

# **Using Eva To Increase Financial Performance In Nam Viet Joint Stock Company**

BC. Le Nhu Quynh Do

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Master thesis  
2017



**Tomas Bata University in Zlín**  
Faculty of Management and Economics

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**Tomas Bata University in Zlín**  
Faculty of Management and Economics  
Department of Finance and Accounting  
Academic Year: 2016/2017

# **MASTER'S THESIS ASSIGNMENT**

(PROJECT, ARTWORK, ARTISTIC PERFORMANCE)

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Degree Programme: **N6202 Economic Policy and Administration**  
Degree Course: **Finance**

Thesis Topic: **Using Concept of EVA to Increase Financial Performance in Nam Viet Joint Stock Company**

Thesis Guidelines:

## **Introduction**

**Define the objectives and the application methods used in the Master thesis.**

### **I. Theoretical part**

- **Prepare critical literature review of financial performance focus on EVA.**

### **II. Practical part**

- **Characterize Nam Viet Joint Stock Company.**
- **Analyze macroeconomics condition and the development of the sector.**
- **Analyze the current performance and identify factors having strong impact on EVA.**
- **Propose project of improving financial performance of Nam Viet joint stock company based on EVA.**

## **Conclusion**

Thesis Extent: cca 70 stran  
Appendices:  
Form of Thesis Elaboration: tištěná/elektronická

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Zlín, 15 December 2016



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## **ABSTRAKT**

Hlavním cílem této diplomové práce je poskytnutí základního porozumění konceptu EVA – ekonomické přidané hodnoty, jejího vývoje v literatuře, jejích výhod a nevýhod, a poté implementace tohoto konceptu k měření a řízení výkonnosti podniku. Na základě literární rešerše diplomová práce ukazuje, jak může koncept EVA přispět ke zvýšení podnikové výkonnosti. Hlavním výsledkem diplomové práce je návrh úspěšné implementace EVA, v podobě měření EVA, výpočtu EVA, systému odměňování, tréninkového programu a utváření povědomí o tomto konceptu ve vybraném podniku.

Klíčová slova: Ekonomická přidaná hodnota – EVA, systém měření výkonnosti, hodnotový management, hodnota pro akcionáře, čistý operační zisk.

## **ABSTRACT**

The main objective of this thesis is to provide the basic understanding of the “Economic Value Added – EVA” concept, its developments in literature review, its advantages and disadvantages, and consequently, to implement it for measurement and management of company performance. On the basis of literature reviews, the thesis aims to decide how EVA can contribute to the improvement of company’s performance. Main results of thesis are the most important challenges of successfully implementing EVA such as EVA measurement, EVA calculation, the compensation plan, training program and mindset creation in selected company.

Keywords: Economic Value Added – EVA, performance measurement system, Value based management, shareholder value, net operating profit.

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## INTRODUCTION

One of the biggest concerns nowadays among managers of any type of business is to create sustainable competitive advantages for their companies. Because of the increase in customer powers and highly competitive business environment, every company needs to create and sustain their competitive advantages to differentiate with their competitors and attract customers. Some companies depend on their advances in technology and strong research and development activities to be the first to launch new line of products/services. Some others depend on the highly skillful employee forces and implementations of new management practices (Lean, Kaiban, etc.) to be efficient in their operating business processes. Some others companies depend on their strong network with both suppliers and customers to exploit the larger profit margins comparing to competitors. And so on. However, the main principle in all companies which would like to maintain long-term competitive advantage is that they need to create value to both customers and shareholders to survive and prosper in different phases and cycles of the market. In other words, they need to do well in both strategic tasks: choosing the right things to do and do the chosen things in the right way. For achieving these objectives, performance measurement system plays a crucial role as a popular norm in business usually expresses that: we cannot manage what we cannot measure. For years, traditional performance measures are mostly used by companies and managers for monitoring and evaluating company performance. The drawbacks of traditional performance measures are clearly observed by many instances and managers have been searched for new way of measuring performance. In 1982, new concept of the economic value added (EVA) was introduced which based on the practice of value based management. EVA offers new way how to measures company performances, especially the financial performances. EVA overcomes many drawbacks of traditional performance measures which closely link the benefits of managers to shareholder values. The main concept of EVA focuses on how to extract the real economic value from the operating of business which is impossible when using traditional measures which are affected largely by accounting policies. Moreover, EVA is not just a performance measure. It is a lot more. EVA has an application to every facet of corporate performance management.

The main objective of this thesis is to introduce the EVA concept for stakeholders of Nam Viet Joint Stock company (here referred to as “Navico”), aligning the managers interest and the shareholder benefits. EVA concept would raise the economic performance of company toward to

the sustainable development since EVA improved the limitation of the traditional metrics. Thesis as a whole is divided into 2 main parts: Theoretical part and Practical part. The former mentioned the concept of EVA and described in details, the means of its utilization are highlighted, on the basis of the literature review the implementation of the economic value added is suggested. The latter consists of the analytical and the project part. In the analytical part the different types of analysis such as macro and microeconomic analysis, internal analysis and financial analysis are carried out. The EVA for the five years is calculated and consequently compare with traditional measures, which are used by the company. In the project part, the proposal of EVA implementation is elaborated. It deals with topics such as EVA measurement centers, EVA calculation, the compensation plan, training program, mindset creation. Later on the EVA implementation plan is develop, its costs calculated and the contribution of the project described.

## **OBJECTIVES AND METHODS OF MASTER THESIS PROCESSING**

The objective of this master thesis is provide fully information about EVA concept and how EVA implement in corporate, notably those companies mainly follow the traditional metrics to evaluate financial performance and have not used EVA as a tool to combine management and financial performance.

Firstly, the literature of the research will be collected, reviewed and summarized with special emphasis on EVA. After reviewing the relevant literature including in the theories and previous researches, author will collect secondary data from Nam Viet Joint Stock Company. The data is collected mainly from financial statements and accounting ledger from 2011 to 2015. Second, using basic functions in spreadsheet processing program such as Excel, the financial analysis and EVA which are the main subjects of the thesis are calculated. Then, the comparison between traditional financial measures and EVA is conducted to highlight the main content of the thesis. Third, for the objective of understanding the contexts of the investigation in this thesis, SWOT and Porter's five forces model are employed to analyze the strengths, weakness, opportunities threats and competitive picture of the market where Nam Viet Company is operating.

## **I. THEORETICAL PART**

## 1 PERFORMANCE MEASUREMENT

The norm “performance” encompasses the firm’s results in both economic perspective and effective perspective. The “results” (i.e: Revenues, quantity) are the absolute achievements in a certain period and do not take into account the costs whilst the “performance” is the relative achievement that compare the results and costs spent to get those results.

Investor measure overall performance as a whole to decide whether to invest in the firm or to continue with the firm or to exit from it. Metrics of performance plays important role not only in evaluating the current situation but also in achieving higher performance and growth in the future. The metrics of performance have a variety of users, which include all the stakeholders whose well-being depends on the continued well-being of the firm. Principal stakeholders are the equity shareholders, suppliers, debt holders, employees and the end-users of the products and services. Value creation and maximization depends on the alignment of the various conflicting interests of these stakeholders towards a common goal. This means maximization of the firm value without jeopardizing the interests of any stakeholders. Any metric, which measures the firm value without being biased towards any of the stakeholders or particular class of participants, can be hailed as the true metric of performance (Bhattacharyya & Phani, 2004).

There is no single performance measurement is appropriate for all purposes and all users. A completed picture of firm’s operation can be seen only when users combine all metrics together, since one metric alone could mislead users. Generally, Young and O’Byrne (2001) pointed out 3 metric groups of measuring performance in common use nowadays are:

- Traditional income measures: including net income and earnings per share, can be easily manipulated, and they do not account for the cost of equity.
- Market-based measures: including market value added (MVA), excess return and future growth value (FGV), can be only calculated for public-traded entities.
- Cash flow measures: including cash flow from operation (CFO) and cash flow return on investment (CFROI), include neither the cost of equity nor the cost of debt.

Obviously, traditional measuring performance can be subdivided into financial and nonfinancial indicators (Milost, 2013). The former is parameters express relationship between financial report

items to evaluate the firm's liquidity, solvency, profitability, efficiency. Some typical financial performance measurements are: ROE measures the performance from the perspective of the equity holders, ROA measures the asset productivity and operating profit margin reflects the margin realized by the firm at the market place. The net income figure in itself is dependent on the operational efficiency, financial leverage and the ability of the entity to formulate right strategy to earn adequate margin in the market place. (Bhattacharyya & Phani, 2004).

However, from financial statements we cannot read about the company's coexistence with the local community and its wider environment, about the company's technological development, employee satisfaction, health and safety at work, etc. There is also any information on competitive advantages and company's weaknesses, its market share, customer satisfaction, new products, quality control expenses, branch development and the like. Financial statements do not show the value of investment in employees; neither do they show their knowledge and skills (Milost, 2013). Alternate non-performance measures are thus dealing with those problems. Nevertheless, traditional measurements seem not so useful in today's business due to some main reasons as follows:

- Those measurements do not consider the influence of inflation, the value of money and the opportunity costs as well as cost of risk.
- Financial reports are a lagging metric since they are usually closed monthly, and are a result of decisions made one or two-month prior, making it too old to be useful (Ghalayini et al., 1997).
- Most of ratios are calculated easily since they are derived from financial statements which could be accrual manipulated by either talented chief accountant or conflict of interests of stakeholders. Consequently, investors may be misleading by that information, in some cases; the firm operation is not truly good as shown by its ratios. For instance, the quick ratio of ABC company is about 3.1 which seems relative high. However, ABC's current assets including a significant amount of current tax assets (VAT overpaid). Tax assets are known as the lowest liquidity since it normally would be offset with tax obligation next year. Hence if we deduct these tax assets when calculate quick ratio, quick ratio is only 2.2 not 3.1 as before.

- Non-financial performance measures are that they may be biased, that their computation may change over time and often differs between firms, which hamper comparison of performance between firms (Eccles & Mavrinac, 1995). Ittner et al. (1997) also argue that these non-financial performance measures are easier to manipulate than the financial measures since they are rarely subjected to public verification.
- Another important disadvantage is this group focus on short-run profit, the investment which is profitable in long run can be therefore rejected as non-profitable.

Due to many limitations of the traditional methods, over recent decade scholars pay more attentions on Market-based measures such as residual income, market value added, and excess return. The Market-based measures are in the spotlight when firms start to adopt the value creation approaches rather than just focused on producing and selling processes. Among stakeholders' value, shareholder is the most essential one for the growth and survival of any type of companies. However, it is true that firms only deliver value to shareholders only when they deliver value to their other constituencies (Young & O'Byrne, 2001). Shareholders' value is one the top of priorities but for sustainable competitive advantage, others stakeholders' value should also be taken into account. In this sense, Value-based management might be one of the most popular approaches until now supporting the creation of shareholders' wealth and also aligning closely the benefits of other stakeholders with this ultimate objective. Although the recent financial crisis has caused many questions on the use of Value-based management approach, the underlying concepts are still robust (Martin, Petty & Wallace, 2009). Still, the use of Value-based management should be tailored for adapting with firms' particular contexts and situations (Blume, 2015). In accordance with the Value-based management approach, firms start to employ number of value-based metrics. The underlying idea behind such metrics is clear: managers should be evaluated in a manner that is consistent with the way that the capital markets will evaluate their firms. One of the most popular ones is market value added (MVA). MVA is the difference between the market value of the firm and the total capital invested in the firm:

$$\text{MVA} = \text{market value} - \text{invested capital}.$$

“Market value is the sum of the market value of all capital claims held against a company by the capital markets as of a particular date” (Young & O'Byrne, 2001). In other word, it is the market



value of firm's debt and equity. Market value is assumed to be equal to the capital market expectations of future free cash flows, discounted at the cost of capital. This shows the capital market perceptions about how good firm will perform in the future based on the current firm's position in the market and investments. On the other hand, invested capital is the amount of capital invested by firms' investors including both lenders and owners as of that same date. If the market value exceeds invested capital, MVA is positive, which means that the capital invested is used effectively and managers are successful in enlarging it and thus, creating more value to the shareholders. As a result, the higher the MVA, the better it is. Negative MVA, in contrast, shows that the wealth of shareholders is destroyed by investing in projects which market capital give very low evaluation on their value-generating capability. MVA increases only when capital is invested in projects which earn a rate of return greater than the cost of using that amount of capital. Nevertheless, MVA suffers one of the fundamental conceptual flaws: MVA metric ignores the cost of capital when evaluating the capital invested over time. This flaw will consistently undervalue the real amount of capital invested at a specific moment. Thus, it will overvalue the MVA which might mislead managers in making decisions according to this metrics.

Another problem with MVA is that it doesn't take into account previous cash returns to shareholders. MVA is the "snapshot" about the difference between market value and invested capital on a particular day. For instance, two companies having the same market value and invested capital are equal in value according to MVA metric. However, one of them which has frequently paid out dividends to their shareholders in the past and the other has never done the returning cashes initiative. This is clearly that MVA snapshot cannot cover all the value created in the company which usually return cash to their shareholders and undervalue them to be equal to the company which have the same MVA evaluation.

Fortunately, excess return as another value-based metrics can mitigate these problem of MVA. Excess return is the real measures of a company's cumulative wealth creation, rather than MVA. "Excess return is calculated as the difference between actual wealth and expected wealth at the end of measurement period", defined by Young and O'Byrne (2001):

$$\text{Excess return } N = \text{actual wealth } N - \text{expected wealth } N$$

The expected wealth is the future value of the initial investment,  $I_0 (1+c_e)^N$ , where  $I_0$  is the initial investment,  $c_e$  is the cost of capital, and  $N$  is the number of periods. Actual wealth is the future value of the cash flows received by shareholders over the measurement period, which can include dividends and share buy backs initiatives. Although excess return metrics should be the ultimate objective of firms which follow value-based management approach, it has inherited some serious weakness as the market-based measurements of firms' performance. Because excess return is calculated based on the future cash flows receiving by shareholders in the capital market, it cannot be calculated in the lower business units such as divisions or departments. Excess return and also MVA can only be evaluated for publicly traded entities. Therefore, their effects on motivating and evaluating managers below the top manager ranks are too dim and distant. Taken collectively, the performances of employees, especially lower-ranking managers who directly making decisions on firm's daily basic activities, determine the capability of any firm to deliver value to its shareholders.

Excess return and MVA are still affected by another problem. Both are "stock" measures, a term used to describe the wealth that has been accumulated as of a specific date. They are snapshot and cannot evaluate the managerial performance over a period of time. For the purpose of measuring firm's value-creation performance over a longer timeframe, the flow measures are needed. Flow measures cover all the efforts of managerial activities in a specific timeframe such as 6 months or one year which provide more completed pictures of firm value-creation performance. Consequently, what we need is measures, having some of the features according to Young and O'Byrne (2001):

1. They are able to measure at lower-ranking business units, thus providing the motivations for managers at these business units.
2. They are flow measures, which give the evaluation over a period of time.
3. They are value-based management measures, which promote the value creation for shareholders.

For achieving these features of measures of performance, scholars and managers turn into another type of measure which is called "Economic Value Added" or in shorter form "EVA". Alleviating the weakness of market-based measures such as MVA and excess return, EVA can be calcu-

lated at lower-ranking business level. EVA is a measure of profit, thus, it also satisfies the second criterion. EVA measures the results of all managerial efforts over the specific timeframe such as monthly, quarterly or annually. EVA, as expressing its name, is the measures for economic profits rather than accounting profits like the traditional financial measures. Therefore, EVA is one of the measures which align with the value-based management approach which encourage the real value-creation activities from managerial efforts. In sum, EVA satisfies all three criteria which make it one of the most powerful performance measures at present. After a lengthy period of gestation, EVA was launched by Stern Steward & Co. in 1989. Since then, more than 300 companies worldwide adopted EVA framework for financial management and incentive compensation. Those companies applied EVA are Coca-cola, Quaker Oats, Boise Cascade, Brigg& Stratton, Lafarge, Siemens, Tate & Lyle, Telecom New Zealand, Telstra, Monsanto, SPX, Herman Miller, JC Penny, and the U.S, Postal Service. (Joel Stern & John Shiely, 2001). EVA, in turn, has helped the managers of these companies create hundreds of billions of dollars in shareholder wealth (Al Ehrbar, 1998).

EVA has widely promoted as a perfect performance measurement in many companies not only in the United States, but also in Europe, Asia and Latin America. The Coca-Cola Company had long been No.1 in soft drinks but it was decidedly mediocre in the wealth creation department in 1983 when the late Robert Goizeuta became one of the first CEO to adopt EVA. In 1994, Coke had become the No.1 wealth creator in the world, and by the end of 1996 its sugar water has enriched shareholders by \$125 billion. In addition, SPX Corporation, a faltering auto part company in Michigan, Muskegon, implementing EVA in 1996m and its stock price shot from the mid-teens to \$69 a share in just 2 years, the company created nearly \$350 million of shareholders in its first year on EVA and another \$400 million in the second year (Al Ehrbar, 1998).

## 2 INTRODUCTION OF EVA

**Economic Value Added** is the profit that remains after deducting the cost of the capital invested to generate that profit (Joel Stern & John Shiely, 2001).

Young and O'Byrne (2001) summarized calculation of EVA based on financial statements:

	Net sale
-	Operating expenses
=	Operating profit (or earnings before interest & tax, EBIT)
-	Taxes
=	Net operating profit after tax (NOPAT)
-	Capital charges (Invested capital x Cost of capital)
=	EVA

As Robert Goizueta, the late CEO of Coca-Cola, an early convert to EVA, once put it, “You only get richer if you invest money at a higher return than the cost of that money to you”, the cost of capital thus includes equity capital as well as debt capital (Joel Stern & John Shiely, 2001). The cost of capital is so called the require return. That's the compensation rate for the risk of investment (Joel Stern & John Shiely, 2001). The cost of using capital is the price entrepreneurs must pay for their business ordinary processes - those are debts, ordinary shares, preferential shares, retained earnings. Thus, cost of capital is the weighted average of all funding resources (WACC).

Therefore, EVA can be rewrite as: **EVA= NOPAT- WACC\* Invested Capital** (CIMA, 2005).

