

Reflection of the efficiency of the accounting information system according to the appropriate property of financial information on the integrity of decisions

Analysis of the financial statements of the comprehensive insurance company CAAT
انعكاس كفاءة نظام المعلومات المحاسبية وفقا لخاصية الملائمة للمعلومات المالية على سلامة القرارات

تحليل القوائم المالية لشركة التأمين الشامل CAAT

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Abstract

The study aims to determine the extent of the efficiency of the information system in rationalizing administrative decisions by relying on the quality of financial information measured by its appropriate basic characteristics and credibility, and considering that the appropriateness feature serves to a large extent the parties to the decision-makers because it contains secondary characteristics that support this by providing the appropriate timing, benefiting from feedback And the ability to predict reduction of the state of risk and uncertainty that positively affect the ability to achieve goals efficiently and effectively in light of information and communication technology. By relying on the deductive approach and using Microsoft Excel to analyze the financial statements of the CAAT insurance company, the study reached a number of results, the most important of which is that the efficiency of the accounting information system in the insurance company CAAT has a relative impact on the appropriateness of the financial information because it does not keep pace with international developments in standard electronic programming shops, in When it is characterized by a stable financial position despite the global economic recession, which makes the financial analysis of the outputs of the accounting system according to the appropriateness characteristic valid for making various decisions for its users.

Keywords: Appropriateness, Decision, Efficiency, Financial statements, Information system, Modern technology.

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المخلص

تهدف الدراسة الى الوقوف على مدى كفاءة نظام المعلومات في ترشيد القرارات الادارية بالاعتماد على جودة المعلومات المالية المقاسة بخصائصها الأساسية (الملائمة والمصدقية)، وعلى اعتبار أن خاصية الملائمة تخدم بدرجة كبيرة أطرف متخذي القرار لاحتوائها على خصائص ثانوية تدعم ذلك من توفير التوقيت المناسب، الاستفادة من التغذية العكسية والقدرة على التنبؤ لتخفيف حالة الخطر وعدم التأكد التي تؤثر ايجابيا في القدرة على تحقيق الأهداف بكفاءة وفعالية من في ظل تكنولوجيا المعلومات والاتصالات. وبالاعتماد على المنهج الاستنباطي وباستخدام برنامج Microsoft Excel لتحليل بنود القوائم المالية لشركة التأمين CAAT توصلت الدراسة إلى جملة من النتائج يتمثل أهمها في أنه لكفاءة نظام المعلومات المحاسبي في شركة التأمين caat تأثير نسبي على خاصية الملائمة للمعلومات المالية لعدم مواكبتها للتطورات الدولية في مجال البرمجة الالكترونية المعيارية، في حين تمتاز بوضعية مالية مستقرة رغم الركود الاقتصادي العالمي، ما يجعل التحليل المالي لمخرجات النظام المحاسبي وفقا لخاصية الملائمة صالحة لاتخاذ مختلف القرارات لمستخدميها.

الكلمات مفتاحية: خاصية الملائمة، القرار، كفاءة، القوائم المالية، نظام المعلومات، التكنولوجيا الحديثة.

1. INTRODUCTION

The accounting information system is affected by modern technology because it has a reflection on the treatment of economic events with the required quality in accordance with modern software in the field of accounting management, which is the main pillar in the decision-making process in the institution, and through the adoption of the quality of accounting and financial information for system outputs that are subject to the requirements of appropriateness and credibility in addition to flexibility in Meeting the needs of its users, the greater the usefulness of the financial information, the greater the confidence of current and prospective customers in the institution. In view of the importance of the company in the lives of individuals and institutions and its contribution to economic development as it deals with the funds of others, it attaches great importance to presenting reports and financial statements in accordance with what is imposed by the Insurance Law 04/06 amended and supplemented to the system 95/07 dated 25/01/1995, which emphasized the need to use Technology in the insurance sector and taking into account developments in the field of international accounting standards. The property of relevance is one of the main pillars of financial information, which contains within it a number of secondary characteristics consisting of appropriate timing, feedback and forecasting on which users of reports and financial statements depend to determine financial solvency through the use of financial analysis as a tool to determine the quality of the outputs of the accounting system.

1.1 The problematic

In order to ensure the safety of the decisions taken by the institution at the present and affecting its position and the continuation of its presence and dominance in the markets, it was necessary for the institution to control the huge amount of information flow and to choose the implemented information systems and the high technology offered by information technology and expert systems in this field in conjunction with giving great importance to finding or creating Effective communication methods that ensure the efficiency of the accounting information system on the one hand and the quality of financial information on the other.

