

## Accounting Information System at Vietnam Life Insurance Businesses



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**ABSTRACT:** Life insurance is increasingly close to the Vietnamese people and is likened to a provision financial solution against unexpected risks in life. The life insurance market in Vietnam continues to grow due to the recovery of the global economy and increased consumer demand for an asset and health protection. However, the insurance business is one of the most sensitive business areas. Therefore, information on a financial situation in general and business results provided by the accounting department has a great impact on customers and determines the existence and development of life insurance businesses. A rational accounting information system will make an important contribution to providing reliable accounting information, thereby improving the reputation of life insurance businesses in the market. In this article, the authors clarify the theoretical basis and situation of the accounting information system of Vietnamese life insurance businesses. From there, the authors propose solutions to improve the accounting information system to help improve the competitiveness of life insurance businesses.

**KEYWORDS:** Accounting information system, Life insurance businesses, accounting information, Life insurance market

### 1. INTRODUCTION

In Vietnam, the life insurance business plays a great role in the development of the economy. Currently, life insurance businesses are providing more than 500 insurance products in the life insurance and health insurance business. Life insurance products were born to meet the diverse needs of policyholders, including products that only provide pure protection benefits (such as term insurance, health insurance, etc.) and products that combine both protection and investment (such as universal life insurance products, unit-linked insurance products, pensions, etc.) (Insurance Supervisory Authority under the Ministry of Finance). According to the Insurance Association, in 2022, Vietnam continued to be a key life insurance market in Asia with remarkable results such as total payouts reached VND 44.186 billion, an increase of 34% compared to the previous year same period last year; investment back into the economy of life insurance business reached VND 592.811 billion, up 13,9%; a total number of contracts reached 13.921.675 contracts, up 5%; total revenue for the whole year reached VND 178.327 billion, up 12%. To maintain growth and improve competitiveness in the insurance business market, it requires administrators, as well as other decision-makers (investors, customers, suppliers, banks, etc.), must be provided with reliable information for decision-making. The accounting information system (AIS) is an important part of the information system of a life insurance business, and AIS is always interesting and improved. Therefore, it is necessary to assess the current situation and improve the accounting information system in Vietnamese life insurance businesses.

### 2. THEORETICAL BASIS

#### 2.1. Accounting information system

An information system is a formal process for collecting data, processing the data into information, and distributing that information to users. An accounting information system (AIS) is a system that a business uses to collect, store, manage, process, retrieve, and report its financial data. This data can then be used by accountants, consultants, business analysts, managers, chief financial officers (CFOs), auditors, regulators, and tax agencies. Although an AIS can be a manual system, today most accounting information systems are computer-based. Romney and Steinbat (2012) argue that the accounting information system performs important functions such as collecting and storing data arising during operations and transactions to help the business review the events that occur, process data into useful information for decision-making, at the same time provide and control enough information to protect the assets of the entity, including system data. accounting information.

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### 2.2. Components of accounting information systems

An accounting information system tracks all accounting and business activities for a company. It generally consists of six primary components: people, procedures and instructions, data, software, information technology infrastructure, and internal controls. People who use the system, include accountants, consultants, managers, business analysts, CFOs and auditors. AIS helps departments in the company coordinate and work more efficiently. Example: Management sets sales targets, then employees order goods with the appropriate amount of inventory. The goods receipt order notifies the accounting department that a new payable has arisen. When the sale is done, the sales enter the customer's order. From there, the accountant issues an invoice to the customer, the warehouse can collect the orders, the shipping department can send the order, and the accounting department will be notified of a new receivable. Customer service is responsible for tracking customer shipments, and management can generate sales reports and perform performance cost analysis, costs of inventory, and shipping to manage. With a well-designed AIS, everyone within an organization can access the same system and retrieve the same information. An AIS also simplifies the process of reporting information to people outside of the organization, when necessary. For example, a consultant can use AIS to analyze the performance of a company's pricing structure based on retrieving and reviewing cost, sales, and revenue data. In addition, auditors can use AIS to assess a company's internal control, financial position, and regulatory compliance.

Procedure and instructions are the ways that data are collected, stored, retrieved, and processed. These methods are both manual and automated and the data can come from internal sources (e.g., employees) and external sources (e.g., customers' online orders). Procedures and instructions will be coded into AIS software; they should also be "coded" into employees through documentation and training. The procedures and instructions must be followed consistently for the AIS to be effective.

Data includes all the information that goes into an AIS. To store information, an AIS must have a database structure to store information. Structured query language (SQL) is a computer language commonly used for databases. SQL allows the data that's in the AIS to be manipulated and retrieved for reporting purposes. The AIS will also need various input screens for the different types of system users and different types of system users and data entry, as well as different output formats to meet the needs of different users and different types of information. The data in the AIS is all financial information relevant to the business. Any business data that affects the company's finances must be transferred into the AIS. The type of data included in an AIS depends on the nature of the business, but it may consist of the following: Sales orders, customer billing statements, sales analysis reports, purchase requisitions, vendor invoices, check registers, general ledger, inventory data, payroll information, timekeeping, tax information. This data can be used to prepare accounting reports such as accounts receivable aging, depreciation/amortization schedules, trial balance, profit and loss, and so on. The data would not go into an AIS including memos, correspondence, presentations, and manuals. These documents might have a tangential relationship to the company's finances, but excluding the standard footnotes, they are not part of the company's financial recordkeeping.

