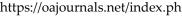
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Article

Risk Control in Vietnam Maritime Corporation

Tran Thi Huong*1

- Dong Do University
- * Correspondence: <u>Huongtranthi0506@gmail.com</u>

Abstract: In the trend of integration, interdependence is becoming increasingly profound. The time of "watching your neighbor's house burn while staying calm" is over. A truly globalized world market will involve the free movement of goods, people, capital, and also risks, including financial risks. With increasing integration, threats are continuously disguised and expanded across various fields. As human civilization progresses and human activities become more complex and diverse, threats to humanity also grow more varied. Every day, new and previously unseen forms of danger emerge. Studying risks and identifying them will help us manage risks more effectively. The aim of this paper is to propose solutions for financial risk control in Vietnam Maritime Corporation. As a result, the paper suggests methods to control risk based on (1) Verifying customer information, (2) Post-sale activities, (3) Credit insurance, and (4) Managing overdue debts.

Keywords: Risk Control, Risk Measurement, Logistics Sector, Cargo Handling

Introduction

The term "risk" is widely used in today's economic and social life. Risk is defined as an unpredictable negative event, in terms of its occurrence, time, place, severity, and consequences [1], [2]. With various approaches, different schools of thought have provided different definitions of risk. Broadly speaking, these can be divided into two main schools: the traditional school and the modern school [2].

According to the traditional school, risk is understood as losses, damages, or an unstable, dangerous situation that could occur randomly and unexpectedly. However, not every uncertainty is considered risk. If an uncertainty has never occurred and its probability cannot be estimated, it is regarded as an accident, not a risk. For a business, it refers to asset losses or a reduction in actual profit compared to expected profit, or unexpected uncertainties during production and business activities that negatively impact the company's survival and growth [3].

According to the modern school, risk is understood as an uncertainty that can be measured, defined as the difference between actual and expected values. The greater the difference between actual and expected values, the greater the risk, and vice versa [4], [5]. In mathematics, the difference between actual and expected values is measured by variance or standard deviation. This perspective also suggests that risk can bring losses but can also offer benefits or opportunities because risk is inherently tied to the potential for profit [6]. A high-risk activity also carries the potential for greater returns. Therefore, by studying risks, one can find ways to prevent or minimize risks and seize opportunities for greater profits in the future [7]. Thus, compared to the traditional view, the modern view of risk is more specific and positive, not only allowing the measurement and identification of risk levels but also enabling proactive risk management to minimize potential losses and capitalize on opportunities to enhance value [8], [9].

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For businesses, the goal of business activities is to maximize profits or the company's value. Business decisions always have to take into account the potential for future profits or earnings. However, the future always carries uncertainties, unexpected events that may occur, and cause results to fall short of expectations, posing a certain risk. From a business perspective, managers agree that risk to a business is the fluctuation or difference between actual and expected rates of return [10], [11], [12].

Vietnam Maritime Corporation was established on April 29, 1995, by the Prime Minister's Decision with the mission to be the core, leading enterprise in Vietnam's maritime sector. Previously, the company was known internationally as Vinalines. On August 18, 2020, the corporation officially transitioned to a joint-stock company according to Decision No. 751/QD-TTg on June 20, 2018, by the Prime Minister. The new brand of the corporation when it became a joint-stock company is VIMC (Vietnam Maritime Corporation). VIMC's charter capital is VND 12,006 billion.

Maritime services encompass various activities primarily related to the sea. These include industries such as shipbuilding, maritime transport, and port operation; and auxiliary services such as pilotage, maritime safety, brokerage, logistics, and cargo handling.

2. Materials and Methods

Hypotheses generated for this study in respect of financial risks of Vietnam Maritime Corporation (VIMC) have been tested using both quantitative and qualitative methodologies [13]. The approach is intended to identify financial risks in an organized manner and suggest possible measures to manage such risks [14], [15], [16]. The key methods applied are outlined below:

A. Data Collection

Both financial data and operation information were obtained from the annual report of VIMC, including consolidated and separate financial statements for the year ended 2020. Further information was collected from intranets, subscribing journals, and official documents like; The company development strategy, Ministry of Finance annual reports, etc. This guaranteed that there was a sound appreciation of the financial prism and risks attendant to an investment decision [17].