What are the implications of the efficiency of the accounting information system on the integrity of decisions in light of the appropriateness of financial information?

We try to answer the problem posed by dividing it into a group of sub-questions as follows:

- How does information technology affect the efficiency of using the accounting information system?
- Does accounting information provide a set of qualitative characteristics that lead to rationalization of decisions?
- Do the financial statements of the CAAT insurance company provide qualitative characteristics to judge their suitability for decision-making ?

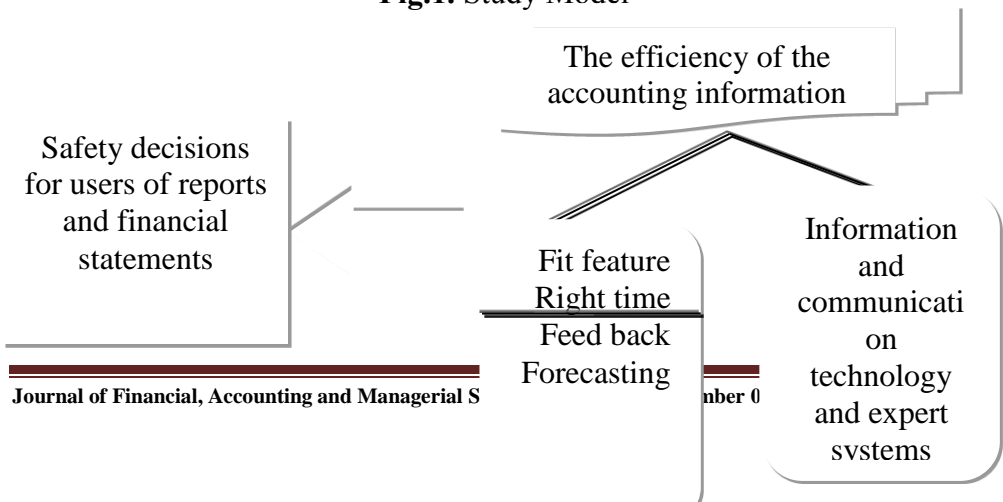
1.2 Hypotheses

The research is based on the following main hypothesis

« **There is a relationship between the efficiency of the accounting information system according to the appropriateness of financial information on the integrity of decisions** ». The main hypothesis is divided into the following sub-hypotheses:

1. There is a relationship between the use of information and communication technology to present the reports and financial statements of the insurance company CAAT and the soundness of decisions.
2. There is a relationship between the appropriateness of the financial information based on timeliness, the feedback of the financial statements of the CAAT insurance company, and the soundness of decisions.
3. There is a relationship between the property of relevance of financial information based on the predictive ability of the financial statements of the insurance company CAAT and the soundness of decisions.

Fig.1. Study Model



Source: Prepared by researchers

1.3 Research aims

The quality of reports and financial statements is judged by their availability of the characteristics of financial information in light of the use of modern software that coincides with the changes of information and communication technology to the business environment. Therefore, the research aims to:

- Demonstrate the importance of the accounting information system used for modern information and communication technologies in ensuring the correct operation of financial data
- To highlight the basic characteristics of the accounting information system, while adapting the secondary characteristics according to the developments taking place.
- Determine how to measure the quality of financial information and its impact on decision-making.
- Standing on the reality of the CAAT insurance company by studying the appropriateness of the financial information through its basic elements of appropriate timing, feedback and predictive ability, which reflects the ability to rationalize decisions.

1.4 Research importance:

The importance of the research is manifested in how the institution uses all available means in the business environment to reach the use of an efficient accounting information system that reflects the integrity of the decisions taken through the results of the accounting cycle and the financial position shown in the reports and financial statements that contain the characteristics of financial information, and the importance of research is also evident in our financial analysis for financial statements using the main indicators according to Microsoft Excel for the appropriate feature, on the basis of which a number of decisions with a sound orientation are taken.

1.5 Research Methodology

Relying on the deductive approach, the efficiency of the accounting information system is determined in accordance with the developments of information and communication technology that take into account the

outputs of the accounting information system, the characteristic and quality of the information provided to the administrative levels due to the different administrative decisions taken, whether they are current or predictive, and the accounting system inputs are updated according to the effect of feedback, so that the financial analysis is done according to the analysis trend and financial ratios using Microsoft Excel.

