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## Accounting Information for Engineering Insurance and Its Impact on Investment Decisions in the National Insurance Company

Jasim Gshayyish Zwaid<sup>1\*</sup>, Yasameen Tareq Mohammed<sup>2</sup>
<sup>1</sup>Department of Accounting, Kut Technical Institute, Middle Technical University
<sup>2</sup>Ministry of Education, Baghdad, Iraq
\*Corresponding Author Email: jasim.alwosole@mtu.edu.iq

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#### Abstract

The research aims to identify the process of making investment decisions in insurance companies and to examine the accounting information and its characteristics used in these decisions. It also explains how to demonstrate the impact of accounting information on making investment decisions in insurance companies. To achieve the research objectives, the researcher posed the following question: What is the impact of accounting information systems on engineering insurance investment decisions within the company? To answer this question and resolve the problem, the researcher analyzed data from the National Insurance Company's engineering insurance portfolio to determine its impact on the company's investments. The researcher reached several conclusions, the most important of which are: Good design of accounting information systems to provide quality information to its users, any investment decision is met with a return and a degree of risk, and they are directly related to each other, because any rational investment decision is based on scientific foundations. He also gave a set of recommendations, the most important of which are: The need for insurance companies to pay attention to designing and developing accounting information systems through the use of... With automation and various programs that help collect and analyze data, we try to achieve the maximum return on investment at reasonable levels.

Keywords: Accounting information systems, engineering insurance, investment decisions

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### Introduction

To deliver this information in a way that serves all parties in a unified manner, far from any gap of difference that might lead to the disruption of this communication, most international bodies rushed to establish several foundations and concepts for unified accounting work by issuing what is known as international accounting standards to be a guide in determining the appropriate methods for measuring and presenting financial events, as the collapse of many economic units is considered to be the result of not applying accounting principles, and not showing real data and information.

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One of the most prominent aspects that were focused on is accounting information We find the aspect of preparing financial statements and reports, focusing on their form and content, and the aspect of accounting disclosure, as it is the main means and effective tool for delivering financial statements and reports to the parties that need them to support their decisions, especially Related to investment and finance.

Based on the importance of accounting information As outputs of the existing accounting system in National Insurance Company These statements must be prepared based on compliance with the requirements for disclosure of ambiguous matters that have a significant relative impact on the decision-making process, as any misleading information contained in these statements would make them lose their importance and thus affect the decision. Investment is considered one of the important and serious decisions, which requires the availability of information on a high level. Great accuracy and objectivity.

From this introduction to the impact of accounting information, the research problem can be formulated as follows:

## What is the impact of accounting information systems for engineering insurance on the company's investment decisions?

From the above question, which shows the research problem, the research objectives can be stated as follows:

- Learn about the investment decision-making process in insurance companies.
- Identify accounting information and its characteristics used to make investment decisions.
- Explaining the impact of accounting information on investment decision-making in insurance companies.

From these objectives, the importance of the research can be stated as: The importance is evident Search As it addresses a topic of great importance in Insurance companies Given the decisions of the A Investment has a significant impact on achieving the A The ruler's scorer before her, through A For the A Optimal use For accounting information Quality and transparently disclosed by A For the company.

The research is based on the hypothesis that:

## There is an impact of accounting information systems on the investment decisions of the National Insurance Company.

The first axis: The impact of accounting information systems related to engineering insurance:

## First: The concept of accounting information systems in insurance:

Accounting systems consist of a group or interconnected system of parts or elements that together form the scientific basis for these systems, to achieve a set of objectives for which they were originally designed. Financial accounting systems have been defined as: Systems for organizing financial information in a way that allows for the storage of basic numerical data, which is classified, evaluated, recorded, and the display of statements that reflect a true picture of the financial position and assets of the unit (legal or natural person). (The position of his treasury at the end of the fiscal year (Zwaid, Ali et al. 2020).

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Accounting systems in insurance companies can also be defined as: "An integrated system of human and material resources that work to prepare financial information, by collecting, preparing, and operating data to reach a group of reports and statements, prepared in light of specific conditions. These systems must be compatible with the organizational structure of the insurance company, to serve internal and external parties."

