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Electronic Component Distribution Development Strategy for a Vietnamese Startup in a New Environment Post- Covid-19 Pandemic

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Thesis abstract

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GL company is being suffered the impacts from business environment post Covid 19. The causing lead to the company's turnover dropping significantly. The electronic component demand is slowing down situation. Based on practical issues, GL company's board of director expects the suitable strategies to tackle these challenges. Therefore, the author has built the thesis based on existing issues of GL company. The research questions are established accordingly.

David, et al. (2023, p. 30) figures out a comprehensive strategic management model. The David's model accompanies with analytic techniques, the five forces model (Porter, 1980), strategy map (Kaplan, 2010), Balanced Scorecard (Kaplan & Norton, 1992) are a corrective solution to solve issues of GL company. By analytic techniques, the author determines the list of the external factors, competitive factors, and internal factors. Furthermore, the crucial factors of the external & internal environment are collected through expert survey.

The building of IFE matrix, CPM matrix and EFE matrix is based on crucial factors of analytic results. Simultaneously, customer survey is conducted to contribute the strategy formulation. The outcomes of matrices figure out the responses of existing GL's strategies with opportunities & threats, strengths and weaknesses, and customer's expectation. The author conducts SWOT matrix analysis. The results of SWOT matrix reveal the feasible strategies which GL company should consider for strategy form. In the decision stage, the quantitative strategic planning matrix (QSPM matrix) will generate attractive strategies that GL company should be prior to implement because of its resources limitations.

Based on these attractive strategies of QSPM matrix, the author defines the objectives for financial perspective, customer perspective, supplier perspective, learning & growth perspective. Strategy map is built to visualize the strategy. Consequently, Balanced Scorecard is built based on clear objectives, feasible measures, achievable targets, initiatives to boost employees and managers pay attention the best efforts in the same rules and gained successful strategy implementation. Finally, the results of research will be summarized in the conclusion. And, the author suggests for further extensive studies such as developing research through survey of outside experts, building a financial strategy for GL company, building the development strategy for specific product or specific region of Vietnam.

¹ Keywords: Strategy for SMEs, strategy management, Strategy, Strategy map, Balanced scorecard

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Terms and Abbreviations

| | |
|---------------|--|
| US | United States |
| ICs | Integrated circuits |
| GL | GL Electronic Vietnam Company Limited |
| FED | Federal reserve |
| EU | European union |
| GDP | Gross domestic product |
| MLCC | Multi-layer ceramic capacitor. |
| IFE | Internal factor evaluation |
| EFE | External factor evaluation |
| CPM | Competitive profile matrix |
| QSPM | Quantitative Strategic Planning Matrix |
| SWOT | Strengths – Weaknesses – Opportunities – Threats |
| EMS | Electronic manufacturer services |
| OEM | Original equipment manufacturers |
| ODM | Original design manufacturers |
| BSC | Balanced scorecard. |
| PESTEL | Political, economic, social, technological, environmental, and legal |
| SPACE | Strategic position and action evaluation |
| BCG | Boston consulting group |
| IE | Internal-External |

| | |
|-----------------|--|
| R&D | Research & development |
| HR | Human resource |
| KPIs | Key Performance Indicators |
| OKRs | Objectives and Key Results |
| SME | Small and mediums-sized enterprise |
| BOM | Bill of materials |
| IT | Information technology |
| ERP | Enterprise resource planning |
| CRM | Customer relationship management |
| RCEP | Regional comprehensive economic partnership |
| EVFTA | EU-Vietnam free-trade agreement |
| CPPTP | Comprehensive and progressive agreement for trans-pacific partnership |
| Linecard | Gather of brands which company has authorized business in the market |
| Backlog | A tabular content which contains information such as part numbers, order numbers, order dates, request dates, delivery dates, quantity, prices, notes, so on, aim to be convenient following by both customers and company |

1 Introduction

This chapter is an important chapter. Because it orients throughout the research development. The case study is GL Electronic Vietnam Company Limited (GL) . This company is a startup electronic distributor at Vietnam market. The author chooses GL as a case study. Because it convenient for author to access the internal company information such as management, human resource, purchasing, sales, marketing, and so on. This chapter will reveal background, research questions, research objectives, research limitations, research methodology, research structure, and research contribution. All content will be presented as follows sequentially.