B. Risk Identification

Financial risks were identified through:

- 1. Analysis of Financial Indicators: Debt ratios, liquidity ratios and profitability margins for GH were examined for signs of weakness.
- 2. Historical Performance Review: Some of the recurrent risks such as past and trend analysis of their financial performance were also used.
- Stakeholder Consultations: Incorporating risk identification, corroboration was done
 with opinion from internal stakeholders namely financial managers and accounting
 teams.

C. Risk Categorization

The identified risks were categorized into four main types based on their nature and impact:

- 1. Market Risk: Market risks that feature interest rate risk and exchange risk that are inherent in financial markets.
- 2. Credit Risk: Extensions of credit to customers have various risks that are associated with it.
- 3. Liquidity Risk: The elements associated with the company's capacity to fulfill short term commitments.
- 4. Financial Leverage Risk: All risks that are resulting from the corporation's ability to employ debt as way of funding its working capital and its various investment projects.

D. Analytical Tools

The following tools and techniques were used to measure and assess risks:

- 1. Variance and Sensitivity Analysis: To assess variations in the financial performance from the planned performance.
- 2. Z-Score Bankruptcy Risk Model: For verifying customers' solvency as well as to predict the probability of their defaulting.
- 3. Ratio Analysis: To assess the trend in liquidity ratio in the years and financial periods of the reporting periods profitability tests and solvency tests respectively.

Sea transport is a method of moving goods using sea transport vehicles and infrastructure for transportation purposes. Sea transport vehicles include ships and cargo handling equipment [18], [19]. The infrastructure supporting sea transport consists of seaports, which serve as transportation hubs for loading and unloading goods between sea transport and other transport methods [20], [21], [22]. Port services include: ship navigation support systems; systems facilitating ships' entry into ports; loading/unloading systems; storage systems; and inland transport connections [23].

Logistics services encompass all activities related to planning and organizing business services involving transport (sea, road, air, inland waterways, etc.), warehousing, arranging, packing, and preparing goods for transport and distribution as required by the client [24], [25].

3. Results

A. Identifying financial risk management in vietnam maritime corporation

Vietnam Maritime Corporation was transferred to operate under the model of a joint stock company from 18/08/2020, whereby the first fiscal year of the joint stock company was from 18/08/2020 to 31/12/2020. The Corporation has prepared separate financial statements for the accounting period from 01/01/2020 to 17/8/2020 and the accounting period from 18/08/2020 to 31/12/2020 in accordance with the accounting regime on making separate financial statements. For the Consolidated Financial Statements, the Corporation prepares the Consolidated Financial Statements for the whole 12-month fiscal year ending December 31, 2020 [26].

One of the successes of businesses is to identify the risks that businesses encounter in their business activities as a basis for taking measures to control, handle and finance financial risks. Identifying financial risk is a very important stage because only when the business determines that there is a risk can there be the next steps of the management process [27]. VIMC considers financial risk identification activities, most of which are through the analysis of financial statements and financial indicators, in addition to the support of information systems [28]. Accordingly, businesses often face 4 types of financial risks: Market risk, commercial credit risk, liquidity risk, and financial leverage risk.

Financial risks are risks related to financial price declines and risks from the implementation of financial decisions that affect the profitability of the business. Therefore, it can be said that the risk of financial depreciation is the difference between actual profit and expected profit associated with the fluctuation of market price factors such as interest rates, exchange rates, commodity prices or securities. Hedging the risk of financial depreciation is often associated with the use of derivative financial instruments such as forwards, futures, options and swaps [29], [30].

Different from the risk of financial depreciation, the risk from the implementation of financial decisions is the difference between the actual profit and the expected profit of the enterprise associated with financial activities such as capital mobilization, investment in the use of business capital or profit distribution of the enterprise. This includes risks such as financial leverage risk, debt settlement risk, bad debt risk, business leverage risk, inventory risk, liquidity risk or cash risk of the enterprise [31].