## Second: Objectives and characteristics of accounting systems in insurance companies

### 1 - Objectives of accounting systems in insurance companies

Regarding the objectives of accounting systems in insurance companies, we can list those objectives as follows:

- Recording financial events related to all insurance operations on a timely basis and in order of their occurrence.
- Transferring the recorded events to the relevant accounts, balancing them, and making the necessary settlements at the end.

### period

- Preparing the necessary final accounts to determine the activity results for the period and preparing the budget to measure the financial position at the end of the period.
- Assist in providing the necessary data and reports for monitoring, decision-making, and performance evaluation purposes (Zwaid, Mhawesh et al. 2020).
- **2 Characteristics of accounting systems in insurance companies:** The characteristics of the accounting system in insurance companies are:

The necessity of adapting the designed system to the nature, conditions, size, and operations of the insurance company.

- The system is designed to comply with the provisions of the laws governing the insurance companies applying it.
- Availability of flexibility, simplicity, and clarity in designing documents and the documentary cycle for various insurance operations.
- The possibility of dividing work among employees to determine the responsibility of each of implement the internal control system in the company.
- Providing data to meet the needs of insurance company management, external supervisory, regulatory, and assessment bodies.

### Performance.

- The economy of the system is designed so that the return from the application is greater than the cost(Abed, Kareem et al. 2023).

Third: Components of the accounting system in insurance companies: The specific elements of any accounting system's framework consist of a set of principles on which it is based, in addition to a chart of accounts that includes all the accounting system's accounts (Siahvoshi, 2022).

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- 1 Principles of the accounting system in insurance companies: The financial accounting systems project is based on various known accounting principles:
- The principle of non-compensation: Article 15 of Law 07-11 stipulates that no offset may be made between an asset and a liability, nor between a liability and a product, unless such offset is made on a legal or contractual basis (Ehioghiren and Eneh 2019).
- **Double-entry principle:** Accounting records are prepared according to the double-entry principle. Each accounting entry must contain at least two accounts, one debit and one credit, and the debit amounts must be equal to the credit amounts.
- Imposing the accounting cycle: The fiscal year is 12 months long, covering the calendar year. She noted that there are special cases where the fiscal year is less than or more than 12 months, and the units must specify the period and justify it.
- Obligation accounting (pledge): Transactions are recorded based on liability accounting as they occur and are presented in the financial statements for the years to which they relate(Zwaid and Mohammed 2023).
- Enforce continuity (continuity of activity): Financial statements are prepared on a going-concern basis.
- The basis of economic unity: The establishment is considered an independent economic unit separate from its owners, i.e., it has a legal personality independent of the owners of the project.
- Monetary unit base: Institutions are required to respect the Monetary Union Agreement by maintaining their accounting records in Iraqi dinars and converting transactions recorded in foreign currencies into the national currency(Stilwell 2023).
- The principle of relative importance: Information is meaningful if its absence or distortion from the financial statements affects the decisions taken by the users of these statements.
- The principle of caution: This means adhering to a degree of caution in preparing estimates in the face of uncertainty so that these estimates do not lead to an overstatement of the value of assets and revenues or an understatement of the value of liabilities and costs.
- The principle of continuity of roads: It means the continued application of accounting rules and methods related to the evaluation of elements and the presentation of information to enable comparison during previous or subsequent periods, and any change must be recorded in the appendix (Al-Sagheer, Mutashar et al. 2024).

The principle of not touching the opening budget: The opening budget for the fiscal year must match the closing budget for the previous fiscal year.

The rule of giving priority to economic reality over legal appearance: Transactions are recorded and presented in the financial statements according to their nature and financial and economic reality, without adhering to their legal appearance(van Doesum and Nellen 2020).

- The principle of the true image: Financial statements, by their nature and quality, and in compliance with accounting principles and rules, must meet the objective of providing a true picture that provides appropriate information about the financial position of the entity.

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Fourth: Definition of engineering insurance: Engineering insurance is linked to the tension and uncertainty that accompany employers and contractors during the implementation phase of construction and industrial projects, and the management of industrial organizations during the actual operation phase. Despite taking all necessary precautions, whether financial or occupational safety procedures, to avoid the possibility of the occurrence of the relevant risks facing their work or to mitigate their eff(Zwaid, Kareem et al. 2023)In many cases, they are insufficient in many cases. Due to the necessary need to provide appropriate protection for construction projects during the implementation phase and industrial organizations during the actual operation phase, the idea of engineering insurance emerged and is based on distributing the burden of financial loss to the largest possible number of them in the form of small shares representing insurance premiums. Payment is made in a manner that does not negatively affect the progress of work in construction and industrial projects and the administrations of industrial organizations(Zwaid, Bari et al. 2021).