Young and O'Byrne (2001) defined clearly about all factors related to EVA:

- NOPAT is the firm's operating profit, net of tax, and measure the profits the company has generated from its ongoing operations.
- The WACC equals the sum of the cost of each component of capital- short-term debt, long-term debt (only debt bearing interests), shareholder equity – weighted for its relative proportion, at market value, in the company's capital structure.
- Invested capital is the total all the firm's financing, however it takes into account only the shareholder's equity, all interest-bearing debts, both short-term and long-term, and other long-term liabilities.

Since invested capital equals the net assets that is the sum of cash, working capital requirements, fixed assets, Young and O'Byrne (2001) also gave another way to determine EVA:

$$\text{EVA} = (\text{RONA} - \text{WACC}) * \text{Invested Capital}$$

Where:  $\text{RONA} = \text{NOPAT} / \text{Net assets}$ .

Statistically, in 1998, Al Ehrbar proposed different strategies for increasing EVA to maximize shareholder value:

- Reduce operating costs, reduce taxes and fines. Push NOPAT without raising capital. That is, it is more efficient to make higher profits than the capital invested in the business.
- Make all investments that NOPAT grows higher than the increase in cost of capital (growth profit). Or, invest in profit growth by implementing projects with positive net present value, promising to generate a return on capital that exceeds cost of capital.
- Savings from reducing the cost of capital use exceed the NOPAT reduction. That is, stop investing or liquidating assets and non-profitable operations equal to or greater than the cost of capital. Major changes in this area are the sale of assets that are more valuable than others, but also include other items such as inventory reduction, acceleration of receivables collection (both can be included in Capital investment).
- Restructure the company's finances by reducing capital expenditures (the responsibility of the financial department, the CEO, and the board of directors). In general, EVA depends on the three main factors are operating profit after tax; Capital investment; And the average capital-using interest rate (WACC).

## 2.1 Net operating profit after taxes (NOPAT)

EVA is well-known as economic profit, so accounting profit must be adjusted when calculating EVA. Stern Stewart & Co pointed out that more than 160 adjustments could be used to calculating NOPAT and invested capital. Any adjustments using could lead different results of EVA. However, most of companies concern some major important adjustments as follows: (according to Al Ehrabr, 1998):

- *Research and development (R&D)*: Most of Accounting Principles around the world requires companies immediately recognized all those research and development expense for this fiscal year because R&D can be seen as incurred. If managers cut down R&D expense, compa-

ny's profit in the current fiscal year can be higher, although this may result in the loss of a promising investment which could bring higher return for shareholders. However, as the shareholders and managers point of view, R&D is the investment in future products and processes. EVA therefore capitalized R&D investment (add current outlays to the balance sheet as an assets) and amortized them (charge a portion against earnings each years) over appropriate period.

- *Goodwill:* Goodwill arises whenever companies acquire other companies for a price exceeding the fair market value of the acquired company's assets. Goodwill can be negative or positive. In the case of positive goodwill, the company might bring the future profit. Therefore, goodwill should be capitalized as the long term assets, added back to NOPAT and smoothly depreciated over appropriate number of years.

- *Differed tax:* Differed tax arises due to the temporary differences between taxable income and the book income recognized under accounting standards. The source of differed tax could be depreciation since total depreciation over an asset's life remains the same in either case, but timing differences in the recognized of depreciation expense will arise. Other reason for differed tax is when companies make provision for future costs that reduce current book income- to cover warranties, restricting, environmental cleanup, and so on- but not tax-deductible until the company actually spends the cash in a later accounting period. Because the company will continue to invest, as earlier timing difference are reserved, the new timing differences emerge, and the differed tax liabilities still remain on the balance sheet. In the other words, the liabilities are never really paid off, which implies that the differed tax is more like equity than debt. So any changes to profit during the year as a result of differed taxes should be restored to NOPAT (Young and O'Byrne, 2001).

- *Expense recognition:* In reality, many companies willingly incur marketing costs to establish new brands, enter new market, or gain market share. All those expenses can be seen as new investment to acquire new assets called customers. According to the accrual accounting principle, these expense must be recognized immediately at the cost of the period to determine the profit of current fiscal year. In the other hand, according to economic point of view, those expenses shall be capitalized and allocated over period of time, which means added back to NOPAT and also added to invested capital.

- *Depreciation:* For most companies, the straight-line depreciation of plant and equipment used in GAAP accounting works acceptably well. While straight line depreciation doesn't really

match the actual economic depreciation of physical asset. Thus using straight line depreciation in calculating EVA can create a powerful bias against investment in new equipment. That's because the EVA capital charges declines in step with the depreciated carrying value of assets, so that old assets look much cheaper than new ones. Managers thus would be reluctant to replace "cheap" old equipment with expensive new gear. To deal with this problem, the depreciation cost should be added to the profit, and an economic depreciation charge is made instead. Economic depreciation reflects the actual change in property values during the period (unlike accounting depreciation). If no details are given about economic depreciation, we will look at accounting depreciation equivalent to it.

- *Balance sheet adjustments:* All the adjustments mentioned thus far can have a significant impact on the measurement of capital, or economic book value. Capitalizing R&D and adding back amortized goodwill and tax reserves all add to capital, for example. Several other adjustments that affect the balance sheet partly. One that many EVA companies make is to subtract passive investments (such as the large cash reserves that some companies hold in market securities) because they do not represent capital used to produce the operating profits. So the income on those investments should be subtracted from NOPAT. Another balance sheet adjustment is to subtract the free financing all companies enjoy, which comes in the form of accrued expenses and non-interest bearing accounts payables. Finally, companies should remove all off-balance-sheet items, such as the operating leases and securitized receivables, back into the balance sheet. This is essential to avoid mixing operating and financial decision.

According to James L. Grant (2003), there are 2 approaches of calculating of NOPAT from the Financial Statement: bottom-up approach and Top-down approach.

*Table 1. Bottom-up approach [James L. Grant (2003)]*

Begin	<b>Operating profit after depreciation and amortization</b>
Add (+)	Implied interest expense on operating leases: + Increase in LIFO reserve + Increase in accumulated goodwill amortization + Increase in bad-debt reserve + Increase in capitalized R&D + Increase in cumulative write-offs of special items
Equals (=)	Adjusted operating profit before taxes
Subtract (-)	Cash operating taxes
Equals	NOPAT

*Table 2. Top-down approach [James L. Grant (2003)]*

Begin	<b>Sales</b>
Subtract (-)	Cost of goods sold Selling, general and administrative expense Depreciation
Add (+)	Implied interest expense on operating leases: + Increase in LIFO reserve + Increase in accumulated goodwill amortization + Increase in bad-debt reserve + Increase in capitalized R&D + Increase in cumulative write-offs of special items
Equals (=)	Adjusted operating profit before taxes
Subtract (-)	Cash operating taxes
Equals	NOPAT



## 2.2 Invested Capital

Stewart (2013) defines invested capital as “the total money that has been raised from lenders or shareholders or retained from the company’s earning and is used to finance the company’s business assets”. In more details, capital is the amount of money which transforms into working capital and short-term assets such as inventories, accounts receivable, etc.; into long-term and financing assets such as property, plant, machines and equipment; or into various different business assets, including the goodwill premium paid for acquiring another firm. As the main principle, the assets bought in need to be financed with capital sources to make the balance sheets always balanced. In another point of view, invested capital can also be defined as the total investment regardless of type of financing which operating revenue is derived. This view emphasizes not only the role as the sources of operating assets but also the alignment between operating revenue and capital invested for generating it. Therefore, when calculating invested capital, numerous adjustments need to be made to make sure the capital used in EVA calculation is the one used in producing the operating revenue and NOPAT.

There is more than one way to calculate invested capital used in EVA calculation, but the following three steps will be used in this study:

- Step 1: Starting with the value of book capital from the balance sheet.
- Step 2: Make adjustments that convert accounting accruals to cash.
- Step 3: Make adjustments that recognize off-balance-sheet sources of funds.

The problem with the value of book capital from the balance sheet is that it contains not only the capital invested by lenders or shareholders which use for generating the NOPAT but also others funding sources. For example, account payable, the amount which firm owes to its suppliers. Suppliers are not actually the one who lend us the capital or invest in our firm. Therefore, account payable is not a part of capital invested. The similar adjustments need to be done in the step 2 to convert accounting accruals to actual cash which used for producing NOPAT.

Another problem with value of book capital is that they do not include some other financing sources which are actually capital invested for directly generating value for shareholders. For example, reserves are contra asset accounts that reduce asset values for probable future losses (in the case of inventory reserves or loan-loss provisions) or resolve the difference in accounting treatments (in the case of LIFO reserves). Reserves are off-balance-sheet items which usually

account for very large percentage of accounting total assets in financial firms. Reserves adjustments usually increase the actual invested capital significantly (New Constructs, 2013). Another off-balance sheet items which are operating leases also need to be added back into invested capital. These adjustments make sure that all companies are responsible for earning returns on the actual invested capital used, not just the accounting value of total assets.

### 2.3 Weighted Average Cost of Capital

Young and O'Byrne (2001) stated that the cost of capital is based on expected returns, not historical returns. The cost of capital is an opportunity cost that reflects the returns investors expect from other investment with similar risk. Because the difference forms of financing carry different risks for investors, they must also carry different costs for the issuing company. The company's cost of capital depends not only on the cost of debt and equity financing but also how much of each it has in capital structure. (Young and O'Byrne, 2001).

$$WACC = E/V * R_e + D/E * R_d * (1 - T_c)$$

Where:  $R_e$ : cost of equity

$R_d$ : cost of debt

E: Equity

D: Debt

V: Total financing.  $T_c$ : Tax rate.

Cost of debt is easily measure by pre tax rate that company must pay for its creditors. The cooperate tax rate is important for WACC purpose due to its deductible expenses, it produces tax saving. Cost of equity could be derived from the most popular model so called the capital assets pricing model (CAPM).

CAPM describes the correlation between cost of equity and the systematic risk of the firm which is estimated by  $\beta$  (beta). That states the expected return on a risky asset, such as an equity investment, equals the return on a riskless asset plus a risk premium.

$R_e = R_f + [\beta \times (R_m - R_f)]$  where:

$R_f$  : the return on risk free assets (such as government bond)

$R_m$  : the expected return on the stock market

$R_f - R_m$ : the risk premium

$\beta$  (beta) measures the volatility of how risky a specific security to overall stock market.

### 3 THE APPLICATION OF EVA (IN FINANCIAL ASPECT AND MANAGEMENT ASPECT)

EVA is not only an advanced performance measurement but also the framework for a completed financial management and incentive compensation system that can guide every decision a company makes, from the boardroom to the shop floor; that can transform a corporate culture; that can improve the working lives of everyone in an organization by making them more successful, and that can help them produce greater wealth for shareholders, customer and themselves (Al Ehrbar, 1998).

When companies employ EVA to the fullest, EVA is the way of adding up costs and computing profits, also the special tools as set follows (Al Ehrbar, 1998):

- The corporation performance measure that is tied most directly to the creation of shareholder wealth, both theoretically and empirically, managing the higher EVA is managing the higher stock price.
- EVA is the only performance measure that always give the right answer since it provides concrete picture and consistent focus for shareholders in economic point of view. EVA thus is the instrument for sustainable development. In contrary, actions that increasing profit margins, EPS or even rate of return sometimes destroy shareholder wealth.
- The framework underlying a comprehensive new system of corporate financial management that guides every decision, from annual operating budgets to capital budgeting, strategic planning, and acquisitions and divestitures.
- A simple but effective method for teaching business literacy to even the least sophisticated workers.
- The key variable in a unique incentive compensation system, for the first time, truly aligns the interest of managers with those of shareholders and causes managers to think like and act like owners.
- A framework that companies can use to communicate their goals and achievements to investors, and that investor can use to identify companies with superior performance prospects- what Steve Einhorn, director of global equity research at Goldman Sachs, calls “a power tool in the analyst’s tool kit”.
- Most important, an internal system of corporate governance that motivates all managers and employees to work cooperatively and enthusiastically to achieve the very best performance possible.

#### 4 THE ADVANTAGES AND DISADVANTAGES OF EVA

Although EVA, as an advanced measures of performance, is aligned closely with the value-creation activities for shareholders, it still exposes itself to some risks and disadvantages which are common to any type of measures based on accounting value and financial measures (Brewer, Chandra & Hock, 1999; Keys, Azamhuzjaev & Mackey, 2001). Some main advantages and disadvantages of EVA are discussed and presented in Table 2.

*Table 3: Main advantages and disadvantages of EVA [own elaboration]*

Advantages/Strengths	Disadvantages/Limitations
The adjustments in EVA calculation help to overcome the distortion of results inherited from the accounting policy. This strength of EVA helps to match precisely the managerial efforts with the value-creation activities for shareholders.	Require numerous of adjustments to profit and capital invested. Therefore, in critical view, there are some inconsistencies in adjustments of capital invested and NOPAT. The complexity in calculating EVA can make EVA less desired by managers and investors (Keys, Azamhuzjaev & Mackey, 2001).
EVA can be calculated for lower-ranking or divisional business units. This encourages the proper actions of divisional managers in seeking the real returns on their real financing sources. The application range for EVA is wider than most of other performance measures.	EVA, as an absolute measure does not support the comparison between divisions. This drawback is more serious when using EVA to decide the value-creation capability when the sizes of firms or divisions are not comparable to each other (Brewer, Chandra & Hock, 1999).
	EVA is calculated based on a lot of assumptions which uses for calculating the WACC. This reduces the transparency of EVA metrics. In addition, EVA is easy to manipulate by managers (Keys, Azamhuzjaev & Mackey, 2001).

	<p>EVA is calculated based on the historical financial data. Therefore, the forward-looking explanations of EVA about firms' performance are limited. EVA can be considered sometime the short-term measures. Shareholders need to combine EVA metrics with others information to evaluate future performances (Keys, Azamhuzjaev &amp; Mackey, 2001).</p>
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## 5 IDENTIFICATION OF FACTORS INFLUENCING EVA

According to the calculation of EVA, there are some crucial factors which affect the result of EVA and thus, the performance of firms and its value created to shareholders. They are: the amount of operating profit; the structure of used assets and invested capital; and the costs for using the capital invested (Pavelková & Knapkova, 2011). The relationships between these main factors and EVA evaluation are presented in the Figure 1 below. In Figure 1, the positive and negative associations between these factors and EVA when they increase one unit is expressed by the signs: negative relation is expressed by subtract sign (-) and the positive one is expressed by plus sign (+) or question mark (?) to express that relations depend on effectiveness of using these factors not on its levels.

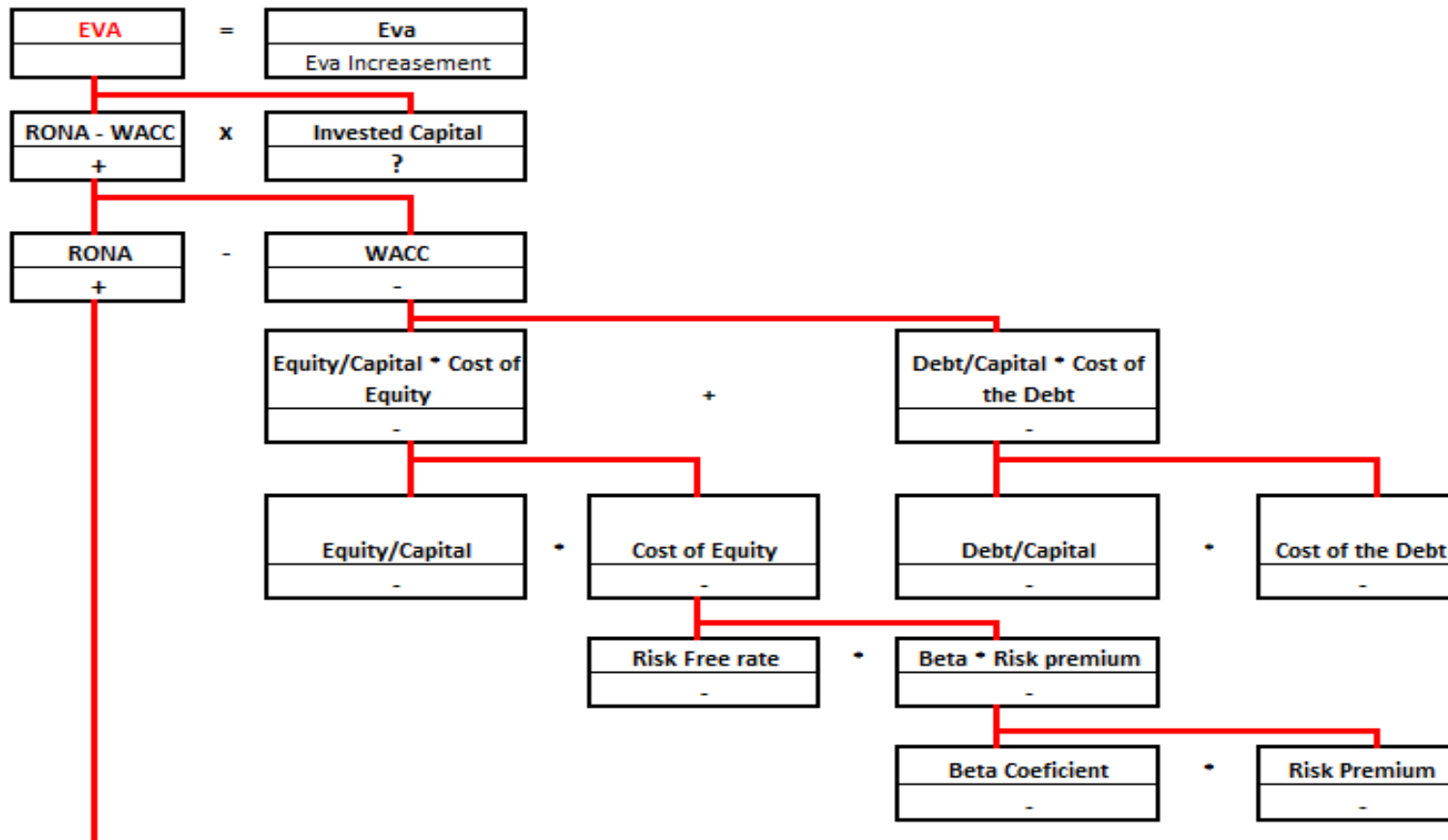
The amount of operating profit and NOPAT is determined by the differences between revenue and operating expenses. Revenue, in turn, depends on the volume of products sold and the price firms receive. The more products sold at consistent price level, the better the Revenue and operating profit are. This branch of factors actually shows that how good a company understands the demand of customers and how good their competitive advantages for competing with other companies. The main decision here is to choose the right things to do. On the other hand, operating expenses show how effectively a company can run their business processes regardless of what business process or products/services they choose for manufacturing. Combining both these two main decisions and making enough space between revenue and operating cost will positively boot the performance of EVA and value creation to shareholder.

