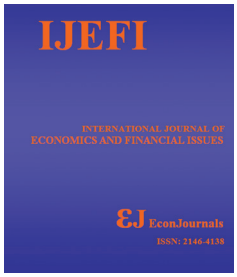

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The Existence of Fraud Indicators in Insurance Industry: Case of Jordan

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ABSTRACT

Insurance industry is playing a vital role in modern economies and it considered as one of the large industries in global context, it is facing many challenges and facing many types of risks, one of these risks is fraud risk, since insurance industry in Jordan considered as one the most important economic sector this study came to investigate the possible existence of fraud indicators in this industry, a four variables have been chosen that are; effective internal systems and possible fraudulent practices committed by Insured parties intermediates or/and brokers and complementary service providers. A questionnaire has been used and sent to a (25) insurance companies of a total (75) questionnaires, (56) were returned, valid and included in the analysis. Hypothesis testing relied mainly on descriptive statistics like median, mean and standard deviations. The results showed that it was statistically significant with significance level at 0.00. The existence of fraud indicators in insurance companies. The study has concluded that these indicators are existed in different aspects of insurance business and it recommended that insurance companies in Jordan have to improve insured party's understanding and awareness regarding insurance services and should cooperate and capitalize on the efforts of supervision authorities toward fighting this issue, also supervision authorities should develop and promote best practice' guidance that enhance the effectiveness of insurance companies.

Keywords: Insurance Companies, Insurance Fraud, Broker, Complementary Services
JEL Classifications: D81, G220, G240, P43

1. INTRODUCTION

Insurance industry is playing a vital role in modern economies especially with rapid technological, social, cultural, political and economics' changes. With markets' globalization and continuous chaining in business environment, insurance has become an essential ingredient of risk and complexity management strategies for individuals, social groups and businesses (Viaene and Dedene, 2004).

While insurance industry is considered as one of the large industries in global context, it is facing many challenges related to the nature of its business, and to be able to satisfy industry's stakeholders' needs; companies in this industry have to cope with market's competition, clients' changing needs and exercise proper risk management to achieve their objectives (Al Rawashdeh and Smadi, 2012).

Proper risk management should be an integrated part of business planning process, this process should be designed to reduce or eliminate the risks related to certain kinds of events that have an impact on the business by identifying, assessing, and prioritizing risks of different kinds. Once the risks are identified, the risk management department will create a plan to minimize or eliminate the impact of negative events on the business. A variety of strategies are available, depending on the types of risk and business (Kungwani, 2014).

Insurance companies are always facing many types of risks related to the insurance services that are provided, and also they face other types of risks like committing fraud. Insurance fraud is any act committed with the intent to obtain a fraudulent outcome from an insurance process. This may occur when a claimant attempts to obtain some benefits or advantages to which they are not otherwise entitled, or when an insurer knowingly denies some benefit that is due. According to the United States Federal Bureau of Investigation the most common schemes include: Premium diversion, fee churning, asset diversion and workers compensation

fraud. The perpetrators in these schemes can be both insurance company employees and claimants (Fbi.gov., 2016).

Insurance fraud is a major problem facing the insurance industry (Clarke, 1989; Derrig, 2002), it is a real crime, it undermines the whole system and has an impact on insurers, clients, businesses, society and economy in general, the insurance fraud can be made in many ways and starts with a false preparation of insurance contracts or/and provide false or incomplete information in insurance claims; applying claims for a damage based on incorrect circumstances, inflate the value of the insured property, fictitious injuries from accidents; with the intent of obtaining unjustified benefit. These crimes can defraud insurance system and usually is committed by the insured or by a third party claiming benefits based on an insurance policy. (Corina-Maria, 2015), Sparrow (2008) argues that fraud is a relatively invisible crime, one that is difficult to detect and quantify, making it one of the most worthy areas for further study, since it has many types of insurance fraud, these include offences of individuals against individuals, individuals on organizations and organizations against individuals and other organizations (Association of British Insurer [ABI], 2012; Levi, 2008, Association of British Insurers, 2012).

