THE ROLE OF RISK MANAGEMENT IN DETERMINING THE LOSSES OF ENGINEERING INSURANCE

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ABSTRACT: *The research aims at shedding light on the concept of risk management, its means and its importance. It also aims at clarifying the role of risk management in reducing engineering insurance losses. The importance of this research is to clarify the role of engineering insurance in reducing the damage caused by disasters and accidents that occur suddenly, and risk management proved that it reduces losses of this kind of insurance. Whereas risk management studies the period of the insurance process and its losses, difficulty and diversity of reasons. The research of the National Company for Insurance was chosen for giving a research sample, (30) questionnaires were distributed to risk management departments in different branches of the company as well as the main branch.*

The main findings of the research are:

1. The company suffers from a shortage in the engineering expertise and technical specialties, both in the number or quality of experience and this affects the level of application of engineering risk management and engineering insurance.

The most important recommendations made by the researcher include the following:

1. The Company shall prepare a quarterly or annual manual relating to risk management strategies, risk privacy and diversity, and the new risks associated with technological development.

INTRODUCTION

As a legal entity providing services to the insured public, insurance companies' services are in the form of insurance covers such as fire cover, theft, engineering insurance, life insurance and other insurance coverage. These companies consist of branches and sections, each of which covers a type of insurance. The focus of this research will be on engineering insurance and how to reduce its losses through risk management.

First Course

Research Methodology

1.1 Research Problem

The loss of engineering insurance is a strong and continuing threat facing insurance companies in Iraq, Due to the growth and continuation of these losses and the exposure of these companies from various losses on a continuous basis and caused by the nature of engineering projects that are growing and growing annually in Iraq, this is where the role of risk management comes in to identify and reduce these losses, by developing strategies that are appropriate to manage this type of risk.

Based on the above, the following questions can be posed:

1. What role does risk management play in reducing and quantifying the loss of engineering insurance in the National Insurance Company?

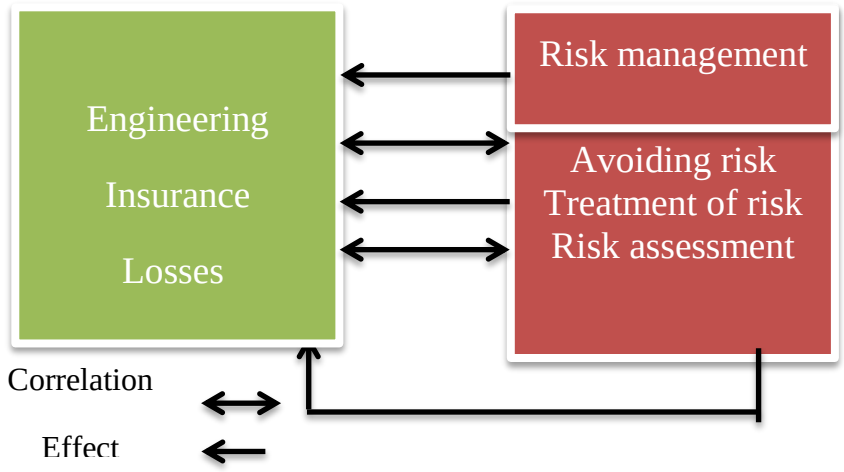
1.2 Importance of Research

By clarifying the role of engineering insurance in reducing the damage caused by disasters and accidents that occur suddenly and highlight the role of risk management in reducing the losses of this type of insurance.

1.3 Research Objectives

1. Highlighting the concept of risk management and its means and importance..
2. Explaining the role of risk management in reducing losses of engineering insurance.

1.4 Research Plan



1.5 Research Hypotheses

The first main hypothesis: There is a significant correlation between risk management and the loss of engineering insurance, the following hypotheses are derived:

1. There is a significant correlation between risk avoidance and loss of engineering insurance.
2. There is a significant correlation between the treatment of risk and the loss of engineering insurance.
3. There is a significant correlation between the risk assessment and the loss of engineering insurance.