- Credit risk: Receivables increase at a large rate, which is in line with the expansion of
 production and business scale, but with it a decrease in the turnover of receivables.
 Although businesses have also taken measures to manage receivables, the huge
 increase in receivables has increased credit risk for businesses [32].
- 2. Liquidity risk: The liabilities of businesses fluctuate in an upward direction, followed by an increase in short-term assets. Identifying liquidity risks shows that the solvency of businesses has many fluctuations, especially at the beginning of 2020 when the Covid-19 pandemic broke out, making it difficult for many economies to implement social distancing and trade [33], [34]. This volatility has increased liquidity risks for businesses.
- 3. Financial leverage risk: The debt ratio increases at the end of each period, indicating that businesses are increasing their use of financial leverage to increase ROE. The increase in the average debt ratio led to an increase in the use of financial leverage, but the ROE fluctuated in a decreasing direction. Thus, the use of financial leverage is ineffective in the condition that the size of capital increases and the efficiency of using business capital is also reduced due to poor performance in the use of receivables [35].
- 4. Exchange rate risk: With the fluctuation of the exchange rate in the world and the domestic fluctuation under the regulation of the State Bank, it has greatly affected businesses in the production and business process. Businesses are exposed to exchange rate risks and this item has great fluctuations in the years in an upward trend and then decreases with a tendency to decrease more than increase.

Regarding financial risk control and prevention: VIMC has used control and prevention measures for credit risk, payment risk and exchange rate risk. These measures include measures applicable to VIMC and measures for each type of risk in member units.

General measures are:

- a. The Finance or Accounting Department also plays the role of financial risk management.
- b. Hiring organizations and individuals to advise and guide enterprises on issues related to financial risk management.
- c. Organizing and operating the internal control system in each member enterprise.
- d. Conduct property insurance.
- e. Financial planning.
- 2. Specific measures for each type of risk:
 - a. Credit risk control: Apply OTC sales policy; analyze the creditworthiness of new customers; only conduct transactions with customers with an appropriate credit history.
 - b. Liquidity risk control: Maintain a reasonably high level of short-term assets compared to the principal liabilities, regularly monitor accounts payable and anticipate future payables.
 - c. Adjust the impact of financial leverage.
 - d. Exchange rate risk control: Linking with banks in payment; regularly monitor exchange rate fluctuations to limit adverse effects on businesses, implement L/C contracts in payment.

Fifth, regarding financial risk financing: One of the measures that VIMC uses is to set aside provisions and use reserve funds. The reserve fund is a source of compensation for the shortage of capital, so it is very important for businesses. In addition, sometimes businesses also open L/Cs at banks to minimize financial risks in trading activities with exporters.

B. Limitations and causes of limitations in financial risk management at VIMC

Firstly, financial risk identification activities are mainly based on the analysis of financial statements, which is a common method that most businesses apply, businesses have not applied modern financial risk identification methods, especially tools to forecast

financial risks, so the effectiveness of financial risk management is not yet tall. In fact, businesses have not used any tools to forecast financial risks. Therefore, the effectiveness of financial risk identification at VIMC is self-assessed at an average level.

Secondly, VIMC and its member enterprises are aware of the risks they face, but the measurement of financial risk is mainly limited to qualitative measurement methods.

VIMC also believes that risks occur due to many internal and external reasons, leading to the goals of the business may not be achieved. The measurement of financial risks of enterprises has only approached simple qualitative methods, has not used quantitative methods and has not properly assessed the financial capacity, the level of losses and risks of financial risks of enterprises, reducing the effectiveness of financial risk management of enterprises. Among the risks that enterprises encounter, enterprises only use the sensitivity method to measure exchange rate risks, while for other risks, no tools have been used to measure them. Therefore, the effectiveness of financial risk measurement in self-assessment enterprises is average.

Thirdly, financial risk control is a very important stage, especially for the shipping industry, financial risk managers attach great importance to this issue, but in fact, financial risk control solutions are still limited and not really effective. Practical example of exchange rate risk: Only L/C contracts have been used. Previously, when the State Bank did not have a message on the direction of exchange rate management, businesses did not use derivatives to hedge exchange rate risks, and VIMC itself has not paid attention to and considered exchange rate risk prevention as a mandatory business in corporate governance. In fact, businesses estimate the level of exchange rate fluctuations in the short term, calculate the worst exchange rate adjustment announced by the State Bank, compare it with the difference between USD and VND deposit interest rates to make a decision on whether or not to use exchange rate hedging. Actually, businesses do not want to lose more costs because they think that exchange rate fluctuations are under their control.