1.6 Study Structure

In order to answer the problematic and study the hypotheses to verify the extent to which the objectives and importance of the study have been achieved, we dealt with the introduction and the first axis determining the efficiency of the information system in light of information technology, while the second axis dealt with the quality of financial information, so that at the end the financial analysis of the appropriateness of the financial information characteristic of the financial statements of the insurance company CAAT, with inclusion of a summary of the most important results obtained.

2. Efficiency of the information system in light of information technology

Judging the quality of reports and financial statements depends to a large extent on the accounting measurement and disclosure methods used by the institution. Whenever the institution keeps pace with modern information technology in the field of its management of accounting information systems, the quality of financial information is reached, which is reflected in the efficient activation of the system.

2.1 Accounting information system and information technology.

An information system is defined as “a computer-based system that is designed to support the operations, management, and decision functions of an organization. It provides informational support to decision makers” (Ramesh & Sachdeva, 2011, p. 2)

While the accounting information system is defined as “the basic and important part of the management information system in the economic unit in the field of business, which compiles and compiles financial data from sources inside and outside the economic unit and then operates these data and transforms it into useful financial information for users of this information outside and inside the economic unit” (أحمد حسن، 2004-2003،

صفحة 47)

2.2 Importance of information technology in activating the efficiency of the system.

The organization relies on computer-based technological progress in many aspects such as customer service, work organization, communication within the organization, control and planning systems, leadership of human resources management, and technological progress imposes a continuing need for learning, adaptation and creativity by individuals, groups and institutions, and technological progress produces a described world. blurry, which translates into the following equation: (الأكاديمية العربية البريطانية للتعليم العالي، بدون سنة نشر، صفحة 130)

$$\text{Blur} = \text{Speed} * \text{Connectivity} * \text{Intangible}$$

Speed: The change in all matters of the facility at the same real time,

Connectivity: Connecting everything in the facility to the computer.

Reliance on information systems that produce useful information has become in the information revolution that allows benefiting from the huge amount of information through the use of modern methods and technologies in the various functions of the institution, with a focus on the presence of qualified competence and industrial design that results in benefiting from information systems and making the necessary decisions that allow a greater solution. A number of problems facing the institution and enabling it to choose alternative opportunities to keep pace with the total processes involved in the global competition movement (Leonardi, sd, p. 52).

The information system, by investing in information technology with a tripartite integration between microelectronics, computers and modern means of communication, contributes to the establishment's achievement of its competitive strategy by improving production efficiency, achieving creativity in work, using developed computer-based information systems and appointing human resources specialists in the field of systems information, for strategic resources with multiple advantages (معراج و بنتين، 2014، صفحة 37).

3. Quality of financial information and the safety of administrative decisions

The various decision-making process within the organization is linked to the quality of information that reduces the state of risk and uncertainty, so the

standard operation of information is the best method that takes into account the volume of information and ways to revise or delete it compared to the costs of its operation. Financial represented in both the cost / benefit constraint, and the materiality constraint (طبيبي و بن الشيخ، 2020، صفحة 274).

3.1 Decision and the characteristics of the financial information.

If the decision is to choose the best alternative among the available ones, then the decision-making process is « the conscious choice among a number of alternatives, in terms of its ability to achieve the largest set of desired results » (بلعرايبي، 2010-2011، الصفحات 37-38)

The role of accounting information in making decisions is clear through: (الحسبان، 2014، صفحة 136)