The second main hypothesis: There is a significant effect between risk management and engineering insurance losses, the following hypotheses are derived:

1. There is a significant effect to avoid risk and determine the losses of engineering insurance.
2. There is a significant effect of the treatment of the risk and determine the losses of engineering insurance.
3. There is a significant effect of the risk assessment and the loss of engineering insurance.

1.6 Research Limits

1. Spatial limits: The National Insurance Company / Engineering Insurance Section.
2. Time limits: The period of preparation of the research (15/3/2018 - 15/3/2018).

1.7 Research Sample

The researcher chose the National Insurance Company as a sample for research. (30) Questionnaires were distributed to risk departments at several different branches of the company as well as the main branch.

Second Course

Risk Management / Theoretical Framing

2.1 The Concept of Risk Management

2.1.1 Definition of risk:

Risk in the language of financial study is a concept inherent to companies and people when making decisions and the resulting fear and suspicion and doubt of its consequences in a particular subject, According to (Al-Faki and others, 2000: 3), the risk can be defined as a condition that can affect people or organizations because of their exposure to a particular situation. This situation is characterized by anxiety, fear and tension, from losing something or someone valuable or precious.

The researcher believes that the risk is the uncertainty or hesitation that accompanies the person making the decision, for fear of the occurrence of any negative event may affect the achievement of the goal, which focuses on the definition of the situation of the decision maker and uncertainty of the outcome of his decision not knowing the impact of that resolution Whether it has a negative or positive effect on the goals that he/she seeks to achieve.

2.1.2 Risk management concept:

In the opinion of (Wardi) that risk management is the common concepts that are used to describe a specific behavior or action that represents the risk, the individual level of feeling or obsession with the person about the surprise or loss can be exposed to either the subjective reasons result from decisions outside his will, In general, risks to companies, individuals or enterprises are accompanied by accidents that result in losses that vary in severity. For anybody may be exposed to accidents at any time (Wardi, 1999: 9).

2.2 The importance and Objectives of Risk Management

2.2.1 Importance of risk management:

The importance of risk management comes from providing security for employees in the company or project, and for the property of the project also, without risks that they may be exposed to, by using scientific means and methods to counter the potential dangers of happening. The risk assessment that shows less risk than the reality may expose the company to unexpected results (Abdel Moneim and others, 2008: 5).

2.2.2 Risk management objectives:

The objectives of risk management are to identify the risk areas before they occur in the organization and to provide appropriate solutions to each risk situation that may affect the organization, which leads to the continuity of its work and the achievement of the objectives for which it was found (Fadel, 2010: 27).

2.3 Risk management Strategies

1. Avoiding risk:

The failure to carry on with the activity leads to such a strategy. Usually, by resorting to such an option, it leads to the loss of the ability to do some of the useful functions of the organization, and this is the price paid by the organization in return for reducing the level of risk, but the positive side that it reduces the risk to zero, i.e. no risk (Carol, 2009: 17).

2. Treatment of risk:

Loss control is the most important part of the treatment strategy. This strategy consists of verification activities, which reduce and control all severity of losses. Two of its main activities are (Rejda, 2005: 12):

- Loss prevention: It aims to reduce the possibility of loss, or recurrence, and is aimed in the short term to prevent the loss.
- Reducing losses: Preventing losses is intended to reduce its recurrence, whereas reducing the losses means reducing the intensity of the severity after it occurs.

3. Risk assessment:

This strategy aims to identify risk types by their importance, by conducting a risk analysis based on the criteria set by management, and then deciding on risk management according to its priority and based on the results of its analysis. The risk manager will decide whether the risk is acceptable or not.

