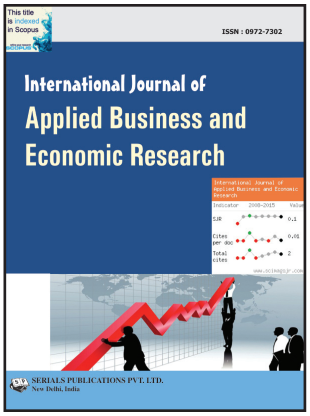

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The Effect of Compulsory Motor Law Amendments on Financial Performance of Jordanian's Insurance Companies

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ABSTRACT

The purpose of this paper is to investigate the financial performance of the insurance companies in Jordan, based on the selected financial data pre and post the implementation of the enacted motor Jordanian law 2001, and its amendments through the years 2010-2015. Financial performance was analyzed based on the data obtained from Jordanian insurance federation database. The study conducted on time series data related to 26 Jordanian insurance companies for the years from 2004-2015. Empirical findings of comparison between the two financial performance means pre and post the law suggests that, there is a significant effect on the financial performance level after the implementation of new amendment's; further tests that also conducted (Wilcoxon statistical test) proved also that financial performance was better after the inclusion of the new amendments in the law. Our findings provide more insights about the consequences of implementing the motor law and the lately amendments of this law.

Keywords: Financial performance, Motor insurance, insurance law.

1. INTRODUCTION

Insurance industry is playing an essential role in global as well as indigenous economies, considering the rapid changes in technological, social, cultural, political, economic, open international markets and challenging business environment. Also Insurance became an important part of risk and complexity management strategies for individuals, social groups and all businesses.(Viaene, ; Dedene, 2004).

It is similarly as for developed countries, insurance industry in developing countries has the same important role in supporting individuals, social groups and all businesses like; services, trade and industrial activities, where the insurance industry contributes to economic growth and stability, efficient financial resource allocation, lowering of transaction costs, enhance liquidity, facilitate economies of scale for different investment platforms, and reducing the over spreading of financial losses (Das, Davies, & Podpiera, 2003; Haiss & Sümegi, 2008). Therefore, financial performance of insurance industry has at least the same importance of other industries.

In the last twenty years the Jordanian insurance industry has made a deep transformation in the institutional and in the competitive environment, as well as in insurance distribution channels and in type of insurance activities, the Jordanian insurance industry has encouraged Jordanian economics' growth mainly through raising more capital investment and diversifying the types of insurance services provided. The consequent consolidation changed the competitive landscape: it increased price and product competition, improved service quality, influenced insurers' efficiency. The new regulatory framework imposed by the insurance regulators has changed the landscape for insurance services significantly: it had an impact on competitive strategies, contributed to increased efficiency and favored the adoption of new distribution channels. The Jordanian insurance Union gradually de-regulated the insurance sector with respect to competition and free movement of capital and firms across the country in addition to enacting the necessary new laws and regulation that organize and overcome in obstacles that might decrease sector performance. (Al-rawashdeh,2016)

Consequently, the assessment of insurance companies' performance under these new laws and regulation is of great interest. This paper is structured to evaluate insurance sector financial performance particularly automobile insurance after implementation of the new revisions enacted concerning on this type of insurance. The novelty of our paper is that; it's based on using financial insurance data before and after this law. The paper is organized as follow: the next paragraph focuses on literature review. Section 3 presents the main features of the Jordanian insurance industry. Section 4 defines the methodology implemented. The empirical results are discussed in Section 5 and the final section contains some concluding comments.

2. PROBLEM OF THE STUDY

Financial performance is considered as the main interest for both management and shareholders; because the goal of management is arguably targeted to maximize the owner`s wealth which is considered the most effective determinant of performance. Before the year 2010 the motor annual returns of insurance companies in Jordan witnessed large fluctuations and downward trend for loss due to the deficiency of automobile mandatory insurance law 2001. Due to these losses, Jordanian government cooperated with insurance union to propose new amendments for this law to overcome the bad effects of the law on insurance companies. The new amendments of law put in action starting from the year 2010, therefore it's essential to investigate whether these amendments have affected the insurance companies performance and to which direction that affect was, if any.

In previous Literature showed it has been clear that most of the research work conducted on insurance sector focus on life and non-life insurance services, little were related to automobiles insurance. However, few studies on Jordanian insurance sector had conducted regarding automobiles insurance. Furthermore, developing countries such as Jordan it has been rare to find studies that examined financial performance of motor insurance alone; hence there is a high need for such type of studies in developing countries for continuous refining for their legislation concerning insurance sector development.