1.1 Background

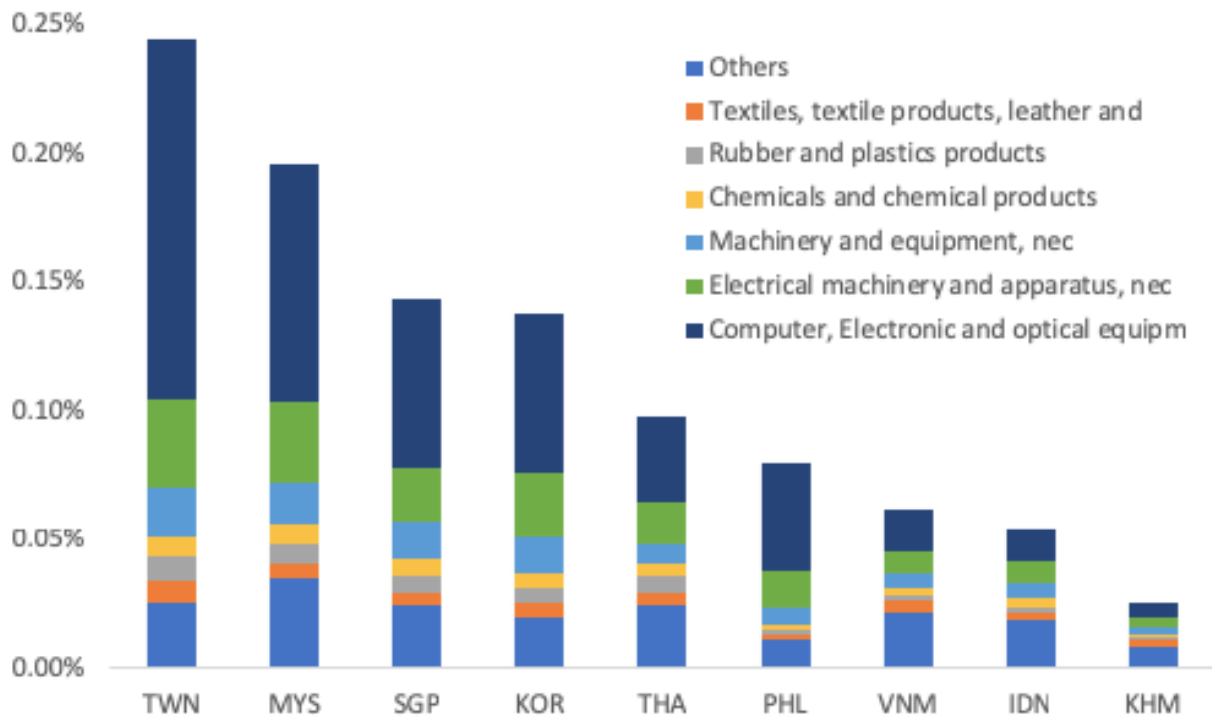
The global economy is being significantly impacted by trade wars (Cheng, Rosli, & Kartika, 2019). In the short term, the higher import tariffs lead to higher prices of imported goods for both manufacturers and households (Szczerbowicz, Jarde, Siena, & Berthou, 2019). It is also causing global supply chain disruption, cost-efficiency reductions, higher risk premiums and finance cost increasing. Additionally, the research indicated US trade policy uncertainty has impacted to decrease business investment (Handley & Limão, 2013).

The US-China trade war has heated up the electronic component market since the mid-2018s (Xiao, 2022). The US increased the 25% tariff on 1333 products of Chinese goods. All electronic components were raising costs following up Section 301 tariff act. According to impact evaluations, the US economy has been affected negatively by the 2018 tariffs. US consumers have been the ones carrying the weight of the tariffs (Amiti, Redding, & Weinstein, 2019). The trade disputation leads to costs increasing of raw materials, transportation, inventory, and semiconductor shortages. Consequently, the electronic component prices have been increased. Customers, distributors, and manufacturers have been affected by tariffs. Vietnam is one of the East Asian countries that is exposed to decrease in Chinese export through the supply chain (Cali, 2018). Figure 1 shows Vietnam's rank of the US-China trade war affection. Vietnam is impacted behind Taiwan, Malaysia, Singapore, Korea, Thailand, and Philippines. It is in front of Indonesia and Cambodia only.