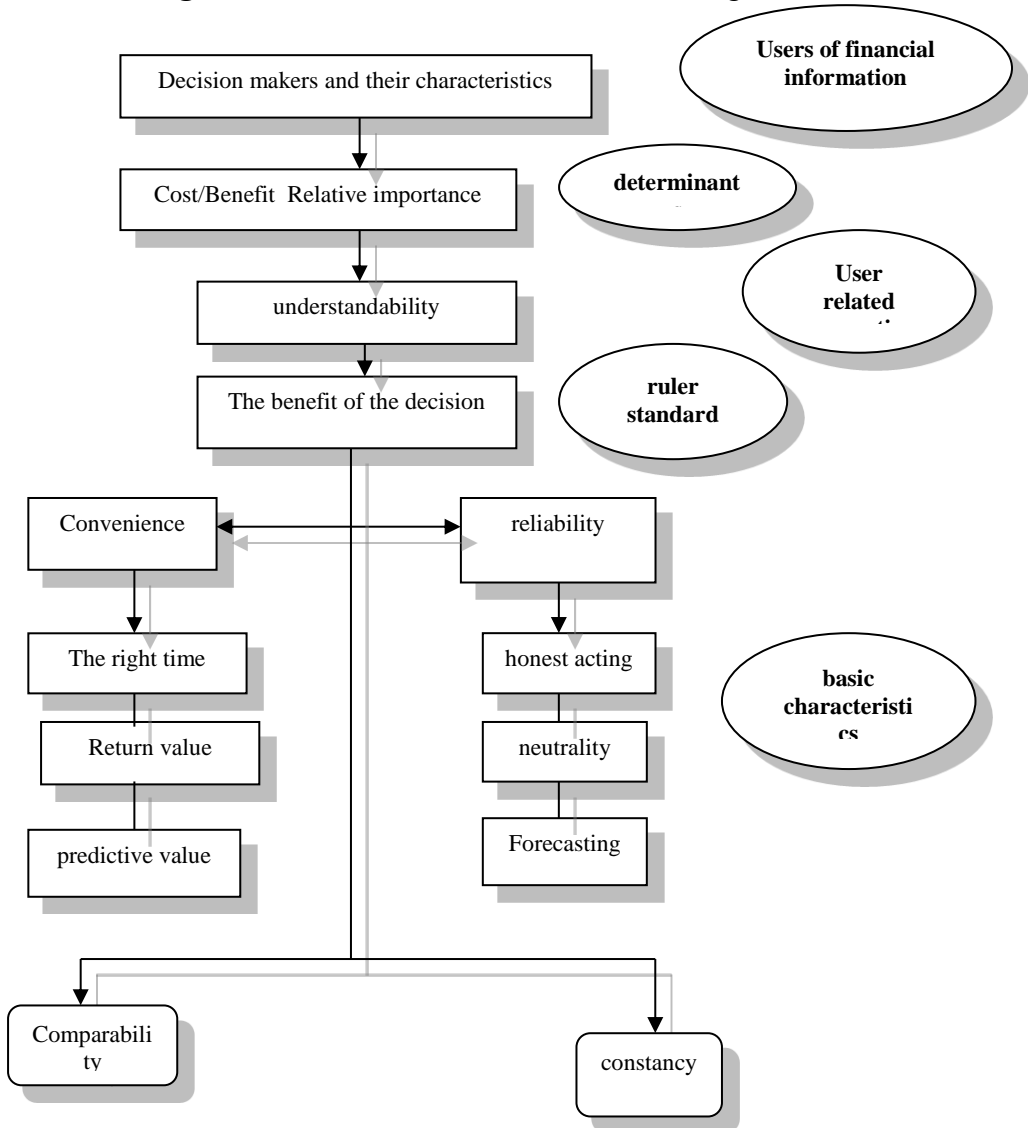
- **Preparing planning budgets:** planning budgets are prepared in a quantitative financial form that reflects the general future goals in the form of detailed goals through defining a standard of performance and control, which reflects the ability of the system to produce information capable of giving its users to make decisions related to evaluation or related to development.

- **Accounting Systems Design:** this is done according to the size and nature of the institution's activity, according to two factors. The first is the specific scientific principles of accounting rules and practices that must be applied to gain general acceptance and the possibility of comparison with institutions active in the same field, while the second factor is the recording of operations by specifying the accounting system inputs and determining the best programs for their operation and get reliable results.

In this context, Michael Hannan confirms that the process of change imposed by the external pressures of the business environment can endanger the facility, so it is necessary to learn and carry out the necessary forecasting processes to face challenges and control crises (M, 2007, p. 3).

which is related to the most important qualitative characteristics provided by the financial information relied upon in making critical decisions for the institution for their continuity, in addition to some of the characteristics listed in the figure below.

Fig.2. Qualitative characteristics of accounting information



المصدر: عبد اللطيف طيبي وعبد الحميد بن الشيخ (أفريل 2020)، تقييم دور خصائص المعلومة المحاسبية في تفعيل جودة التقارير المالية دراسة ميدانية، مجلة مجاميع المعرفة، المجلد 06، العدد 01، ص.274.

The feature of relevance is defined as: “that information that increases its influence in controlling the present and absorbing the past in order to objectively predict the future that facilitates the processing and making decisions more accurately and efficiently for users of that information than if that information was inappropriate.”