3. RESEARCH OBJECTIVES

Based on the previously discussed problem the following objectives are stated for this study:

- Analyzing the general performance of motor Insurance for Jordanian insurance companies.
- Analyzing the performance of Jordanian motor Insurance pre and post the new amendments of motor insurance law enacted in 2001.

Research Hypotheses

This research work attempts to provide answers for the following null hypotheses:

H1: There is no significant relationship between new automobile law amendments and financial performance of insurance companies in Jordan.

H2: There is no significant difference in the mean of financial performance pre and post the enacting of new insurance motor law amendments in Jordan.

Theoretical Background

Theoretically, Insurance is a device for reducing the uncertainty of one party, called the insured, through transferring a particular risks to another party, called the insurer, who offers a restoration, at least in part, of economic losses suffered by the insured. This characterization of insurance stresses a major aspect which can be found in most other known definitions, namely the reduction of risk through a transfer mechanism. In fact, Trowbridge (1975) sees risk transfer as the heart of the typical insurance arrangement ".

An insurer is a company selling the insurance policy to a policy holder either a person or an entity called policy buyer (Emmett, 2012). Insurance has many types that are diversified from non-life insurance like; car insurance, real estate insurance, health, and life insurance. The main interest of insurer is the reduction of his risk to some level that he can bear; hence, a premium is required to be paid from insured party to the insurance company that bears some of his risk. Insurance premiums are predetermined through actuarial techniques based on known statistical data. The insurance activity is following a rule that spread the risks over all insurers (AL-Najjar and Peter, 2008). Thus, in order to distribute and control the high-risks or correlated-risks insurance companies apply a pooling method, where a group of insurance companies distribute and share their risks through jointing their all capital. This is justified by that, one company alone could not bear all of risks; therefore, this method allows jointed insurance companies to have more coverage level when spreading their risk (Chen et. al. 2009, al., singlawi & Aladwan, 2016)

Traditionally insurance market is generally split between life and non-life products. Non-life insurance consists of automobile or accident and health, and property and casualty insurance segments, while the life insurance consists of mortality protection and annuity (JIC, 2016).

It is not surprising that insurance activities is highly regulated and monitored because in society Insurance achieve an essential role in securing individuals and investments. In all countries insurance companies perform a various activities to make sure of accessibility of insurance consumers to insurance and they are treated fairly by insurers and their agents, also insurance companies are supposed to be financially stable. The type of insurance instructions includes laws of formation, operations of insurer, and terms for insurance contracting and licensing. These laws also include surplus and minimum capital requirements conditions on the investment for statutory reserves and prescribed methods to calculate reserves (Myers and Smith, 1988).

Theoretically, performance level of any given firm's is influenced by the level of revenue and expenditure. These two elements – revenue and expenditure –influence firm's specific characteristics like profitability (Buyinza et. al., 2010; Indranarain, 2009). Asimakopoulos et. al. (2009) found that the performance of companies measured by its profit is impacted by size, sales growth, premium required and investment. Through a dynamic panel model, Pervan et. al., (2012) investigated Bosnia and Herzegovina insurance industry's profitability; their results indicated a strong influence of claims ratio on performance. Furthermore, efficient insurance company should achieve growth in profitability if it has the ability to maximize its net premiums and net underwriting incomes. For instance, Molyneux and Thornton (1992) identified a strong positive association between efficiency and profitability.

It is had been argued that many deficiencies in managing credit risk that associated with lending result are effect the performance level for insurance companies. For example, Miller and Noulas (1997) found an inverse relationship between credit risk and performance when measuring the profitability ratio. In studying the impact of financial intermediation on the profitability of the Nigerian insurance industry, the same result was found by Chen and Wong (2004) who revealed that the decrease in liquidity from customers compensation effect the performance level through the low profitability.

In a study conducted in USA, concerning new automobile insurance regulation Cohen and Dehejia (2002) found evidence that compulsory insurance rules do deliver their intended effect, which is a significant reduction in the incidence of motorists and hence liabilities on insurance companies from accidents costs are decreased. The paper results argued that drivers according to the new regulations tend to drive more carefully and therefore accidents will be lowered.

4. OVERVIEW OF INSURANCE INDUSTRY IN JORDAN

History

The first insurance company was established in 1951 called Jordan Insurance Company. In 1956, the Association for Jordan Insurance Companies was established; the insurance sector has always been dominated by the private-sector. During the fifties, there was an increase in cars and marine transportation since Jordan relied on discharging most of its exported goods through Aqaba port. As a result, the need for providing coverage in these fields has led to the establishment of more insurance companies. In 1965, the first insurance law was passed, and the number of competing insurance companies began to grow fast (JIF, 2012).

