done for multi-measure questions or classifications (Danaee & et al 2008). Cronbach’s Alpha obtained, is equal 862.

VIII. Methods of Data Analysis

In this research in order to analyze the obtained data has been used from descriptive and also inferential statistics.

IX. Test Results

In this study we present two models that in first model shows the effect of becoming governmental of insurance industry on insurance penetration rate. In the second model also reviews the effect of this phenomenon on indicator the premium per capita. Since during the years 1989 – 1979 has been war in Iran and this war had effect on indicator insurance, this effectiveness was shown in both models.

X. The First Model

Dependent variable

In the first model insurance penetration rate was defined as dependent variable

Insurance penetration rate : X1

Independent variable

Independent variables in the model is included :

Independent variable D1 : The effect of be governmental of insurance after the Islamic revolution
Independent variable D2 : The effect of war factor
Logarithm the formation the investment fixed gross to 1997 year price (Billion Rials) LI
Logarithm of exports of goods and services (Billion Rials) LX
Logarithm the total premium LIS
Logarithm of per capita insurance LX2
Constant value C

Table 1: Estimation of model

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COEFFICIENT</th>
<th>STD. ERROR</th>
<th>T-STATISTIC</th>
<th>PROB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2</td>
<td>-0.34544</td>
<td>0.089252</td>
<td>-3.87041</td>
<td>0.0004</td>
</tr>
<tr>
<td>D1</td>
<td>-0.68833</td>
<td>0.093985</td>
<td>-7.32389</td>
<td>0.0001</td>
</tr>
<tr>
<td>LI</td>
<td>0.289557</td>
<td>0.081589</td>
<td>3.548977</td>
<td>0.0011</td>
</tr>
<tr>
<td>LX(-1)</td>
<td>0.43052</td>
<td>0.078716</td>
<td>5.46927</td>
<td>0.0001</td>
</tr>
<tr>
<td>LX2</td>
<td>0.289808</td>
<td>0.032266</td>
<td>8.98189</td>
<td>0.0001</td>
</tr>
<tr>
<td>LIS</td>
<td>-0.08721</td>
<td>0.03041</td>
<td>-2.8678</td>
<td>0.0068</td>
</tr>
<tr>
<td>R-SQUARED</td>
<td>0.925375</td>
<td>MEAN DEPENDENT VAR</td>
<td>-0.6425</td>
<td></td>
</tr>
<tr>
<td>ADJUSTED R-SQUARED</td>
<td>0.91529</td>
<td>S.D. DEPENDENT VAR</td>
<td>0.529185</td>
<td></td>
</tr>
<tr>
<td>S.E. OF REGRESSION</td>
<td>0.154019</td>
<td>AKAIKE INFO CRITERION</td>
<td>-0.7747</td>
<td></td>
</tr>
<tr>
<td>SUM SQUARED RESID</td>
<td>0.877707</td>
<td>SCHWARZ CRITERION</td>
<td>-0.52895</td>
<td></td>
</tr>
<tr>
<td>LOG LIKELIHOOD</td>
<td>22.65595</td>
<td>HANNAN-QUINN CRITER.</td>
<td>-0.68407</td>
<td></td>
</tr>
<tr>
<td>DURBIN-WATSON STAT</td>
<td>1.544811</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ACCcording to the above table, the first and second columns are included variables’ names, their coefficients. In Next column is provided standard deviation of the regression coefficients. Also T statistics test shows that the coefficient of all variables in the confidence level of 95% have statistical validity, because all of them are above 2.

R2 regression coefficients is a measure for determining the power to explain regression. That rests on the level of 0.92% and this shows independent variables involve high explanatory level.

The statistics of Durbin Watson is at 1.54 level that rejects the existence of continual correlation among error statements. In other words, there isn’t any correlation itself. The results obtained from heteroskedasticity variance test and correlation serial is indicate the consistency of disturbing components variance, lack of correlation serial and lack of clear error model. The results of test normality of hysteresis show its normal.

Analysis of model variables:
The virtual variable which is for showing becoming governmental insurance in the years after revolution, involves negative coefficient of -0.68833 that manifests the negative effect of becoming public of this industry on penetration coefficient of insurance.

Also the assumed variable coefficient with negative coefficient of -0.34544 shows the negative effects of war on insurance penetration index.

The formation of pure constant investing (LI) with positive coefficient of 0.289557 has a positive effect on insurance penetration index (t statistics equals -3.87041) that means one percent increase in the formation of pure constant investing leads to 0.289557% increase in insurance penetration coefficient.

Delayed export amount index (-1) LX with positive coefficient of 0.43052 has a positive effect on insurance penetration index. (t statistics equals to 5.46927) this means that 1% increase in delayed export amount causes to 0.43052% increase in insurance penetration coefficient.

The index of capitation insurance LX2 with positive coefficient of 0.289808 has a positive effect on insurance penetration index. (t statistics equals to 8.98189). This means that 1% increase in the amount of capitation insurance leads to 0.289808% increase in insurance penetration coefficient.