In order to achieve the characteristic of suitability, the following sub-characteristics must be available:

- **Appropriate timing:** Delivering information to decision makers at the right time that enables them to achieve the greatest benefit of the information, as the information that is timely affects the decision that will be adopted by the recipients of the appropriate information and one of its characteristics is to influence the future decision, so the provision of financial information and reports is And timely accounting for decision makers is evidence of the efficiency of the accountant and the accounting system. (بوحفص و آخرون، 2021، صفحة 40)

- **Predictability:** which means giving strong indicators about the future in natural conditions. The more these indicators are strong and close to reality, the more appropriate it is because it allows its users to monitor the future performance and know the deviations, their locations and causes, and then: treat them.

- **Feedback:** which is one of the components of the accounting system because of its importance to the continuity and development of the institution, the more feedback information is available, the more it contributes to development.

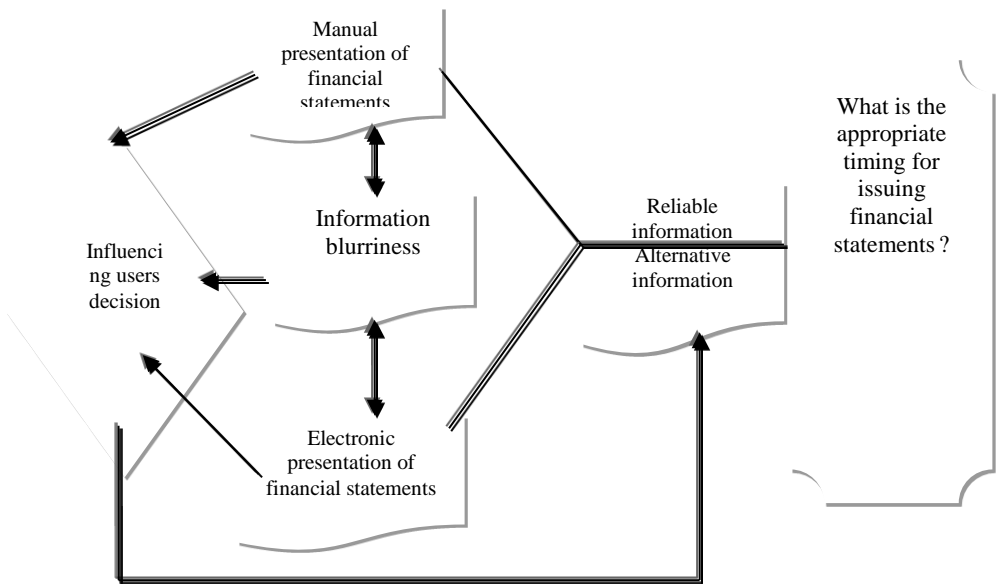
3. studying the property of relevance through the financial statements - budget and results accounts - for the insurance company caat

The analysis of the financial statements of the insurance company CAAT was relied on, based on the statement of financial position and the income statement presented in the Algerian dinar unit for the fiscal year ending 12/31/2020 in accordance with the Insurance Law and International Standards, where the trend analysis was relied on specifically the analysis of

the horizontal trend, which aims to measure the change from a year to another, it was also relied on the various financial ratios to determine the company's efficiency.

3.1 Right timing: Talking about the appropriate timing leads us to the diagram of the episode below.

Fig.3.Information timing loop and its impact on users' decisions



Source: Prepared by researchers

Through the figure, we find that the method of disclosing the financial statements affects the quality of decisions and their suitability for users of financial information, as the institution can rely on manual disclosure or electronic disclosure that affects the reliability or ambiguity of financial information and the extent of its impact on rationalizing decisions, and in the event of delay in disclosure about the financial statements, Does the institution provide alternative information?