Consequently, with an overcrowded market, between 1985 and 1989 there were series of mergers in the industry. In 1987, the Unified Compulsory Insurance Office was created with the responsibility of insuring all vehicles, on behalf of insurance companies. The role of this office was to assign a company to every motor third party policy issued, and then allocate them to all of Jordan's licensed insurers equally. In 1989, a Royal Decree was issued to establish the Jordan Insurance Federation (JIF), which also functions as a managing authority for the insurance sector.

Motor Insurance in Jordan

The Jordanian insurance sector has potential to growth more for many reasons that are; low penetration level of 2.13% compared to a global level at 6.23%, increasing population, as well as mandatory insurance in the motor insurance segment and potential implementation of a universal coverage system for Jordanians under the health insurance umbrella. The insurance sector in Jordan is concentrated at the top but fragmented at the bottom, with the top five companies claiming 47.3% of the market share of total premiums written in 2015. This has resulted in sever competition and lack of profitability for the sector, and some insurance companies unable to grow to a sufficient scale and retain a large enough volume of premiums to build meaningful risk pools and underwriting capacity that hindered the insurance companies' ability in innovation and creation of new Products and services which is challenging the attraction of additional investments to the sector (JIF, 2016)

The motor and medical insurance segments have achieved around 68.4% of premiums written and 84.1% of claims paid out of the total industry size. This heavy weighting of motor insurance has negative implications on the profitability of the industry as a whole. The regulators have deliberated about the liberalization of third-party liability motor insurance for a number of years, but have consistently pushed the decision back in order to avoid placing additional financial burden on the population. In light of the losses made by motor insurance companies, however, the regulators sanctioned the raising of tariffs by insurers on third-party motor liability insurance by 25% for vehicles involved in an accident in the previous insured year, and up to 100% for accidents that resulted in death or complete disability. This has helped to reduce the losses generated by third-party liability insurance, but has been insufficient to turn all the companies profitable in this business line, and thus it continues to be subsidized by the insurers' comprehensive motor insurance business (JIF, 2016).

Motor insurance is considered as the largest segment of the insurance industry, with premiums in 2015 making up 40.3% of total insurance premiums written. Over the past five years, the motor premiums written have grown at a CAGR of 5.4%, rising from JOD179.50 million in 2011 to JOD221.88 million in 2015. The growth has been boosted by the increase in number of licensed cars due to population growth both internally and as a result of refugees coming from surrounding areas in the aftermath of the Arab Spring.

Third-party liability insurance dominates the motor insurance sector, at 67.9% of the premiums written in 2015. While this is attributed in part to the fact that third-party liability insurance is cheaper and more affordable to the majority of Jordanians, the key reason is that third-party liability insurance was made compulsory for all vehicles in Jordan by the Civil Liability Compulsory Motor Insurance Regulation No. 32 of 2001. Even so, comprehensive motor insurance premiums grew at a higher CAGR of 6.3% compared to the third party liability premium growth of 5.1% over the five year period (JIF, 2016). (Al-rawashdeh And al., Singlawi, 2016)

Motor Insurance Law

Jordanian government jointly with Jordan insurance federation has worked to issue the regulation for compulsory insurance of the civil liability of motor use in 2001 with the many most important features such as Expanding the area of protection to private and public vehicle passengers to include all passenger of the private and public vehicle causing accident (vehicle passengers in addition to the family members of the driver). The law also expanded the insurance coverage by adding moral damages to become death, physical injuries, moral damages and physical damage. Size of compensation was raised to affected people in addition to speeding up the compensation of affected people by approving a standardized format for the compulsory insurance policy (JIF, 2013).

For more clarification of the provisions of the current regulation and for avoiding interpretations of its texts, and in order to cover all the damage caused by vehicle accidents and cover the driver of the vehicle that caused the accident as well as the owner, for social and humanitarian purposes, the Compulsory Motor Insurance Regulation No. (12) of 2010 has been also issued during 2010, which included restructuring the applications of compulsory insurance for vehicles. This regulation activates the principle of reward and punishment, where a method was developed to increase the insurance premium on the vehicle that causes traffic accidents. By contrast, the insurance premium on the vehicle that did not commit any traffic violation has been reduced. The 2010 regulation also Increased the limits of the compensation amounts that the insurance company undertakes to pay, where the limit of liability of the insurance company has increased in case of death and total disability from (12) thousand dinars to (20) thousand dinars including moral damage allowance, and in case of partial disability it has risen to (20) thousand dinars multiplied by the percentage of disability, in addition to the increase in the limits of liability of insurance company in compensation for the medical treatment expenses allowance to become (7.5) thousand dinars instead of (5) thousands dinars.