The index of total insurance premium LIS with positive effect of -0.08721 has a negative effect on insurance penetration coefficient index.

Here, export has the most positive effect and becoming governmental has a sever negative effect on insurance penetration coefficient and this shows that becoming governmental has a negative effect on insurance penetration coefficient.

**XI. The second model**

**Dependent variable**

Logarithm of per capita insurance LX2

**Independent variable**

Independent variable D1 : The effect of be governmental of insurance after the Islamic revolution

Independent variable D2 : The effect of war factor

The delayed logarithm of a pure constant investing with the price of 76 year (billion rials) LI(-1) The import logarithm of goods and services (billion rials) LM

Delayed logarithm of goods and services export (billin rials) LX-1

Family expenses logarithm as constant price of 1376(billion rials) LC

Delayed logarithm of a ultimate governmental consumption LG (-1)

Constant value C

Estimation of model
### Table: Dependent Variable: LX2

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COEFFICIENT</th>
<th>STD. ERROR</th>
<th>T-STATISTIC</th>
<th>PROB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LX(-1)</td>
<td>1.40296</td>
<td>0.464245</td>
<td>3.02203</td>
<td>0.0047</td>
</tr>
<tr>
<td>LM</td>
<td>0.78445</td>
<td>0.254828</td>
<td>3.07833</td>
<td>0.004</td>
</tr>
<tr>
<td>LI(-1)</td>
<td>1.00587</td>
<td>0.434923</td>
<td>2.312756</td>
<td>0.0267</td>
</tr>
<tr>
<td>D2</td>
<td>-1.2066</td>
<td>0.250465</td>
<td>-4.81743</td>
<td>0</td>
</tr>
<tr>
<td>D1</td>
<td>-2.17992</td>
<td>0.406442</td>
<td>-5.36342</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>-39.259</td>
<td>3.235891</td>
<td>-12.1324</td>
<td>0</td>
</tr>
<tr>
<td>LC</td>
<td>7.066695</td>
<td>0.470985</td>
<td>15.00406</td>
<td>0</td>
</tr>
<tr>
<td>LG(-1)</td>
<td>-2.0245</td>
<td>0.382912</td>
<td>-5.28712</td>
<td>0</td>
</tr>
</tbody>
</table>

| R-SQUARED | 0.983246 | MEAN DEPENDENT VAR | 8.515647 |
| S.E. OF REGRESSION | 0.979895 | S.D. DEPENDENT VAR | 2.805183 |
| SUM SQUARED RESID | 0.397754 | AKAIKE INFO CRITERION | 1.160275 |
| LOG LIKELIHOOD | 5.537288 | SCHWARZ CRITERION | 1.48794 |
| DURBIN-WATSON STAT | 293.4315 | 1.281108 |
| DURBIN-WATSON STAT | 3.07833 | 1.281108 |
| 1.00587 | 0.78445 | 1.40296 | 1.00587 | 0.78445 | 1.40296 |

The first and second columns include variables’ names and their coefficients. In the next column, standard deviation and regression coefficients are offered. Also, a statistic test shows that the coefficient of all variables in the confidence level of 95% has statistical validity. R2 regression coefficients is a measure for determining the power to explain regression. That rests on the level of 0.98% and this shows independent variables involve high explanatory level. The statistics of Durbin Watson is in 1.55 level that rejects the existence of continual correlation among error statements. In other words, there isn’t any correlation itself.

**Analysis of model variables:**
- D1 virtual variable that is for showing becoming governmental insurance condition of insurance in the years after revolution, has a negative effect of -2.17992 which demonstrates the negative effect of becoming governmental of this industry on insurance capitiation.
- Also the assumed variable coefficient, D2 with the negative coefficient of -1.2066 implies on the negative effects of war on insurance capitiation index.
- Delayed export LX(-1) with positive coefficient of 1.40296 has a positive impact on capitiation insurance. (t statistics equals to 3.02203). This means that 1% increase in export leads to 1.40296% increase in capitiation insurance.
- Import with the positive effect as 0.78445 has a positive effect on insurance capitiation index. (statistics equals to 3.07833), it means that 1% increase in in imports leads to 0.78445% increase in capitiation insurance.
- The formation of delayed constant investment with positive coefficient of 1.00587 has a positive effect on insurance capitiation index. (t statistics equals to 2.312756). It means that 1% increase in impure investment formation constant leads to 1.00587% increase in insurance capitiation.
THE EVENTUAL EXPENDITURES OF FAMILY WITH POSITIVE COEFFICIENT OF 7.066695 HAS A POSITIVE EFFECT ON INSURANCE CAPITATION INDEX,(T STATISTICS EQUALS 15.00406) IT MEANS THAT 1% INCREASE IN ULTIMATE COST OF FAMILY CONSUMPTION LEADS TO 7.066695% INCREASE IN INSURANCE CAPITATION.