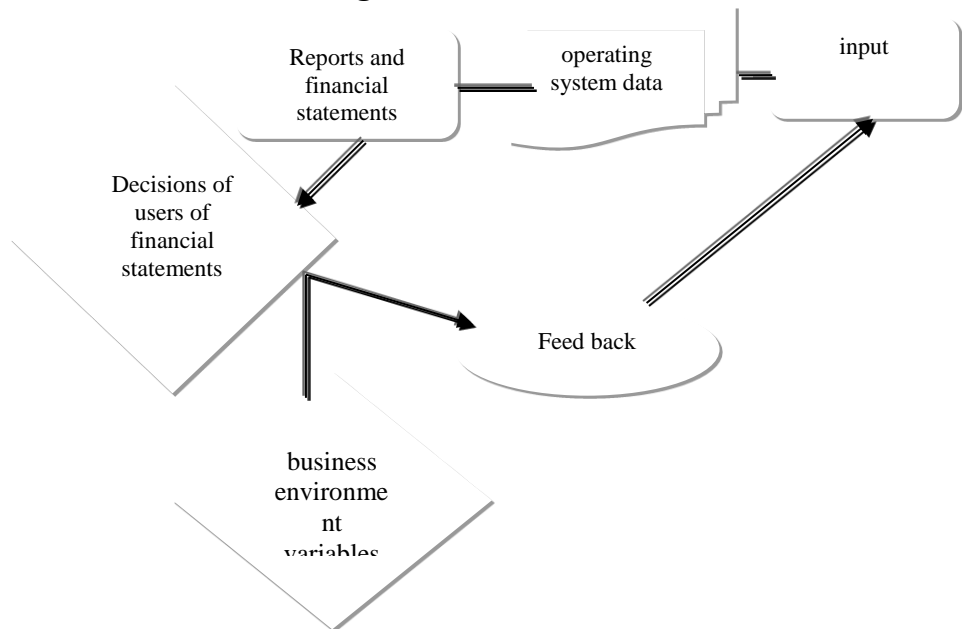
By dropping the figure on the insurance company CAAT, we find that the company issues lists at regular intervals with annual reports according to the electronic disclosure method based on downloading financial information from the Internet via the institution's website <https://www.caat.dz>, according to the following:

- View financial information using the internet explorer browser: <https://www.caat.dz/index.php/pre-sentation/mot-du-pdg.html>
- View financial information using adobe acrobat pro <https://www.caat.dz/images/pdf/rapport-annuel-2020.pdf>

What makes the use of the financial statements proportionate somewhat in rationalizing administrative decisions, given the time taken in analyzing the financial statements, which loses the feature of speed because the information on the financial statements needs to be copied and manually arranged in some accounting programs, and this is if it is compared with the information that is Processing it with programs that support the final documents xbrl Extensible Business Reporting Language, or what is termed in the standard electronic programming language that allows automatic and direct analysis of the information needed by the decision maker and compare it with the rest of the companies.

3.2 Feedback

Fig.4. Effect of feedback



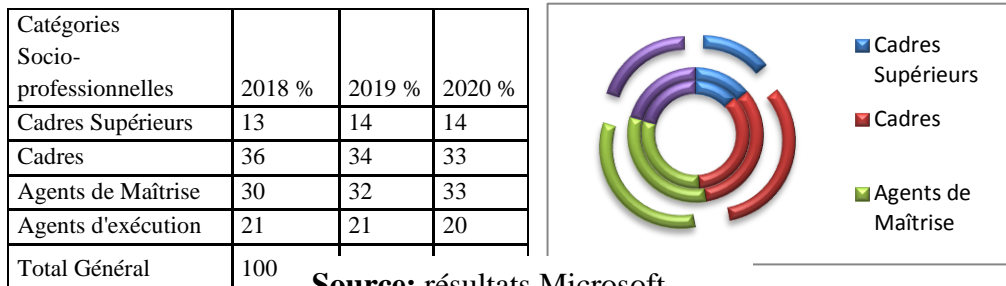
Source: Prepared by researchers

The feedback is determined in the efficiency of the accounting system on the use of material and human resources when carrying out activities to achieve goals compared to outputs and results according to the flexibility

required by the business environment, and we focused on human resources and financial products.

3.3 Human Resources

Fig.5. Human Resources



From the previous data, we note a very slight change in the number of senior tires of the company compared to the growth in the number of tires and supervisory agents, where the company benefits from the outputs of the system by keeping pace with renewable developments in the business environment, especially in the field of insurance, where the company works to program quotas for qualification training or a customized system for continuing education that focuses on professional development within the framework of work, the company has 03 training centers to achieve the required development.

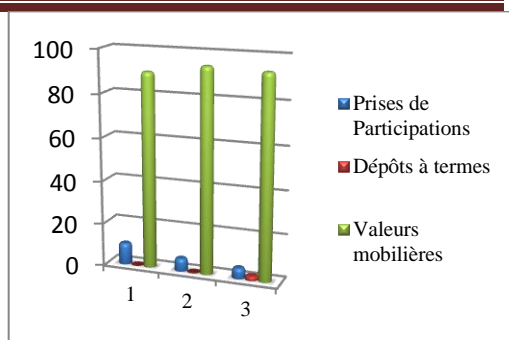
3.4 Financial products

Financial products amounted to 1985435 thousand dinars in 2020, an increase of 25% over the achievements of the year 2019, while the year 2019 recorded financial products amounting to 1584,286 thousand dinars, an increase of 24% over 2018.