These new regulation has taken in consideration Protection of the rights of citizens and ensuring their compensation in the event a foreign vehicle has caused physical or material damaged to a citizen within the kingdom, and developing a method to ensure that foreign vehicles are insured by judgment at the insurance company issuing the policy even if expired, provided that the difference in the premium shall be fulfilled when the vehicle leaves the Jordanian territories. As for coverage amount the regulation was modified the coverage to include coverage of the driver and the owner of the vehicle that caused the accident against an additional premium not exceeding (10) dinars. The method of settlement and payment of claims for motor insurance were amended in order to ensure that the insured and beneficiaries of motor insurance policies obtain their rights quickly (JIF, 2013).

The Commission has also regulated the technical aspects relating to compensation for motor compulsory insurance through approving the Basis of the Settlement of Compensation of vehicle damages Decision No. (6) of 2011, where controls have been set to regulate compensation for the "loss of value" resulting from exposure of vehicle to accident leading to a decrease in the value of the vehicle, and to determine the liability of the insurance company to compensate for the decrease in value by 10% of the actual value of the vehicle at the time of the accident. Legislations have also been set regarding specifying "Loss of use/ benefit loss", which is the amount paid to the victim of a motor accident caused by a vehicle covered with compulsory motor insurance in order to make up for the time required to repair the vehicle as a result of this accident, so as to estimate the loss of use in case of cash payment of the value of the damage to the vehicle for the period that the vehicle needs to be repaired and returned to its status before the accident, while in case the damages have been repaired by the insurance company, the loss of use period shall be counted from the period the victim of a motor accident has contacted the insurance company until the repair of the vehicle. The liability of the insurance company has also been identified for the loss of use for damaged vehicles, according to their various categories (khair and Aladwan, 2011).

Practical applications have shown the need to amend the Instructions of Determining the Volume of Underwriting in Compulsory Motor Insurance No. (27) Of 2010, for the purpose of setting an upper limit for the concentration of compulsory motor insurance premiums within the premium portfolio of insurance companies in light of weakness of the financial position (net equity). Furthermore, the similarity of technical risks for compulsory motor insurance for both Jordanian and foreign vehicles makes it necessary to amend instructions so as to apply the upper and lower limits to the total insurance premiums allowed to be underwritten on the Jordanian and foreign vehicles. (JIF, 2013)

In reviewing all previously amendments of regulations on motor law although the new changes increased the liabilities on insurance companies in covering all damages resulting from accidents on the other hand it's increased the commitments of drivers to work hardly to avoid traffic violations that decreased the number accidents.

5. RESEARCH DESIGN

Population of the Study

Insurance companies listed in Amman Stock Exchange (ASE) for the years (2004-2015) were chosen. The year 2010 was selected as the cut point year for the study because it was the first year after the new automobile regulations enacted by Jordan insurance Commission at the end of 2009 concerning the new law use. The community of the study consists of 27 firms (66 observations over 12 years); companies that have missing data or values were removed from the sample.

Empirical Results

The financial performance level of insurance companies under the period of the study is shown in chart1, before the year 2006 Jordanian insurance companies profitability as appears in the chart was positive until the year 2006 which was the starting year for the financial crises; the profitability started to decrease negatively until the year 2009 where the government made some reforms on motor insurance law. Starting the year 2010 after the new amendments of law even though companies still loss but this loss was decreasing due to the increasing in returns.