**Fifth:** The importance of engineering insurance: The importance of engineering insurance is highlighted by the economic benefits and advantages it provides to the insured public (construction companies, contractors, commercial and industrial companies), which in turn positively reflect on development plans and economic life in the country concerned. The importance of insuring various projects can be explained through the following:

- 1 It achieves stability in the work of industrial organizations and the continuity of implementation and completion of various construction projects (civil and industrial engineering projects) by providing them with insurance protection by compensating them for the financial losses they incur as a result of the occurrence of sudden and accidental insured accidents(Hussein and Zoghlami 2023).
- 2- Helps in presentation Experience Technical for Administrations Organizations from during what Provides it from Advised And instructions around How to administration danger and provide Supplies Safety Industrial For the believer for them to develop Their factories and its maintenance and offers Statistics minute on number Accidents And the losses The achieved during period Temporal specific.
- 3 It enables the contractor and the employer to avoid excessive retention of financial reserves to confront emergencies and to invest these reserves in their field of work or other investment fields.
- 4 It helps the contractor reduce the amount of money he would have wanted to set aside to cover sudden and accidental incidents by eliminating the need to pay the insurance premium, which enables him to offer better and less competitive prices.
- 5 Engineering insurance premiums are not subject to income tax, as they are expenses borne by the contractor or factory owner, which reduces the tax rate imposed on them(Koijen and Yogo 2021).

**Sixth:** Characteristics of engineering insurance: After reviewing the importance of engineering insurance, we find that it is characterised by a set of characteristics, the most important of which are the following:(Reema and Samiha, 2021: 16-17) (Hussein, 2014):

1 - Engineering insurance is one of the general branches of insurance.

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- 2 Engineering insurance represents coverage for material losses that are exposed to the installations and buildings of projects and engineering works. Machinery, equipment, and devices.
- 3 There are types of engineering documents that include coverage for the construction contractor or the installation contractor, provided that the accidents occurred at the work sites during the insurance period.
- 4 It contains several risks of great magnitude and long duration.
  - 5 Engineering risks are called catastrophe insurance because the degree of risk is unusual, and the result of these risks is often a large financial loss.
- 6 When subscribing and pricing engineering insurance. In all types of engineering branches hiring experts and engineers (Bunni and Bunni 2022).

### **Seventh: Investment decisions in insurance companies:**

### 1- Investment decision (Investment Decision

In light of the rapid changes and developments witnessed by the market in all its forms, the investment decision becomes one of the most difficult decisions facing investors. Therefore, it is a decision that entails costs represented by fixed costs. Moreover, once it is taken and implemented, it cannot be reversed without incurring a loss, as it is an investment decision from which future profits are expected, although they are not certain. Verification.

Investment is based on the constraints of risk and return and falls within a combination of these two elements. Therefore, the investment decision is a choice between a group of available alternatives or alternative combinations.

To achieve the desired goal of this investment, after studying the expected results of each of these combinations, which represent imperfect alternatives, but are available. The importance of this decision and its existence were primarily due to the multiplicity of investment options, in addition to the costs of investments.

Making an investment decision manner, scientifically and practically that is accurate and prudent, regardless of the type and concept of investment, indicates in all cases a small amount of negative consumption that is certain now, to obtain a large but uncertain positive consumption in the future.

Based on this, it is necessary to take into account the objective foundations for making an investment decision, which are represented by the amount of expected return from the investment, the degree of potential risk, and the amount of required return, which is expressed as the risk-free return, through which the risk premium is determined (Melnychuk, Vinnytska et al. 2019).

**2- Investment portfolio:** The term portfolio is often repeated in the economic analysis of investment or any approach to investment analysis, in two forms, one of which is the concept of the investment and the other is the theory of the investment portfolio, which calls for us to distinguish between them. The term portfolio in general refers to a combination, assortment or group of assets or holdings that may be real, such as real estate and gold, or financial, such as stocks or bonds, or a mixture of both types of assets, and investors form

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it to achieve an amount of returns that is compatible with the level of risk they bear as a result of their investment through the employment of those assets.