The amount of the used capital corresponds to the total value of the company assets. The asset turnover ratio of is important. Asset turnover is a financial ratio that measures the efficiency of a company's use of its assets in generating sales revenue or sales income to the company. The ineffectiveness of assets in generating sales can undermine the operating profit level and then the EVA. For achieving good revenue turnover, the structure and the rate of turnover of the components of the assets, such as fixed assets, inventory, receivables and financial assets are taken into account. Long turnover times generally cause high expenses and lost profits. Another important element in this branch of factors is about the structure of assets. As long as long-term capital mainly covers the fixed assets as well as the part of permanent current assets, firm's liquidity is not the issues to the operating of the firm. The difference between long-term capital and the

short-term assets creates working capital for the company. Low working capital may cause liquidity problem, a too high coverage of the current assets by the long-term capital may be too expensive.

The structure of invested capital has profound effect on the amount of capital expenses bearing by the company. One of the main ratios describing the differences of structural capital is equity and debt ratio. Choosing funding from equity by issuing shares to investors or borrow money from lenders will affect the capital expenses of the company. Companies with high rating usually obtain capital at lower costs or can obtain it easier and at lower cost on international financial market. In the view of management perspective, the capital allocation decisions on which capital is distributed and converted into types of asset such as fixed assets, current assets (working capital) or others determined how effectiveness a firms use the capital. Successfully managing how to finance the sources of fund with minimized cost and how to allocate them effectively will have big positive impacts on EVA measures.

Companies operating in different industries and sectors have different asset and capital structures that depend on the type of business. Even firms in the same industries might pursue different capital structures accordance with their chosen business strategies. Thus, the relationship between returns, costs and profitability are also different. When venturing and financing the invested capital, companies expose to a certain type and degree of risks and consequently require different opportunity costs or particular rate of return for compensating these risks, i.e. different costs of equity ( $r_e$ ) (Pavelková & Knapkova, 2011). According to the Capital Assets Pricing Model, these costs can be expressed (in %) as the sum of the risk-free interest rate of the given capital markets and risk premium (for the venture risk, for the reduced liquidity of assets, for financial structure and for financial stability). The risk portfolio of a specific firm will decide their cost of capital. The lower the risk and hence the cost of capital, the superior EVA will be.





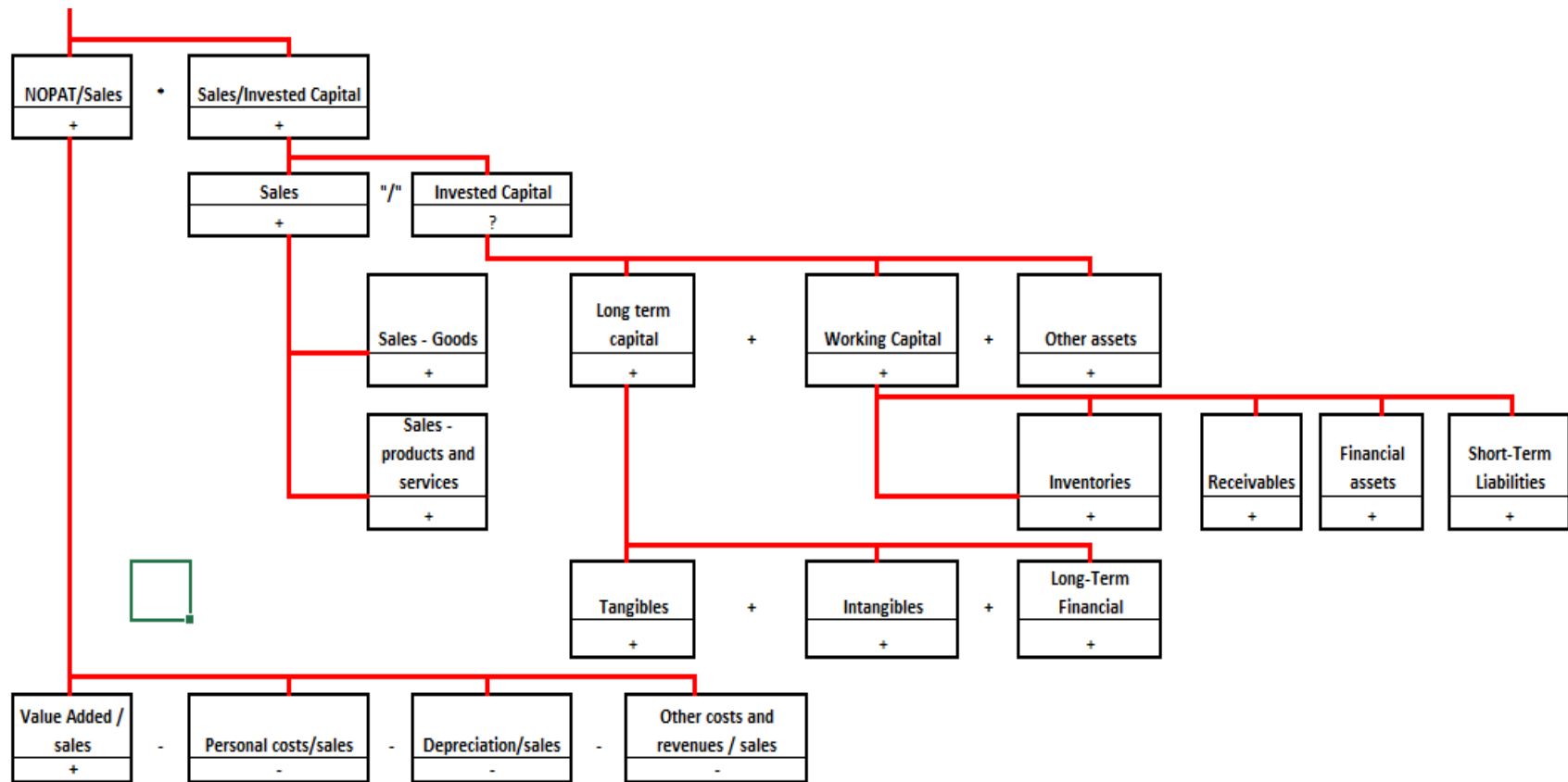


Figure 1: The main factors affecting EVA result [own research adapted from Pavelkova (2016)]

## 6 EVA IMPLEMENTATION

As indicated in previous part, EVA is not only a measurement system. It's also a tool for communicating the value-based management principles and changing managerial behaviors. In order to fully taking advantage of EVA, all managers in all levels and all employees in the best case need to understand the underlying concepts about value creation of EVA. However, it is very burdensome to change all the mindset of all managers at the same time, especially financial executives who have been using traditional accounting principles for their entire life. Changing the attitude of operating managers toward value-creation approach is also tough tasks which require the transparency in the finance and accounting function. These challenges can be achieved when managers and employees understand what the company's financial goals are, why these goals are chosen, and what they can do to achieve them. After all, the successful of EVA implementation is not only the responsibility of only top managers but also of every employee. The financial specialists and top managers can design the appropriate capital structures of capital and proper measuring and result reporting system but the real value creation rests with operating managers and their employees. However, for successful EVA implementation, the tailored-made EVA system should be made to adapt with the specific situation for each company (Blume, 2015). Nevertheless, according to Young and O'Byrne (2001), there is a common framework including four following common steps in EVA implementation:

**Step 1:** Building solid commitments at the board and top management levels about EVA concepts and EVA implementation.

**Step 2:** Making the essential strategic decisions on the EVA program. There are some key questions which should be considered:

Which is the business unit level for applying EVA measurements?

How will EVA is calculated?

What adjustments will be made?

How often will EVA be calculated?

What is invested capital to use?

How the management compensation is linked with EVA measurements?

**Step 3:** Develop an implementation plan.

**Step 4:** Set up a training program.

Following this common framework, there are two common problems when implementing EVA measurements system which are: the underinvestment problem and the synergy problem.

The underinvestment problem state that EVA can lead managers to underinvest in physical and intangible assets or projects such as developing new products and equity brands. It might happen because under the pressure of EVA, cut off some invested capital can be a way for improving EVA measures. For dealing with this problem, the momentum or growth in EVA should be focused, instead of the level in EVA bonus plan. In addition, the underinvestment problem can be mitigated largely if nonfinancial value drivers are used (Steward, 2013). It means that, beside EVA, the value drivers which are important to create value and growth in EVA should be measured and monitored as well. This problem also highlights a very big concern in EVA implementation which is management compensation. The management compensation need to be tightly tied with EVA in the manner which encourage the value-creation managerial efforts from managers in all level.

The synergy problem is the problem about the cooperation between business units, divisions or departments in a company when each independently has their own EVA measurement system. In fact, the smooth operation of any business processes needs the synergy between different departments or divisions. In this sense, cost allocation and transfer pricing between departments can be obstacles preventing the success of EVA implementation (Young and O'Byrne, 2001). There is no way to get rid of these synergy problems completely but several practices can be useful to alleviate them. One of the most popular approaches is to select value drivers which can be more easily and directly related to lower-ranking managers than EVA. It helps to side step the issues of cost allocation and transfer pricing when calculating EVA at divisions. At some companies where Activity-based costing (ABC) are employed rather than traditional approaches to overhead cost allocation, managers gain a better understanding of the forces that drive overhead costs in their divisions. Using ABC can help to have more accuracy EVA at the divisional level.

The effects of EVA implementing on firm performance also attracts the attention of researchers. After Steward (1991) claims that EVA is the best performance measures, many researchers attempt to test this statement by examining the relationship between EVA implementation and stock returns or between EVA adoption and firm value. The results are mixed between supporting the extra explanatory power of EVA on stock returns and rejecting this. Bao and Bao (1998) examined the US firms for finding the usefulness of EVA measures and abnormal economic earnings. They found that EVA has higher explanatory power over accounting earnings on market returns. Machuga, Pfeiffer and Verma (2002) also found that EVA is the reliable measures for future returns on stock market rather than the Earning per share metric. How-

ever, when comparing the association between EVA and stock returns with the one between accounting earnings and stock returns, Ismail (2006) found that EVA is not better in explaining stock returns than net operating profit and net income. The mixed results are expected when successful EVA implementation is considered as one of the dramatic changes in not only accounting principles but also the whole companies' culture and business approach.

## **II. PRACTICAL PART**

## 7 COMPANY PROFILE

### 7.1 History

Nam Viet Joint Stock Company (NAVICO) was previously Nam Viet Limited Company, which was established in 1993, with ordinance capital only 27 billion VND, working on the construction.

In 2000, realizing the robust potential of Pangasius & Basa fish in An Giang Province, the company decided to broaden trading fields to process maritime products, beginning with building up Nam Viet processing maritime products factory with 30.8 billion VND of the total invested capital, specialized in processing frozen Pangasius & Basa fish for export, with capacity about 300 tons of fish material per day. In 2004, building up the new Thai Binh Duong processing maritime products with capacity of 200 tons of fish material per day and activated in the end of November 2004, raising total average processing capacity of the company to 500 tons per day. By that time, Navico purchased raw fish (fish material) from famers.

Coming into being and having robust development annually, in order to develop continuously in larger size and faster, in 2006 Nam Viet officially became joint-stock company with the ordinance capital of 600 billion. In April 2007, Nam Viet was allowed to issue more stock and selling to public 6 million shares (in total value of 60 billion VND). That is the milestone for NAVICO to be listed in Ho Chi Minh Stock Exchange Market. The company's total ordinance capital is 660 billion VND according to business registration certificate number 5203000050 of An Giang department of planning and investment issued in 18/08/2007.

In 2011, Navico started raising aquatic materials (basa fish, pangasius, ...) at farming areas, forming the new feeding fish process from preparing ponds, breeding young fish, takes care about fish, and as final phase to harvest them. In 2012, fish meals factory was built with 6 producing chains with total capacity about 500 tons per day, providing 100% required food for raising fish at ponds. In 2015, total area of pangasius farming were about 252 hectares, providing about 70% to 80% of all production.

#### **Kind of issued share:**

- Common share par value: 10.000 VND/share
- Quantity of first-time issued shares: 66.000.000 shares
- Date of an exchange of the first share: 7th December 2007.
- Stock code: **ANV**

**Oriented developments:**

- Society: Implementing transparent hours, wages, social welfare regimes. Ensuring right and legitimate interests of employees. Protecting the health and create healthy working environment for employees.
- Business process: The aquaculture and seafood processing continues to be the core business of Nam Viet and maintain the current area of fish farming.
- Environment: Improving the system of environment implementation & management, preventing polluting, protecting natural resources and enhancing working environment.
- Expand investment: seafood processing would certainly be the ordinary business activity and solid foundation for investing more into the equipment for the fish meals factory to increase the plant's capacity to 750 tons per day and selling the fish's feed in the market for the near future.

**7.2 Subsidiaries and affiliated companies****a. Subsidiaries***Table 4. Subsidiaries [own elaboration]*

<b>Name of subsidiaries</b>	<b>Business activities</b>	<b>Ordinance capital</b>	<b>Own rate of Navico (%)</b>
<i>Indian Ocean Limited Company</i>	Processing, maintaining aquatic products and producing fish oil, fish powder...	36 billion VND	100%
East Sea Seafood Limited Company	Trading and exporting seafood products	5,3 billion VND	90.91%

**b. Affiliated companies***Table 5. Affiliated companies [own elaboration]*

<b>Name of affiliated companies</b>	<b>Business activities</b>	<b>Ordinance capital</b>	<b>Own rate of Navico (%)</b>
DAP 2 Joint Stock Company-Vinachem	Producing and trading fertilizers and chemicals	1.500 billion VND	40.5%
Green Farm Vegetable Joint Stock Com-	Processing and maintaining vegetable products	27 billion VND	44.4%

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### 7.3 Business overview

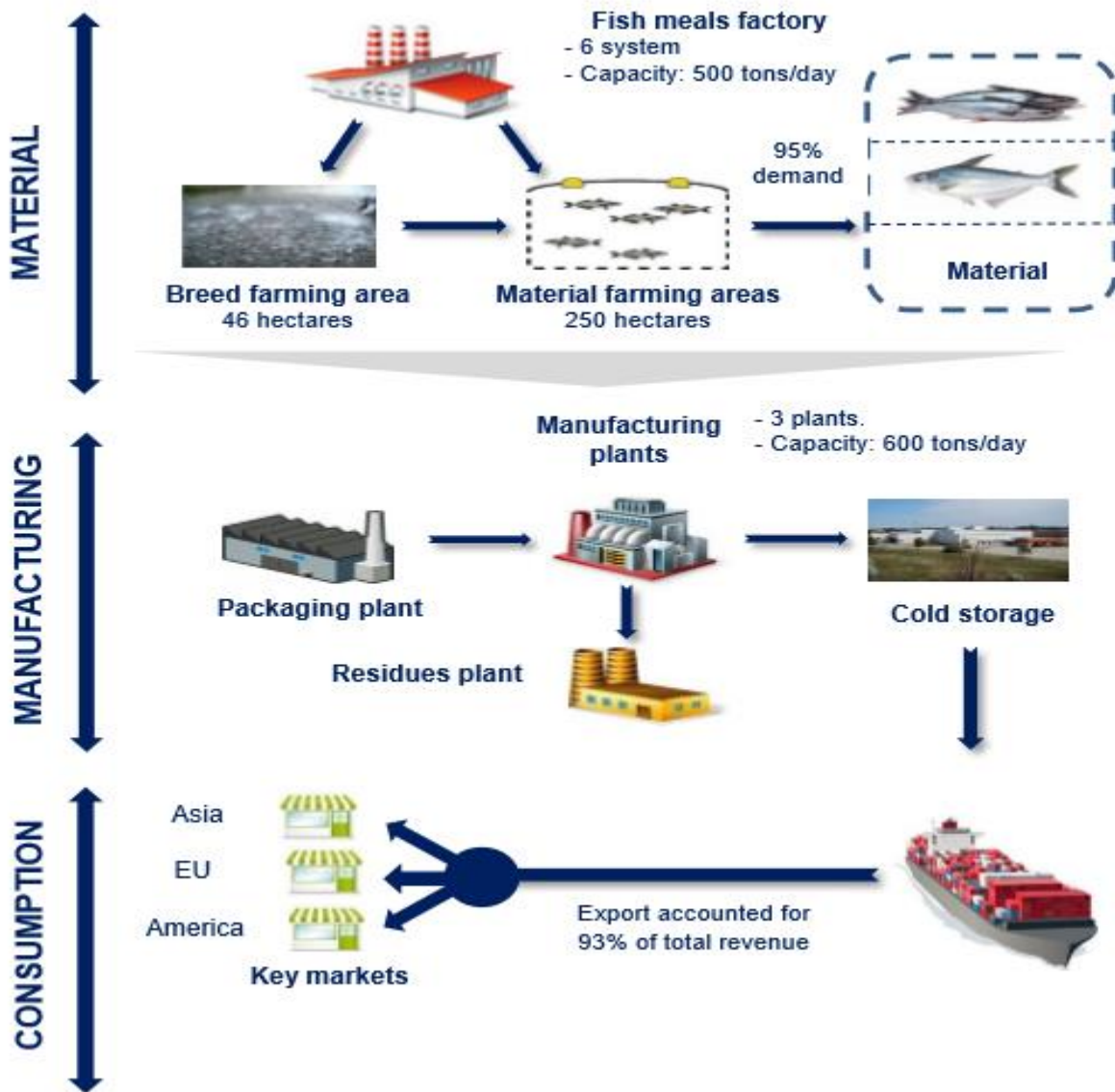


Figure 2. Business Model of Navico [own elaboration]

### 7.4 Quality control process summary

**a. Purchasing raw material**

- Appointing officers to fish ponds to inspect conditions, raising document and take samples.



