

A Number of Solutions to Improve the Business Efficiency of Enterprises under the Vietnam General Department of Defence Industry

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Abstract:

Studying a number of solutions to improve the business efficiency of enterprises under the Vietnam General Department of Defense Industry (GDDI enterprises). The research sample is the statistics of 22 enterprises under the General Department of Defense Industry in the period from 2016 to 2021. By combining qualitative and quantitative research, the author has proposed a number of solutions to improve the efficiency of the enterprises: (i) effective use of financial leverage in GDDI enterprises, (ii) development of a strategy for loan utilization in accordance with the business strategies of GDDI enterprises, and (iii) perfection of the management apparatus.

Keywords: Business efficiency, General Department of Defense Industry enterprises, profitability

1. Introduction.

Business efficiency is an economic category, associated with the market mechanism, related to all factors in the production and business process such as labor, capital, machinery, equipment, and raw materials. Therefore, enterprises can only achieve high efficiency when basic elements of the business process are used effectively. When it comes to business efficiency, economists rely on different perspectives to give definitions accordingly. Basically, "business efficiency is an economic category that reflects how effectively an enterprise makes use of its human and material resources through the comparison between the results achieved in terms of economic benefits and the cost of resources spent in a certain labor period".

In corporate governance, the goal is to maximize enterprise value. To do so, it is necessary to be aware of business efficiency and find solutions to improve it. Therefore, input resources need to be divided into factors in relation to each other and to the results of using input resources in the business process of the enterprise. Input resources can be analyzed into inputs of the business process, and can be categorized into factors and cost items in the business process. The outputs are also categorized in accordance with the management purposes in relation to the input resources of the business process. Management entities use analysis as an effective tool to study, evaluate, adjust and forecast the business efficiency of an enterprise. Business efficiency is closely related to the management and use of each input. The process and result of each target reflect the outputs when conducting activities in the enterprise. Therefore, in order to be aware of the content, form, process, results and trends of business efficiency, it is necessary to categorize enterprise business efficiency in appropriate criteria to see the internal economic relationships and the dialectical relationship between outputs and inputs, and between the business efficiency in practice and the administrator's expectation. Thus, it can be said that business efficiency analysis of an enterprise is a management tool used to study the business efficiency of an enterprise in order to provide information to the management entities, so that the management entities have a basis to make decisions in accordance with the objectives that they are interested in.

2. Research methodology

To analyze the business efficiency of 22 enterprises under the General Department of Defense Industry (Appendix 1), research methods were combined, such as comparative method, detailed method, Dupont

method, and factor analysis methods (balance method, continuous replacement method, exploratory factor analysis method).

Research data can be categorized as follows:

a) Core defense industry establishments

- 15 units in charge of the research, design, improvement and modernization of weapons, military technical equipment, and technical materials for national defense and security.

In particular, the General Department of Defence Industry has 4 units:

+ GDDI Institute of Technology with the functions and tasks of researching and developing technology for production and use of weapons and ammunition.

+ GDDI Military Vessel Design Institute with the functions and tasks of designing, constructing and converting military ships.

+ GDDI Institute of Propellants and Explosives with the functions and tasks of researching and producing military explosives .

+ GDDI Institute of Weaponry with the functions and tasks of researching, designing and improving weapons and ammunition.

- 64 units, hereinafter referred to as units, in charge of the production and repair of weapons, military technical equipment, and technical materials for national defense and security. Out of a total of 64 enterprises under the Ministry of National Defence under Decision 2057/QĐ-TTg, 22 are assigned to be managed by the General Department of Defence Industry.

b) Mobilized industrial establishments

Mobilized industrial establishments consist of 37 establishments nationwide. The General Department of Defence Industry is not assigned to manage these establishments.

3. Business efficiency of enterprises under the Vietnam General Department of Defense Industry from 2016 to 2021

3.1. Business efficiency by capital efficiency.

The capital efficiency of GDDI enterprises tended to decrease during the research period.

Table 1. Capital efficiency of enterprises under the General Department of Defence Industry

Item	2016	2017	2018	2019	2020	2021
Working capital efficiency	0.9098	0.7029	0.5869	0.5148	0.5046	0.5254
Working capital turnover ratio	1.9910	1.9445	1.5616	1.2090	1.1471	1.1768
Inventory turnover ratio	9.4826	8.7101	7.0848	6.5422	5.7950	4.7966
Receivable turnover ratio	3.4584	3.1885	2.4329	1.7527	1.6860	1.7405

The working capital efficiency in every year was less than 1. It continuously decreased from 2016 to 2020, reaching only 0.5046 in 2020, but increased to 0.5254 in 2021.