The software consists of computer programs used for storing, retrieving, processing and analyzing the company's financial data. Today, most companies use computer software as their AIS platform. Quality, reliability, and security are key elements of effective AIS software. Managers rely on the information it outputs to be of high quality to make sound decisions. AIS software programs can be customized to meet the unique needs of different types of businesses. If an existing program doesn't meet a company's needs, the software can be developed in-house with substantial input from end-users or can be outsourced to a company that specializes in developing accounting information systems.

Information technology infrastructure includes all the hardware used to operate the AIS. It can include the following: computers, servers, printers, surge protectors, routers, storage media, and possibly a backup power supply. In addition to cost, factors to consider in selecting hardware include speed, storage capability, and whether a device can be expanded and upgraded. Perhaps most importantly, the hardware selected for an AIS must be compatible with the intended software. One-way businesses can easily meet hardware and software compatibility requirements is by purchasing a turnkey system that includes both the hardware and the software that the business needs. Purchasing a turnkey system means, theoretically, that the business will get an optimal combination of hardware and software for its AIS. A good AIS should also include a plan for maintaining, servicing, replacing, and upgrading components of the hardware system, as well as a plan for the disposal of broken and outdated hardware so that sensitive data is destroyed.

Internal controls are the security measures used to protect data. These can be passwords or biometric identification. Biometric security protocols might include storing human characteristics that don't change over time, such as fingerprints, voice, and facial characteristics.

An AIS must have internal controls to protect against unauthorized computer access and to limit access to authorized users which includes some users inside the company. Internal controls must also prevent unauthorized file access by individuals who are allowed to access only select parts of the system. An AIS contains confidential information belonging not just to the company but

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also to its employees and customers. This data may include Social Security numbers, salary and personnel information, credit card numbers, customer information, company financial data, and financial information of suppliers and vendors. AIS needs internal controls to protect against computer viruses, hackers, and other internal and external threats to cybersecurity. It needs to be protected against natural disasters like fires, floods, earthquakes, and power failures that can cause data loss.

### 3. SITUATION OF ACCOUNTING INFORMATION SYSTEM AT VIETNAM LIFE INSURANCE BUSINESS

The business organization of a life insurance business is usually carried out in a large area. Corporations have many member companies, companies have many branches and representative offices across the country. There are currently 18 life insurance companies in Vietnam (Ministry of Finance Official Portal, 2023).

**Table 1. The life insurance companies in Viet Nam 2023**

	The life insurance companies in Viet Nam 2023
1	Bao Viet Life Corporation (Bao Viet Life)
2	Prudential Viet Nam Assurance Private Limited (Prudential)
3	Manulife (Viet Nam) Limited (Manulife)
4	AIA (Vietnam) Life Insurance Company Limited (AIA)
5	Chubb Life Insurance Vietnam Company Limited (Chubb Life)
6	Mirae Asset Prévoir life insurance Co., Ltd (MAP life)
7	Dai-ichi Life Insurance Company of Viet Nam, Ltd. (Dai-ichi Life Viet Nam)
8	Cathay Life Insurance Vietnam Co., Ltd. (Cathay Life)
9	FWD Vietnam Life Insurance Company Limited (FWD)
10	Hanwha Life Insurance Company Limited (Viet Nam) (Hanwha Life)
11	FWD Assurance Vietnam Company Limited (FWDA)
12	Fubon Life Insurance (Viet Nam) Co., Ltd. (Fubon Life)
13	Generali Vietnam Life Insurance Limited Liability Company (Generali Viet Nam Life)
14	Sun Life Vietnam Insurance Company Limited (Sun Life Viet Nam)
15	Phu Hung Life Insurance Joint Stock Company (PHL)
16	BIDV Metlife Life Insurance Limited Liability Company (BIDV Metlife)
17	MB Ageas Life Insurance Company Limited (MB Ageas Life)
18	Shinhan Life Insurance Vietnam Limited Liability Company (Shinhan Life Viet Nam)

**Source:** Website of the Ministry of Finance

In general, the survey results on the accounting information system in Vietnamese life insurance businesses show that the majority of businesses have applied the accounting information system for management, although at different levels it has partially met the information needs for internal management of the company. The business process of the company is supported by a computer system that installs all kinds of computer software connected to the intranet connection and the internet.

The accounting book system applied to Vietnamese life insurance businesses is quite suitable, meeting the needs of management or accounting control, simple in design and easy to use. All life insurance businesses use accounting software to support accounting work. Some accounting software is used in businesses such as FTS software, PIAS software, and Sun Account software. The application of accounting software has saved time, reduced the workload of accountants, and made bookkeeping and accounting reports quick. The software has security settings and user permissions to prevent unauthorized people and tasks from entering. The survey results show that the data is entered into the software by each module, between the modules there is a link to each other through the transmission and reception of information.