- Test 5 antibiotic criteria (CAP, AOZ, MG/LMG, En/Cip, Trifluralin) and purchasing only batches of material without antibiotics.

**b. Producing finished products**

- Controlling technical parameters, checking product quality and the material as well as sub-material in every step during the production from receiving the material to loading goods; conforming HACCP, IFS, BRC in controlling and checking.
- Controlling quality of water used in the processing according to the standard 98/83EEC.

**c. Inspecting quality of cargos**

- Quality inspecting department, under the head of company, picks up samples randomly from cargos to inspect the quality. Only cargos, that are qualified according to regulations, are permitted to be exported.

**d. Inviting Nafiqad to inspect and issue quality certificates**

- When cargos are finished, Quality Control Department invites authorities concerned, Nafiqad, to come to pick up samples for quality inspection according to regulations of the import market or request of the customer, then Nafiqad issues quality certificate for the cargo before exporting.

**e. Loading goods**

Quality Controllers (QC) in finished-product area inspects and monitors the loading process (i.e hygiene conditions, means of transportation, carton quality, strap, etc...)

## 7.5 Typical products

Navico produces variety of products made of pangasius, basa fish and tilapia. Some typical products are: Untrimmed Pangasius Fillet, Pangasius Loin/ Cube/ Fin/Steak, Tilapia HGT, Red/Pink Tilapia Fillet.

## 7.6 Consumption market

NAVICO's products are exported to more than 100 countries around the world: America (Mexico, Brazil, Colombia, ...), Europe (Spain, Portugal, Denmark, ...), Asia (China, Thailand, Malaysia, ...), Middle East (Arab Saudi, Kuwait, ...), Australia, ... Among these markets, Europe and America are main markets accounting for more than 60% of total exported volume. The export volume exceeds 50 thousand tons, export turnover reaches 105 million USD annually. Export accounted for 93% of total revenue.

## 8 RELEVANT MACROECONOMICS AND MICROECONOMICS

### 8.1 Overview relevant macroeconomic factors

#### 8.1.1 GDP of Vietnam economy

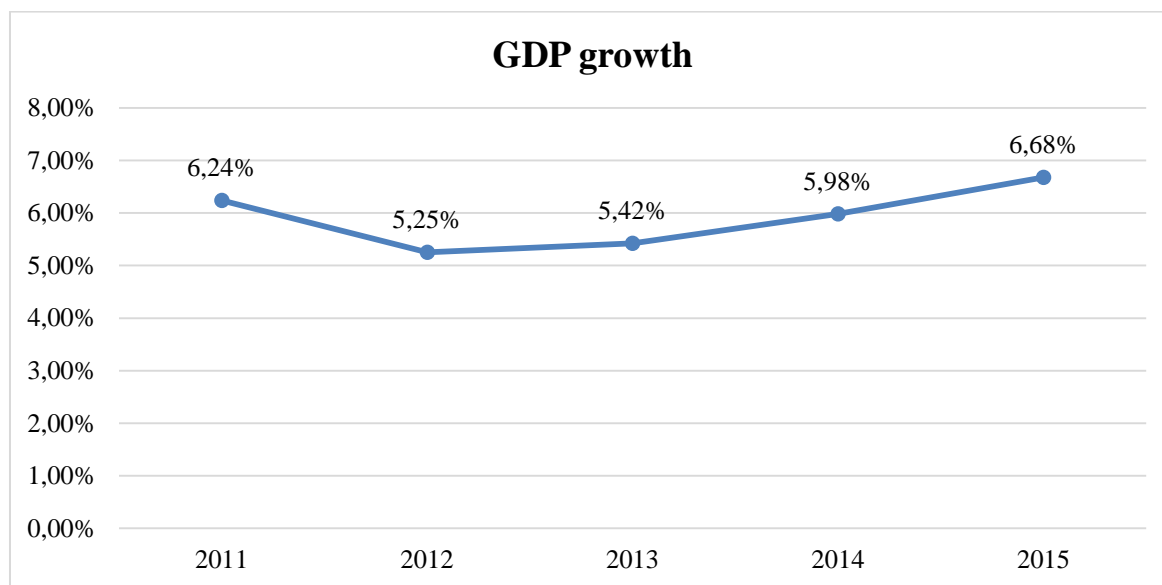


Figure 3: Vietnam GDP growth over 2011-2015. Source: Vietnam General Statistics Office

According to World Bank, Vietnam's development record over last 25 years is remarkable. Vietnam had enjoyed a strong economic GDP growth. Since 1990s, Vietnam's GDP per capita growth has been among the fastest ones in the world. According to State Bank of Vietnam, Vietnam as South East country has low middle income and the annual unemployment rate is about 3%. As other emerging countries, Vietnam has high performance of agriculture sector and manufacturing production. Although Vietnam faces drought, flood, corruption and rural poverty, this Southeast Asian country is forecasted to grow again by more than 6% since there are no signs of slowing. Even if the TPP dies under Donald Trump, Vietnam can replace it with other trade pacts. The country is known for lower prices than China since they keep giving investor incentives to manufacture exports. Manufacturing products are moving up in a value-added capability for economy, from traditional exports to consumer electronics. Vietnamese consumers nowadays are earning and spending more money and startups backed by venture capital are giving private business a sudden boost.

In addition, the economic recovery in 2015 remains fragile in advanced countries, euro area and mixed across the member countries according to GDP growth in USA and some strong Asian countries (i.e. Japan, China, India). Some emerging countries recorded slowing GDP

growth (i.e. China) and downward vision for their outlooks in next 2 years (due to the increasing of private and public debts and the low commodity prices). Generally, global growth becomes more mute and sparking the risk aversion, affected broadly by the consumption in the global market, which creates unfavorable condition for those countries mainly depending on exporting goods & services as Vietnam.

### 8.1.2 Inflation

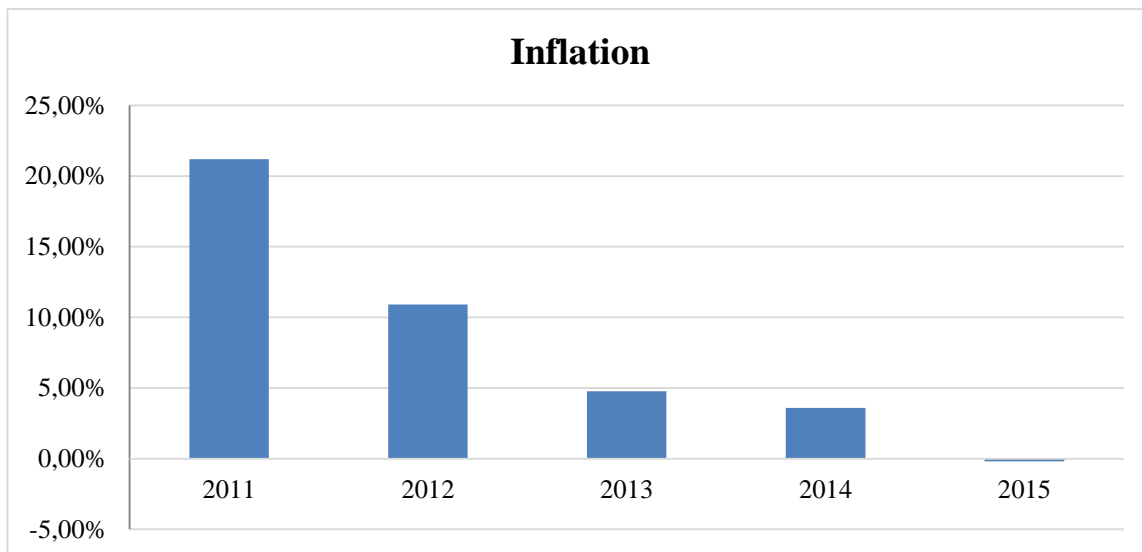


Figure 4: Inflation in Vietnam period 2011-2015. Source: World Bank Data

As presented in Figure 4, inflation strongly declines since 2014 and 2015 due to the downtrend of oil prices, fuel and foods (especially rice). Those commodity goods contributed 17% for basket of goods. The crude oil in the world tends to have lowest price level since 2009, coal is not different. Modest growth recovery in developed countries and slow growth of China are main reasons that lead the slump of aggregate demand of energy and raw materials of the world. Plus, rice prices in Vietnam are lower than other countries (India, Thailand) due to the competitiveness in exporting around the world.

GDP growth is quite stable whilst inflation has downtrend, which states that the real GDP would be sharply growing up, this means Vietnamese economy is growing up thanks to the impact of macroeconomics factors, not the price factors. The reduced gasoline price and the low of rice and food (in comparison with other Asian countries) strongly contributed to lower cost of products. Clearly, price factors are stimulating producers to expand production scale and purchasing power of economy.

### 8.1.3 Exchange rate

Vietnam - Exchange Rate (aop) Data					
	2011	2012	2013	2014	2015
Exchange Rate (vs USD, aop)	20,663	20,874	21,029	21,198	21,929

Figure 5: Exchange rate of Vietnam currency (2011-2015). Source: Vietnam State Bank

Vietnam applied managed floating exchange rate. Exchange rate has significant fluctuation since 2015 due to 2 main negative influences of:

- On Sep 2015, China has cut the value of its currency (the Yuan) for several times consecutively. They turned fixed exchange rate into float market exchange rate. China aims to boost the economy, maintain growth and employment. GDP growth of China has fallen from double digits few years ago to only 7% recently, also the development model based mainly on investment and exports is no longer effective. China wanted to enhance their currency's power and strengthen their central role in the global economy. The weaker Yuan will support commodity exports while making it less expensive in the world market. As a result, Vietnam Dong has to be weakened due to competition in the export market.
- In addition, on Sep 2015, FED is expecting to increase US rate. The possible FED rate hike by that time would weaken the appeal of Vietnam currency even more since US interest rate would strengthen dollar demand, dollar price could get higher, strongly negatively impact on emerging countries (especially for those countries depending on the commodity exports). So that Vietnam State Bank decided to devalue Vietnam Dong to improve the situation.

Vietnam is among top 5 seafood exporters in the world. Exchange rate plays a crucial role in the competitiveness of exporting seafood companies, also influences on net profit over years due to exchange rate differences.

#### 8.1.4 Additional factors

- **Government policy**

The corporate income tax would be cut to 22% from 25% starting since 2014 and to 15% since 2015 for aquatic and agriculture industry (according to 71/2014/QH13 Law). This would help domestic business to recover and attract more foreign investment to revive the economy.

- **Climate risks and challenge loom**

Vietnam is highly vulnerable to climate change and natural disasters, posing significant risk to development gains and further progress. Already, Vietnam is experiencing rising temperature and sea levels, stronger storms, floods, and droughts. Average economic losses amount to 1-1.5 percent of GDP over the past two decades.

- **Important agreements**

In 2015, Vietnam has signed on 2 important agreements as follows:

*TPP (Trans-Pacific Partnership)* is a proposed regional free trade agreement (FTA), currently under negotiation between Australia, Brunei, Canada, Chile, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam; which are all important partners of Vietnam's seafood processing industry. This event would create economic block with the fewer barriers hindering flows of goods and services.

*The AEC (ASEAN Economic Community):* Tariffs on ASEAN goods have already been reduced and more tax cuts will be forthcoming in line with an approved road map. According to the Ministry of Finance, 8.603 tariff lines have been brought down to zero in accordance with the ASEAN Trade in Good Agreement and 15 more tariff lines will be lowered to 0% this year. The country will cut 77 tariff lines on completely built-up automobiles from 50% to 40% this year, and the rate will further fall to 30% in 2017 and 0% in 2018.

Those are great news for Vietnamese products and Vietnamese businesses on their way for selling and providing oversea with fewer limitations. In the other hand, domestic businesses would be competing immensely due to price competition, Vietnam companies must try harder either to make more products' differentiation or lure more customers.

## 8.2 Relevant microeconomics

Based on Porter's 5 Forces Model, we clarify all those relevant microeconomics:

**Threat of new entrants: Relatively Low**

Since the entrant is required intensive-capital, high technology, strict regulation and protecting environment, the threat of new entrants is relative low.

**Threat of substitute products: Pretty High**

Due to customer preferences, people rather eating fish than meat, however, if the price of pangasius and basa fish is not attractive, final customers would turn to other substitutes of fish or seafood with many various other options.

**Bargaining power of buyers: High**

Vietnamese aquaculture processing industry is currently under high pressure from the anti-dumping duty of the US Ministry of Commerce for catfish & seafood, which has significant impacts on the competitiveness in global market and exporting catfish (pangasius, basa fish, etc.). This is a big challenge for in the integration period.

Thus, Navico so far have get some threatens from:

- + Threat of un-claimable receivables by the customer those are facing the anti-dumping lawsuits.
- + Threat of losing orders in strict markets as EU and US.

**Bargaining power of suppliers: Low**

Navico creates closed manufacturing processes, materials are being produced from internal processess, which are affected by some factors as follow:

- + Threatened from polluted environment: Polluted environment is immense concern nowadays, especially in Vietnam. In 2016, Vietnam marine life disaster was water crisis, affecting four provinces in central Vietnam. It was tremendous shock for seafood processing industry since approximately 80 tons of fish carcasses had been washed to the shores and the marine life destruction were worsened by red tide and toxics generated by the steel plant in Taiwan.
- + Threat of salted water intrusion due to climate change that could lead to narrow down of living fish and aquatic fish- those are main materials for seafood processing.

**Competitive rivalry: Extremely High**

Navico used to be the largest pangasius exporter in Vietnam in 2007-2008 period. Nonetheless, the company gradually lost its leadership position when loosing Russian market. So far Navico is the 3<sup>rd</sup> largest exporter, accounting for 6.6% of total Vietnam's pangasius export value.

Though, there are about 200 companies in the industry, Navico is not only competed by domestic companies but also other companies broadly from other countries (notably China).

## 9 SWOT ANALYSIS

Figure 6: SWOT analysis of Navico [own elaboration]

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>- Navico has closed manufacturing process, so Navico could be truly positive in monitoring and controlling in</li> <li>- Navico has been operating more than 20 years and used to be the largest fishery company in the past- basically Navico could be reliable for novel customer.</li> <li>- Navico as a whole is located at Mekong Delta where is well-known as abundant natural resource (fishery, water and soil), which is pretty good condition for sustainable development.</li> <li>- Join in aquaculture processing industry since 1993, Navico has matured experience in rising and processing pangasius fish.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- Not much pay attention on R&amp;D activities</li> <li>- The products are not diversified; finished products are mainly pagasius, tilapia with different parts/forms.</li> </ul>
<p><b>Opportunities</b></p> <p>(mentioned in the part” Additional factors” above)</p>	<p><b>Threaten</b></p> <ul style="list-style-type: none"> <li>- <i>Technical barriers risk:</i> Most of the target markets consider technical and hygienic issues when importing Vietnamese pangasius, especially US &amp; EU market. Currently, Vietnam’s pangasius is facing with hurdles from these barriers and moving to markets having less requirements such as Asian, China and others, dampening the export value.</li> <li>- <i>Foreign exchange risk:</i> EU is one of the Vietnam largest export market, so EUR devaluation has negative impact on fishery</li> </ul>



	<p>companies. In 2 first quarters of 2015, pangasius businesses suffered a dramatic drop in export value.</p> <p>- <i>Epidemic risk</i>: epidemics took place on over 730 hectares of pangasius farming areas in Mekong Delta, accounting for 12% of total farming square. Epidemic creates restriction for Vietnam's pangasius to export. On the other hand, some epidemics have high mortality rate, up to 90% and seriously affect the farming efficiency. Navico shall pay attention on monitoring epidemics and controlling the use of antibiotics and vaccines.</p>
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## 10 FINANCIAL ANALYSIS AND STRATEGIC PROPOSES

This part will deal with analyzing the financial situation of Navico during period 2011-2015 and proposing the strategy accordingly. Since Navico has not yet applied EVA concept, the traditional financial measurements are currently using for decision making of managers and shareholders. The financial analysis is set as follow to give overall picture of Navico's business activities:

### 10.1 Liquidity Ratios

The liquidity of the firm measures how can firm's ability to satisfy its short term obligation when they come due. Liquidity refers to the solvency of the firm's overall financial position- the ease in which all bills are repaid. Since the common symbol of distress and bankruptcy is low or declining liquidity, these ratios can provide good signs to recognize cash flows problem and predict for business failures. Having enough liquidity for day-to-day operation is important. However, some current assets do not earn particular high of return (for instance: cash in banks, marketable securities, ...), so shareholders do not want to overinvest in liquidity. In the other hand, firms have to balance the need of the safety and the need of generating the return for investors.

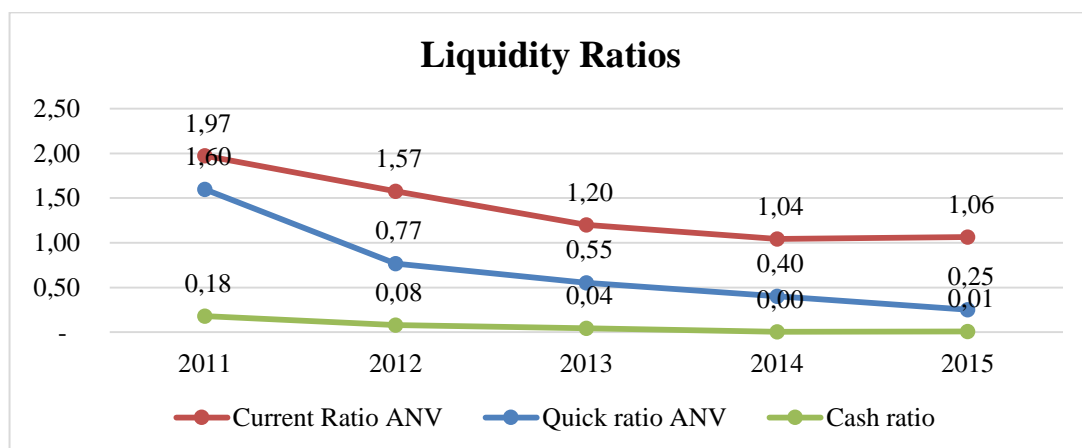


Figure 6: Liquidity Ratios of Navico period 2011-2015 [own elaboration]

Higher current ratio indicates greater degree of liquidity. How much liquidity the firm needs depends on variety of factors, including the size of the firm, its access on firm financing resources like banks or financial institutions, the volatility of its business. For example, the liquidity of the grocery store whose revenues are relatively predictable may not need as much liquidity as Navico who faces sudden and unexpected shifts in demand for its products and the

inventories account for the significant position in Navico Company. The more predictable a firm's cash flow, the lower acceptable current ratio.