All types of insurance can be defrauded, whether commodities, health, life, auto, property and other types of insurance. Insurance fraud is costly and affecting the insurance companies' earnings, reserve deficiencies, rising loss costs and other insurance expenses, as well as pricing difficulties. Therefor fraud detection and prevention gaining momentum as a means of reducing insurance costs (Dornstein, 1996).

Insurance fraud is a problem, many because studies have revealed that Insurance fraud is a real problem that leads to significant financial, societal and humanitarian costs (Palasinski, 2009). Also it is complex, multi-sided phenomenon. Insurance fraud occurs when an insurance company, agent, adjuster, policyholder, third-party claimant or service provider commits a deliberate deception in order to obtain an illegimate financial benefit during the process of buying, using, selling or underwriting insurance. Based upon this argument insurance industry in Jordan considered as an important economic sector and it is worth full to investigate the existence of any fraud indicator that would probably affect the industry growth, companies success and quality of services, therefor the study's problem is to find out if there is any fraud indicators in insurance industry in Jordan, for that this study will try to answer the following questions:

1. Do insurance companies have effective internal systems that detect and prevent the fraudulent practices?
2. Do insured parties have fraudulent practices?
3. Do insurance intermediates or/and brokers have fraudulent practices?
4. Do insurance complementary service providers have fraudulent practices?

The importance of this study came from the importance of the industry as it plays a significant role for sustainability and development of Jordanian's national economy, through the researchers interaction with many stakeholders in the industry, they confirmed that there is a real concern about the existence of fraud in insurance, because it was a rare to find studies that cover this issue and there is no clear statistics available to show this problem, this study will try to find out whether there is any indicator of fraud exist in the industry or not. Furthermore this study will open the door toward deeper research works regarding this problem in emerging economies, e.g. Jordan. Also we expect that the findings of this study will be of a real help to stakeholders and decision makers to further development of insurance industry in Jordan.

This study will try to achieve the following objectives:

- To examine the effectiveness of insurance companies internal systems regarding detection and prevention of fraudulent practices.
- To identify if there is any fraudulent practices committed by insured parties.
- To identify if there is any fraudulent practices committed by insurance intermediates or/and brokers.
- To identify if there is any fraudulent practices committed by insurance complementary service providers.

2. RESEARCH METHODOLOGY

The design of this research was qualitative; based on literature review and a questionnaire. The questionnaire used to measure the factors that might explain the chance of fraud commitment by insurance process participants. A Likart 5-point scale was used to investigate these factors. The questionnaire is structured to measure the 4 variables; it includes a total of (39) questions designed to evaluate the respondent's opinions toward these variables.

2.1. Hypotheses of the Study

- H_1 insurance companies have effective internal systems that able to detect and prevent fraudulent practices.
- H_2 insurance companies do not face any fraudulent practices committed by insured parties.
- H_3 insurance companies do not face any fraudulent practices committed by Insurance Intermediates or/and brokers.
- H_4 insurance companies do not face any fraudulent practices committed by insurance complementary service providers.

2.2. The Sample of the Study

The sample of the study consist of 25 insurance company, where a three questionnaires have been sent to each company, the total questionnaires that are sent were (75) and only a (56) questionnaires have been returned and were valid for the purpose of the analysis.

3. THEORETICAL REVIEW

Fraud is defined as applying the methods of deception or any device, that would culminate in an individual or groups gaining advantages over others, by making wrong suggestions or not telling the truth which includes all surprises, tricks, cunning or dissembling, in any unfair way (Albrecht et al., 2012; Wells, 2011).