As for investing in the field of securities, the investment portfolio represents for the investor a group of securities of different companies that differ from each other through the difference in their characteristics, and are in the form of stocks, bonds, financial derivatives, etc., from which a securities portfolio is formed. Likewise, banks, insurance companies, and mutual funds have diverse investment portfolios, and the law may impose this on those intermediary financial institutions. Likewise, any individual may have an investment portfolio, as it is possible for them to own it(Zhang, Tang et al. 2022).

An economic unit, because the investment portfolio theory represents the theoretical basis for the diversity of the portfolio and the emergence of the diversified portfolio.

The concept of the financial investment portfolio or securities portfolio, which is part of the broader concept of investment portfolio, whose existence is linked to the existence of investment in general, was the subject of controversy among various economic schools when analyzing the demand side for money, except the classical school, which was concerned only with the supply side due to its pioneers' belief in Say's law that supply creates demand. As for the Keynesian school, the theoretical preference for liquidity, Keynesian analysis was based on the assumption of the homogeneity of financial assets, so a trade-off is made between them and cash. The analysis was also based on the lack of diversity of the financial portfolio, meaning that it consists of either cash or bonds, which were considered an alternative to all securities within the analysis(Ivanyuk and Berzin 2020).

Through the writings in their joint book, Theory of Games and Economic Behavior (1944), the modern theory of utility (indifference curves) began to emerge, as both of them believed that in light of specific assumptions and a specific history, the individual's choices can be predicted, and that for the decision-maker to choose the rational choice, he must submit to the group's assumptions, so his principle in making the investment decision is based on maximizing utility. Through this theory, which represents the main basis of portfolio theory, Harry Markowitz was able to study the relationship between risk and return(Oliinyk and Kozmenko 2019).

**3-Portfolio risks**: Risk refers to the possibility of loss expectations being realized or the uncertainty of the expected return.

Achieve future investment. Just as the decision to invest heavily, i.e. the decision to form an investment portfolio of securities, must be made in light of an analysis of the expected returns and the expected risks as well, there are investments in financial assets whose risk level is equal to zero, such as treasury bills, which are characterized by the stability of their returns and the high degree of certainty of obtaining those returns on their specified date and without them changing over some time(Micán, Fernandes et al. 2020).

The second topic: The impact of accounting information systems for engineering insurance on investment decisions in insurance companies

**Firstly:** A brief about the National Insurance Company: Founded the National Insurance Company, under Law No. (56) of 1950 AD, and upon the issuance of Public Companies

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Law No. (22) of 1997 AD, and by the requirements of the aforementioned law, became a public company to the Certificate of Incorporation No. (54) on 2412/1997 AD issued by the Ministry of Commerce / Companies Registrar. The company's capital amounted to (15) Dinar (fifteen billion dinars) for the year/ 2022At the beginning of its establishment, its work was limited to insurance. On state property and fundsand its imports. However, its business developed and expanded, especially after the nationalization decision in the year1964Which increased the size and number of its insurance operations and the types and divisions of insurance that it practices, and it now practices all insurance activities (marine, ships, aviation, fire, various accidents, complementary and compulsory cars, agricultural and engineering insurance, employee insurance, fidelity insurance, transportation insurance, and personal accidents). After that, it practiced life insurance activities with the special decision of the Revolutionary Command Council. By removingSpecializing in the work of Iraqi insurance companies for competition between them to develop their insurance services and provide the best services to the insured public.

Second: Analysis of engineering insurance statement data for the National Insurance Company: At this point, the researcher will analyze the National Insurance Company's data for five years, as available from the company, to demonstrate the impact of engineering insurance on the company's investments.

Table 1: Compensation paid to the engineering insurance account

Data	2016	2017	2018	2019	2020
Compensation paid	3209344	27233989	668480	47086132	536362023

The table above shows compensation for engineering insurance. It is noted that the percentage of compensation varies from one year to the next, as the amounts were progressive. This means that compensation is and that this compensation directly impacts the company's profits, but not like other types of insurance. It also gives the impression that there is a trend towards engineering insurance. To clarify the percentage of compensation for engineering insurance to total compensation, it can be shown in the following table:

Table 2: Engineering insurance compensation for total compensation

Data	2016	2017	2018	2019	2020
Engineering insurance compensatio n	3209344	27233989	668480	47086132	536362023
Insurance compensatio n	3856673821 8	3633426671 5	3174363287 5	2207506392 8	2551752660 9
Rate	8.321533394	0.00074954	2.105871128	0.002133001	0.021019358