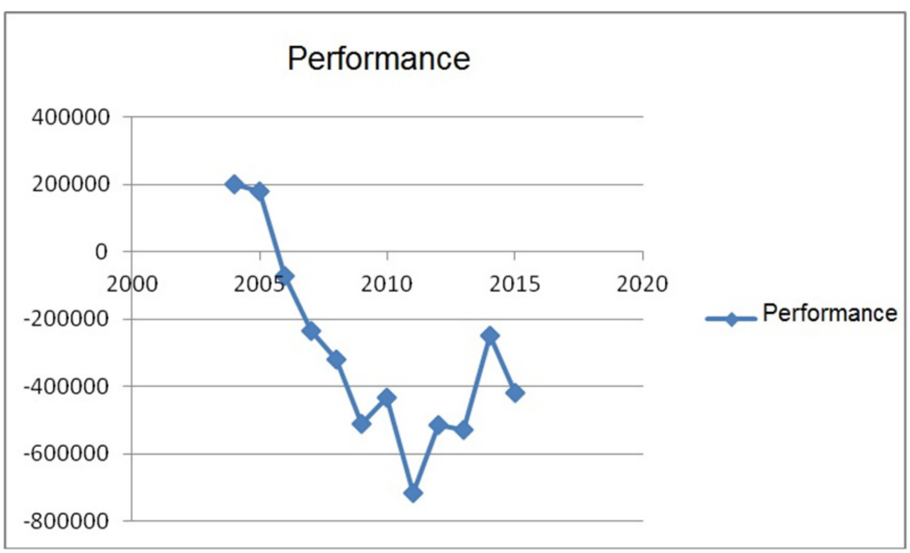

Chart 1: The average profit of motor insurance from 2004-2015

For more investigation about the effects of the new law reforms on insurance companies we also conducted tests to investigate whether there is a correlation between the years before and after the change in law to capture if there any effect for previous years before 2010 on the returns after 2010. The results of paired samples correlation appear in Table 1. The test was aimed to test if there is any effect of returns before reforms on returns after reforms; the results of this test showed that there is no significant correlation between the two return samples before and after the reforms. Therefore we can conclude that the increases in companies' return after the year 2010 are a result of the changes that are made in law.

Table 1
The correlation results before and after the law

		N	*Correlation*	*Sig.*
Pair 1	BEFOR & AFTER	168	–.004	.962

Paired Samples Test

To investigate the effect of the new law amendment effect, we conducted a test of means difference between the financial performance measured by return before and after the implementation of the new law, a paired *t*-test was employed to capture this effect. The comparison results between the two means of financial performance before and after the law are shown in Table 2.

In Table 2 the profit mean after amendments (–130661) appears less than that of before revision (–493157), the profit variance also before revision (532294) is less than after revision (583969) with an increase in return about 10%. The average loss before amendments was (–581655) while after is (–416238) with a decrease in loss about 28%. These results prove that the new motor law revisions after the year 2010 enhanced the financial performance of insurance companies. As also appears in Table 2 both parametric and non-parametric statistical tests were employed for testing the means difference in financial performance. The results showed that, the calculated *t*-statistic (*t*-stat) was 4.439 and the P-value (two-tails test) was 0.000 which is significantly below 0.05. This means that, there is a significant difference in the value of financial performance before and after the new law amendments inclusion. Also the two related samples test (Wilcoxon) show that, the *z*-statistic (Z-stat) was 0.000, which is significantly below 0.05. Consequently, Jordanian insurance firm's *t*-stat test and Z-stat test, parametric and non-parametric statistical tests supports the results that we obtained by our previous tests that, there is a significant difference witnessed between the means of financial performance before and after new motor law amendments.

Table 2
Statistical tests to compare the automobile profit before and after the law amendments

	Before	*After*	*Change %*
Return mean	–493157	–130661	---
Return variance	532294	583969	0.097
Average loss	–581655	-416238	-0.284
Observations	168	168	
Df 167			
t-stat 4.439			
P(T <= *t*) two-tail 0.000 *(P < .05)			

Two-related-samples test (Wilcoxon)
Z stat – 5.177
P(T <= *t*) two-tail 0.000 × (P < .05)
Negative Ranks 121
Positive ranks 47

Note: *the results are significant (p =< 0.05).

6. CONCLUSION

This study was devoted for investigating the financial performance of motor insurance for insurance companies in Jordan through depth analysis for the financial consequences of implementing the new motor law in 2010 and its amendments until 2015. Motor financial performance represented by companies return from motor insurance was measured pre and post the new law implementation. As expected even though Jordanian insurance companies still suffer from losses in this sector, the new law partially achieved its goal in helping these companies to overcome some of its losses particularly from motor insurance.

The empirical results of mean comparison for financial performance before and after the application of the new motor low captured financial improvement for many companies under study. These findings assures the benefits that started to come into surface from the new law and in coming years it's expected that insurance companies will recover more and more of its losses.

7. RECOMMENDATIONS

Our recommendation in this paper firstly; motor insurance companies should work hardly to increase the awareness of the new law benefits through media or special bulletins for this purpose. Insurance companies also should participate effectively with insurance federation and constituents for continuous reviewing of motor insurance law to overcome any weaknesses that might appear in future. Many have argued that to achieve fair remuneration for car accidents experienced skilled and trained personnel are needed to perform this, therefore evaluators should be conducted for more education and more training. We also recommend that any new amendments of motor law should increase the insurance policy premium for insurers who commit more accidents than others. Sufficient incentives should be also given to drive better. Claim problems such as fraud acts by employees, drivers and lawyers should be prohibited.

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