Insurance fraud has significant financial, societal and humanitarian costs, its complex, multi-sided phenomenon, and has many types of insurance fraud, which include offences of individuals against individuals, individuals against companies, companies against individuals and companies against other companies, therefor it is definitely affecting the insurance companies' earnings, reserve deficiencies, rising loss costs and other insurance expenses, as well as pricing difficulties, for example, fraud in motor insurance is historically one of the most costly fraud scandals in the world, according to (Coalition Against Insurance Fraud, 2012) in the United States this type of fraud is costing the average household $950/year, which means that around 10-20% of all motor insurance claims filed are fraudulent. Additionally, fraudulent medical billing practices might result in abusing patients (Parver and Goren, 2011). Many researches have shown how medical facilities inflate billing in order to increase bills reimbursement from the insurance companies, and sometimes unnecessary procedures that result in patients being subject to unnecessary painful situations such as invasive testing, unnecessary surgeries and extreme physical manipulations. This might result in severe injury, including paraplegia and death (Qureshi et al., 2011; Parver and Goren, 2011; Taylor, 2003). Also the ABI has also estimated that the insurance industry loses exceeds a GBP3 billion due to fraud each year. The ABI categorizes two major types of fraud, that is: Hard fraud, which called premeditative and soft fraud, which called opportunistic (ABI, 2006).

In hard fraud the fraudsters plan their offence in advance, by taking out an insurance policy to obtain money or another advantage that they are not entitled to (CAIF, 2007). Hard fraud occurs when someone deliberately plans or invents a loss, such as a collision, auto theft, or fire that is covered by their insurance policy in order to receive payment for all damage claims (Krawczyk, 2009). While in soft fraud the fraudsters inflate or exaggerate a genuine claim against their insurance policy to obtain more money than they are entitled to (CAIF, 2007). For example, when making a claim an opportunistic fraudster may exaggerate the value of the stolen items (ABI, 2005). (Palasinski, 2009) found in his research regarding insurance claimants that most of drivers interviewed; on the average of all male drivers know about how to commit insurance fraud and to make it successful. They have determined as very creative in the representation of fraudulent behavior and that they do not much care about the how that behavior is unethical.

Insurance fraud that can be classified into four main categories that are (Yusuf and Babalola 2009).

3.1. Internal Fraud

Fraud action taken by an inside party in companies against the organization such as employees, management or board of director or involved in collusion with an outsider.

3.2. Policyholder or Claimant Fraud

Fraud action against the insurer in purchasing a product and/or effecting some of the insurance products by obtaining unlawful coverage or payment.

3.3. Intermediary Fraud

Fraud action by intermediaries against the insurer and the policyholders. This may be the agents or brokers of the insurer.

3.4. Insurer Fraud

Fraud action taken on behalf of the organization against the insured through policy tossing or mis-selling.

According to international association of insurance supervisors there are other types of fraud that affect insurers (IAIS, 2006):

- Fraud committed by contractors or suppliers that do not play a role in the settlement of insurance claims.
- Fraud by misrepresentation of insurance cover to attract investors, obtain favorable loans or authorizations or other types of favorable decisions from public authorities.

4. REVIEW OF RELATED LITERATURE

Previous literature has analyzed potential indicators that predict the likelihood of insurance fraud. Tennyson and Salsas-Forn (2002) analyze the phenomenon of insurance fraud related to automobile personal injuries requiring medical treatment and they find that auditing processes contain both a detection and a deterrence component. While Derrig et al. (2006) present some exemplary measures to handle fraud attempts, furthermore, Belhadji et al. (2000) identify fraud indicators to determine their actual impact on the fraud probability of a claim using a representative data set from Canadian insurance companies Dionne et al. (2009). Used the scoring approach to derive a red flag strategy indicating which of the suspicious claims should be referred to an external investigative units. The result is an optimal auditing strategy in the face of a cost-minimizing insurance company. Also ABI conducted a survey on 2000 respondents, it shows that insurance fraud fits in with public attitudes toward dishonesty, while this does not mean that tolerance will lead to acting dishonestly, a significant number of people surveyed admitted that their dishonesty could be severely tested in the future (ABI, 2003).

Viaene and Dedene (2004) confirmed that a policy holders might commit fraud or engage in fraudulent activities especially if they have a negative experiences throughout the insurance relationship such as delaying indemnifications or compensations underpayment.

Ojikutu et al. (2011) has studies the general public tolerance towards dishonesty of insurance companies in the Lagos State. The study shows that 60.2% of the respondents do not trust insurance companies and only 25% of those questioned are satisfied with the way their previous claims were resolved. Regarding the integrity of policyholders, many of respondents do nothing if their friend decided to exaggerate claims or committing fraud, also the perception of the respondents about the attitude of government to Insurance fraud also correlate with the educational attainment of the respondent.

