

Report on Use of AI

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query1: How should insurance companies take risks?

Output: The understanding of the phrase "how should insurance companies take risks" in the sustainable development of the insurance industry can be analyzed from several dimensions:

1. Innovation & Risk Management

- **Innovation for sustainability:**

Insurers need to respond to changing market demands and environmental challenges with new products, services and technologies, such as emerging risks such as climate change and cybersecurity. These innovations come with their own risks, but in order to be sustainable in the long term, insurers must be willing to experiment and take risks.

- **Balance risk with opportunity:**

Insurers need to assess and manage risk when taking risks to ensure that they pursue innovation and growth without jeopardizing the company's stability and continuity. With accurate risk assessment models and risk management strategies, insurers can take risks and find new growth opportunities.

2. Invest in sustainable projects

- **Support green and social responsibility projects:**

By investing in sustainable projects, such as clean energy, environmental protection, and social enterprises, insurers can not only achieve financial returns, but also have a positive impact on society and the environment. This strategy is both risk-taking and socially responsible.

- **Drive sustainability transformation for your industry and your customers:**

By providing insurance solutions for sustainability projects, insurers can contribute to the green transformation of the entire industry and increase the resilience of society.

3. Courage in the face of uncertainty

- **Dealing with future uncertainties:**

The insurance industry is naturally an industry that deals with uncertainty. From climate change to new risks brought about by technological innovation, insurance companies need to maintain their own sustainability while also providing solutions for customers to face these uncertainties.

- **Continuous learning and adaptation:**

Insurance companies need to establish a learning organization that continuously learns and adapts, updates its risk assessment models and business strategies, to cope with rapidly changing environments.

Conclusion

For the insurance industry, taking risks is not blindly pursuing risks, but rather daring to innovate and invest in sustainable development based on a deep understanding and management of risks. This strategy helps insurance companies not only achieve long-term sustainable development economically, but also have positive impacts on society and the environment.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query2: We want to simulate the profit model of an insurance company. We want to simulate a single insurance project and calculate underwriting profit based on five data: insurance price, number of people paying insurance, number of insurance claims, price of insurance claims, and total company assets. Can you provide relevant professional knowledge and formulas for the calculation process

Output: The profit model of insurance companies is usually based on three main components: premium income, compensation expenses, and investment income. For simulating the underwriting profit of a single insurance project, we can simplify it as premium income minus compensation expenses. The following are the relevant professional knowledge and formulas used in the calculation process:

1. **Premium Income:** Premium income is the fee collected by insurance companies from policyholders to bear potential risks in the future. The pricing of premiums usually takes into account factors such as potential payout probabilities, management expenses, and profit expectations.

The formula for calculating premium income is:

$$\text{premium income} = \text{insurance price} \times \text{number of people paying insurance}$$

2. **Compensation Expenses:** Compensation expenses refer to the total amount of compensation provided by an insurance company for insurance accidents that occur under the conditions specified in the insurance contract.

The formula for calculating payout expenses is:

$$\text{payout expenses} = \text{number of insurance payouts} \times \text{price of insurance payouts}$$

3. **Underwriting profit:** Underwriting profit refers to the balance of premium income minus compensation expenses and management expenses. Here, for simplicity, we will ignore the impact of management expenses and investment returns.

The formula for calculating underwriting profit is:

$$\text{underwriting profit} = \text{premium income} - \text{compensation expenses}$$

Assuming that the total assets of a company are used to describe its financial condition, rather than directly participating in the calculation of underwriting profits for a single insurance project, it has a greater impact on the company's capital adequacy ratio and investment ability.