Fourthly, financial risk financing is an indispensable content in financial risk management, but VIMC is sometimes passive in allocating financial resources as well as forecasting early to have financial resources for losses once they occur. Enterprises have also set aside provisions and used reserve funds to finance financial risks, but not all member units have set aside provisions. Fifth, financial resources and human resources for financial risk management activities in enterprises are still lacking and not really effective.

4. Discussion

To propose solutions to improve the ability to control financial risks in Vietnam Maritime Corporation.

A. Checking information about customers

Transparency about customers is paramount, so before deciding whether to implement a credit policy for customers or not, it is very necessary to find out information about customers and conduct credit checks based on reliable sources. This helps businesses minimize expenses related to the management of receivables. This test can be conducted using a combination of various methods. In addition to the ways that Maritime enterprises have applied in chapter 2, the author would like to mention some ways as follows:

 Meeting customers: Meeting customers nowadays is often due to the development of science and technology, which can be done via phone or Internet,... so it is sometimes difficult to grasp information about the customers that the business is cooperating with. Face-to-face contact is essential, which can provide businesses with a lot of important information related to customers such as business operations, how they run the business, and are the basis for making accurate judgments through face-to-face meetings.

- 2. Relationship between the customer and the bank: It is not easy to get information about this relationship, but through this information, it will prove the customer's financial ability to secure debts with the bank. If the relationship between customers and banks is good, it also shows a part of the commercial credit relationship between businesses and customers.
- Analysis of customers' financial statements: Businesses can consider using the Z-Score bankruptcy risk coefficient in analyzing the risk of bankruptcy of customers to consider the current financial situation of customers, in addition to the current measures that businesses are applying.

In addition, businesses can combine with other factors such as: Customer's business location, customer's production and business process so far,... also serves a lot for the operation of checking customer credit.

B. After-sales activities

Sales activities do not end as soon as the business has finished the credit terms, the business needs to continue to monitor customers by reassessing credit risk on a regular basis. This can be done by:

- 1. Maintain contact with customers: Once you have established a good relationship with customers, it will be a waste of business resources if you do not pay attention to this relationship. Businesses need to keep in touch regularly to grasp the business situation of customers. If the business's customers are listed companies, it is possible to monitor through stock price fluctuations and assess their financial situation.
- Always monitor the customer's payment activity: There is nothing to discuss if the customer pays for the goods immediately, but in reality this is very unlikely to happen and usually the customer will owe the money for the goods for a certain period of time. Therefore, it is very necessary to monitor debts and take measures to recover debts. For large customers of businesses or small customers, the debt collection process usually starts with a letter, a fax, a phone call, through a lawyer, and finally the Court. With such a gradual increase, it can lead to the risk of damaging the relationship between businesses and customers. However, businesses also cannot delay payment because customers are facing difficulties, because businesses have many customers, not just one. Therefore, before applying the above measures, businesses can use "soft skills" in debt collection. Customers are indispensable subjects in the business process of businesses and they also understand that it is necessary to pay debts to businesses, but capital difficulties are encountered by all subjects. In this case, the business should have a customer relations department, an experienced customer relations specialist who will work with the customer to understand the problems the customer is facing. Different debt collection solutions will be applied depending on what is happening to the client's business. With the traditional debt collection method of urging customers to repay debts, it will push customers into a defensive position where the results may not be high, on the other hand, it will worsen the relationship between the two parties. Businesses that use lawyers will have a better understanding of the law but less experience that is suitable for the working style of the business, so the use of a customer relations specialist will determine the success of soft skills. Customer relations specialists are people who understand the field of operation of businesses, have knowledge of debt collection, and have knowledge of the law,... and thereby provide businesses with better debt recovery opportunities.

C. Credit Insurance

Credit insurance helps protect businesses from the impact of bad debts whether customers pay or do not pay. Credit insurance applies to businesses of all industries, all sizes with premiums quoted based on credit risk assessment activities for enterprises. When participating in credit insurance, corporate receivables will be protected from losses caused by buyers who are unable to pay, pay late or fail to make payments due to various

reasons. The level of insured credit limit for enterprises is determined on the basis of the enterprise's risk assessment

The main benefit of credit insurance, in addition to protecting the balance sheet, also helps to maintain the relationship between businesses and customers.