Crocker and Tennyson (2002) finds that policyholder with recent experience are significantly less likely than others to justify fraud and consider it acceptable. The study also indicates that there is

a strong association between claims experience and lower fraud tolerance, and that the relationship between claims experience and reduced tolerance for fraud is a direct one. This suggests that claimants who have positive attitudes toward the insurance industry are significantly less likely to find insurance fraud acceptable than those with neutral or negative views.

Dean (2004) studied the insurance fraud from ethical perspective, he proposed that ethical evaluation of insurance claim exaggeration behavior would be affected by characteristics of the policyholder, insurance agent, and insurance company. These three factors were manipulated in written scenarios and the premise was tested in a factorial experimental design. He found a no significant support was for an effect of any of the three factors on ethical perceptions of claim exaggeration. However, females found claims exaggeration to be significantly less ethical than males.

Task Force (1997) in his study to understand the public attitude towards insurance fraud and the factors that influenced them, using quantitative and qualitative research and by conducting a telephone survey of 602 households in United States to know the opinion toward insurance fraud committed by insurance providers. He found that insurance providers committed insurance fraud in order to get more money in the form of commission or otherwise. He recommended that the insurance industry should develop an intensive and ongoing public information campaign to educate the public about insurance fraud.

Dionne and Wang (2013) examined the relationship between insurance fraud and the business cycle and by concentrating on two insurance contracts that may create an incentive to defraud. They find that residual insurance fraud exists both in the contract with replacement cost endorsement and the contract with no-deductible endorsement in the Taiwan automobile theft insurance market. They also show that the severity of insurance fraud is countercyclical. Fraud is stimulated during periods of recession and mitigated during periods of expansion.

Gabaldón et al. (2014) examined the possible effects of different types of insurance contracts on committing insurance fraud; the found that fraud was a prevalent feature in claiming behavior. Thus, the way in which the insurance consumer's contracts are structured over time appears to have impact on fraudulent activity, which likely has effects upon insurance providers and other insurance consumers. Thus, there is scope for external regulation of exactly which inter temporal structures of contracts should be allowed to be offered.

Tennyson (2008) discussed the moral, social, and economic dimensions of Insurance Claims Fraud the United States. He found that the fraud is planned behavior and the fraud in automobile, health, and workers compensation insurance are growing.

Skiba and Disch (2014) to explored insurance fraud investigators' lived experiences of fighting insurance fraud using interpretive qualitative phenomenology. Through data analyses and interpretations of multiple themes that relied on strategies, barriers, trends and environmental factors that affect insurance fraud, they confirmed that importance of the human component and the impact of the changing workforce on identifying and managing fraud, there should be astrong human component in order to be impactful in identifying and managing fraud. In addition, personnel changes have caused a decline in the awareness of fraud identification. Also, they revealed that fraud is part of larger social problem, and that an increase in public awareness and outreach is vital in order to change this mindset.

Gill et al. (2014) examined the causes, characteristics and prevention of insurance fraud, Insurance companies were surveyed, and data collected by interviews with insurance staff. It emerged that many insurers did not realize they had an insurance fraud problem, and those that did were either doing little to prevent it or were using ineffective methods. Insurance fraudsters are often given a great deal of help, often by officials who abuse the trust placed in them; insurers' relationship with loss adjusters is not geared to stopping fraudsters, therefor the insurance fraud is become easier. Also this study shows that insurance fraud is mostly an opportunistic crime.

Button et al. (2013) profiled the household insurance fraudster from close to 40,000 insurance claimants retained on a database. They found that the household insurance fraudster to be almost as likely male as female (54:46), aged 30-50 years with a mean age of 44, and from a variety of occupations. While they suggest caution at generalizing too much from their data, the findings lead the authors to suggest that some types of fraud, at least, were determined by opportunity.

Gill et al. (1994) work on home insurance fraudsters found that those under 30 years of age were disproportionately more likely to make a fraudulent claim, and 60.8% of those under 45 years of age knew of someone who had committed insurance fraud, with little difference between genders. The vast majority of the small number of people who admitted an insurance fraud also reported knowing someone else who had committed the same offence.