Short-term capital utilization including working capital turnover ratio, inventory turnover ratio and receivable turnover ratio also tended to decrease over the years. In 2021, working capital turnover ratio was only 1.1768, inventory turnover ratio only 4.7966 and receivable turnover ratio only 1.7405.

3.2. Business efficiency by profitability.

Based on Table 2, the profitability of GDDI enterprises generally tended to decrease during the research period.

Table 2. Profitability of enterprises under the General Department of Defence Industry

Item	2016	2017	2018	2019	2020	2021
Profit after tax (Million VND)	506,193	505,956	525,601	549,377	574,535	592,629
Net revenue (Million VND)	20,476,114	21,133,044	21,972,747	23,074,905	23,973,106	24,766,340
Average asset (Million VND)	22,505,248	30,067,022	37,438,273	44,822,710	47,513,719	47,138,088

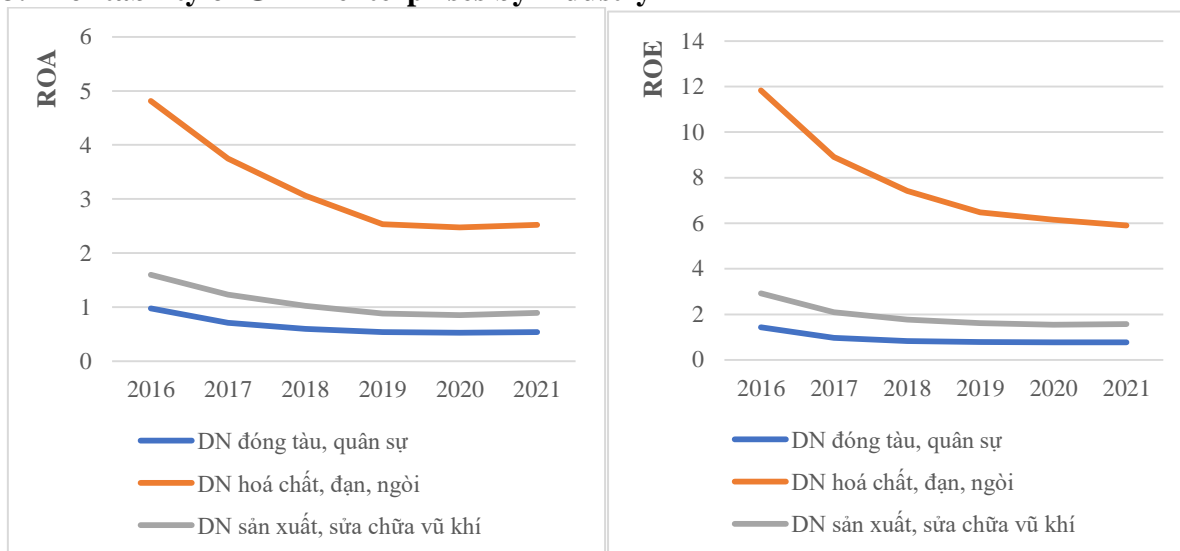
Average equity (Million VND)	12,134,896	17,368,622	21,343,381	24,184,335	25,943,654	26,740,139
ROS (Million VND)	2.47	2.39	2.39	2.38	2.40	2.39
ROA (%)	2.25	1.68	1.40	1.23	1.21	1.26
ROE (%)	4.17	2.91	2.46	2.27	2.21	2.22

The ROS of 2016 reached 2.47%, but then decreased and only reached about 2.40% in the following years due to the continuous increase in costs.

In 2016, ROA of GDDI enterprises reached 2.47%. By 2020, although the total asset value of the enterprises increased to the highest level in the period of more than VND 47,513 billion, profit after tax only increased by more than 4% due to both profit from national defence production and profit from financial activities, leading to a decrease in ROA to only 1.21%. Then, ROA of GDDI enterprises increased to 1.26% in 2021.

From 2016 to 2021, ROE of GDDI enterprises decreased continuously, from 4.17% in 2016 to 2.22% in 2021. This resulted from the fact that in this period, the Ministry of National Defence had a policy of encouraging GDDI enterprises to improve their self-financing ability, reduce the use of debt, and use capital savings, while the Ministry of National Defence continuously added capital to these enterprises, leading to a sustained increase in equity in this period from VND 12 trillion to VND 26 trillion.

Graph 3. Profitability of GDDI enterprises by industry



Graph 2.3 shows that enterprises of different industries had different profitability indicators. Enterprises of chemicals and ammunition always had highest ROA and ROE among GDDI enterprises.