Fig.6. Financial products

Rubriques	2018	2019	2020
Prises de Participations	10	6	5
Dépôts à termes	0	0	2
Valeurs mobilières	90	94	93

Total	100	100	100
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Source: résultats Microsoft

From the data, we note that there is a very slight change in income on real estate investments from 90% in 2018 to 93% in 2020, while it reduced property rights investments from 10% in 2018 to 50% in 2020, and the insurance company attributed the development of investment from 2018. To 2019 the excess liquidity resulting from technical activity, where it achieved a growth rate of 08%, and it is also noted that in 2020, the company headed towards income derived from term deposits at a meager rate estimated at 02%, and all these changes, even if minimal, reflect the policy followed by the company in light of the changes that occur in the business environment, the most important of which are investments that guarantee return and safety and that remain relatively stable.

3.5 Predictive ability

We try to embody the predictive ability by analyzing the horizontal trend of comparison between years using indices, and relying on the financial ratios for the year 2020 to determine the company's financial solvency and its ability to keep pace with the development of the business environment.

– **Horizontal Orientation**

Table 1. Analysis of the horizontal trend of the budget elements

		2018	2019	2020	Taux change01	Taux change02
ACTIF COURANT	NON	26791890203	32396591303	35582856413	120,9193941	132,812042
ACTIF COURANT		39912695484	40191770694	42913869032	100,6992141	107,519346
GENERAL ACTIF		66704585687	72588361996	78496725446	108,8206474	117,678155
CAPITAUX PROPRES		24593094679	25842167145	27444970375	105,078956	111,596246
PASSIF COURANT	NON	4815774818	5807213165	6791135297	120,587307	141,018539
PASSIFS COURANTS		37295716190	40938981687	44260619774	109,7685897	118,674809
TOTAL GENERAL PASSIF		66704585687	72588361996	78496725446	108,8206474	117,678155

Source: résultats Microsoft

In a preliminary reading of the budget items, we find that the company raised all of its assets simultaneously from raising its obligations and equity, and the base year 2018 was chosen as the most stable year compared to the changes in the business environment and was compared with the years 2019, 2020 respectively, where the most affected item somewhat at 20.50% and 11.09% in both long-term liabilities and fixed assets, while 08.91% was determined as an increase in the item of short-term liabilities, which makes the company's increased dependence on long and short-term debts.

Table 1. Analysis of the horizontal trend of the components of the results calculations

	2018	2019	2020	Taux change01	Taux change02
Primes acquises à l'exercice	11.970.234.625,96	12.261.449.065,13	12.085.578.748,60	100,9635911	100,9635911
Prestations de l'exercice	6.160.055.690,24	6.167.948.665,93	5.875.806.158,47	100,1281316	95.38560126
Marge d'assurance nette	7.672.001.173,99	8.122.883.781,45	8.213.953.531,47	105,8769883	107,0640286
Resultat technique opérationnel	2.380.225.313,30	1.756.450.112,79	1.238.443.050,98	73,7934389	52.03049658
Resultat	962.082.188,69	1.154.848.929,38	1.902.834.493,92	120,0364109	197,7829457

financier					
Resultat net de l'exercice	2.771.621.779,33	2.532.093.416, 11	2.797.829.447,69	91.3578265	100.9455716

Source: résultats Microsoft

From the table, we find that the earned premiums and the margin of safety during the accounting cycle are very close for the year 2020 and the year 2019, and we find that the difference appears in the technical operational result, with a difference of 21.76%, and the reason for this is primarily due to the epidemiological situation that the world was going through, but it was not, it greatly affects the financial result, as the difference was set at 77.75%, while the result of the accounting cycle was determined by a small difference set at 09.59% due to the technical management policy adopted by the company.

- Financial Ratios

In order to analyze using financial ratios, the items of the financial statements for the years 2018, 2019 and 2020, were relied upon, to calculate liquidity ratios, financial structure ratios, activity ratios, as well as profitability ratios in an attempt to capture the financial position of the insurance company and how the financial analysis using ratios can help rationalize decisions.