According to the survey results on the situation of inspection of accounting work at insurance business, 100% of businesses have conducted accounting inspection. Self-inspection is mainly done at the end of the quarter, at the end of the year when closing the accounting books, then the accountants of the new sections will print the books and compare them with each other, so the errors are often not handled in timely leading to the need to adjust in the next quarter. In addition, every year, all Vietnamese life insurance businesses hire independent audit services to check and review the financial statements of the entire system to ensure objectivity when reporting publicly external finance.

However, the accounting information system at Vietnamese life insurance businesses also has limitations:

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In the accounting system of most Vietnamese life insurance businesses, there is no management accounting department, so other accounting departments must concurrently, making the quality of the accounting reports not provided sufficient information for managers, who have not performed their advisory role. In addition, Vietnamese businesses in general and life insurance businesses, in particular, are facing a shortage of highly qualified human resources in the field of information technology, especially software experts, information systems, network security, etc.

Vietnamese life insurance businesses do not have common software for information systems, functional departments use different software. This software are developed by different vendors. Therefore, the integration of this information system in the life insurance business becomes complicated and time-consuming.

The collected information is mainly historical information made from financial accounting, not focusing on future information for making estimates. Therefore, the accounting information provided by the Vietnamese life insurance business is mainly from the financial statement system. The management reporting system has not been specifically designed, just reports made from several indicators on the financial statements such as revenue, expenses, and liabilities. This affects the decision-making of business managers, investors, etc.

The operation of the internal control system in the insurance business still has some incomplete problems, not able to control the maximum possible risks in the accounting work, but focus on economic-financial indicators. At a few life insurance companies such as Bao Viet Life Corporation, there is an internal inspection board responsible for inspecting the activities of member units, including accounting work. However, due to the small number of personnel, the inspection is usually carried out only for units with signs of violations.

Most Vietnamese life insurance businesses have not fully invested in information security systems.

## 4. SOLUTION

Vietnam is towards a digital economy. The development of information technology combined with good accounting information systems will help businesses create innovation and support decision-making. This is especially important for the life insurance business in the context that Vietnam's life insurance market is growing well. To design an effective accounting information system in a life insurance business, businesses need to:

Firstly, to develop management accounting based on an accounting organization model that combines financial accounting and management accounting. According to this model, management accounting does not use a separate accounting system, separate from financial accounting, but uses detailed accounting accounts, a system of accounting books and general management accounting reports in a unified accounting system with financial accounting. Financial accounting uses general accounting accounts while management accounting uses detailed accounts, appropriate detailed accounting books, internal accounting reports and additional statistical methods, analytical methods... to systematize and process information. In addition, insurance businesses need to invest in training activities, improve professional qualifications as well as the level of information technology application, and update information about the accounting field for accountants, in the form of opening training courses, fostering, and sending for training.

Secondly, apply an ERP model based on cloud computing technology (Cloud ERP). Using Cloud ERP software solutions will help businesses save maximum management costs, and security, and be extremely flexible in operating and storing core data. In particular, Cloud ERP with artificial intelligence (AI) integration is becoming an increasingly popular trend. It can process large amounts of data from disparate sources and generate important information to support business decisions. With advanced data analytics of Cloud ERP, businesses can recognize trends, predict market needs, and devise strategies to optimize performance.

Thirdly, improve the content of the information collected and the process of providing accounting information. Based on the purpose of using the information to collect past information or future information, respectively, to create accounting reports suitable to information users. Input information is future information that can be used for planning purposes (estimates of insurance products, commission costs, surveys to survey market demand for insurance products), performance information (revenue – expense report, receivable report, payable report), information for control and decision making (revenue – expense report) according to business activities, reports of divisions, reports on assessment of market demand of products). Classification of input information including past information and future information helps AIS provide information at life insurers more effectively. From there, businesses can build a management accounting reporting system, including: A reporting system that provides information for planning, a reporting system for performance information, a reporting system that provides providing information for control, and the reporting system that provides information for decision-making.

Fourthly, build and maintain a scientific, appropriate and effective internal control system. Internal control aims at managing risks to ensure effective operations in the business. The process of controlling accounting information at insurance

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enterprises aims to assess the quality of accounting information to ensure that the information provided in AIS is useful to information users.

Fifthly, build an information security system. In the technology revolution 4.0, the risk of information theft is always present and information security is extremely important to businesses. Businesses need to set up a department dedicated to managing information systems. This department is responsible for planning and monitoring the functionality of the information system and establishing the information system policies to build the data security system.

### 5. CONCLUSION

Accounting plays an important role in the management tool system of enterprises. The important role of accounting is only promoted when enterprises have a scientific and effective accounting information system. Recommendations to improve the accounting information system are studied based on the research results on the current status of the accounting information system in Vietnamese life insurance businesses. Thereby contributing to improving the quality of accounting information and enhancing the reputation of life insurance businesses in the market.

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