THE ULTIMATE COSTS OF GOVERNMENT CONSUMPTION WITH DELAY OF 1 ALONG WITH NEGATIVE COEFFICIENT OF -2.0245 HAS A NEGATIVE EFFECT ON INSURANCE CAPITATION INDEX.

IN THIS MODEL, THE FAMILY CONSUMPTION COST HAS THE MOST EFFECT AND THE GOVERNMENT INSURANCE HAS SEVER NEGATIVE EFFECT ON INSURANCE CAPITATION AND THIS SHOWS THAT BECOMING GOVERNMENTAL INSURANCE HAS A NEGATIVE EFFECT ON INSURANCE CAPITATION.

XII. CONCLUSIONS

OVERALL THE RESULTS INDICATE FROM THIS STUDY SHOW THAT BECOMING GOVERNMENTAL OF INSURANCE INDUSTRY IS CAUSED TO REDUCTION THE PREMIUM SHARE IN GDP. ALSO SINCE BECOMING GOVERNMENTAL OF INSURANCE INDUSTRY HAS NEGATIVE IMPACT ON PREMIUMS PER CAPITA AND INSURANCE PENETRATION RATE, ON THE OTHER HAND WAR REDUCED PREMIUM SHARE IN GDP. SO, IT CAN SAY THAT WITH PRIVATIZATION OF COUNTRY INSURANCE, INCREASES EFFICIENCY OF INSURANCE INDUSTRY AND SINCE INSURANCE IS FROM IMPORTANT TOOLS OF CAPITAL MARKET, HELPS TO GROWTH AND ECONOMIC DEVELOPMENT COUNTRY. PRIVATIZATION IS BETTER BE DONE IN TWO STAGES. FIRST SHOULD BE CREATED THE RELEASE OF FAVORABLE CONDITIONS FOR GOVERNMENTAL INSURANCE ACTIVITY AND PRIVATE INSURANCE TOGETHER. AND IN THE NEXT STEP MUST BE PERFORMED PRIVATIZATION OWNERSHIP TRANSMISSION. ALSO CENTRAL INSURANCE HAVE EVALUATED FINANCIAL ABILITY OF INSURERS CONTINUALLY AND OBTAINED CONFIDENCE THAT THE COMPANIES ARE ABLE TO PLAYING HIS OBLIGATIONS.

XIII. SUGGESTIONS OF RESEARCH

1. IT IS BETTER PAY MORE ATTENTION TO INCREASE INSURANCE PENETRATION RATE TO EXPORTING COUNTRY AND BE AVOIDED FROM BECOMING GOVERNMENTAL OF INSURANCE INDUSTRY THAT HAS LARGE NEGATIVE IMPACT ON THIS INDICATOR.
2. IT SHOULD BE NOTED TO HOUSEHOLD CONSUMER SPENDING AND BECOMING GOVERNMENTAL, BECAUSE BECOMING GOVERNMENTAL HAS LARGE NEGATIVE IMPACT ON THIS INDICATOR AND HOUSEHOLD CONSUMER SPENDING HAS THE GREATEST POSITIVE IMPACT ON THIS INDICATOR THAN OTHER INDEPENDENT VARIABLES.
3. IT IS SUGGESTED PRIVATIZATION PROCESS THAT HAS POSITIVE IMPACT IN ORDER TO ENHANCE EFFICIENCY INSURANCE.

XIV. SUGGESTIONS OF FUTURE RESEARCH

1. INVESTIGATE THE OUTCOMES OF PRIVATIZATION OF INSURANCE INDUSTRY.
2. THE IMPACT OF PRIVATIZATION OF INSURANCE INDUSTRY ON JOB PERFORMANCE THE EMPLOYEES OF INSURANCE COMPANIES.

XV. LIMITATIONS OF RESEARCH

1. LACK OF COOPERATION IRAN INSURANCE COMPANY IS AS THE LARGEST AND THE ONLY PUBLIC INSURANCE IN THE COUNTRY THAT COULD BE EVALUATED AS THE ONLY PUBLIC INSURANCE IN THE PAST DECADE.
2. LACK OF ADEQUATE RECORDS AVAILABLE, AROUND RESEARCH TO USE AND COMPARE THE RESULTS OF THE PRESENT STUDY.

REFERENCES

4. Danaeefar,Mehdi,Alvan,Azar,ADEL,(2008), QUANTITATIVE METHODOLOGY OF RESEARCH IN MANAGEMENT,TEHRAN: SAFAR PUBLICATIONS.
5. GAJERATI, DAMOODAR (2004) "FOUNDATIONS ECONOMETRICS", TRANSLATOR DR. HAMID ABRISHAMI, THIRD EDITION, TEHRAN UNIVERSITY PUBLICATIONS, FIRST AND SECOND VOL.

6. MAHMOOD ZARRABI; (SPRING 2001), IRAN INSURANCE COMPANY AS MARKET LEADER, FROM JOURNAL OF "IRAN INSURANCE REPORT", PP 14–16.