Currently, in Vietnam, there are companies providing this service, namely AIG, Bao Viet, Bao Minh, Eximbank,...

D. Overdue debt management

Overdue debt management is very necessary in businesses, which is the basis for customers who are in financial difficulties. Internal data shows that customers are heavily indebted, external data shows that other creditors have also taken actions to recover debts to that customer. At this time, enterprises can apply measures such as:

- 1. Debt sale: It is one of the measures that businesses apply to overdue debts by selling receivables to debt trading organizations. Selling debts will help businesses eliminate bad debts and overdue debts on the balance sheet. Through the sale of debts, the enterprise has transferred its debts to the debt trading company, the debt buying company can pay in advance all or part of the value of the debts at the agreed purchase price, all risks of not collecting debts are borne by the debt buying company. However, with this measure, businesses have to suffer certain losses because the selling price of the debt is always lower than the value of the debt. Depending on the overdue time, debt collection ability and legal strictness of the debt collection dossier... whether the business sells that debt is high or low.
- 2. Debt collection through debt collection services. This is an agreement between an enterprise and an organization licensed to provide debt collection services. Debt collection service business organizations represent creditors in exercising creditors' rights towards debtors in accordance with law to collect debts. The determination of debt collection service prices and the payment of debt collection service prices are associated with debts collected from debt collection service activities. The result of debt collection depends a lot on the debtor and the capacity of the debt collection service provider. This measure is usually implemented in cases where creditors do not have enough human resources and means to carry out debt collection.
- 3. Debt collection through legal agencies: Usually, debt collection by legal means with lawsuits in court is carried out for customers who are unlucky, deliberately delayed, or for disputed receivables through the use of court to collect debts. The court's decision on the debt repayment obligation, the debt repayment deadline that the debtor is forced to enforce and the debt recovery will be made through the judgment enforcement agency.

5. Conclusion

Altogether, the trend toward integration of global markets offers equals developmental potential and risks, generally for liability of financial risks in the kind of Vietnamese corporations like VIMC. This study was therefore focused on identifying various emerging risks in the maritime sector as it expands its operations. The dynamic and complex characteristics simple, mean that risks of these types should not be just managed and controlled potential losses but also leveraged for gain. In this paper, VIMC 's methods in managing its financial risks are highlighted which includes customer confirmation, post sale follow ups, credit insurance and balancing the short term debts.

With the help of the above-discussed strategies, VIMC will improve its capability to address the effect of financial risks for overall financial stability. One can agree with the fact that risk management has to be proactive rather than reactive since not only the company's assets are at stake, but the company has to maintain its competitive edge given the globalization of the market. If VIMC remains cautious and implements contemporary risk management methodologies to confront contemporary ambiguities of the maritime sector , it will further enlighten the overgrowth of Vietnam's economy.

With these new forms of business emerging, there is needed to modify the strategies of risk management too. It would be advantageous for future work to develop more ideas on risk management especially in line with improvements and changes in technology availability and its possible impact to the maritime industry with regards of its ability to evaluate and control risks. Finally, by enhancing the risk management approach, VIMC can protect its profitability and remain the market leader of Vietnam's maritime sector and open up the successful profile in the long term volatile global environment.