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The table above shows the percentage of engineering insurance compensation from the total compensation for each year, as the percentage for each year was different from the other. It is noted that in the year 2016, the percentage of compensation was very high, as the percentage was taken (8.32). It shows the highest ratio during the measurement years. This indicates that the company had very high engineering insurance coverage for that year, which contributed significantly to supporting the company's investments, as its returns from engineering insurance were much higher than the aforementioned types of insurance. In 2017, the ratio was very low (0.0007), meaning that the company did not need compensation at that time due to the fact that nothing happened to the insured business, except for a small percentage. In 2018, the ratio was (2.105), a slight increase compared to the previous year, but lower than other types of insurance. In 2019, the ratio was (0.002), indicating stability in compensation for stakeholders. In 2020, the ratio was (0.21), which is approximately similar to 2019. Here, after reviewing the mentioned ratios and their impact on profits, we find that engineering insurance information systems generate revenues through their effective contribution to total investments. The company did not lose large amounts in compensation.

**Table 3: Compensation reserve for engineering insurance** 

Data	2016	2017	2018	2019	2020
On 31/12 detention	-	40925794	40925794	40925794	40925794
On 1/1 launch	44830818	-	40925794	40925794	40925794
the difference	(44830818)	40925794	-	-	-

It is noted from the table above that the company retains a small percentage of the insurance amount to cover engineering claims. In 2016, the retention rate was (zero) and the release rate was (100%). In 2017, the retention rate was (100%) and the release rate was (zero), while in the three years (2019, 2018, 2020), the retention and release rates were equal. This indicates that the company benefited from the retention amount for one financial period, i.e. from the beginning of the year to the end only.

**Table 4: Insurance premium statement** 

Data	2016	2017	2018	2019	2020
Insurance premiums	97541439152	92152036057	79757007071	86837568878	80942136650

It is noted from the above table that the company has different and varying insurance premiums from one year to another and they are gradually decreasing according to the amounts shown above. This is due to the increase in governmental and private insurance companies. Or the reason may be due to the suspension of projects throughout the country. Consequently, this decrease is reflected in a small decrease in the company's investments, and this decrease in investments indicates a decrease in the total investment income.

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**Table 5: Engineering Insurance Account Installments** 

Data	2016	2017	2018	2019	2020	the total
Engineeri ng insurance premiums	29330014 20	173435794 89	150243391 43	175612619 87	157671324 74	686293145 13
Ratio	0.1860199 64	0.2527138 67	0.2189201 4	0.2558857 26	0.2297434 06	-

We note from the table above that the engineering insurance premiums the company receives from insurance operations are high and increasing at the same time. To determine the percentage of increase from one year to the next, the amounts for the five years were collected and divided. In 2016, the percentage of engineering insurance premiums was (0.18), which is lower than in subsequent years. Now, it has helped in increasing the total investments and thus increasing the company's investment revenues. As for the period from 2017 to 2020, it represents one-third of the total. This indicates an increase in the company's investments at the same rate, which in turn leads to an increase in the company's profits and revenues. If we wanted to know the weight of engineering insurance information systems in relation to the total premiums, we would find it ranked high, as shown in the following table:

Table 6: Engineering insurance premiums in relation to total premiums

Data	2016	2017	2018	2019	2020
Engineerin g insurance premiums	2933001420	1734357948 9	1502433914 3	1756126198 7	1576713247 4
Insurance premiums	9754143915 2	9215203605 7	7975700707 1	8683756887 8	8094213665 0
Ratio	0.030069286	0.188206145	0.188376416	0.202231157	0.194795111

From the table above, it is clear that the contribution ratio of engineering insurance information systems to total premiums is very high. The ratio in 2016 was (0.03), which was the lowest ratio among the measurement years. This may be due to the lack of projects or the failure of most of them. In 2017 and 2018, the ratio was (0.188), representing one-third of the incoming premiums. This means that engineering insurance is a center of gravity for the insurance company among other types, as it contributes approximately one-third of the revenues used by the company in investment. In 2019 and 2020, the ratio was (0.19, 0.202), which is higher than the previous one. This indicates that the company, with its focus on engineering insurance, is a source of attraction for stakeholders. The company's insurance covers approximately (13) types of insurance. This means that engineering insurance information systems have a

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significant impact on the strength and position of the company, which in turn affects the company's investment capacity, which has a greater impact than the company's revenues.