This means enterprises of this industry used capital with the highest efficiency. Military shipbuilding enterprises had the lowest ROA and ROE, meaning their use of owner's equity and assets was not really efficient. From 2016 to 2021, military shipbuilding enterprises' ROE fluctuated at less than 2% and ROA remained at less than 1%. In addition, chemicals and ammunition enterprises had the highest ROA and ROE among GDDI enterprises with ROE ranging from 6% to 12%. In particular, ROE at double digits was present at some enterprises such as Z121 (over 20%), Z131 (about 10%) and Z115 (about 13%). In contrast to chemicals and ammunition enterprises, many enterprises producing and repairing weapons had low profitability, such as Z125 and Z127 with an ROE of less than 1%. The reason for this is that over the years, there had been many financial backlogs, unfulfilled plan targets, large overdue debts and bad debts, and slow inventory turnover, leading to low capital efficiency.

From 2016 to 2021, GDDI enterprises all had positive operating profit rate, capital net profit rate, and ROE.

In general, the business efficiency of GDDI enterprises was unstable, with many abnormal fluctuations.

- Business results: Revenue growth rate and profit after tax of GDDI enterprises were generally quite low.

- Capital efficiency: Capital efficiency, working capital turnover ratio, receivable turnover ratio, and inventory turnover ratio all tended to decrease during the research period.

- Profitability: The profitability indicators were generally low and decreased during the research period.

4. A number of solutions to improve the business efficiency of enterprises under the Vietnam General Department of Defense Industry

Thoroughly following the direction of the 13th Party Congress on strengthening national defence and security and strongly defending the socialist Vietnam in the new situation and of the Resolution of the 11th Military Party Congress, the General Department of Defense Industry must continue to implement Resolution 06-NQ/TW dated July 16, 2011 of the 11th Politburo and Resolution 24-NQ/TW dated April 16, 2018 of the 12th Politburo on the National Defence Strategy of Vietnam, to thoroughly communicate and strengthen the leadership, direction and organization of the strict and effective implementation of Resolution 425-NQ/QUTW of the Central Military Commission "On arranging, innovating and improving the efficiency of military enterprises until 2020 and the following years" and the project "Restructuring, innovating and improving the efficiency of military enterprises until 2020" approved by the Prime Minister on October 4, 2017. This is an urgent and important political task to ensure that the arrangement, innovation and improvement of operational efficiency of GDDI enterprises are strictly implemented in accordance with Decision No. 4406/QĐ-BQP dated October 11, 2017 "On promulgating the plan to implement the project of restructuring, innovating and improving the efficiency of military enterprises until 2020".

*** First, to effectively use financial leverage in enterprises under the General Department of Defense Industry**

In the coming time, GDDI enterprises need to focus on the following goals:

- Firstly, GDDI enterprises need to fully make use of the capital from the Ministry of National Defence's advance payments through production orders, special budget advance for enterprises operating in the field of national defence and security, and advance payments from other economic partners.

- Secondly, GDDI enterprises need to increase liabilities in the financial structure by increasing loans. GDDI enterprises have been using loans at a low level (only about 5% of the total liabilities). Maintaining loans at this level means they can't take advantage of the "tax shield" and the recent interest rate reduction policy of commercial banks and credit institutions. Given the dual-use development trend of the national defense industry and encouraged export of defense products to regional and global markets, GDDI enterprises need to have a large amount of capital ready to meet these requirements. The use of loans is identified as a solution to increase liabilities, improve financial structure, and proactively develop enterprises in accordance with the market. Expanding the scale of loans for enterprises can come from borrowing from commercial banks, credit institutions, financial leases and issuing debt instruments on the market. Based on the enterprise's business plans, investment projects, business results, and credit applications, banks and credit institutions set a specific line of credit, interest rate, and repayment time for it.

*** Second, to develop a strategy for loan utilization in accordance with the business strategy of enterprises under the General Department of Defense Industry**

Firstly, it is necessary to continue to review investment plans and choose plans suitable to the ability to manage and exploit projects, especially to carefully calculate the investment efficiency of projects, distribute the available capital and use it in the most effective way. Each enterprise needs to base on its production and business plan and market forecast to allocate capital reasonably in terms of both quantity and time, minimizing the negative impact of economic crises and recessions, while making sure it is ready for opportunities to expand its production and business scale and increase its market share.

Secondly, GDDI enterprises need to focus on investing financial resources in their main business lines with long-term prospects. It is also important to divest investments in ineffective non-traditional business lines and non-core business line investments. Privatization of subsidiaries operating in non-critical industries or leaving financial backlogs for many years in a row, and capital withdrawal from joint ventures in high-risk and unprofitable areas are considered effective solutions, not only to increase equity for the enterprises but also to have capital ready for business strategies in the future.