Third Course

Engineering Insurance Losses / Theoretical Framing

3.1 Concept of Engineering Insurance

There is no comprehensive definition of insurance, because of its many types and the number of its foundations and principles on which the types based on, as insurance and according to the views of both (N. Sulaiman and others, 2014: 3) is a social system, that's concerned with reducing the various risks to individuals or projects by collecting these risks and distributing the financial burdens they entail if they are realized against the participants in order to compensate the damage suffered against the insured.

3.2 Engineering Insurance Classifications

3.2.1 Securing contractors' risks:

Contractor's risks is the threat to construction work, which includes certain elements such as the erection of machines for example the extension, processing, air conditioning, elevators, etc. Contractors' hazards include explosion, fire or armed burglary, collapse of buildings due to earthquakes or landslides, floods, storms and other hazards and natural disasters (Anbaki, 2007: 150).

3.2.2 Securing the risk of machine damage:

"The insurance of machine damage focuses on the number of machines and mechanical installations, whether fixed or moving, to be in good condition after the examination, and the insurance of machines, whether static for convenience or during the dismantling process for cleaning or maintenance in general. (Khafaji, 2014: 76).

3.2.3 Ensure the risk of boilers' explosions:

The explosion of boilers is a risk resulting from the sudden shutdown from the internal steam force or pressure of the liquid in a way that leads to sudden and dangerous distortion of any part of the machine. The dangers of the boiler explosion can be summed up as follows: (Hayawi, 2007: 110):

1. Design flaws in work and materials as well as errors resulting from casting.
2. Lack of experience and deliberate damage.
3. Electrical damage.
4. Faulty operation of the boiler, failure of the internal system of the boiler or not measuring pressure.
5. The rupture resulting from the central force.
6. Rupturing in the internal walls of the boiler because of expansion in gas or steam.

3.3 The Role of Risk Management in Reducing Engineering Insurance Losses

The objective of enterprises in managing risks is to achieve the best possible protection against the risks that may incur at the best cost, while aiming to maximize the returns through their best selective risk options. Risk management aims to increase the effectiveness of engineering insurance, as insurance is one of the tools used by engineering insurance after the availability of other means and tools available to the insurance company in the treatment of risk (Wardi, 2016: 63):

Fourth Course

Practical Aspect

4.1 Research Sample Characteristics

A. Gender: The results of the statistical analysis showed that more than half of the targeted research sample (53.3%) was female, while the remaining male respondents represented 46.7%, as shown in the following Table (1):

Table (1): Classification of the sample by gender

Gender	Repetition	Percentage
Male	14	46.7
Female	16	53.3
Total	30	100%

B. Age groups: The age group (35 - less than 45 years) topped the age groups of the sample of workers in the National Insurance Company, as it represented half of the sample (50.0%), Followed by the age group (45 - less than 55 years), which accounted for (20.0%), followed by the age group (55 years and more), which representing (16.7%), while the age group (25 - less than 35 years) was ranked last, with it representing the remaining (13.3%) of the sample. The age groups represented in the study sample reflect the age of the sample. As in Table (2) below:

Table (2): Classification of the sample by age

Age	Repetition	Percentage
25 - less than 35	4	13.3
35 – less than 45	15	50.0
45 – less than 55	6	20.0
55 and over	5	16.7
Total	30	100%

C. Job title: The head of engineers formed the largest category of job titles carried by the respondents in the sample of the research, they were slightly more than half the sample (53.3%), followed by respondents from managers' assistants with a little percentage of (20.0%), as statisticians had a percentage of (23.3%) of the total respondents. The directors also formed the lowest percentage of the sample (3.3%), as in Table (3) below:

Table (3): Classification of the sample by job title

Job Title	Repetition	Percentage
Manager	1	3.3
Assistant Manager	6	20.0
Head of Engineers	16	53.3
Statistician	7	23.3
Observant	-	-
Total	30	100%