REFERENCES

- [1] Vietnam Maritime Corporation, "Vietnam Maritime Corporation development strategy for the period 2021-2030, vision to 2035," 2021.
- [2] Vietnam Maritime Corporation, "Plan for the establishment of VIMC Container Transport Joint Stock Company," n.d.
- [3] Ministry of Finance, "Decision No. 165/2002/QĐ BTC dated December 31, 2002," 2002.
- [4] Fulbright Economic Teaching Program, "Money markets: Reading for the development finance course," 2013.
- [5] T. C. Nguyễn and T. T. Nghiêm, "Financial risk management in state-owned economic groups Theory and practice," Finance Publishing House, 2013.
- [6] V. D. Đinh, "Risk management in the operations of small and medium-sized enterprises in Vietnam," M.S. thesis, Univ. of Economics, Ho Chi Minh City, 2009.
- [7] B. H. Đặng, "Minsky moment and the theory of financial instability," Univ. of Economics and Foreign Trade, Ho Chi Minh City, n.d.
- [8] D. H. Vũ, V. H. Đàm, and Q. N. Nguyễn, "Corporate financial management," Statistical Publishing House, 1997
- [9] State Bank of Vietnam, "Decision No. 17/1998/QĐ NHNN," 1998.
- [10] T. B. H. Nguyễn, "Risk management in financial groups," J. Financial Accounting Research, vol. 123, no. 10, pp. 53–54, 2013.
- [11]T. T. H. Pham, "Derivative financial products in risk management for enterprises Theory and practice," Research project, Academy of Finance, Hanoi, 2014.
- [12] D. H. Nguyễn, "Application of decision trees to classify loan clients of commercial banks," M.S. thesis, Academy of Post and Telecommunications, Hanoi, 2013.
- [13] M. K. Nguyễn, "Financial risk management," Statistical Publishing House, 2009.
- [14] V. L. Lê and T. H. Vũ, "Financial risk in industrial and service enterprises A potential cause of financial crises," J. Science and Banking Training, vol. 115, 2011.
- [15] Fulbright Economic Teaching Program, "Financial analysis," n.d.
- [16] M. Vũ, "Financial risk management in Vietnamese enterprises today," J. Science, Hanoi National University, Economics and Business, vol. 29, no. 3, pp. 53–60, 2013.
- [17] V. N. Nguyễn and X. Q. Hoàng, "Financial risk Practice and evaluation methods," Finance Publishing House, 2009.
- [18] V. N. Vũ and V. B. Phạm, "Development of financial risk control indicators for economic groups in Vietnam," Ministry-level project, Academy of Finance, Hanoi, 2012.
- [19] T. Q. Nguyễn, "Risk management in enterprises," Cultural Information Publishing House, 2008.
- [20] S. Hay, "Bankruptcy probability estimation in business valuation," Development and Integration J., vol. 18, no. 8, pp. 52–57, 2013.
- [21] N. T. Trần, "Modern corporate finance," Statistical Publishing House, 2007.
- [22] Q. T. Nguyễn, "Risk management and insurance in enterprises," Statistical Publishing House, 2008.
- [23] T. T. T. Nguyễn and T. P. T. Mai, "Application of value-at-risk (VaR) method in portfolio risk management in Vietnam," 2010.
- [24] T. N. T. Nguyễn, "Financial risk management," Statistical Publishing House, 2006.
- [25] A. T. Nguyễn, "Corporate risk management," n.d.
- [26] C. T. Huỳnh, "Financial distress and the application of the Z-score model in predicting financial distress," M.S. thesis, Univ. of Economics, Ho Chi Minh City, 2008.
- [27] V. V. Bùi and V. N. Vũ, "Corporate finance textbook," Finance Publishing House, 2013.

- [28] H. V. Lê, "Capital structure and financial risk in enterprises," Ph.D. dissertation, Univ. of Banking, Ho Chi Minh City, 2014.
- [29] A. A. Soprano, *Liquidity Management: A Funding Risk Handbook*. TJ International Ltd., Padstow, Cornwall, UK, 2015.
- [30] A. Kuritzkes, T. Schuermann, and S. M. Weiner, "Risk measurement, risk management, and capital adequacy in financial conglomerates," The Wharton Financial Institutions Center, 2002.
- [31] A. W. Ndung'u, "Effect of financial risk management on financial performance of oil companies in Kenya," M.S. thesis, Univ. of Nairobi, 2013.
- [32] A. J. Triantis, "Corporate risk management: Real options and financial hedging," Univ. of Maryland, n.d.
- [33] A. Saunders and L. Allen, *Credit Risk Measurement in and out of the Financial Crisis*. John Wiley & Sons, Inc., Hoboken, NJ, 2010.
- [34] A. Saunders and M. M. Cornett, Financial Institutions Management. McGraw-Hill, New York, 2010.
- [35] E. I. Altman, "Financial ratios, discriminant analysis, and the prediction of corporate bankruptcy," *J. Finance*, vol. 23, no. 4, pp. 189–209, 1968, doi: 10.1111/j.1540-6261.1968.tb00843.