	2018	2019	2020
Ratios de liquidité.			
Passifs courants sur actifs circulants	93,4432409	101,859114	103,138265
Liquidité rapide	10,90974728	12,5727357	9,26286377
Provisions techniques	82,49595034	101,989823	98,6798471
Ratios de structure financière			
Marge de solvabilité de la dette technique	373,7186742	372,233926	375,781702
Marge de solvabilité pour les primes nettes	107,4976716	113,680934	121,425365
rapport d'adéquation des capitaux propres	98,09912091	95,1511148	90,1806488
taux d'activité			
Taux de rotation des actifs courant	60,44595512	61,1794643	57,6737837
Primes émises nettes sur capitaux propres	98,09912091	95,1511148	90,1806488

Taux de indemnisations des primes émises nettes	49,99766638	52,6348209	44,6677728
taux de rendement			
rentabilité économique	4,155069327	3,48829116	3,56426263
rentabilité commerciale	13,8581089	12,6604671	13,9891472
rentabilité financière	11,26991857	9,79830142	10,194325

Source: résultats Microsoft

The financial ratios generally reflect the ability of the insurance company to meet its obligations and manage its financial portfolio, and this is due to the company achieving consecutive annual profits of more than 08%, and it is noted that all the ratios in the three consecutive years are very close or this percentage increases from year to year, and this is due to the company's policy in the support of private funds and the confidence of its customers derived from the solvency margin coverage ratio of technical debts and the increase in the volume of its production and means of distribution if compared to the solvency margin on the basis of net premiums, which makes the company in a stable financial position that allows different decisions to be taken and gives its users appropriate information to predict their appropriate conditions and its strategic policies for making various decisions.

4. RESULTS AND DISCUSSION

Through what was previously presented in this study, both conceptual and practical, the study reached a number of the following results :

4.1 Hypothesis testing

- ✓ **The first sub-hypothesis:** “there is a relationship between the use of information and communication technology to present the reports and financial statements of the insurance company CAAT and the safety of decisions”, within the framework of rapid analysis and timely decision-making that is used with programs that support final documents xbrl Extensible Business Reporting Language or what is termed in the programming language Standard electronic, while the analysis of the data in the financial statements of the insurance company CAAT takes time, which loses the feature of speed and flexibility in rationalizing decisions, which negates the validity of the specific hypothesis of the

relationship between the efficiency of the accounting information system and the safety of decisions in light of the appropriate property of financial information based on the use of technology Information and contact.

- ✓ **Second sub-hypothesis:** “there is a relationship between the appropriateness of the financial information based on the appropriate timing and the feedback on the financial statements of the insurance company CAAT and the soundness of decisions”, as the hypothesis is divided between negation and confirmation on the grounds that the appropriate timing is partially achieved due to the manual analysis of the items of the financial statements, while we prove the validity of the hypothesis in its second part related to the feedback based on investing in human resources and identifying other ways for financial products outside the specified stability of the insurance authority.
- ✓ **The third sub-hypothesis:** “there is a relationship between the appropriateness of the financial information based on the predictive ability of the financial statements of the insurance company CAAT and the safety of decisions.” To predict its future financial position and its strategic policies to take various decisions

✚ **The main hypothesis** “there is a relationship between the efficiency of the accounting information system according to the appropriateness of financial information on the integrity of decisions”, through the previous sub-hypotheses, we can say that the accounting information system in the insurance company depends on the traditional approach in financial analysis, and the appropriate characteristic is valid for making various decisions for its users and to show the situation the company’s finances. However, in the same context, do not keep pace with technological developments in electronic programming stores, which proves the validity of the hypothesis in its first part and denies the hypothesis in its second part.

4.2 Study Results

Insurance companies are among the most important sectors that are interested in presenting reports and financial statements according to the characteristics of financial information that allow decision-making for

different groups, for which financial analysis contributes to determining the extent of their ability to meet their current and future obligations.

- The accounting information system of the insurance company CAAT produces a huge amount of financial information that needs time to conduct a financial analysis on it to determine the performance evaluation, which wastes the opportunity and affects the efficiency and effectiveness of the accounting system.

- The insurance company caat is committed to electronic disclosure that facilitates the opportunity for investors to access financial information by simply visiting the company's website by providing pdf accounting files, which enhances the efficiency of the accounting system, and electronic disclosure of financial statements supports the most important basic ingredients based on transparency despite the presence of a huge amount of information that They are presented in the insurance company CAAT according to illustrative tables.

- CAAT's information system with the spread of the Covid-19 pandemic tried to use information technology in order to maintain the relationship with the customer through automatic renewal of contracts and remote claims reports, thanks to informing policy holders.

- The appropriateness of financial information is one of the most important factors affecting users' decisions, which reflects the efficiency of the accounting information system.

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