D. Years of service: The results of the statistical analysis showed that the vast majority of the sample (53.3%) had more than 15 years of work experience, in addition, (30%) of the respondents have years of service ranging from (5-10) years, (10%) have a service of less than (5) years, while the category (16 - less than 20) years have obtained the lowest proportion (6.7%). These results reflect a similarity,. As the accumulated experience of the respondents is due to the age and age of those respondents. As in Table (4) below:

Table (4): Classification of the sample by years of service

Years of Service	Repetition	Percentage
Less than 5	**3**	**10.0**
5 – less than 10	**9**	**30.0**
11 – less than 15	**16**	**53.3**
16 – less than 20	**2**	**6.7**
More than 20	**-**	**-**
Total	**30**	**100%**

E. Educational achievement: The study results showed that the majority of the employees in the company (66.7%) received a bachelor's degree, and (26.7%) of the respondents received a higher diploma, and the rest of the respondents (3.3%) were holders of a master's degree and doctorate, while did not notice the representation of the respondents who received the diploma of junior high. As in Table (5) below:

Table (5): Classification of the sample by educational achievement

Educational achievement	Repetition	Percentage
Junior High	-	-
Diploma (Institute)	-	-
Bachelor's Degree	20	66.7
Higher Diploma	8	26.7
Master's Degree	1	3.3
Doctorate	1	3.3
Total	30	100%

4.3 Analysis of the Average Sample of the Study

The analysis of the averages aims at showing the extent to which the research sample is aware and responsive to a particular paragraph. The averages are compared according to the following method:

The greater the value of the arithmetic mean of the calculated paragraph, the greater the mean value of (3), which reflects a high degree of response in the severity of the research sample towards the content of the paragraph. The results of the analysis of the averages of all paragraphs and elements of the resolution:

First: Analysis of risk avoidance axis averages

The following table shows the results of the analysis

Table (6): Frequency distribution, arithmetic mean and standard deviation of the risk avoidance axis

Paragraphs		Likert scale 1 Strongly agree	2 Agree	3 Not Sure	4 Disagree	5 Strongly disagree	Average arithmetic	Standard deviation
1. The company adopts risk avoidance strategy which involves great risk.	Repetition	8	18	2	-	2	4.0000	0.98261
	%	26.7	60.0	6.7	-	6.7		
2. The management of the company has knowledge of risk avoidance requirements.	Repetition	8	12	7	2	1	3.8000	1.03057
	%	26.7	30.0	23.3	6.7	3.3		
3. Company officials are committed to applying risk avoidance strategies.	Repetition	6	13	7	3	1	4.5000	4.91830
	%	20.0	43.3	23.3	10.0	3.3		
4. Institutional control affects the implementation of risk avoidance strategies	Repetition	5	10	14	-	1	3.6333	0.80872
	%	16.7	33.3	46.7	-	3.3		
General average and standard deviation							3.9833	1.93505

From the table above we note that:

1. This paragraph (3. Company officials are committed to applying risk avoidance strategies), achieved an arithmetic mean of (4.5000) and a standard deviation of (4.91830). Since the value of the arithmetic mean is greater than the mean value of (3) on the measurement area, in this way the respondents reflected a high degree of response and support in their intensity towards the content of this paragraph, and thus the respondents confirm that the management of the National Insurance Company has risk avoidance strategies.

2. This paragraph (4. Institutional control affects the implementation of risk avoidance strategies), achieved a low arithmetic mean of (3.6333) and a standard deviation of (0.80872). Since the value of the arithmetic mean is greater than the value of the mean value of (3) on the measurement area, the respondents showed a high degree of awareness and support in their intensity towards the content of this paragraph. The percentage of respondents

Table (7): Frequency distribution, arithmetic mean, and standard deviation of the risk treatment axis