In case of Navico, liquidity ratios are generally declining over the years since 2011 to 2015. The current ratio dropped from nearly 2.0 to 1.04 in 5 years, although current ratio in 2015 is slightly higher than 2014. That mainly has driven by the declining gradually in trade receivables due to the fact that Navico made a debt forgiveness for those receivables had 100% provisions for doubtful debts, and the lost in market share (some big customers are no longer trading with Navico).

The difference of current ratio and quick ratio is relatively high, inventories thus account for a significant proportion in current assets, it is predictable for lower inventory turnover. Obviously, in 2015, Navico had huge amount of harvested fish that have not been sold due to competition with China market.

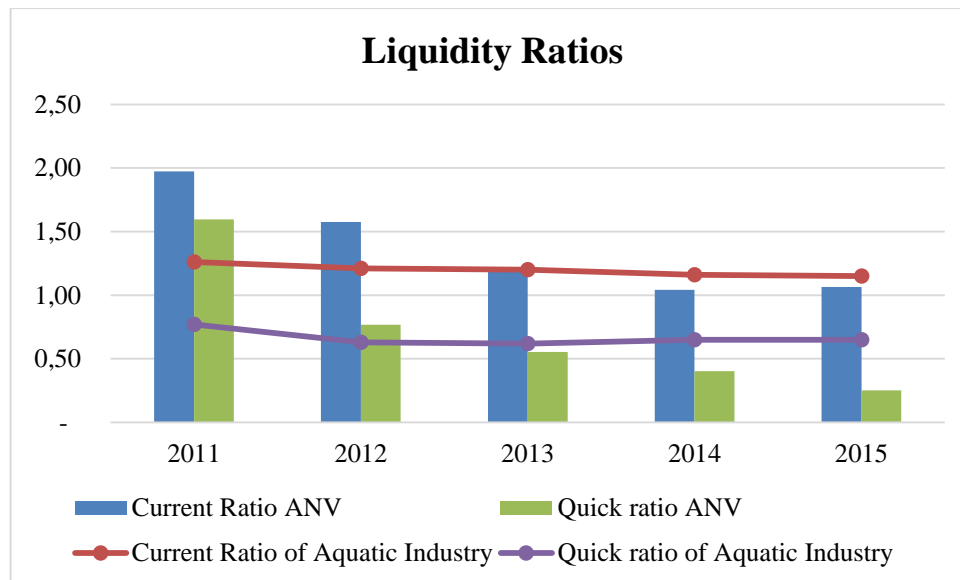


Figure 7: Compare liquidity ratios of Navico and aquatic industry [own elaboration]

Current ratio and quick ratio are pretty low in compare with the aquatic industry during recent years whilst liquidity of industry is quite stable over this period. Besides, when going through Navico report, there are some important points that investors should pay attention to. Navico's ability is not as really shown by quick ratio and current ratio since in balance sheet 2011-2015, Navico's other current assets include significant amount of deductible VAT (VAT overpaid). Tax assets are known as the lowest liquidity since it normally would be offset with tax obligation next year. Hence, if we don't take into account those deductible VAT, the current ratio is truly much lower than that. In addition, cash ratio is way too low- nearly close to zero, which states that investor shall pay attention on the liquidity of Navico.

## 10.2 Activity Ratios

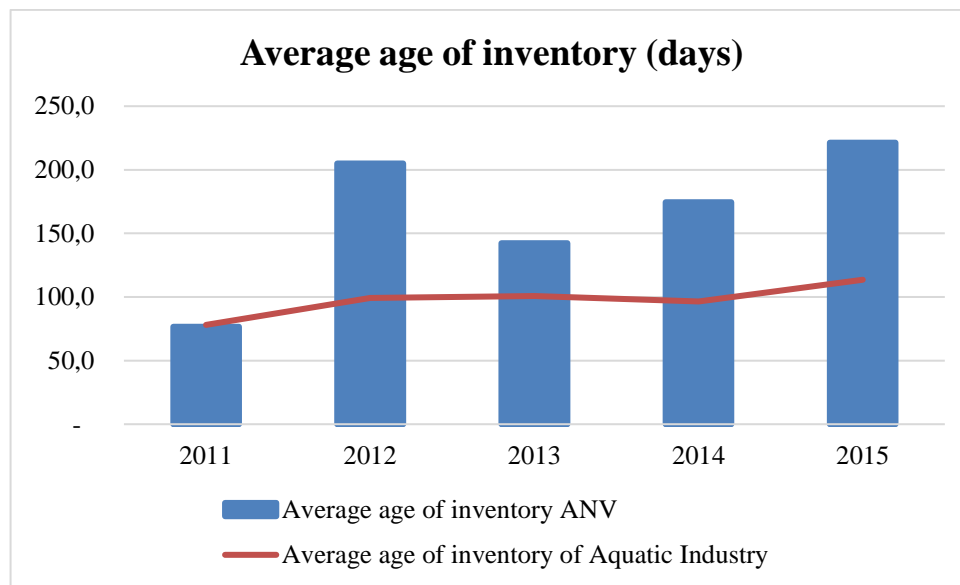
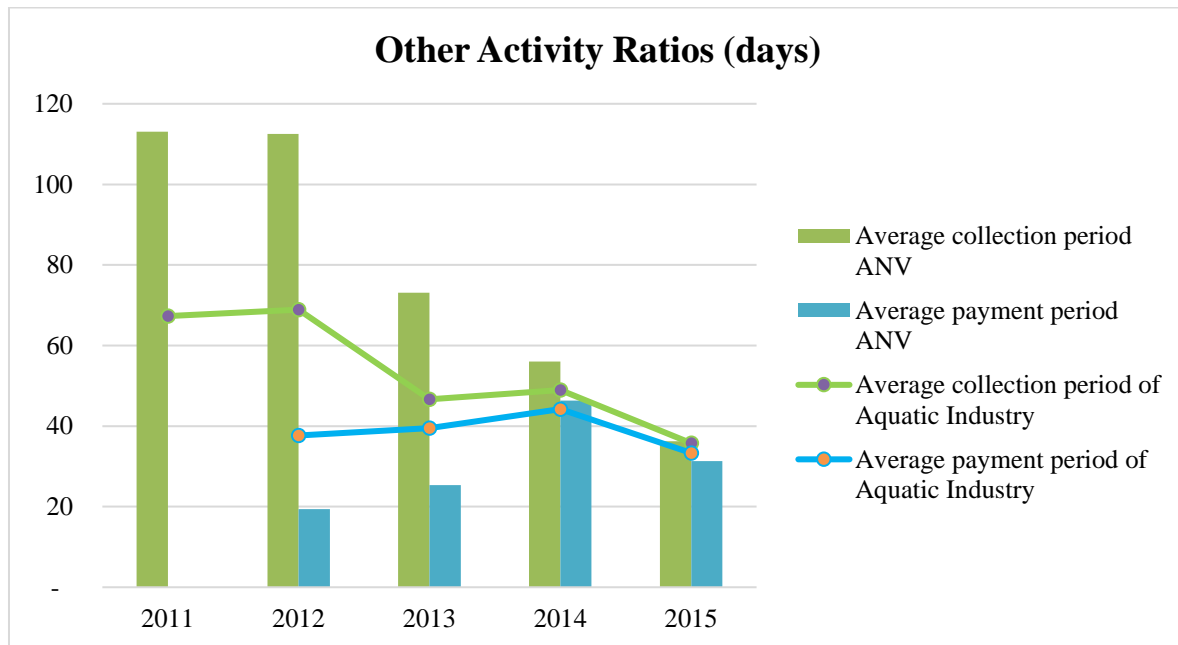


Figure 8: Compare average age of inventory of Navico with aquatic industry [own elaboration]

Activity Ratios measure how long various resources of the company are converted into sales or cash – inflow or outflow. Those important resources could be inventories, receivables or payables, since every single firm is formed by close cycle continuously from an inventory management, disbursements and the collection.

Average age of inventory presents how many days of inventory the firm has hand on. Average day's sale of Navico inventory is about 150 days to 220 days. It means it would take from 3 months to more than 7 months to sell finished goods, which is almost 1.5 times of the average age of industry. Basically, Navico's business activities are producing feed for material fishes, raising young fishes and fish processing, Navico's warehouse thus contains variety of inventory categories which provide for many different stages of producing final products. In addition, due to the fact that young fish are going to be harvested after 2 months raising at the pond (or even longer depends on what kind of fishes), aquatic industry would have longer days in average age of inventory in compare to other industry. However, Navico's average age of inventory exceeds the average one of aquatic industry, which is not good sign for investors. Notably in 2015, Navico's average age of inventory is twice higher than industry due to high production in fish harvest whilst the consumption is retarded.



*Figure 9: Compare average collection period of Navico and aquatic industry [own elaboration]*

Generally, average collection period of Navico is higher (even many times higher during 2012-2013) than average payment period. That means it would be difficulties for Navico in working capital management. To make sure payables are paid on time, Navico sometimes has to ask for short-term loans/ borrowings. In the other hand, the differences between that 2 ratios are narrowed down gradually, which states that Navico is on its way to improve the liquidity situation.

Navico's average collection period is decreasing over years and reached the average one of the industry in 2015. That is plus point for Navico in their efforts in declining numbers of collecting receivables. In addition, we would say Navico has good relationship with customers in credit term and collection policies. Also, it would bring Navico more advantages to compete with other companies in the market.

Regarding payments, average payment period is about 20 to 30 days, which is quite stable based on Navico's binding contract with suppliers.

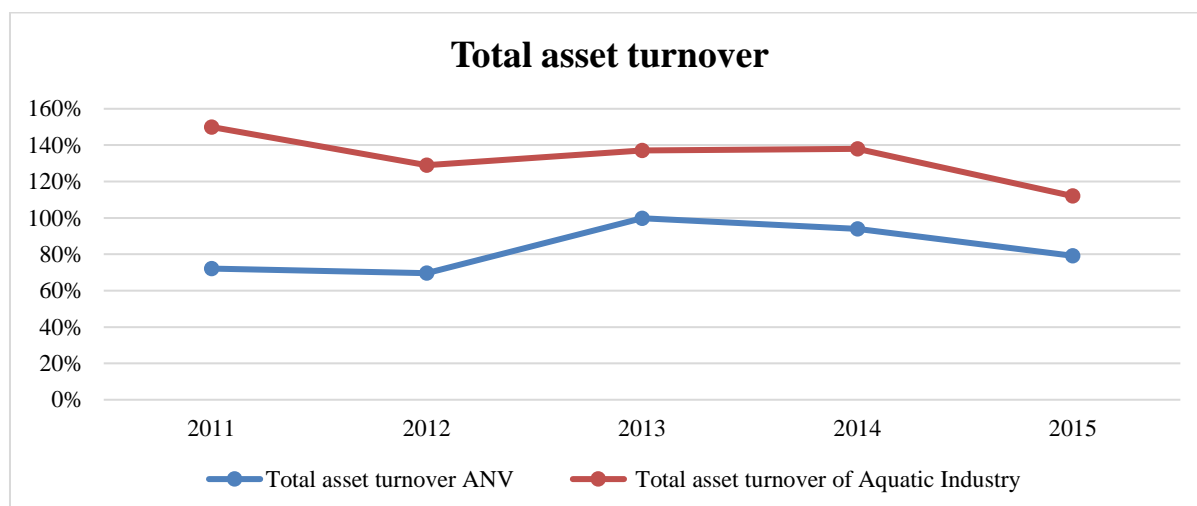


Figure 10: Total asset turnover Navico and aquatic industry [own elaboration]

Total asset turnover is the ratio of the value of a company's sales or revenues generated relative to the value of its assets. Generally speaking, total asset turnover of Navico is moving the same direction but it is pretty lower than average of industry during 2011-2015. Navico is deploying its assets in generating revenues in not efficient way as the aquatic industry requires.

### 10.3 Debt Ratio

The debt ratio measures the portion of total assets financed by the firm's creditors. The higher this ratio, the greater amount of other's people's money is being used to generate profits. In contrary, it would be risky if company uses too much debt for financing their assets.

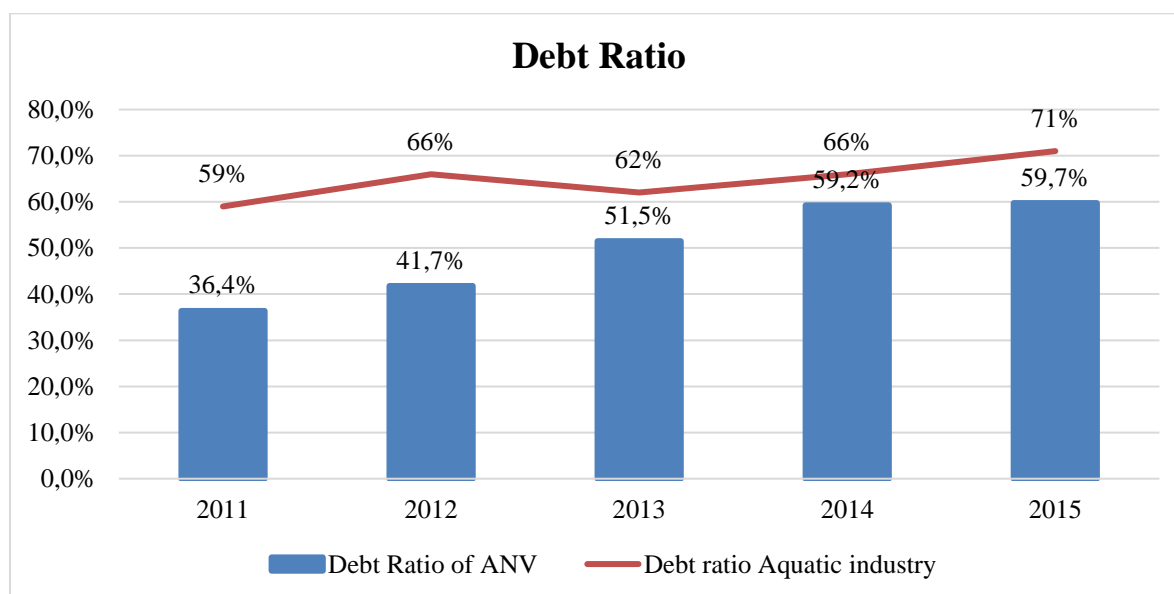


Figure 11: Debt ratio of Navico and aquatic industry [own elaboration]

Generally, debt ratio of Navico is hiking gradually over years, it is moving in the same direction with aquatic industry. Navico's debt proportion increase mainly due to the long term loans from banking and the other liabilities that dividends have not been paid to shareholders. Compared to the aquatic industry, Navico's debt ratio is about 6 to 15% lower. That presents Navico is less risky than the average company in industry. It would probably find it cheap to borrow money since creditors trust that it is in solid financial position and can be expected to pay them back in full. In the other side, Navico would not statistically generate high return as the average level industry required in the future.

## 10.4 Profitability

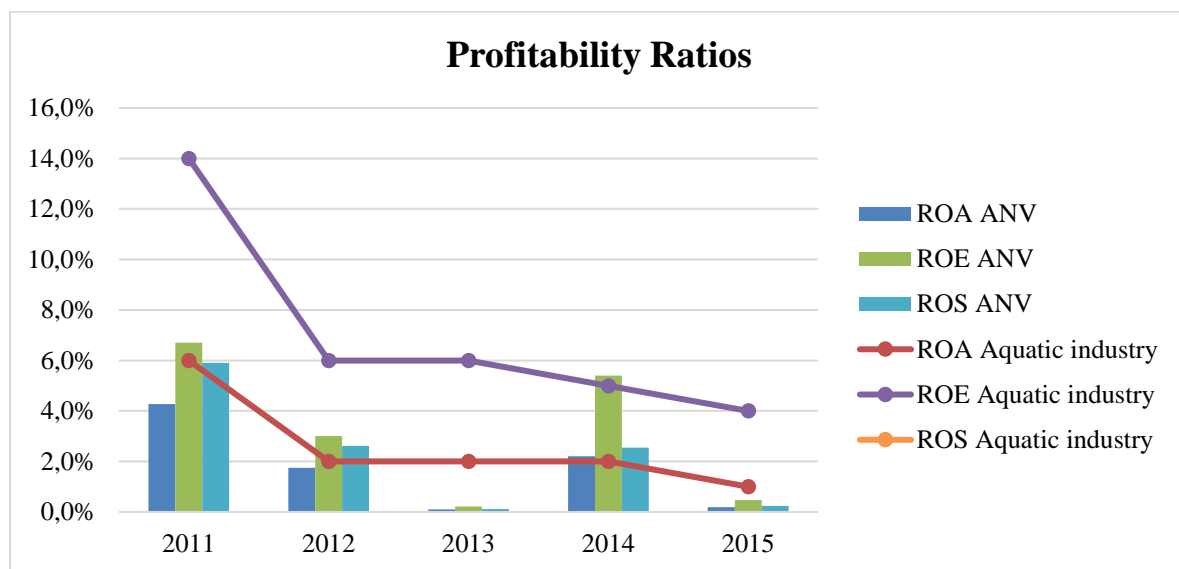


Figure 12: Profitability Ratios of Navico and aquatic industry [own elaboration]

ROA is an indicator of how profitable a company is relative with its total assets. This indicator also means how efficient management is at using its assets to generate earnings. ROA of Navico is fluctuated sharply over year 2011-2015, started at quite attractive digits in 2011 (4.3%) and ended at unfavorable conditions in 2013 & 2015 (only 0.1-0.2%). Whilst total assets remain increasing stably, the driver factor is the abnormal fluctuation in net profit after taxes.