5. JORDANIAN'S INSURANCE SECTOR

Jordanian's insurance sector is an important economic sector, the total insurance premium were 2.07% of total country gross domestic product (GDP) at the end of 2014. The sector is supervised and organized by different bodies that are Insurance Commission, Jordan Insurance Federation and central bank (JOIF, 2016).

5.1. Insurance Commission

This authority was first established under the insurance supervision Act No. (33) for the year 1999 and succeeded thereby the insurance practices control directorate (prior). It is an independent entity in terms of finance and management and in charge of regulating the insurance sector and control and supervise its works so that to provide the environment suitable for enhance the role of insurance industry in the national economy.

Duties of this authority have been directed, through its three bodies, those are: The council, the director general and executive staff to protect the rights of the insured parties and control the

financial solvency of the companies, to promote the efficiency of their performance, achieve the positive competition among them, seek to provide efficient human workforce qualified enough for the practice of insurance business, disseminate insurance awareness and strengthen relations with the controlling authorities.

5.2. Jordan Insurance Federation

The first Association for Insurance Companies was established in 1956 as the first authority for regulating the business of insurance sector in Jordan. In 1987, the Unified Insurance office was created for vehicles insuring until the year 1989 when Jordan Insurance Federation get established.

This Federation is mainly concerned with the developing technical activities for setting up the principles and costumes for the practice of this profession and presentation of the studies to the local insurance market and analyzing of its factors and situations in order to regulate and coordinate insurance practices according to this markets requirements; also for preparation of the directive definitions of the insurance rates and determination of the rules for granting deduction on those rates for the insured parties-clients of insurance companies which are members of this Federation. It's also seeks to unify insurance policies and establish insurance and re-insurance pools as required by the market; to enhance trust in insurance sector who are members in this Federation and assumes the responsibility for arranging for insurance seminars and conferences and training courses with the aim to promote insurance business and conduct scientific researches and prepare statistics which better serve insurance sector.

5.3. Central Bank of Jordan

In 2016, the Council of Ministers approved that the central bank will take over and oversight the insurance sector, as part of his duties. The Council noted the merits of approval to the central bank has experience in the supervision of financial institutions, and the ability to exercise that role effectively, and in line with relevant international regulatory practices.

5.4. Insurance Companies in Jordan

Jordanian's insurance sector consists of (25) insurance companies, including one company licensed to practice life insurance business, (9) companies provide general insurance and (15) companies provide both types of insurance life and none-life insurance. Additionally, a regional company and representative office.

The insurance sector also includes insurance supporting services providers totaling (931), as at the end of 2014, distributed as follows: (584) insurance agents, (149) insurance brokers, (23) reinsurance brokers, (58) loss adjusters and surveyors, (31) insurance consultants, (19) actuaries, (1) cover holder, (16) companies administrating insurance business, and (11) banks licensed to practice banc assurance, in addition to the approval that has been granted to practice of reinsurance business broker within the Kingdom for (39) re-insurance brokers residing outside the country (JOIF, 2016).

The total insurance premiums to GDP ratio amounted to (2.07%) for 2014 and the insurance premiums per capita for 2014 amounted to (78.8) dinars, in 2014, gross written premiums inside Jordan reached JOD (525.8) million, showing growth of (6.8%) over last year. The growth is attributed to the growth in written premiums in some insurance licenses, mainly growth of medical insurance business by (10.1%), life insurance by (11.9%), and motor insurance by (5.2%). In 2014, gross paid claims increased by (17.6%) from 2013 figures to reach JOD (372.9) million. Gross paid claims increased by (230.5%) in fire and other damages to property insurance and (9.5%) in motor insurance, and (16.5%) in life insurance.