Paragraphs		Likert scale 1 Strongly agree	2 Agree	3 Not Sure	4 Disagree	5 Strongly disagree	Average arithmetic	Standard deviation
5. The company follows preventive measures to address the impact of risk	Repetition	5	11	13	1	-	3.6667	0.80230
	%	16.7	36.7	43.3	3.3	-		
6. The Company prepares programs for the development of risk management processes.	Repetition	7	15	3	2	3	3.7000	1.20773
	%	23.3	50.0	10.0	6.7	10.0		
7. The company encourages its employees to participate in training courses on risk management policies.	Repetition	9	6	12	2	1	3.6667	1.09334
	%	30.0	20.0	40.0	6.7	3.3		
8. The company follows the strategy of risk retention in small risks.	Repetition	4	17	4	4	1	3.6333	0.99943
	%	13.3	56.7	13.3	13.3	3.3		
General average and standard deviation							3.6667	1.0257

Note from the table above:

who agreed and strongly agreed with each other was (50%), and the percentage of respondents who disagreed and strongly disagreed was (3.3%), while the percentage of neutral respondents was (46.7%). We conclude from the questionnaire that institutional control affects the implementation of risk avoidance strategies.

Second: Analysis of the averages of risk treatment axis

The following table shows the results of the analysis:

1. The sixth paragraph (The Company prepares programs for the development of risk management processes), achieved the highest arithmetic mean of (3.7000) which is higher than the mean medium (3) and a standard deviation of (1.20773). This indicates the agreement of the sample members that the company is preparing programs to deal with the danger.

2. The eighth paragraph (The company follows the strategy of risk retention in small risks) has got the lowest arithmetic mean (3.6333) but it also exceeds the mean medium (3) and with a standard deviation (0.99943), which indicates that the company is pursuing a risk-taking strategy.

Third: Analysis of the averages of the risk assessment axis

The following table shows the results of the analysis

Table (8): Frequency distribution, arithmetic mean, and standard deviation of the risk assessment axis

Paragraphs		Likert scale 1 Strongly agree	2 Agree	3 Not Sure	4 Disagree	5 Strongly disagree	Average arithmetic	Standard deviation
9. The company identifies risks according to their importance.	Repetition	5	11	7	7	-	2.5333	1.04166
	%	16.7	36.7	23.3	23.3	-		
10. The Company has a strategy for assessing the risk according to its priority.	Repetition	10	16	3	1	-	1.8333	0.74664
	%	33.3	53.3	10.0	3.3	-		
11. The Company processes the risk according to its priority.	Repetition	2	11	12	5	-	2.6667	0.84418
	%	6.7	36.7	40.0	16.7	-		
12. The person responsible for risk management makes a final decision after reviewing the results of the risk analysis.	Repetition	9	16	3	2	-	1.9333	0.82768
	%	30.0	53.3	10.0	6.7	-		
General average and standard deviation							2.2417	0.86504

Note from the table above:

1. Paragraph (11) (the Company processes the risk according to its priority) got the highest arithmetic mean (2.6667) which is the lowest percentage of the mean (3) and a standard deviation of (0.84418). This indicates that the sample members are not sure that the company is treating the risk according to priority.
2. Paragraph (10) (the Company has a strategy for assessing the risk according to its priority) has obtained a minimum arithmetic mean (1.8333) with a standard deviation of (0.74664). These percentages indicate that the sample did not agree on this paragraph.

In total, the value of the general arithmetic mean for all paragraphs of the risk management axis (3.2972) since the value of the general arithmetic mean of the axis is larger than that of the mean (3), the respondents showed a high degree of response in their intensity towards the axis of risk management, which clearly indicates the awareness of the research sample represented by the employees of the National Insurance Company, the standard deviation of all axis segments (0.71842) indicates that the dispersion and oscillation between the responses of selected sample respondents are few and limited.