- In 2013, selling expenses are twice higher than previous years since Navico started approaching new markets in India and Israel, brokerage fee is thus arising which pays to brokerage company, plus the shipping overseas fees/charges increased at the time due to some customers would like to choose the currier brands which they prefer, Navico has no chance to choose the best shipping fees/charge. Also the administrative expenses in 2013 increased sharply due to the provision expenses for the bad debt 21 billion VND.

- In 2015, the provision for long term investment in DAP Joint Stock Company increased to 67 billion VND, which lead to the financial expenses fluctuation in 2015, net profit has thus strongly declined.

The unstable growth in net profit caused the abnormal volatility of Return on Equity (ROE), return on sales (ROS). ROE measures how much profit the company generates with the money shareholders have invested. The Navico's ROE's in 2013 and 2015 are almost zero which are truly unexpected from investor's point of view.

Generally, ROA and ROE of Navico are still positive but much lower than the average of aquatic industry. Profitability ratio draws an unfavorable picture for Navico. In the other words, Navico is ineffective in converting its resources (i.e. money, assets) into next profit. However, a free cash flow is another form of profitability and can be used instead of net income. Navico could be good example to demonstrate how to look at traditional measurement that could mislead investors:

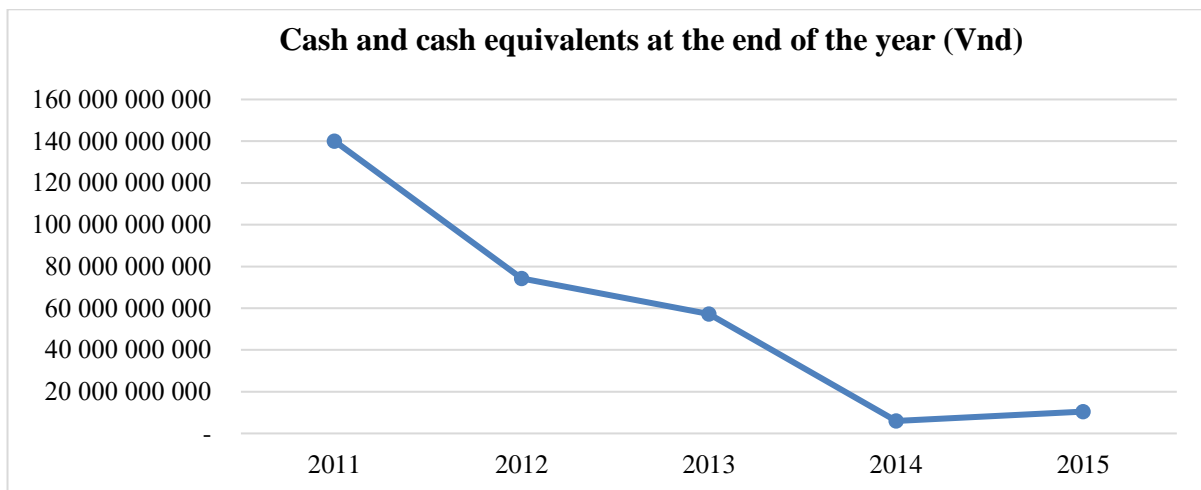


Figure 13: Cash and cash equivalents of Navico (2011-2015) [own elaboration]

Even though ROA and ROE in 2015 (as well as 2013) are lower than in 2014, conversely, 2013 and 2015 have healthier cash flow level than in 2014. Investors should pay attention on this when making decisions- the fairly low ROE does not mean bad investment.

## 10.5 Strategic propose

Through the analysis of financial performance of Navico and other factors in the current market, numbers of strategic risks which are likely to affects the future development of the companies can be clearly observed:



- The decreasing of business operating effectiveness: Most of the activities ratios are worsening and much worse than average aquatic industry measures. For example, the average age of inventory is nearly two times higher than the industry average; the total asset turnover ratio is much lower than industry average.
- The liquidity problem is at the very high risk level: Current ratio and quick ratio are pretty low in compare with the aquatic industry. In addition, the significant differences between current ratio and quick ratio highlight the risk of company's survival when there are sudden shocks in the market. This issue is more severe when the debt ratio is rising dramatically in recent year.
- The risk of losing competitive advantage: Navico is gradually losing their leadership in the aquatic industry. From being the leader in the market, Navico is now only the third one. More importantly, the reasons are mainly contributed to the ineffectiveness of current internal business processes and the old business model is not adaptive frequently enough to the new trends in the market.
- The unreliable and limited usefulness of current profitable measurements: Traditional profitability ratios represent the historical performance of Navico. ROA and ROE of Navico are still positive but much lower than the average of aquatic industry. Although they clearly show the current problems in the companies but they are affected largely by accounting policies and cannot capture the real reasons behind the declines in company competitive advantages.

From these strategic risks stated above, numbers of strategic business propositions can be defined to help Navico overcome current challenges and increase their chances to prosper in the long term:

- Focusing all the company's efforts and resources on reinventing their competitive advantage as one of the leaders in the industry. Navico still possesses some most essential and important strengths to compete in the market such as: strong brand name, strong connections with suppliers and customers, wide distribution channels and strong know-how powers from the experiences employees and expertise of management team. In other word, choosing the right things to do is the most important tasks at the moment. For this purpose, investing in market research and R&D are the must for Navico.

- Reallocating resources to the profitable business units and divesting the unprofitable ones which show no long-term benefits to companies. Especially, the divesting activities are necessary in current period to reduce the risk of company's liquidity problem.

- After choosing the right things to do, doing them in the right way is also important for competing. Important business operating processes such as inventory management, cost management, etc. should be carefully monitored and improved with new approaches. Implementing new development in lean manufacturing should be seriously considered to bring the effectiveness of production at least up to the industry average level.

- On top of all, all above strategic business processes cannot be implemented effectively if there is no appropriate performance measurement system which captures all the effects of these activities on overall firm performances. The traditional financial performances measurements cannot fulfill this crucial role. Therefore, new performance measurements systems and indicators should be used. Especially, the new performance measurements systems should tightly link the employees' and manager' benefits to the successful of new business objectives. From this point of view, EVA as a new performance measurements system can satisfy mostly all requirements.

## 11 EVA CALCULATION, IDENTIFICATION OF FACTORS INFLUENCING COMPANY'S PERFORMANCE

Navico is not using EVA for financial measurement and management measurements. EVA measures economic profit, not accounting profit.

Follow this formula:  $EVA = NOPAT - WACC * Invested\ Capital$ , we can trace on each factor:

### 11.1 Net operating profit after tax (NOPAT)

As mentioned on theoretical part, accounting items should be adjusted into economic point of view with mainly some major adjustments:

#### 11.1.1 Tax differed assets

The tax differed assets arose in only 2011 only due to the different time on recognizing the revenue of an invoice. This tax differed assets would be offset with tax obligation of the following year. When converting accrual into cash, this tax differed assets thus would be subtracted when calculating NOPAT.

*Table 4. Impact of Tax differed on NOPAT [own elaboration]*

(Thousand VND)

<b>Tax differed</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Tax differed assets	303,242	-	-	-	-
<b>Impact on NOPAT</b>	<b>(303,242)</b>	-	-	-	-

#### 11.1.2 Provisions

The provision reflects a decision to make additional expenses in anticipation of future cash losses, it is not the actual cash reduction. So that we add back to cash-based NOPAT.

Table 5. Impact of Provisions on NOPAT [own elaboration]

(Thousand VND)

Provisions	2011	2012	2013	2014	2015
Provisions for devaluation of inventories	(1,049,009)	(4,280,812)	(1,373,887)	(1,182,010)	(1,660,540)
Provision for doubtful debt	(66,604,283)	(67,209,403)	(29,846,091)	(89,670,809)	(31,017,222)
Provision for long term investment	(11,887,176)	(3,666,053)	(9,611,883)	(13,821,319)	(85,389,796)
<b>Impact on NOPAT</b>	<b>79,540,468</b>	<b>75,156,269</b>	<b>40,831,862</b>	<b>104,674,138</b>	<b>118,067,559</b>

### 11.1.3 Expense recognition

Flipping through the ledgers of item” selling expenses”, we filter the marketing costs for entering new market, join in trade fair which could bring the future customer and benefit for Navico. According to economic point of view, all these expenses should be allocated into reasonable number of years (in the case of Navico is 5 years ahead). Simultaneously, these costs would be added back as invested capital.

Table 6. Impact of Expense recognition on NOPAT [own elaboration]

(Thousand VND)

Expense recognition	Amount	Allocated into 5 years				
		2011	2012	2013	2014	2015
Marketing costs for entering new market, join in trade fair in new market of <b>2011</b>	534,778	106,955	106,955	106,955	106,955	106,955
Marketing costs for entering new market, join in trade fair in new market of <b>2012</b>	1,846,767		369,353	369,353	369,353	369,353
Marketing costs for entering new market, join in trade fair in new market of <b>2013</b>	4,775,634			955,126	955,126	955,126
Marketing costs for entering new market, join in trade fair in new market of <b>2014</b>	2,256,847				451,369	451,369
Marketing costs for entering new market, join in trade fair in new market of <b>2015</b>	5,338,637					1,067,727
<b>Impact on NOPAT</b>		<b>106,955</b>	<b>476,309</b>	<b>1,431,436</b>	<b>1,882,805</b>	<b>2,950,533</b>

#### 11.1.4 Operating leases

Navico leases lands or farming area to establish ponds under operating leases. The lands are typically leased for 5 years. Lease payments over 5 years are fixed on the binding contracts. Navico treats operating leases as expenses, and operating leases places no liabilities on the balance sheet, they are type of off-balance sheet financing. However, those lands are closely related to operating activities of business, so they need to be put back on the balance sheet and they are treated as capital leases over years. The operating leases must be added back into list of Navico's assets as the normal assets which are funded by debt obligation, and economic point of view also imposes those capital leases the amount of implied interest expense, which is added back these interest expense into earning before tax and interest.

In 2015, Navico rent the new farming area with total annual payment about 1.037.872.667. We can predict the future obligation stream that Navico has to pay during 5 years ahead, and then estimate the present value to future payments by discounted to weighted average cost of capital of year 2015. Implied interest expense therefore is the cost of debt implied on the present value of future obligation which has been counted.

*Table 7. Calculating Implied Interest Expenses [own elaboration]*

(Thousand VND)

<b>Year 2015</b>	<b>Annual payments</b>	<b>PV of payment to 2015</b>
2015	1,037,872	1,037,872
2016	1,037,872	978,453
2017	1,037,872	922,436
2018	1,037,872	869,626
2019	1,037,872	819,840
<b>Total capitalized leases</b>	<b>5,189,363</b>	<b>4,628,230</b>
<b>Implied interest expenses</b>		<b>205,272</b>

We can carry out those step Similarly to the land leases of the year 2011-2015 and continue added the implied interest expense on NOPAT.

*Table 8. Impact Operating Lease on NOPAT [own elaboration]*

(Thousand VND)

<b>Operating Lease</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Implied interest expense	453,960	94,610	156,245	166,385	205,272
<b>Impact on NOPAT</b>	<b>453,960</b>	<b>94,610</b>	<b>156,245</b>	<b>166,385</b>	<b>205,272</b>

### 11.1.5 Prepaid expenses

According to cash flow point of view, prepaid expenses are kind of the provisions for the future costs. Therefore, it could be processed as those provision mention above.

*Table 9. Impact of Prepaid Expenses on NOPAT [own elaboration]*

(Thousand VND)

<b>Prepaid Expenses</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Long-term prepaid expense	-	12,968,867	52,229,380	62,110,890	48,787,084
<b>Impact on NOPAT</b>	<b>-</b>	<b>12,968,867</b>	<b>52,229,380</b>	<b>62,110,890</b>	<b>48,787,084</b>

### 11.1.6 NOPAT

*Table 10. NOPAT Calculation [own elaboration]*

(Thousand VND)

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Total earning before tax</b>	92,476,970	40,725,879	2,731,176	70,506,759	8,820,959
Loan interest expenses	32,164,726	47,856,434	66,576,093	63,209,096	79,878,032
<b>EBIT</b>	124,641,696	88,582,313	69,307,269	133,715,855	88,698,991
<b>Total accounting</b>	79,798,143	88,696,056	94,648,923	168,834,22	170,010,44

adjustments				0	9
--> Net operating profit	204,439,839	177,278,370	163,956,193	302,550,076	258,709,440
--> NOPAT	153,329,879	132,958,777	122,967,145	235,989,059	219,903,024

To be more visible, NOPAT is presented in this follow chart:

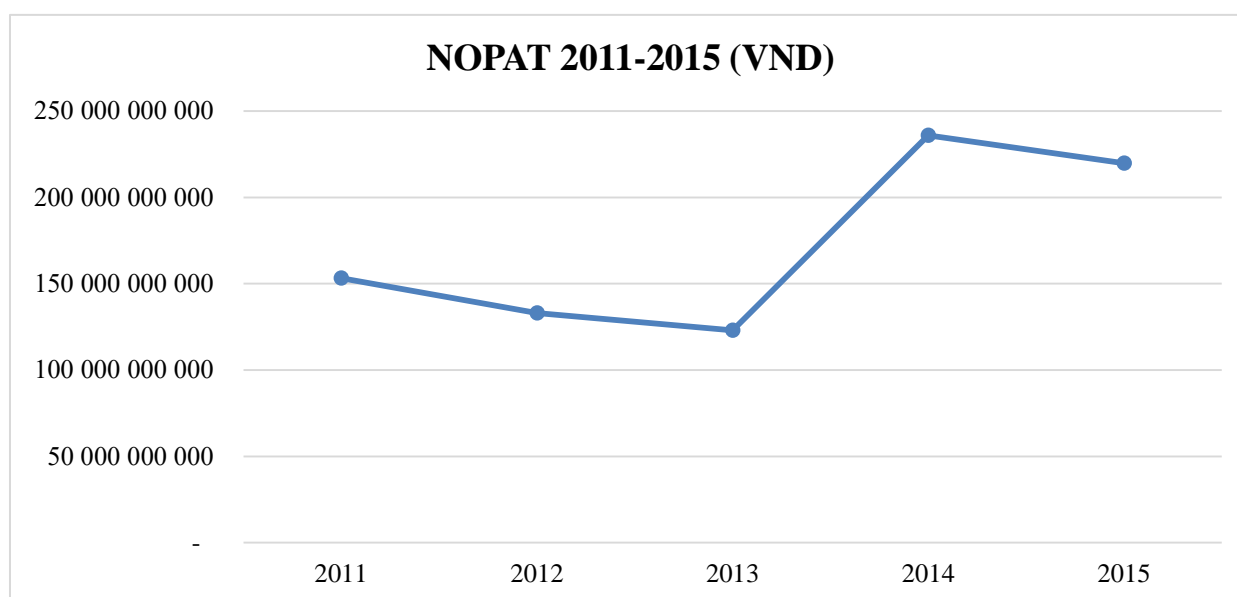


Figure 14. NOPAT 2011-2015 [own elaboration]

## 11.2 Weighted average cost of capital (WACC)

The main factors of Navico's WACC is cost of debt, cost of equity and proportion of debts/equity are financed.

### 11.2.1 Cost of debt after tax

Due to the fact that Navico financed their debts by vary sources (creditors, banks and financial institutions), the interest rates are variety accordingly. In addition, in financial statement and also in the Note of financial statements, Navico did not disclose the exactly interest rate to calculate cost of debt. Hence, the cost of debt before tax is estimated by:

$$\text{Cost of debt before tax} = \frac{\text{Loan interests expenses paid}}{\text{Total average debts (only borrowings and loans)}}$$



Among that, total average debts are derived from the average debts balances at the beginning and at the end of the year (from item “Liabilities” in B/S), both of long-term and short-term debts- only which debts bearing interest expenses.

Loan interest expenses paid are derived from the item “Financial costs” in the Note of financial statement since according to IAS 23, the financial costs in P/L statements are the borrowing cost that company has used.

Due to the change in tax policy as well as the incentive policy for agriculture and aquatic over years, income corporate tax rate is 25% from 2011 to 2013, 22% in 2014 and 15% in 2015.

After deducting non- bearing interest debts, the debt proportion is not as high as what mention on debt ratio. All steps are presented in this tabular:

*Table 11. Cost of Debt and Debt Proportion [own elaboration]*

(Thousand VND)

Indicator	2011	2012	2013	2014	2015
Total Average debts	355,714,046	785,449,682	1,136,066,094	1,456,235,873	1,530,844,814
Loan interests expenses paid	32,164,726	47,856,434	66,576,093	63,209,096	79,878,032
Cost of Debt before tax(Rd)	9.0%	6.1%	5.9%	4.3%	5.2%
Cost of Debt after tax (Rd)	6.8%	4.6%	4.4%	3.4%	4.4%
Debt Proportion	20.5%	36.6%	46.6%	52.7%	55.0%

### 11.2.2 Cost of equity

Navico is public traded company, hence cost of equity could be computed based on CAPM model as set as follow:

$$R_e = R_f + [\beta \times (R_m - R_f)]$$

Where:

The  $R_f$  (risk free rate) is rate of return on the least risky assets, in this case it is the interest rate of US Government Bond, is given in Thomson Reuters Database

Beta coefficient ( $\beta$ ): presents for level of the company's risk, which is collected from the Ho Chi Minh stock exchange, it is 0.97.

Market risk premium ( $R_m - R_f$ ): is the difference between the expected return on a market portfolio and the risk-free rate. According to Damodaran Data, Vietnam market risk premium is 6.4%.