**Table 7: Reinsurance premiums statement** 

Data	2016	2017	2018	2019	2020
Engineering reinsurance premiums	2616157490	1805517133 3	1452333252 5	1682935739 5	1595938633 6
Reinsuranc e premiums	9754143915 2	9215203605 7	7975700707 1	8683756887 8	8094213665 0
Ratio	0.026820985	0.195928078	0.182094753	0.193802724	0.197170312

It is noted from the table above that the engineering reinsurance ratio to the received insurance premiums is almost equal to the insurance premiums in country No. (8). In 2016, the ratio was (0.03) and now (0.02), so they are close because the same reasons affected both sides. As for the period from 2017 to 2020, the ratio was (0.19). This indicates that the company achieved the largest amount of revenue from engineering insurance, as engineering insurance represents one-third of the realized investments. In other words, it represents the amounts that were transferred to other companies, for various reasons, including the company's inability to bear risks. However, at the same time, if we look closely, we find that its percentage is very low. This indicates the strength and solidity of the company's financial position, as well as the company's orientation towards investing in the right place, which in turn adds to the net profit from the revenues of these investments.

**Table 8: Statement of total investments** 

Data	2016	2017	2018	2019	2020
investment	16657414798	15506143040	14657917777	14584752398	13583937593
s	0	8	1	7	1

The table shows the company's total investments, the amounts invested in different fields, as these investments generate returns for the company, and as we mentioned previously, the company's investments are directed correctly to serve its interests in generating revenues. As is clear from the table above, there is a downward slope in investments, and the decline is not from engineering insurance but from other activities. In Table No. (11), there is a statement showing the company's revenues from investments, which are as follows:

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**Table 9: Investment Revenue Statement** 

Data	2016	2017	2018	2019	2020
Investmen t revenues	8402492049	8512327799	8120435013 8751924264		7209853683
Insurance operations revenues	8438984646	11147939782 2	9348398910 0	1205316125 0	9258539540
Ratio	0.99567571	0.076357856	0.086864447	0.726110278	0.607071633

In this table, investment revenues were shown as measured against insurance operations revenues. It was found that the revenue ratio was very high, which means that the company's investments were directed correctly. In 2016, the ratio of revenues to insurance revenues was (0.99), which means that most of the revenues obtained by the company were related to engineering insurance. In 2017 and 2018, the ratio decreased, possibly due to the suspension of projects. However, in 2019 and 2020, the ratio increased to show that engineering insurance has a direct impact on investment revenues, as investment revenues included insurance revenues, of which engineering insurance was the backbone. Here, it can be said that engineering insurance has a direct impact on the company's investments.

Table 10: Engineering insurance account expenses for insurance operations

Data	2016	2017	2018	2019	2020
Engineerin g insurance expenses	1819805798	1764187413	1739353531	1615631507	1452708369
Insurance operations expenses	8340516958 1	8454342376 1	6971494830 2	7598340076 6	7226525132 9
Ratio	0.021818861	0.020867234	0.024949506	0.021262953	0.020102447

It is noted from the table above that the ratio of engineering insurance expenses to total insurance expenses is fixed. This means that engineering insurance has fixed expenses and variable revenues. It is clear that engineering insurance does not require complex procedures when implementing it. Engineering insurance expenses are administrative expenses. These expenses are reduced from the revenues generated by engineering insurance and, consequently, are deducted from the investment income generated by the account.

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**Table 11: Engineering insurance expenses for total expenses** 

Data	2016	2017	2018	2019	2020
Administrativ e expenses for engineering insurance	1819805798	1764187413	1739353531	1615631507	145270836 9
Total administrative expenses	1253372314 8	1177349404 5	1167550370 3	1084209373 7	952871053 5
Ratio	14.51927553	14.98439976	14.89746032	14.90147149	15.2455924

We note from the table above that engineering insurance expenses represent a close percentage over the years of the selected sample, and this means that there is a similarity between the percentage of expenses to insurance expenses and total administrative expenses, to show us that engineering insurance has understandable administrative procedures, as its expenses vary and have an impact on the company's profits, but at a small percentage, despite the effective contribution to generating revenue from investments.