Fourth: Analysis of the mean of the loss of engineering insurance

The following table shows the results of the analysis

Table (9): Frequency distribution, the arithmetic mean and the standard deviation of the axis of the engineering insurance loss

Paragraphs		Likert scale 1 Strongly agree	2 Agree	3 Not Sure	4 Disagree	5 Strongly disagree	Average arithmetic	Standard deviation
1. Most of the company's losses in engineering insurance are due to weakness in risk management	Repetition	1	12	9	7	1	3.1667	0.94989
	%	3.3	40.0	30.0	23.3	3.3		
2. The company prepares specialized training courses to identify the risks of engineering insurance	Repetition	3	11	10	6	-	3.3667	0.92786
	%	10.0	36.7	33.3	20.0	-		
3. The Company suffers from the risk of achieving technical loss in engineering insurance	Repetition	4	10	9	3	4	3.2333	1.22287
	%	13.3	33.3	30.0	10.0	13.3		

4. The technical loss of engineering insurance is due to the inefficiency of the risk assessment and the measurement of the probability of achieving it	Repetition	8	6	10	5	1	3.5000	1.16708
	%	26.7	20.0	33.3	16.7	3.3		
5. The company suffers from a lack in engineering expertise and technical specialities	Repetition	4	17	5	2	2	3.6333	1.03335
	%	13.3	56.7	16.7	6.7	6.7		
6. Most of the company's losses in engineering insurance are due to excessive fraudulent claims	Repetition	4	16	3	3	4	3.4333	1.25075
	%	13.3	53.3	10.0	10.0	13.3		
7. Setting the limits of bearing losses in accordance with the responsibility and authority of senior management	Repetition	3	17	6	3	1	3.6000	0.93218
	%	10.0	56.7	20.0	10.0	3.3		
8. The company is exposed to many risks due to the difficulty of pricing engineering insurance	Repetition	3	13	4	7	3	3.2000	1.21485
	%	10.0	43.3	13.3	23.3	10.0		
9. The company is facing great insurance difficulties in reinsurance	Repetition	-	5	5	5	15	2.0000	1.17444
	%	-	16.7	16.7	16.7	50.0		
10. Accidents caused by natural hazards lead to serious losses in engineering insurance	Repetition	1	8	3	10	8	2.4667	1.25212
	%	3.3	26.7	10.0	33.3	26.7		
11. The company's lack of use for engineering and technical consultancy in reducing losses	Repetition	-	3	3	9	15	1.8000	0.99655
	%	-	10.0	10.0	30.0	50.0		
12. There is a technical study in the company for the branch of engineering insurance using indicators and variables for the purpose of setting limits and retention amounts	Repetition	2	2	5	8	13	2.0667	1.22990
	%	6.7	6.7	16.7	26.7	43.3		
General average and standard deviation							2.9556	1.11265

From Table (9) above we note the following:

1. Paragraph (5) (The Company suffers from a lack in engineering expertise and technical specialties) got the highest arithmetic mean (3.6333) and a standard deviation of (1.03335), Since the value of the arithmetic mean is greater than the ratio of the mean (3) on the measurement area, it indicates a high degree of support and response in its intensity towards the content of this paragraph, as (70%) of the respondents agreed with the content of the paragraph and in varying degrees, while (13.4%) of the respondents did not agree with them to varying degrees, while the remaining (16.7%) of respondents did not confirm their accuracy. Thus, we conclude with absolute confirmation by respondents that their company suffers from a large lack of engineering expertise and technical specialities.

2. As for the lowest percentage of mean (1.8000), it was obtained by paragraph (11), which is (the company's lack of use for engineering and technical consultancy in reducing losses) and a standard deviation of (0.99655), this result indicates that the sample does not agree on this paragraph, that is, the company uses and takes engineering consultancy in reducing losses.

Overall, the value of the general arithmetic mean for all the losses of the engineering insurance losses was equal to (2.9556). Since the value of the general mean of the axis is less than that of the satisfactory mean of (3) on the measurement area, the respondents showed a moderate degree of response to the axis of insurance losses Engineering, indicating the extent of the great awareness of the members of the research sample towards this concept, and the standard deviation of all the paragraphs of the axis (0.59279), indicating a low degree of dispersion and fluctuation among the respondents' answers.