On the other hand, total insurance companies' investments increased in 2014 by (5.8%) from 2013, amounting to JOD (534.4) million. The sector's investment in deposits grew by (12.7%) over last year, amounting to JOD (232) million by the end of 2014 and financial assets at fair value through the income statement increased by (14.9%) amounting JOD (40.5) million by the end of 2014, and investments in real estate increased by (7.2%) amounting to JOD (94) million by year end, while financial assets in the other comprehensive income statement decreased by (3.9%) reached JOD (87.1) million, and financial assets at amortized cost decreased by (5.8%), or JOD (73.4) million. In 2014, the sector earned JOD (41.1) million in net profit before tax, compared to JOD (25.1) million in 2013. Whereas Jordanian insurance companies earned JOD (34.9) million in net technical profits compared to a technical profits of JOD (21.7) million in Jordan last year, which is attributed to achieving technical profit in the motor insurance business of JOD (8.2) million in 2014 compared to a technical profits of JOD (147) thousand in Jordan last year, and the medical insurance business of JOD (7.9) million in 2014 compared to JOD (2.4) million in last year. The insurance sector's returns on financial assets and investments reached JOD (8.8) million, compared to JOD (8.4) million in 2013. Total technical provisions increased to reached JOD (356.1) million in 2014, a (8.6%) increase over last year, which is attributed to increases in most technical provisions, especially net outstanding claim provision which increased by (12.9%), net mathematical provision which increased by (9.6%). Paid-up capital reached JOD (268.3) million in 2014; a slight decrease of (4.6%) over last year. Whereas shareholders' equity increased by (4.7%) compared to last year, reaching JOD (332.8) million.

It is noted that the loss ratio1 for general (non-life) business for the Jordanian insurance sector marked (86.1%) and the operational profit margin 2 was (7.1%). The insurance sector's net underwritten premiums to total underwritten premiums (retention ratio) was (61%), decreased by (1.4%) compared to last year. Insurance companies realized a (4.9%) return on assets and a (12.4%) return on shareholders' equity (Ministry of Industry and Trade and Supplies, 2014).

6. RESULTS OF THE STUDY

This section of the study overview and discuss the results of hypothesis testing of the study which includes descriptive statistics like median, mean and standard deviations.

6.1. Demographic Variables

As shown in the Table 1, around 77% of respondents are working to companies that are existed since more than 10 years, while 23% of them from companies that of age between 5 and 10 years, which implies that most of responses came from an experienced companies. Regarding the companies from which the responses came from, a 36% a big size, 41% medium size while only 23% of them are small size companies, which implies that these companies have a proper accumulated knowledge that serve the purpose of this study, also all of the respondents came from companies who have employees above 50 employees.

63% of respondents companies have <5 branches and 63% of these companies have intermediates or brokers to help them in conducting the business.

6.2. Stability of the Study Tool

To testing the stability of the study tool, researchers used Cronbach's alpha, Table 2 shows that testing results and all alphas are greater than the value of 0.60, This confirmed that the study tool is stable.

6.3. Hypotheses Testing

6.3.1. The first hypothesis

H_1 insurance companies have effective internal systems that able to detect and prevent of fraudulent practices.

Table 1: Demographic variables

Variable	Number of respondents (%)
The company's age	
<5 years	0 (0)
From 6 to<10 years	13 (23)
More than 10 years	43 (77)
Company size	
<5 million	13 (23)
From 5 to<10 million	23 (41)
10 million and more	20 (36)
Number of employees	
<50	0 (0)
From 51 to<100	35 (63)
More than 100	21 (38)
services offered	
Life	1 (2)
Non-life	13 (23)
Both of them	42 (75)
Company branches	
<5 branches	35 (63)
From 5 to<10 branches	21 (38)
More than 10 branches	0 (0)
Intermediates/brokers	
<5	10 (18)
From 5 to<10	35 (63)
More than 10	11 (20)

Table 2: Cronbach's alpha

Variable	Cronbach's alpha
Internal factors	0.76
Policyholders factors	0.72
Intermediates and brokers factors	0.69
complementary service providers	0.7

Testing of first hypothesis shows that there are internal factors in insurance companies that represent an indicators to fraud existence, Table 3 shows that with the an exception of the paragraphs 5-7, the all other paragraphs got a mean >3.00, with of significance level <0.05, While the paragraphs 5-7 have a mean <3.00, and statistically insignificant. For all the paragraphs together, the mean was 3.44 and statistically significant with significance level at 0.00. In other word, there are internal factors in insurance companies that insurance companies do not have effective internal systems that able to detect and prevent of fraudulent practices, which means that there are indicators of fraud existence in insurance companies, therefor we reject the hypothesis H_1 and accept he alternative one.