To calculate the underwriting profit of a single insurance item, you need the following data:

- Insurance price (price of each insurance item)
- Number of people paying insurance (number of people purchasing insurance)
- Number of insurance payouts (number of insurance cases that need to be paid)
- Price of insurance payouts (amount of each payout)

Through these data, you can calculate premium income and compensation expenses, and then derive underwriting profits. If you have specific numerical values, I can help you with the calculation.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query3: What I mean is, can we express "the number of people paying insurance", "the number of insurance payouts", and "the price of insurance payouts" with the same professional meaning? These are just descriptive words for me as an amateur researcher

Output: I understand your needs now, let's use more standard insurance industry terminology to rephrase your parameters:

1. **Number of people paying insurance** can be used **Number of Insureds** or **Number of Covered Lives** to express. This reflects the total number of individuals or entities providing insurance coverage for them.
2. **The number of insurance claims** can be described by the **number of claims**. This refers to the number of compensation requests received by insurance companies within a certain period of time.
3. **The price of insurance compensation** can be expressed as **claim amount** or simply referred to as **claim amount**. This represents the average amount paid per claim or the payment amount for a specific claim.

Through this expression, we can transform your descriptive language into more standardized and professional terminology within the insurance industry:

- **Number of Insureds** represents the number of people purchasing insurance.
- **Number of Claims** reflects the number of insurance cases that require compensation.
- **Claim Amount** refers to the amount paid by the insurance company for each claim case.

Such professional terminology helps to facilitate accurate and standardized communication within the insurance industry and with other professionals.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query4: Please summarize it into a paragraph

Output: To ensure that real estate projects are more resilient and consciously serve growing communities and populations, developers need to conduct comprehensive market research and

demand analysis, carefully select project locations, and conduct environmental assessments. They also need to adopt sustainable and resilient architectural design principles, comply with relevant laws and regulations, and actively communicate with community members to integrate feedback. In addition, economic feasibility analysis and risk management are also key components to ensure project success. Through these strategies, real estate projects can meet market demand while having long-term positive impacts on the environment and community.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query5: How is the underwriting profit calculated

Output: Underwriting profit is the profit that an insurance company obtains from its insurance business, usually calculated by subtracting the compensation paid to the policyholder and the operating costs of the underwriting business from the premiums received. Specifically, the calculation method for underwriting profit is as follows:

$$\text{Underwriting profit} = \text{Total premium collected} - (\text{The total amount of compensation paid} + \text{Expenses and expenses related to underwriting})$$

Among them, the total premium received refers to all premium income collected by the company from the insurance contract within a certain period of time; The total amount of compensation paid refers to all compensation paid by the company to the insurance holder or beneficiary during the same period due to insurance accidents; The expenses and expenses related to underwriting include the costs incurred in evaluating risks, selling insurance products, managing insurance contracts, and handling claims. The underwriting profit reflects the profitability of the insurance company's core business, but it does not include other sources of income such as investment income. In addition to earning profits through underwriting activities, insurance companies can also earn investment returns by investing the premiums they receive in different financial markets, which are usually separately calculated in the company's total profit. Therefore, the total profit of an insurance company includes underwriting profit and investment income.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query6: How is the underwriting profit margin calculated

Output: The underwriting profit margin is the profit margin obtained by an insurance company in its underwriting activities, used to measure the efficiency of the profits obtained by the insurance company through its core business - underwriting insurance. The formula for calculating the underwriting profit margin is as follows:

$$\text{underwriting profit ratio} = \frac{\text{Insurance premium income} - \text{Compensation for losses} - \text{Underwriting fees}}{\text{Insurance premium income}} \times 100\%$$

- **Insurance premium income:** The total insurance premium received by an insurance company from an insurance contract within a certain period of time.

- **Compensation for losses:** The total amount of compensation paid by an insurance company during the same period due to insurance events.
- **Underwriting expenses:** Expenses incurred by insurance companies during the underwriting process, including sales expenses, management expenses, etc.

The underwriting profit margin is an important financial indicator that reflects the profitability of insurance companies in their underwriting business. A positive underwriting profit margin means that the insurance company has achieved profitability through its underwriting business, while a negative underwriting profit margin means that the insurance company has incurred losses in its underwriting business. In addition to earning profits through underwriting activities, insurance companies can also earn profits through investment income, but the underwriting profit margin mainly focuses on the performance of the underwriting business.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query7: Please use expert scoring methods from five perspectives: historical value, scientific value, artistic value, spatial layout value, and usage value, to give a percentage rating to historical landmarks such as Hawaii's cultural heritage, Bandriel National Monument in New Mexico, ancient rock carvings and cliff dwellings in nearby Santa Clara Pueblo, Monroe Fort, Charleston, and National Parks in Mesaway