5. Testing Hypotheses

The first main hypothesis: There is a significant correlation between risk management and the loss of engineering insurance.

In order to make a decision on the first hypothesis, which consists of three sub-assumptions for risk avoidance, risk management and risk assessment, the Spearman correlation coefficient will be calculated for the rank correlation between each axis of risk management and the loss of engineering insurance through the (SPSS) as table (10) and the interpretation of the results shows:

Table (10): Interpretation of the Results

Loss of engineering insurance	Axes of risk management		
	Risk Avoidance	Risk Treatment	Risk Assessment
Spearman correlation coefficient	0.476	0.444	-0.025
Sig	0.008	0.014	0.895

1. We observe that the value of the Spearman correlation coefficient between the risk avoidance variable and the loss of engineering insurance (0.476), which is a positive value with a statistical significance at a significant level (0.05). Thus, the first sub-hypothesis, which states "There is a correlation between risk avoidance and loss of engineering insurance"[10].
2. The coefficient of Spearman correlation between the risk treatment variable and the loss of engineering insurance (0.444), which is a positive value that is statistically significant at (0.05). Thus, the second sub-hypothesis, which states: "There is a statistically significant correlation between the treatment of risk and losses Engineering insurance ".
3. Spearman correlation coefficient between the risk assessment variable and the loss of engineering insurance (-0.025), which is negative and inverse value statistically significant at (0.05). Thus, the third sub-hypothesis, which states: "There is a statistically significant correlation between evaluation Risk and loss of engineering insurance ".As a result of the acceptance of the two sub-hypothesis relating to control and risk control strategies, the first general hypothesis is accepted that "there is a statistically significant correlation between risk management and engineering insurance losses."

The second main hypothesis: There is a significant effect between risk management and the loss of engineering insurance

In order to decide on the second main hypothesis, which consists of three sub-hypothesis for risk avoidance, risk management and risk assessment, the moral effect will be calculated using the multiple regression models where the variables (risk avoidance, risk treatment, risk assessment), are independent variables and engineering insurance is using the (SPSS) program as shown in Table (11) below:

Table (11): Results of transaction values used to measure the impact of risk management axes in engineering insurance losses

Variables		Coefficients				Summary
Y	X	P Value	Ttab	Tcal	Beta	Adjusted R Square
Loss of engineering insurance	Risk avoidance	0.182	1.699	1.370	0.251	0.029
	Risk treatment	0.029	1.699	2.301	0.399	0.129
	Risk assessment	0.799	1.699	-0.257	-0.049	-0.033

Table (6) shows that there is a statistically significant effect at (0.05) for the variable of the treatment of the risk in the engineering insurance loss axis, since the value of (t) is calculated equal to (2.301), which is greater than its tabular equivalent to (1.699), when the independent variable was (13%) of the total deviations in the value of the losses of the engineering insurance, which is reflected by the value of the coefficient of determination as the value of the regression parameter is statistically significant.

Thus, the estimated regression equation for the effect of the risk-adjusted variable in the insurance losses is as follows:

Y= a + bx

Losses of engineering insurance = 1,795 + (0.317) Risk treatment

The equation means that an increase in the risk-adjusted variable by one unit is offset by a decrease in the engineering insurance losses axis (0.317). Thus we accept the second sub-hypothesis, which states that "there is a significant effect of addressing the risk in engineering insurance losses".

Table (11) shows that there is no statistically significant effect at (0.05) for the variables of risk avoidance and risk assessment in engineering insurance losses, for the value of (t) is less than the tabular value of (t), hence the effect is not significant (no statistical function).

Thus, we reject the first and third sub-hypothesis, which state that "there is a significant effect to avoid and assess the risk of engineering insurance losses".