Table 12: Investment returns from the engineering insurance account

Data	2016	2017	2018	2019	2020
Investment returns	266809887	203581670	83946661	30022164	26790593

We note from the table above the profits or returns on investments from the engineering insurance account, where this return can be measured in two ways: the first is to the total insurance revenues, and the second is to investment revenues, as follows:

Table 13: The ratio of engineering insurance investment returns to the total investment returns of the account

Data	2016	2017	2018	2019	2020
Investment returns for the account	266809887	203581670	83946661	30022164	26790593
Total investment returns	2846581189	2859336428	3140804806	3560078239	3110952476
Ratio	0.372994104	0.459892154	0.672775489	0.84330068	0.861170115

From the table above, it is clear to us that the ratio of engineering insurance investment returns to total investment returns is a good ratio because the total types of insurance in the company

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are (13) types, where the ratio in 2016 was (0.37), which means that the returns from engineering insurance investments contributed significantly, reaching more than a third of the returns. In 2017, the ratio increased further to reach (0.45), which means that engineering insurance contributed significantly to investment returns. In 2018, 2019, and 2020, the ratio reached (0.67, 0.84 and 0.86), which means that engineering insurance took the number one position in other insurance classifications because its returns reached more than (75%) of investment returns. This ratio, if it indicates anything, indicates the strength of engineering insurance in the company and the returns it achieves on investments.

Table 14: The ratio of engineering insurance investment returns to investment revenues

Data	2016	2017	2018	2019	2020
Investment returns for the account	266809887	203581670	83946661	30022164	26790593
Investment revenues	8402492049	8512327799	8120435013	8751924264	6209853683
Ratio	0.175366135	0.391609849	0.33770492	0.343035007	0.43142068

From the above analysis, it is clear that the returns of engineering insurance investments have a significant impact on investment revenues, as they have an impact on the size of the total returns. The returns of engineering insurance accounts strengthen the company's position. In 2016, the ratio was (0.17) of investment revenues, which indicates that engineering insurance contributes significantly to total investments. In 2017, 2018, and 2019, the ratios were close to each other, which are (0.39, 0.33 and 0.34). This means that the returns obtained from investments from engineering insurance amounts were growing significantly until they reached (0.43) in 2020. The accelerated growth means that there is a trend towards engineering investments.

Table 15: Revenues for the engineering insurance account

Data	2016	2017	2018	2019	2020
Total revenue	1587513688	912539173	1481573950	20172597127	992574991

The table above shows the amounts of revenue generated by the engineering insurance account during the measurement period. These can be compared with total revenues to determine their impact on the company's profits.

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Table 16: Engineering insurance account revenues to revenues from insurance operations

Data	2016	2017	2018	2019	2020
Account revenue	1587513688	912539173	1481573950	20172597127	992574991
Insurance operations revenues	8438984646	111479397822	93483989100	12053161250	92585395403
Ratio	0.81166698	0.818572033	0.584842457	0.673635382	0.72064321

We note from the table above that the ratios vary significantly, as it is clear that engineering insurance revenues increase and decrease from one year to another. In 2016 and 2017, the ratio was (0.81) of insurance operations revenues, representing two-thirds of the revenues. This indicates that engineering insurance revenues have the greatest impact among other types of insurance. In 2018, the ratio was (0.58), which is lower than the two previous years, but it represents more than the revenues, which indicates the significant impact of engineering insurance. This indicates that the company had compensated a group of people during that year in engineering insurance, but these compensations did not affect investments because they were released at the end of the period. In 2019 and 2020, the ratios of engineering insurance revenues were (0.67 and 0.72), which is a very high percentage, indicating that engineering insurance revenues achieved a very high return on investments. Through this review, we find that engineering insurance has a direct impact on investments and investment returns.

Table 17: Net engineering insurance profit

Data	2016	2017	2018	2019	2020
Net profit	3466334577	1572896891	1481573950	2172597127	992574991

The table above shows the engineering insurance profits achieved by the company. These profits can be measured to determine their position in relation to the company's total profits and can also be measured by investment returns.