Table 12. Cost of Equity and Equity Proportion [own elaboration]

(Thousand VND)

Index	2011	2012	2013	2014	2015
Rfr	3.99%	3.7%	1.7%	2.3%	1.87%
Market Risk Premium (Rm-Rfr)	6.4%	6.4%	6.4%	6.4%	6.4%
Beta	0.97	0.97	0.97	0.97	0.97
<b>Cost of Equity (Re)</b>	<b>10.2%</b>	<b>9.9%</b>	<b>7.9%</b>	<b>8.5%</b>	<b>8.1%</b>
<b>Equity Proportion</b>	<b>79.5%</b>	<b>63.4%</b>	<b>53.4%</b>	<b>47.3%</b>	<b>45.0%</b>

### 11.2.3 WACC

After all components have been calculated, we use this formula for:

$$WACC = E/V * R_e + D/E * R_d * (1 - T_c)$$

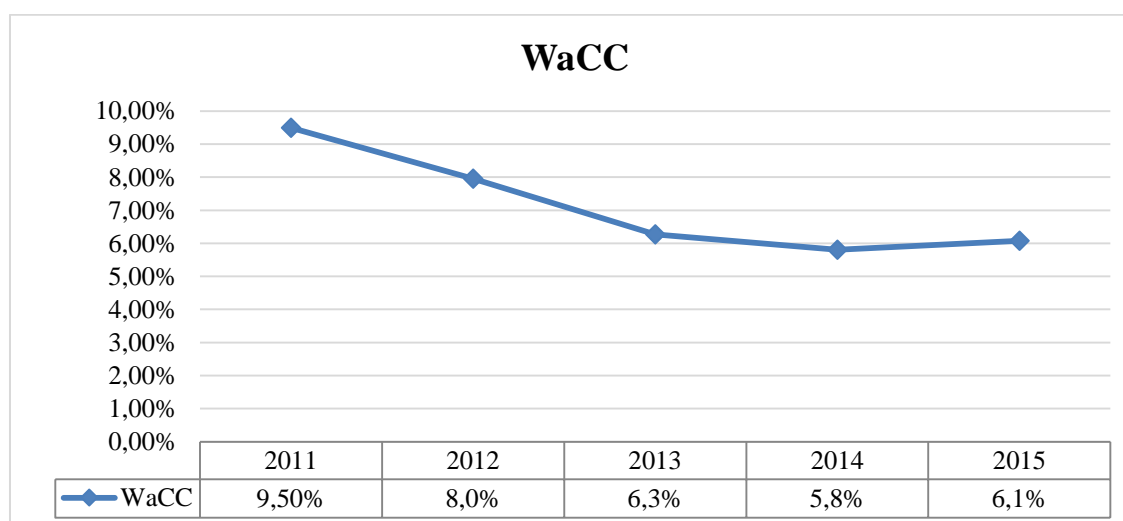


Figure 15. WACC 2011-2015 [own elaboration]

We hereby recognized that cost of equity is always more expensive than cost of debts. Weighted average cost of capital of Navico is slightly declining over years, we would say it is good signal for the company.

Although debt ratio is increasing over years, cost of debts is gradually decreasing. That is because Navico financed their debts mostly by short-term loans while interest rate of short-term loans is normally lower than long term one.

### 11.3 Invested Capital

Table 13. Adjusted Invested Capital [own elaboration]

(Thousand VND)

Items	2011	2012	2013	2014	2015
Debts bearing interests	355,714,046	785,449,682	1,136,066,094	1,456,235,873	1,530,844,814
Total equity	1,377,395,955	1,359,165,867	1,302,852,319	1,306,314,353	1,253,199,501
<b>Adjustments:</b>					
+ Operating leases	7,960,000	2,398,737	4,000,000	5,484,363	5,189,363
+ Expense Recognition	534,778	1,846,767	4,775,634	2,256,847	5,338,637
+Provision	79,540,469	75,156,269	40,831,862	104,674,139	118,067,560
+ Prepaid	-	12,968,868	52,229,380	62,110,890	48,787,085
<b>Adjusted Invested Capital</b>	<b>1,821,145,250</b>	<b>2,236,986,192</b>	<b>2,540,755,291</b>	<b>2,937,076,467</b>	<b>2,961,426,961</b>

Combine all components which have been computed above, EVAs over years from 2011 to 2015 showed as follow:

Table 14. EVA calculation [own elaboration]

(Thousand VND)

Items	2011	2012	2013	2014	2015
NOPAT	153,329,880	132,958,778	122,967,145	235,989,059	219,903,025
WACC	9.5%	8.0%	6.3%	5.8%	6.1%
Adjusted Invested Capital	1,821,145,250	2,236,986,192	2,540,755,291	2,937,076,467	2,961,426,961
<b>EVA</b>	<b>(19,621,056)</b>	<b>(44,945,891)</b>	<b>(36,381,389)</b>	<b>65,408,545</b>	<b>40,063,956</b>

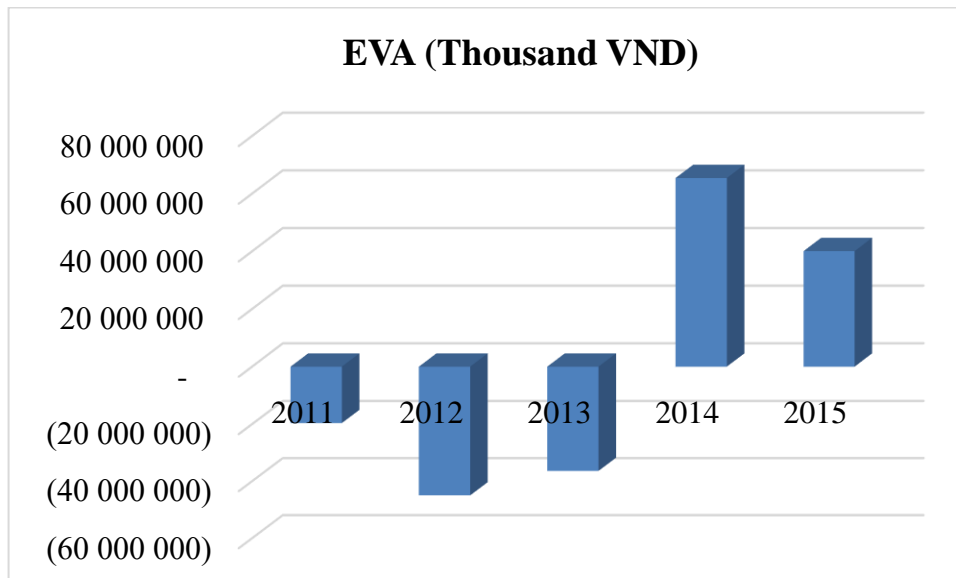


Figure 16. EVA Calculation 2011-2015 [own elaboration]

The negative EVA (2011-2013) states that Navico is not producing value from the funds invested into business, but the situation could be changed in 2014 and 2015. EVA is even more worse declining from 2011 to 2013. Generally, the trend of EVA is fluctuated as the same trend of NOPAT. The most significant hike in EVA arises in 2014, the reason would be identified in the next part.

#### 11.4 Identification of factors influencing company's performance

In 2014, EVA hiked sharply, which is good signal for investors. The pyramid analysis mentioned in theoretical part seems to be useful to identify which drivers have strong influence in EVA of Navico. Started with the EVA original formula:

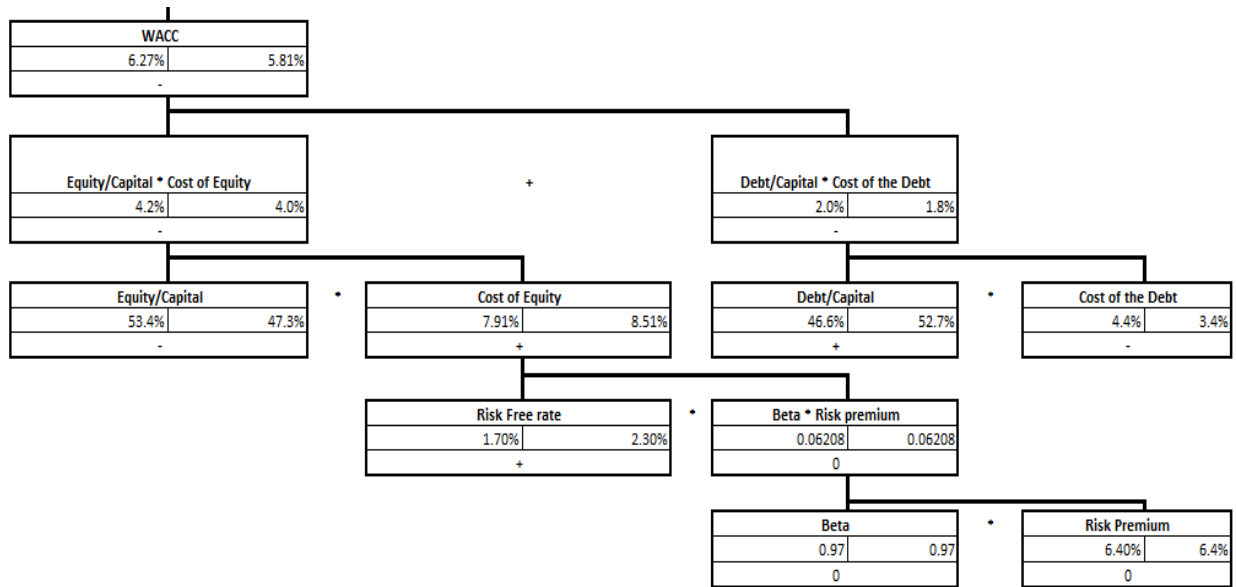
$$EVA = (RONA - WACC) \times NOA$$

Statistically the spread RONA- WACC and the NOA affects EVA positively. In the case of Navico, EVA increase is affected positively by the increase of the spread RONA-WACC as well as NOA.

<b>Eva</b>		=	<b>Eva</b>	
(29,994,486,083)	75,544,739,010		year 2013	year 2014
+			Eva Increasement	
<b>RONA - WACC</b>		x	<b>Invested Capital (NOA)</b>	
-1.23%	2.73%		2,438,918,414,080	2,762,550,227,272
+			+	
<b>RONA</b>		-	<b>WACC</b>	
5.0%	8.5%		6.27%	5.81%
+			-	

RONA itself is influenced by the operating profit margin (NOPAT/sales) and invested capital turnaround (sales/invested capital). As we can see from the graph, the operating profit margin increase from 4.9% to 8.5% mainly driven by the growth of sales since the increase of costs is not as much as the increase of sales in 2014. The invested capital turnaround negatively impacts on EVA creation although it is relatively small decrease.

One of the important advantages of EVA comparing with other performance measures is that it takes into account the cost of invested capital when calculating. As presented in previous sections, cost of invested capital is represented by Weighted Average Cost of Capital (WACC) considering both cost of equity and cost of debt together. Cost of equity is calculated using Capital Asset Pricing Model (CAPM) in this study while cost of debt depends on the interest rate in the market. Comparing two years 2013 and 2014, the WACC decreases from 6.27% to 5.81%. This reduction in the cost for using capital explains partly the significant improvements in EVA in 2013-2014 periods. In more details, cost of debts decreased sharply from 4.4% to 3.4%. In contrast, cost of using equity increased marginally from 7.91% to 8.51% because of the increase in risk free rate (from 1.7% in 2013 to 2.3% in 2014) while other factors (beta, risk premium) were unchanged. Clearly, using debt instead of equity was much better in 2014 comparing to 2013. Thus, because of the increase in using debt over equity (debt/ total equity ratio increased from 46.4% to 52.7%), Navico decreased the cost of total invested capital.



## 12 PROPOSALS FOR IMPROVING FINANCIAL PERFORMANCE BASED ON EVA

EVA implementation is process that differs always, depending on circumstances of the company. There are no implementation guides which may tell you exactly step by step what to do and how to achieve its sharp fit. Implementation has to fit needs of the company, and its length of integrating into the company also depends on its size, organization structure or also on its culture. Since company Nam Viet is considered big, we are going to be working in longer terms strategies.

This EVA integrating proposal will be based on the information coming from the literature reviewed in the theoretical part. As main guideline the recommended steps by Young and O'Byrne.

This part will consist of few parts breaking down project as it is. Project name, same as its point is to be "Proposal of EVA implementation". Main parts are to be:

- a) Project team. Who? How? When?
- b) Strategic EVA decisions.
- c) Developing implementation plan. Time frame, financial resources.
- d) Following training program.
- e) Risk evaluation.
- f) Possible contribution.

Each part will be then broken down to smaller steps required for proper implementation and evaluation of processes.

Whole project part's point is planned new fish meal factory building. Project is trying to figure out, if added value from point of view of economy will have a point. Thus project will implement EVA into whole company. Since we would need benchmarking data and since there are very little companies using EVA in this industry in Vietnam, for setting up some economical norm, from which we can look at other activities, we need proper standing point.

Standing point is to be EVA of company Navico and its parts and its evaluation. Then estimations are to be made in accordance to our known data, and to estimations of markets, margins and inventories. Newly built plant for fish meals would be then implemented into EVA system and its whole will be evaluated same as only new part. Then comparison of company as whole before/after would be done. Also this plant would be compared with other fish meal plants already built.

## 12.1 Project team. When? Who? And How?

As first it will be important to arrange project team. This team will be learnt as first in whole company, as first step about this concept. This team may include people from inside also from outside of the company. Since the concept is still new to Vietnamese firms it is advisable to hire professional to set up the team to be taught to spread the knowledge.

Choosing people for project team is crucial role and it has to be chosen delicately. Its importance can be high and its wronging may lead to wrong decisions about investment of the company and to the company from outer sources. People chosen for the team are to be dedicated few with proper responsibilities and knowledge also as ability to learn.

It should consist of the project manager, the financial director, the economist, the HR manager, and very importantly also external specialists (preferably more than one for possible glitch balancing) who are having already experiences with EVA implementation.

Since integration of such measure has to come from top to the bottom, we have to start implementing it from board and from management of the company. We are making sure that the executive director and the rest of the board understands and agrees with a concept. It would be pointless trying to educate management of the company about the practice, if they do not agree with its implementation.

It is important to make it clear to the leadership of the company what are contributions to the company. Most crucial person in this process of team establishment, who is to push EVA concept through the company, is the executive director.

## 12.2 Strategic EVA decisions

In this part of the project we have to look at EVA itself and we have to decide about its implications for the company. These should be integrated into all sections of the company if the integration is to be fully successful. EVA should become new whip in all process of company, since from now on there are to be new goals to be achieved.

EVA is to be part of strategic business planning, as well as capital allocation and operational budgeting. Another topic to be covered by strategic business planning of EVA are such as measurements centers, EVA calculations and the management compensation schemes.



### 12.2.1 EVA measurement center

Due to need of capturing relationships between factors influential to EVA, it is going to be measured in double level structure. First level is to be business level, which works as company's performance measurement, and second level is to be cost and profit center.

This kind of measuring will assure that finding negative points of company (regarding to EVA statements) would be found easier and focused on for improvement. These improvements may consist of personnel costs, or change in employed capital.

Cost center allows to read and study EVA sheets, rather than at company level. Identifying drivers of progress is at second level way easier also.

Most important goal of all EVA centers would be to create and improve economic value added, whilst it should be financial manager responsible for identification of these centers and giving required competencies to these identifies and approved.

### 12.2.2 How will be EVA calculated?

EVA may be calculated by several ways. One of these ways is accounting way, another one is economic way. Economical way is more difficult while accounting way is less accurate and it does not remove influence of accrual accounting and doesn't include approaches for better economic reality. Due to these reasons EVA will be calculated in more accurate economical way. But first there need to be done some adjustments.

### 12.2.3 What adjustments will be done?

It is listed, as said above, that there are about 160 possible adjustments that could be done. For simplifying whole process at least at the beginning, and in order for better understanding, EVA adjustments should be only these, which are significant for the company. For instance, if there is insignificant marketing expense compared to other marketing expenses, such as advertisement in local store, then this expense doesn't have to be capitalized.

Taking into account net operating assets (NOA) it may be recommended to full-fill following adjustments:

- Capitalization of differences in valuation of current and fixed assets, operating leasing and costs with long term effects such as research and development, marketing costs and education costs.

- The subtracting excessive cash and cash equivalents, and short term investments, and long term investments which are having portfolio character, fixed assets in progress and other non – operating assets from NOA.

Taking into account net operating profit after tax (NOPAT) it might be recommended to do following adjustments:

- Exclusion of financing costs such as interests paid and leasing interest from NOPAT. In order to compute leasing interests, the value of leasing at the beginning of each year should be multiplied by leasing interest rate for the certain year.
- Exclusion of expenses and revenues, which will not repeat, from NOPAT.
- The effects of equity changes should be considered.
- NOPAT has to be adjusted tax wise.

Based on company details provided in previous chapters there were recommended potential EVA adjustments. But since the company situation changes as time flows, from time to time it is important to change adjustments and the way attributes are adjusted. Therefore, it is important to set time period for adjustment check. We would advise to do this, since it is quite complicated procedure, on yearly basis.

It is useful to create a pattern in year 1 and continue in following years only rechecking used pattern and not used items to be adjusted.

#### **12.2.4 How costs of capital would be calculated?**

Costs of capital are having several parts. Firstly, cost of the debt is to be calculated as weighted average of costs of loan or of financial leasing. Company is aware of its loan costs, leasing costs are to be calculated by alternative method of estimation based on market situation. This means that its costs would be adjusted based on market changes for more profound results. Equity costs would be using method CAMP with alternative  $\beta$  estimation.

From stages above we would gather information from which we would conduce capital costs.

#### **12.2.5 How often will be EVA calculated?**

It is advisable to calculate EVA at least twice a year. Although more often it is to be calculated, better results would be given and data would be possible to analyze deeper. With deeper understanding of our movements the company would be able to predict how will their measurement EVA change with next step.

Due to this we advise to calculate EVA at least every quarter, if possible every month, since after a while it will become routine operation. Changes in EVA could be then analyzed and according to them could be taken market action.

### **12.2.6 Management reward scheme**

Measurement concept of EVA should not be standing alone, it better be incorporated also into reward systems. Most important point of this reward scheme is to make managers think like shareholders, owners. EVA bonuses should be motivational for people, employees to increase EVA in long termed goals instead of short termed goals.

#### **Who to include at the beginning, and how to expand EVA based incentives?**

Based on experiences of other companies it would be recommended that EVA based reward schemes would be applied firstly on senior management. Within three years it would be expanded on inferior management.

#### **How is to look management reward scheme?**

Taking into consideration current reward system, new system to look as following, based on three components.

- Annual business bonus, which would be 15% of the annual managerial salary, it will be earned when the manager accomplishes its personal tasks given by executive board.
- Annual corporate bonus, which would be 10% of the annual managerial salary and will increase by 1%, but no more than 20%, if the total profit of the company and other companies in the group will increase by 1%.
- EVA bonus, which will depend on the created economic value added.