Fifth Course

Conclusions and Recommendations

5.1 Conclusions

1. The company suffers from a shortage and a large lack in the engineering expertise and technical specialties, both in number and quality of expertise, and this affects the level of application of engineering risk management and engineering insurance.
2. The company faces great difficulties and pressures in the return of engineering insurance which causes confusion in the management of engineering hazards.
3. There is a positive correlation between risk avoidance, risk management and engineering insurance losses.
4. There is an inverse relationship between risk assessment and engineering insurance losses.
5. There is significant statistical effect between the treatment of the risk and losses of engineering insurance.

6. There is no significant effect between risk avoidance, risk assessment and engineering insurance losses.

5.2 RECOMMENDATIONS

1. The Company shall prepare a quarterly or annual manual relating to risk management strategies, risk privacy and diversity, and the new risks associated with technological development.
2. Adopting the risk avoidance strategy for large risks, where the risk is high and has an occurrence of loss and lack of suitability and solvency effect for the portfolio of engineering insurance in the company.
3. Reducing the institutional control of senior management helps in the flexibility of implementing risk management strategies and developing the risk management program by issuing simplified legislations that are compatible with technological, environmental and social changes.
4. Bringing in experts specialized in engineering insurance helps the company in the pricing of the risks and estimates and the prospects of achieving.
5. Developing the stages and procedures of compensation adjustment to prevent the payment of compensated claims to the insured, contributes to reduce losses in engineering insurance.

REFERENCE

1. Abu Bakr, Eid Ahmed, Seifu, Walid Ismail (2009), “Risk Management and Insurance”, Dar Al Yazuri Publishing and Distribution, Amman - Jordan.
2. Hayawi, Nabil Abdel Rahman, (2007), "General Conditions for Civil Engineering Contracting", Legal Library, Baghdad.
3. Khafaji, Menem, (2014), "Introduction to Insurance Study", First Edition, Publications of the Iraqi Insurance Library.
4. Abdul-Munem, Aatef, Kashaf, Mohamed Mahmoud, Kasseb and Sied (2008), "Risk Management Assessment", Center for the Development of Postgraduate Studies and Research, Cairo.
5. Anbaki, Shehab Ahmed Jassim, (2007), "Engineering Insurance: Insurance of all hazards to contractors", second edition, Modern University Office, Alexandria.
6. Al-Faki, Sibai Mohammed, Mahmood, Jamal Al-Din Hamza and Fahd Saqr Bin Eid, (2000), Principles of Insurance: Scientific and Applied Assets, Al-Sallas Publications, Kuwait.
7. Wardi, Salim Ali, (2016), "Risk Management and Insurance", Electronic Edition, Publications of the Iraqi Insurance Library.
8. Wardi, Salim Ali, (1999), "Risk Management and Insurance", Al Reem Office, Baghdad.
9. N. Sulaiman, G. Abdulsahib, O. Khalaf, M. N. Mohammed, "Effect of Using Different Propagations of OLSR and DSDV Routing Protocols", *Proceedings of the IEEE International Conference on Intelligent Systems Structureing and Simulation*, pp. 540-545, 2014.
10. Osamah Ibrahem Khalaf, Norrozila Sulaiman, Ghaidaa Muttasher Abdulsahib, 2014. Analyzing Video Streaming Quality by Using Various Error Correction Methods on Mobile Ad hoc Networks in NS2", International Journal of Engineering Research and Applications. 4(10):pp.172-178.

Research and Periodicals

1. Fadel, Qusay Abdul Khaliq, (2010), "The role of risk management in the protection of university organizations - a case study at the University of Baghdad", unpublished diploma study, University of Baghdad - Higher Institute of Finance, Accounting and Finance.

Foreign Sources

1- Carroll, R, (2009),"Risk Management Handbook", United States of America: Jossey -Bass.

2- Rejda, George. E. Principles of Risk Management and Insurance. 9th ed., Boston: Pearson Education, Inc. London. 2005.