6.3.2. The second hypothesis

H_2 insurance companies do not face any fraudulent practices committed by Insured parties.

Testing the second hypothesis shows that there are factors related policyholders that represent indicators to fraud existence, from Table 4 with the exception of paragraph 21, all other paragraphs got a mean >3.00, and with significance levels <0.05, and considered as statistically significant, while paragraph No. 21, despite it has a mean is >3.00, it has significance level >0.05 is, so statistically insignificant.

For all the paragraphs together, the mean was 3.78 with 0.00 significance level of which means its statistically significant. In other words, there are factors relating to policyholders that represent indicators to fraud existence, therefor we reject the hypothesis H_2 and accept he alternative one which is the Insurance companies face fraudulent practices committed by Insured parties.

6.3.3. The third hypothesis

H_3 insurance companies do not face any fraudulent practices committed by Insurance Intermediates or/and brokers.

Testing third hypothesis shows that there are factors that are related to the intermediates and brokers of insurance companies that represent indicators to fraud existence, from Table 5 with the exception of paragraphs 25, 30, 31, all other paragraphs got a means >3.00, and with levels of significance <0.05, so they are statistically significant, while paragraphs 25.31 have a mean <3.00, and statistically insignificant. Also paragraph 30 has mean >3.00, but the significance of the level was >0.05 so it is statistically insignificant.

For all the paragraphs together, the mean was 3.36 and with significance level of 0.00, so its statistically significant. In other words, there are factors related to the intermediates and brokers of insurance companies that represent indicators to fraud existence, therefor we reject the hypothesis H_3 and accept he alternative one which is insurance companies face fraudulent practices committed by Insurance Intermediates or/and brokers.

6.3.4. The fourth hypothesis

H_4 insurance companies do not face any fraudulent practices committed by insurance complementary service providers.

Fourth hypothesis shows that there are factors that are related to providers of complementary services to the insurance companies that represent indicators to fraud existence from Table 6 with exception of paragraph 36, all other paragraphs got a mean >3.00, and with significance levels <0.05, therefor statistically significant, while paragraph No. 21 has a mean it is <3.00, and is not statistically significant.

For all the paragraphs together, the mean was 3.39 and with significant level of 0.00 so they are statistically significant. In other words, there are factors related to providers of complementary services to the insurance companies that represent indicators to fraud existence therefor we reject the hypothesis H_4 and accept he alternative one which is Insurance companies face fraudulent practices committed by insurance complementary service providers.

Table 3: Measurement of internal factors

Statement	Mean±SD	T	Significant
The company has a complicated organizational structure	3.75±0.98	5.74	0.00
The company's organizational structure does not have an separation of duties and responsibilities	3.73±0.90	6.06	0.00
The company does not have job description for its employees	3.77±0.93	6.15	0.00
The company does not respond to the rapid changes in the business environment	3.61±1.04	4.37	0.00
The company does not develop new products	2.77±0.71	−2.44	0.02
The company have a unsuitable technological infrastructure	2.75±0.98	−1.91	0.06
The company's rewards and incentives system dissatisfy the needs of employees	2.89±1.04	−0.77	0.44
Company's operating performance are unstable	3.39±1.14	2.58	0.01
The company has ineffective Internal control system	3.75±0.98	5.74	0.00
The company has a centralized management system	3.36±1.15	2.32	0.02
The company have high ratio of staff turnover	3.54±1.17	3.41	0.00
The company is rarely qualifying and training workers professionally and technically	3.66±1.16	4.25	0.00
The company receive clients' problem but do not follow up complain resolving	3.70±1.08	4.84	0.00
Total	3.44±0.63	5.15	0.00