### **12.2.7 Sensitivity of bonuses to EVA performance and bonus bank**

Implementation of EVA reward scheme would take place in two phases. Initially it would be complicated for the company to estimate EVA improvements. If the company is to estimate too high goals, which manager would not be able to meet, it would decrease morale, discouraging managers from new concept. Thus in first place EVA bonus is to be calculated accordingly to following formula, which is older version of EVA compensation scheme.

$$\text{EVA bonus} = (x \% \times \text{EVA}) + (y \% \times \Delta \text{EVA})$$

After two-year time in the second phase, when the company gets used to EVA measuring and reaching its goal, and when management system would be able to expect EVA outcomes and

possible improvements, it would be advised to the company to switch from older suggested model to new one.

Modern EVA system motivates managers more to improve EVA, more than older version. In both phases EVA rewards would be deposited with bonus bank and if the current balance of the bank is positive,  $\frac{1}{4}$  of the bonus bank balance will be paid out to the managers. It means the final EVA bonus of managers at the end of the year would be as following formula states:

$$\text{EVA bonus} = \frac{1}{4} \text{ of the bonus bank balance} / \text{number of managers}$$

From following formula, we can see that basic managerial reward will be calculated as a sum of the annual business bonus, annual corporate bonus and EVA bonus.

$$\text{Basic managerial reward} = \text{Annual bonus} + \text{Annual corporate bonus} + \text{EVA bonus}$$

Bank of bonuses could increase or also decrease according to value of EVA. If EVA is negative, bank would be decreased by EVA value, thus punishing managers, and vice versa, if EVA would be positive, EVA bonus bank would be increased. In a case that EVA value negative, but whole bank is still positive, EVA bonus would be paid to managers to keep motivation up.

## 12.3 Developing implementation plan. Time frame, financial resources

### 12.3.1 Who is to implement and who is to be responsible for the implementation?

The authority is to set up the team about which we talked above. This authority might want to be the executive director, since we are talking about big operation that whole company will proceed. This person is also in a role of a team leader. He is responsible for implementation of a team and then by implementation of EVA itself. As already mentioned above, team should consist of the project manager, the financial director, the economist, the HR manager, and very importantly also external specialists (preferably more than one for possible glitch balancing) who are having already experiences with EVA implementation.

External EVA worker/consultant would be, till the time of full acceptance of the concept in the company, full time worker, full time part of the team. He would provide trainings, consultations for the team and also for everyone wondering about the concept. His work will mostly consist of searching for opportunities to improve EVA and its implementation in the company. Based on company's size it would be required for him to stay as full time employee.

Same as the executive director would be responsible for the team and its settings, the team would be responsible for EVA implementation. External EVA worker is to be responsible for team equipment of knowledge and tools for proper implementation.

### 12.3.2 Implementation time table

Since we do not have any current date with the company when it would like to start using EVA we suggest using anonymous time frame with operational plan, without concrete day of beginning and the end. In following table, we can see visualized implementation time frame procedure as it should progress. Due to size of the company we have decided for slightly slower first phase implementation. This will help company to keep afloat while focusing its gaze on EVA. Pure break-shift implementation might hurt the company and bring chaos. Due to big size, agility of the company is limited.

Implementation starts by introduction to EB (Executive board) in week one and two. Due to proper introduction importance we chose two-week introduction, based on this future of the company will occur.

Another two weeks are given EB to decide whether they want to accept this project or not. In case of not, rest of the plan is being cancelled. Due to many other responsibilities of EB executing this decision would take 2 weeks also, while EVA would be introduced.

Right after positive decision about EVA there are three weeks to establish PT (project team). Project team is very important part of whole project. Thus we give enough time to set it up. This project team would be trained for 3 weeks, starting already while its establishment. These 3 weeks are intensive training since size of the company is going to require deep understanding of its grey spots.

Another 4 weeks (from 7th to 10th week) the team is going to be deciding upon major strategic decisions connected with EVA in the Nam Viet. These will include EVA calculation, identification of EVA measurement centers, compensation systems, training program preparation and beginning of EVA material creation.

Proper preparation of educational materials for the company is important, since not only hard knowledge is mandatory to be used, since many lower level managers would have problems understanding hard facts. Thus preparing materials in a way that others would understand is important. Simple and clear explanations of concepts, calculations and its goals are part of material preparations, together with pictures, graphs and benchmarking of other companies using the system. After materials would be prepared we are going to distribute them in 4 weeks, between week 11 and 14. Due to the size of the company distribution will be provided in phases, as the creation will be coming also in phases. For each group of manager materials

will be different, this will allow better understanding of materials by each group not being overwhelmed by information, and also this would help distributors to start distributing while other materials are being made. Materials are to be provided in electronics and paper form. In electronic form is to be used inner company site (intranet).

Activities	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6			
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.
EVA introduction to the EB	█	█																						
EB (dis)approval of the project	█	█																						
Establishing of the PT			█	█	█																			
Training of the PT					█	█	█																	
The major strategic decision on the EVA program (project planning)							█	█	█	█														
Edu. materials creation										█	█	█												
Edu. material distribution											█	█	█	█										
Training program												█	█	█	█	█	█	█	█					
Completion of the implementation														█	█	█	█	█	█	█	█			
Control, Feedback																█	█	█	█	█	█	█	█	

Figure 17: EVA implementation time frame [own elaboration]

Training program is free to start as first materials are delivered, and in order to speed up the project, so will happen. Training program is to start simultaneously with materials creations and with their distribution. Training program is going to take place in weeks 12-19. These 8 weeks should be sufficient for proper training of managers who will need at least basic understanding of the project. With time true understanding would be developed by the practice.

Following step in implementation is its complementation. Complementation is very complex step, phase, in which we do have finishing unfinished before steps, it managers would be evaluated by their knowledge and their testing would be provided. Complementation includes finishing all steps above and removing errors on its way. In case there would be proven something wrong, this is the time for re-correcting/upgrading plan.

Last step is control of implementation and upward feedback, where whole process would be evaluated by the team. Team itself is to be evaluated by its supervisor also.

## **12.4 Following training program**

Mostly we recognize the value and benefits of workforce training. If done properly, training can make workers more efficient — increasing production, revenue, and profits while decreasing costs, waste, and inefficiencies. Effective training could possibly lead to increased understanding and agreement with regulations.

This program is to make sure that everyone understands the concept of EVA, its goals and its point. Preparing training program would differ according to whom we may prepare it for. In general, there are 8 steps to follow in this process.

## **12.5 Training Needs Assessment**

### **12.5.1 Identifying the goal**

Why do we provide this training? Very important thing is to realize what we want trainees to learn. It includes: excluding information which are not suitable for this group to whom you're giving training to; making it simple and clear, and make sure that skills given are ones needed for their new working orientation.

For example, top management is going to need way different skills, such as reading EVA sheets for whole company, different departments, and learning and comparing these departments among each other as well as with other companies. While lower level managers could



use off these only reading sheets among departments and among workers. Low level manager might need to know what level of efficiency each worker needs in order to reach goal of whole unit.

### **12.5.2 Determine the task**

As from example above we may already read what gaps of our trainees at any level are and we may set them their tasks to perform. Again at different level managers will need different tasks to be performed and according to it different training is needed. To know how to train, we need to know what we are training them for.

### **12.5.3 Determine the training activities**

After identifying what workers need to do it is the time to identify training activities that would help them to reach set goal. Following above set example, again, this would include activities such as learning to read sheets from already made sheets, helping creating sheets and helping to understand measures by giving very practical examples. Things which are important for remembering should be communicated in forms of videos, songs and points of interest. Boring is always a way to forget all learnt stuff.

### **12.5.4 Determine characteristics of workers that will make the training more effective**

As the very best case would be giving every single individual some form of training, unfortunately we do not have resources for such act. To make it closer to it we need to set our trainees into groups with similar skills and characteristics. For instance, managers are able to use computer on proficient level would be trained in electronic way, while ones good in drawing and paper work would be trained with pens and papers. Ones with good memory would be given more information than ones with bad memory, same as group with characteristic of imagination would be given more graphs and visual training than ones without.

## **12.6 Adult Learning Principles in Trainers Mind**

Workers you wish to be trained are adults, and adults share some certain characteristics that would make training more effective for them. When the training recognizes and respects adult learning principles, it is more likely to be more effective.

These principles are based on how adults are:

- Are self-directed.

- Come to training with a lifetime of existing knowledge, experience, and opinions.
- Are goal-oriented.
- Want training that is relevant.
- Want training that is task-oriented.
- Learn when they see “what’s in it for them”.
- Want to be and feel respected.

It is visible how these principles are related to learner characteristics which are identified in the training needs assessment.

## 12.7 Develop Learning Objectives

Developing learning objectives are one of most important steps in whole training program. Here the main goal is clear. To understand process of creating economic value added, what does it take and how its drivers are being made. Although it is clear what we want from our trainees, it is still too general. In order to clarify objectives, it is advisable to make them SMART(E).

- S like specific. It means objective is clearly stated for everyone. Make sure everyone actually understands why is EVA new company way and why they should want to understand it.
- M like measureable. It is important for objective to be able to be measured. Such as we may need to ask before and after how much trainees actually understand the concept and according to answers we would be able to measure progress.
- A like achievable. Another important aspect of objective is that it is obtainable. If goal is set too high and from low level manager we want understanding of whole market and in-between company interaction, it may be hard for someone who is in charge of one working unit and never dealt with such things as accountancy.
- R like relevant. Connected with previous attribute, it is mandatory to make objective relevant to work of trainee. It is pointless to teach driver manager architects balance sheet.
- T like time-bound. This means set a time that is required for objective to be learnt. We set our time table in table above.
- E like economic. Being efficient and not spending too much resources here is vital due to size of the company.

## **12.8 Design and develop Training Materials**

Training materials are to be set by project team according to needs of the company after introducing EVA concept, its approval, and after all major strategic decisions had been set.

## **12.9 Implement the Training**

It may seem obvious, but one of the most critical things one has to do in this phase is inform employees that they are going to attend the training. Giving trainees plenty of time in advance is very important, so they may do their own preparations for training. For instance, it is important to work it into their schedules and complete any necessary pre-training preparation.

Moving forward to the actual training, the implementation can take a variety of forms. It may be classroom instruction; practice opportunities such as role-playing exercises, focus groups, case studies, or small group assignments; on-the-job skills-based training; the delivery of paper-based hand-outs for individual reading and study; the completion of e-learning modules on a computer; a combination of some or all of these; or more.

## **12.10 Evaluate the Training**

For evaluating, it is advisable to evaluate several levels of training.

- 1) Trainees reaction to the training. Did they like it? Did they enjoy it? Do they think they learnt something?
- 2) Trainees actual learning. Did they learn something? Here it is important to test their knowledge by either written test or by drawing and oral exam.
- 3) Post training behavior. Do trainees actually use what they learnt? This requires checking employees in their day to day work to see and measure differences.
- 4) Did business results change? In our case did EVA change? This measure could be checked after longer time span, but it is most important evaluation step.

## **12.11 Rinse, Lather, and Repeat Any Step When Necessary**

As always, there are going to be new employees coming always to the company, so it is important every now and then arrange new training for them also. Set and keep training order in company files so that new trainings could be made.

Important is to adjust training always when it happens, since times change, and sometimes it is more appropriate to train new manager in way of case studies, while other time it is better to be trained by mistakes done by his precedence.

It is important to keep notes about errors of implementation also, since every implementation and every unit is different and there is no granted 100% pattern for it.

## **13 RISK EVALUATION**

### **13.1 Risks related with the implementation**

#### **a. Experience related risk**

Since the company is not having any experiences with this concept of Economic Value Added, there is probability of its failure. What else supports failure is the fact that in this industry and especially in Vietnam there is very little knowledge about the concept. This risk is to be eliminated by hiring experienced external employees, preferably from this field of industry.

#### **b. External employees related risk**

Another risks connected with external employees are information frauds, compromised security or also mistaking external employees, hiring someone not experienced enough. Hiring proper external employees might include hiring person from abroad where then language might be a barrier. Language is always the barrier and in case of foreigner it might be possible that culture will be also. Each culture operates on different basis and differences might make it harder to cooperate in proper manner. This risk could be minimized by hiring multiple people with different backgrounds who together might be able to implement in different environment.

#### **c. Calculus and estimation risks**

Another risks are that WACC could be calculated wrongly. Due to company's size and complications with calculations it could be an unseen problem, that might occur. This risk is better to be minimized by triple checking the data and triple calculation. This will slow down whole process, but making sure the process is accurate in this sized company is way more important. Finding out that calculations are wrong, in steps further would make everything way worse and whole project might collapse due to people's attitude of "burnt fingers".

EVA measurement centers could be also identified in wrong way, same as EVA drives could be determined improperly. These risks have multiple way for their reduction. First of all, triple check of all settings and second of all hiring proper consultant that would be able to foresee usual mistakes made in the process.

#### **d. New reward system, mindset and pressure risks**

Another very important problem (and with it connected risk) is that the company top management will not like the scheme of the program. And if they would not accept it, whole program would not proceed to lower levels. And when the program proceeds there is a chance that lower management would not accept the concept. There are several reasons why it might happen.

One of these reasons is that managers might feel too much under the pressure, way too confused and distracted from it by day-to-day activities. When EVA would be accepted some of them would be surely forced to improve their performance and that makes some of them feel uncomfortable even now and they might be against its implementing.

Confusion and loss of the energy might occur also if the implementation is too fast and unclear. Confusion from the concept, not understanding how does this helps the company, when „*it is just different way of calculating results* “. These risks are to be reduced by very proper top preparation made by project team. Creation of educational materials and its proper training – distribution of knowledge is very important part of whole process of implementation. If people will not understand it, more likely they are to refuse it.

But most important reason why managers would want to stop its implementation is new reward system. New reward system can make managers to lose their benefits to the bone and that is very important aspect of everything new. It is important from the beginning for managers not to lose their bonuses if the process is to begin. After the time, after it is successfully implemented, it is important to keep and increase their focus so the company's results would improve. As we mentioned above, implementation and also reward system is to change over the time, serving needs of EVA measurement goals.

Reward scheme would be implemented first to the top management and it would be tested how the management reacts to this, before implementing it to lower parts of the company pyramid. It is important to keep people motivated, firstly by money and also by non-financial bonuses (as proven more efficient than financial bonuses).

Another important risk arises in the project in terms of employees, who will not feel motivated, obliged, connected with new value creation for shareholder and will simply refuse to switch to new “mindset”. It is likely that majority of employees would not understand

EVA concept and its point, its goal. Risk reduction for this appears in proper training of employees. But the problem with this solution is in size of the company and with amount of employees. Proper training of each of them would prove financially devastating for company's balance sheets. Also some very basic employees are not-educable, simply refusing to be educated. Some are hardly educable, refusing the education without payment increase or refusing to stay overtime for any education. As least, but not last, there are stubborn employees who understand the concept and are educable, but refuse to follow new concept for their personal reasons.

#### **e. Not increased results risk**

Another EVA fail can occur even after whole company had been properly educated and implementation had been successful. Simply, results may not improve after implementation of EVA for various reasons, or even get worse, reducing further investment into the company.

### **13.2 Possible contribution**

By word possible we mean that results are not automatic and definitely not guaranteed. EVA only provides with tools of possibilities of change, but their usages are of the company's.

EVA as measurement of performance is to reduce imperfection of the current system, mainly the subsystem of performance measures currently used. Current methods are described in chapters above, in internal analysis of the company. EVA should connect performance with value for shareholder. This way it would be also more pleasing for shareholders to calculate their economic wealth.

Breaking down EVA, as provided in graph above, points how are interconnected value drivers and their possible control. Also their further breaking provides a view on a way to their control, to their affection by other attributes. Among these are NOA, NOPAT, WACC from whose EVA is being created.

An integration of economic value added into the reward system of managers should motivate them to outperform not only current performance, but also their competition, since now they would have important data on how the industry is doing compared to their own. Their rewards would increase not only in cases when the profit increases by whole 1%, but also every time when EVA of the company as whole increases. This may happen even with

lowering profit in cases of market downgrading, or in case of future processes improving. So, consequently the problem of future investments, decisions connected with the future would reward manager as well as present actions. Nowadays system is more based on short term goals rewards, while EVA takes into consideration also future possibilities.

In summary, the implementation of EVA concept is to improve the performance of the company through the combination of better control of value drivers and better motivation of managers and employees. The company itself would be (hopefully) more attractive and trustworthy for investors, and also for all stakeholders. Stakeholders are very important roles in whole chain as they tend to change their attitude towards their fellows based on trust. As the trust would be increased by better measures of the company, better conditions would be applied.

Consequently, better value drivers control would be approached, thanks to which performance may be increased, which would lead again to increased value of the company in eyes of stakeholders. These all attributes would consequently lead to increased competitiveness at a market, opening new possibilities, attracting new partners, giving more market power over all other actors. And after all even financial structure would be controlled more efficiently, mainly due to WACC control.



## **CONCLUSION**

The main aim of this paper is to introduce the EVA concept for stakeholders of Navico company, aligning the managers interest and the shareholder benefits. EVA concept would raise the economic performance of company toward to the sustainable development since EVA improved the limitation of the traditional metrics.

Thesis as a whole is divided into 2 main parts: Theoretical part and Analysis part. The former mentioned the concept of EVA and described in details, the means of its utilization are highlighted, the implementation of the economic value added is suggested on the basis of the literature review. The latter consists of the analytical and the project part.

In the analytical part the different types of analysis such as macro and microeconomic analysis, internal analysis and financial analysis are carried out. The EVA for the five years is calculated and consequently compare with traditional measures, which are used by the company.

In the project part the proposal of EVA implementation is elaborated. It deals with topics such as EVA measurement centers, EVA calculation, the compensation plan, training program, mindset creation. Later on the EVA implementation plan is develop, its costs calculated and the contribution of the project described.

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## **LIST OF ABBREVIATIONS**

CAPM: Capital Asset Pricing Model

EVA Economic Value Added

GDP: Gross Domestic Product

NOA: Net operating Assets

NOPAT: Net operating Profit

RONA: Return on Net Assets

VND: Vietnam Dong

WACC : Weighted Average Cost of Capital

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