Table 18: The percentage of engineering insurance profits from the company's profits

Data	2016	2017	2018	2019	2020
Engineerin g profit	3466334577	1572896891	1481573950	2172597127	992574991
Total profits	1837106670 5	1794605883 3	1530024798 1	1687174516 9	1468049411 5
Profit rate	0.188684448	0.087645812	0.096833329	0.128771334	0.067611824

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The table above shows the ratio of engineering profits to the company's overall profits. The ratios have varied from year to year and have been increasing. This indicates that engineering insurance has an impact on the company's profits. It also indicates that business owners are moving towards engineering insurance, as an increase in the percentage of profits in engineering insurance indicates an increase in investment opportunities in the company. This is because most engineering insurance profits come from the company's successful investments.

### **Discussion**

We have discussed in our study topic, The impact of accounting information systems for engineering insurance on investment decisions in insurance companies. We divided the research plan into two aspects: a theoretical aspect and an applied aspect. The theoretical aspect includes: The topic. The first one, in which we discussed the role played by accounting information systems, is one of the most important areas that accountants and accounting students should pay attention to and keep pace with its rapid development.

The insurance sector has also received attention from the state, and one of the results has been the issuance of many laws that guarantee the regulation and control of all insurance activities. Due to the specificity of the insurance sector, some differences have been found between accounting in insurance companies and other institutions through the existence of accounts specific to the insurance sector due to the nature of the activity that it carries out.

As we have seen, accounting information systems in insurance companies provide accounting information that helps solve many problems and decisions facing management and many other parties.

As for the practical aspect, we studied the effectiveness of accounting information systems in insurance companies (Engineering Insurance) and the application of various theoretical aspects to the National Insurance Company, where some results were reached through which the validity of the hypotheses that were put forward in the introduction to the study can be tested, and then the problem of the subject can be answered by arriving at a set of results and trying to present

**Hypothesis testing**: Accounting information systems are embodied in insurance companies. The hypothesis was proven correct, as T Accounting Information Systems People and through its components or elements, which are represented by the documentary group, which is considered as the inputs of the accounting information system, then the book group, through which it is done. Accounting treatment in books and finally financial statements, which are the outputs of accounting information systems, and where the work of accounting information systems in any institution, including insurance companies, provides data and information that helps different administrative levels in evaluating the results of implementing various policies.

### **Section Three: Conclusions and Recommendations**

#### **First: Conclusions:**

1-Good design of accounting information systems to provide quality information to its users' investment decision is accompanied by a return and a degree of risk, and they are directly

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related to each other, because any rational investment decision is based on scientific foundations.

- 2 -The insurance sector is distinguished by several characteristics from other activities or sectors, and perhaps the most important and prominent of them is: Tampin (engineering insurance) portfolio. The insurance company's investment portfolio is distorted due to inefficient investment decisions.
- 3 -The data and information are relied upon. Accounting information systems provide insurance companies with the necessary means to move forward towards developing accounting.
- 4 -The mission of accounting information systems is not only producing financial statements, but also preparing all reports related to the company's various activities. Although some public sector companies, including the National Insurance Company, are self-financed, profit-oriented, and achieve economic independence.
- 4 -Accounting information systems outputs, and it takes several forms. Administrative reports serve management, while financial statements serve external parties. The design of accounting information systems is based on sound foundations and principles that allow it to generate relevant information. Credible, reflective of the real situation, and appropriate for making decisions at the right place and time.
- 5 -Insurance sector accounting is a special accounting derived from general accounting in light of accounting systems. And Financial but it differs in some calculations related to the insurance sector activity.

### **Second: Recommendations**

- 1-The need for insurance companies to pay attention to designing and developing accounting information systems through the use of... With automation and various programs that help collect and analyze data, we to try to achieve the maximum return on investment at reasonable levels.
- 2 -that T Accounting information systems allowed, and by achieving a balance between the degree of accuracy and detail and the cost of the systems and work seriously to find sound methods and efficient investment decisions, and avoid negative arbitrary methods.
- 3 –that T provide accounting systems And Communication channels for the flow of accounting information into and out of the company. The Insurance Companies Bureau should also review the instructions to avoid speculation and set specific percentages for it.
- 4 –The T Accounting information system will answer and request information on an ongoing basis by generating information on the time needed for it, And Expanding awareness and sensitization to the importance of insurance in modern life.
- 5 -Establishing specialized centers to train cadres specialized in insurance accounting, and diversifying and improving the services provided by introducing new technologies and generalizing information technology at all levels of activity the company.

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