SD: Standard deviation

Table 4: Measurement of Policyholders factors

Statement	Mean±SD	T	Significant
The company rarely reviews and updates the contents and terms of its insurance contracts	3.91±0.79	8.60	0.00
The company issues an insurance policies but incomplete with required items	4.07±0.83	9.68	0.00
Policyholders' claims always fake	4.02±0.86	8.82	0.00
Compensation paid to policyholders are unexpected values	3.93±0.81	8.62	0.00
The policyholders exaggerating the size of the claims	4.04±0.74	10.51	0.00
The policyholders submit unreal claims	3.45±1.16	2.88	0.01
Policyholders issues are resolved through insurance experts	3.82±0.94	6.57	0.00
Sometimes there is experts' complicity for the benefit of policyholders	3.11±1.00	0.80	0.43
Policyholders do not adhere to the deadlines specified in the insurance policy	3.68±1.35	3.76	0.00
There is a fabricating case of accidents' occurrence	3.75±0.98	5.74	0.00
Total	3.78±0.47	12.37	0.00

SD: Standard deviation

Table 5: Measurement of intermediates and brokers factors

Statement	Mean±SD	T	Significant
Most insurance services are offered through the company, agents and brokers	3.63±1.09	4.30	0.00
Brokers keep records containing the names of the clients	2.89±1.00	−0.80	0.43
Agents and brokers receive premiums and issuing fake documents	3.75±1.21	4.64	0.00
The company use large number of agents and brokers in providing insurance services	3.32±1.31	1.84	0.07
The intermediate and the insured party is never represented by one person	3.54±1.24	3.25	0.00
The intermediates and brokers have the power for signing the contracts	3.86±0.94	6.81	0.00
The intermediates and brokers collect commissions and premiums	3.04±1.01	0.27	0.79
There is a significant increase in the number of claims that have not been settled	2.88±0.97	−0.96	0.34
Total	3.36±0.59	4.56	0.00

SD: Standard deviation

Table 6: Measurement of complementary service providers

Statement	Mean±SD	T	Significant
The complementary service providers inflating claims	3.68±0.88	5.80	0.00
The complementary service providers deliberately provide incorrect invoices	3.40±0.86	3.38	0.00
Sometime cases arise of using insurance services by non-insured	3.34±1.01	2.50	0.02
Some actions undertaken by complementary service providers are unnecessary	3.59±1.23	3.58	0.00
The company use lots of complementary service providers	2.96±1.01	−0.27	0.79
Total	3.39±0.56	5.22	0.00

SD: Standard deviation

7. CONCLUSION AND RECOMMENDATIONS

This research work investigate the existence of fraud indicators in insurance companies in Jordan, the results confirmed the existence of these indicators in different aspects of insurance business, insurance companies in Jordan generally have ineffectiveness in internal systems which give a chance to commit fraud this result confirmed with previous studies like (Yusuf and Babalola, 2009), also insurance companies in Jordan face fraudulent practices committed by Insured parties this result goes with the result presented by (Dean, 2004) who studied the insurance fraud from ethical perspective of insured party, another aspect is related to insurance companies' intermediates and brokers, the results confirmed of possible fraudulent practices committed by insurance intermediates or brokers this result is similar to the findings of (Dionne and Wang, 2013). also the results shows that insurance companies face fraudulent practices committed by insurance complementary service providers, this results is goes with finding of (Gill et al., 2014).

It is recommended that insurance companies should take into consideration the existence of these indicators in order to deter and prevent insurance fraud commitment and to enhance their performance, therefore insurance companies in Jordan are recommended to improve insured party's understanding and awareness regarding insurance services and enhance the quality and quantity of data available in order to identify fraud cases and to create databases and data sharing. Supervision authorities should develop and promote voluntary best practice' guidance that enhance the effectiveness of insurance companies to tackle fraud and develop a suitable regulations to tackle this issue, worth full to say that capitalizing on the efforts of supervision authorities would of real help to insurance companies to face this issue, for example Jordan Insurance Federation usually organize seminars and conferences and training, conduct scientific researches and prepare statistics and professional reports related to insurance sector. Furthermore, it is recommended to the researchers to focus their efforts toward deeper study and analysis related to the insurance fraud in Jordan.

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