Output: In order to rate historical landmarks such as Hawaii's cultural heritage, the Bandriel National Monument in New Mexico, the ancient rock carvings and cliff dwellings in Santa Clara Pueblo, and the national parks in Monroe, Charleston, and Mesaway, we can ask experts to give a percentage rating based on five perspectives: historical value, scientific value, artistic value, spatial layout value, and usage value. Here is an example rating:

1. Hawaiian Cultural Heritage:

- Historical value:90
- Scientific value:70
- Artistic value:80
- Value of spatial layout:85
- Use value:75

2. Bandelier National Monument, New Mexico:

- Historical value:95
- Scientific value:75
- Artistic value:85
- Value of spatial layout:90
- Use value:80

3. The ancient rock carvings and cliff dwellings of Santa Clara Pueblo:

- Historical value:90
- Scientific value:80

- Artistic value:70
- Value of spatial layout:85
- Use value:60

4. Monroe Castle:

- Historical value:85
- Scientific value:70
- Artistic value:75
- Value of spatial layout:80
- Use value:70

5. Charleston:

- Historical value:92
- Scientific value:75
- Artistic value:80
- Value of spatial layout:88
- Use value:78

6. The National Park of Mesawei:

- Historical value:88
- Scientific value:85
- Artistic value:75
- Value of spatial layout:90
- Use value:82

Please note that the above ratings are only examples, and actual expert ratings may vary depending on the expert's background, knowledge, and personal views. These ratings can be used to quantify the importance and value of these historical landmarks in different aspects, helping decision-making and protecting cultural heritage.

OpenAI ChatGPT (Nov 5, 2023 version, ChatGPT-4)

Query8: What are the perspectives from which to consider the effectiveness of site selection for homeowners in combating natural disasters? Provide a percentage rating for each angle.

Output: When homeowners choose a region to build houses or real estate projects, it is crucial to consider the effectiveness of the region in combating natural disasters. The following are some key factors considered from different perspectives, each of which can be measured using a percentage scale rating:

1. **Geographical position:**

- Consider the geographical location of the region, including whether it is located in areas susceptible to natural disasters. The safer the geographical location, the higher the rating.
- Percentile rating: 85

2. **Weather conditions:**

- Analyze the meteorological conditions of the region, including precipitation, wind speed, temperature, etc. Some meteorological conditions may increase the risk of natural disasters.
- Percentile rating: 75

3. **Soil and geological characteristics:**

- Consider the soil type and geological characteristics of the region, such as whether it is prone to earthquakes, mudslides, or soil erosion. Stable soil and geological characteristics can reduce risks.
- Percentile rating: 80

4. **Water resources management:**

- Understand the water resource management situation in the region, including flood management, drainage systems, and reservoir construction. Effective water resource management can reduce the risk of flooding.
- Percentile rating: 90

5. **Protective structures and infrastructure:**

- Inspect whether the area has sufficient protective structures and infrastructure, such as embankments, flood walls, storm drainage systems, etc., to mitigate the impact of disasters.
- Percentile rating: 85

6. **Historical disaster records:**

- Analyze the historical natural disaster records of the region, including earthquakes, floods, hurricanes, fires, etc. Frequent natural disasters in history may indicate higher risks.
- Percentile rating: 70

7. **Emergency response and planning:**

- Assess the emergency response capability and planning of the region, including whether there is a sound emergency warning system, emergency evacuation plan, and building regulations.
- Percentile rating: 80

8. **Insurance coverage:**

- Understand the insurance coverage in the region, including whether it is easy to obtain property insurance and natural disaster insurance. Good insurance coverage can provide certain risk mitigation.
- Percentile rating: 75

The above ratings are only examples, and actual evaluation needs to consider these factors comprehensively, and may involve more specific indicators and data. The rating can vary depending on the specific situation and available information of the region. It is important to comprehensively consider various factors to evaluate the effectiveness of the region in combating natural disasters, in order to make wise choices.