Thirdly, GDDI enterprises need to make a specific plan on external capital needs for their planning period to meet the investment requirements for commercial production, specifically:

Fourthly, GDDI enterprises need to actively distribute their loan capital in a logical way, and comply with the regulations of the State. The enterprises need to distribute their loan capital according to their capital utilization plan while considering specific developments of the market, the production and business characteristics of each enterprise, and the orientation of the GDDI and the Ministry of National Defence to make appropriate adjustments.

Fifthly, in addition to utilizing loan capital, GDDI enterprises need to strictly manage debt sources and use them economically in production and business, thus managing costs effectively, lowering product costs, and increasing their competitiveness in the market.

*** Third, to perfect the management apparatus**

Deeply aware of the importance of improving the business administration apparatus, GDDI enterprises need to soon innovate and restructure their management apparatus so that it is compact, flexible and dynamic, ensuring sufficient capacity to take on and complete both the tasks of military and commercial production in the market economy.

Given increasingly fierce competition and the trend of globalization, it is necessary for the enterprises to enhance their business functions through establishing and consolidating their sales (marketing) departments. GDDI enterprises must pay attention to programs promoting and introducing their products through trade promotion at domestic and international fairs and exhibitions, and make use of media and technology (applying e-commerce gradually and widely) to take their products to global markets. In addition, their sales departments also need to study and understand the needs of the market to be ready to adapt to changes as well as the requirements of customers.

GDDI enterprises also need to streamline their organizational structure to meet the requirements of work while reducing overlap and stagnation in work assignment. Depending on the characteristics of each enterprise, the management apparatus should be in the direction of decentralization. Therefore, the manager of each enterprise will be the leader to approve and plan the business and production strategy of the enterprise in each period, and take responsibility to the GDDI for all activities of the enterprise. Each of its departments will be under the direction and supervision of deputy managers. Specifically, the deputy manager of sales will be in charge of marketing activities, the deputy manager of engineering will be in charge of production, and the deputy manager of administration will be in charge of human resources, security and order, life and politics of the enterprise.

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Appendix: List of enterprises under the General Department of Defence Industry

No.	Enterprise	Main functions and tasks
1	11 Precise Mechanical One Member Liability Company (Z111 Factory)	Production and repair of infantry guns
2	13 Mechanics and Chemicals One Member Limited Liability Company (Z113)	Production and repair of ammo and shells
3	14 Mechanics and Chemicals One Member Limited Liability Company (Z114 Factory)	Production of ammo, detonators and primers; total assembly of mortar and anti-tank ammunition
4	15 Electro Mechanic and Chemicals One Member Limited Liability Company (Z115)	Production and repair of mortars, mines and grenades
5	17 Mechanical One Member Limited Liability Company (Z117 Factory)	Production of mechanical parts for bullets, pomegranates and fire tools
6	21 Chemical One Member Limited Liability Company (Z121 Factory)	Production of detonators, primers, dosing and fire tools

7	25 Mechanical One Member Limited Liability Company (Z125 Factory)	Production and repair of mortars, anti-tank guns, grenade launchers, etc.
8	27 One Member Limited Liability Company (Z127 Factory)	Production of alloys, mortar and anti-tank ammunition
9	29 Mechanical One Member Limited Liability Company (Z129 Factory)	Mechanical, engineering
10	31 Electro Mechanism and Explosive One Member Limited Liability Company (Z131 Factory)	Production and repair of anti-tank ammunition. Installation of low-altitude anti-aircraft missiles.
11	43 One Member Limited Liability Company (Z143 Factory)	Production of military communication wires and cables
12	75 Rubber One Member Limited Liability Company (Z175 Factory)	Production of technical rubber parts, artillery tires, and military tires
13	76 One Member Limited Liability Company (Z176 Factory)	Production of camouflage materials, and diversionary and camouflage models
14	Sao Mai Electronics One Member Limited Liability Company (Z181 Factory)	Production of piezoelectric ceramics, anti-tank ammunition, night vision equipment, circuit boards
15	83 Mechanical One Member Limited Liability Company (Z183 Factory)	Mechanical, engineering
16	95 One Member Limited Liability Company (Z195 Factory)	Production of military propellants and explosives
17	Photo Electric and Electronic One Member Limited Liability Company (Z199 Factory)	Production of military optical equipment and low-altitude anti-aircraft missiles
18	Hong Ha Shipbuilding One Member Limited Liability Company (Z173 Factory)	Military shipbuilding and ship repair
19	189 One Member Limited Liability Company (Z189 Factory)	Military shipbuilding
20	Song Thu Corporation	Military shipbuilding and ship repair
21	Ba Son Corporation	Military shipbuilding and ship repair
22	Defence Economic Technical Industry Corporation (T504 Center).	Provision of technical and specialized materials for the national defence industry and military equipment.

(Source: Author's summary)