A year later, the deadly Covid-19 pandemic began in 2020. It delivered a global economic shock leading to many country recessions (World Bank, 2020). The pandemic has significantly impacted supply chains. Chinese ports and French ports have decreased from 20% to 30%

within 2 months (Haren & David, 2020). It was also forced lockdown company worldwide because of raw materials shortages, inventory level increasing, lead time stretching, out of control shipping time because of port congestion.

Figure 1 Estimated effects of the US-China trade war on GDP via supply linkages (Kee, Nicita, & Olarreaga, 2008).

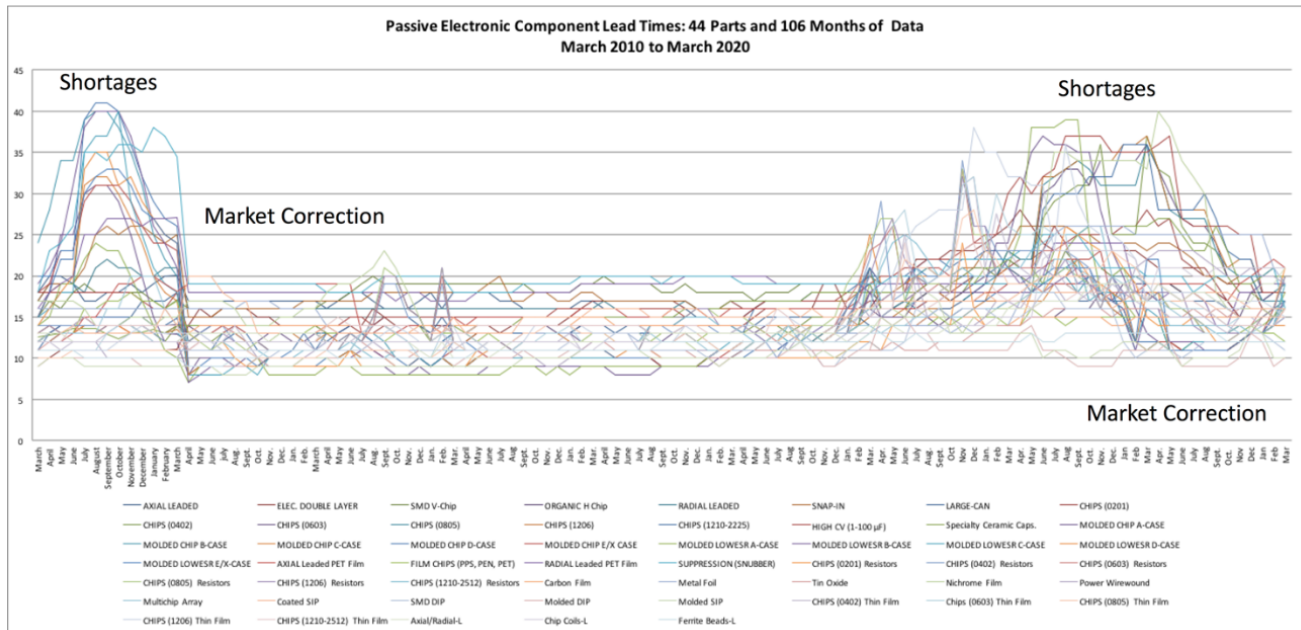


The electronic industry is heavily impacted. Because it is practically keeping minimize inventory levels and lack of alternative sources (Baldwin & Mauro, 2020). There are more than half (53%) of electronic products have been postponed or canceled (Ramsey, 2020). As a result, a severe shortage of electronic components was happening due to Covid-19. Additionally, the pandemic forced almost every people to interact online cause of resurgence in demand across consumer electronics (notebook, computers, smartphones), automatic electronics, and digital appliances (Althaf & Babbitt, 2021). The pandemic has significantly impacted on the supply chain of passive components (Zogbi, 2020). Figure 2 is revealing the outstanding shortage of passive electronic components from 2010 to 2020.

The geopolitical tensions are unforeseen factors that are disrupting once again global supply chains (Sourcengine Team, 2022). While the global economy is still recovering from the coronavirus pandemic, The Russia-Ukraine conflict and Western sanctions against Russia have

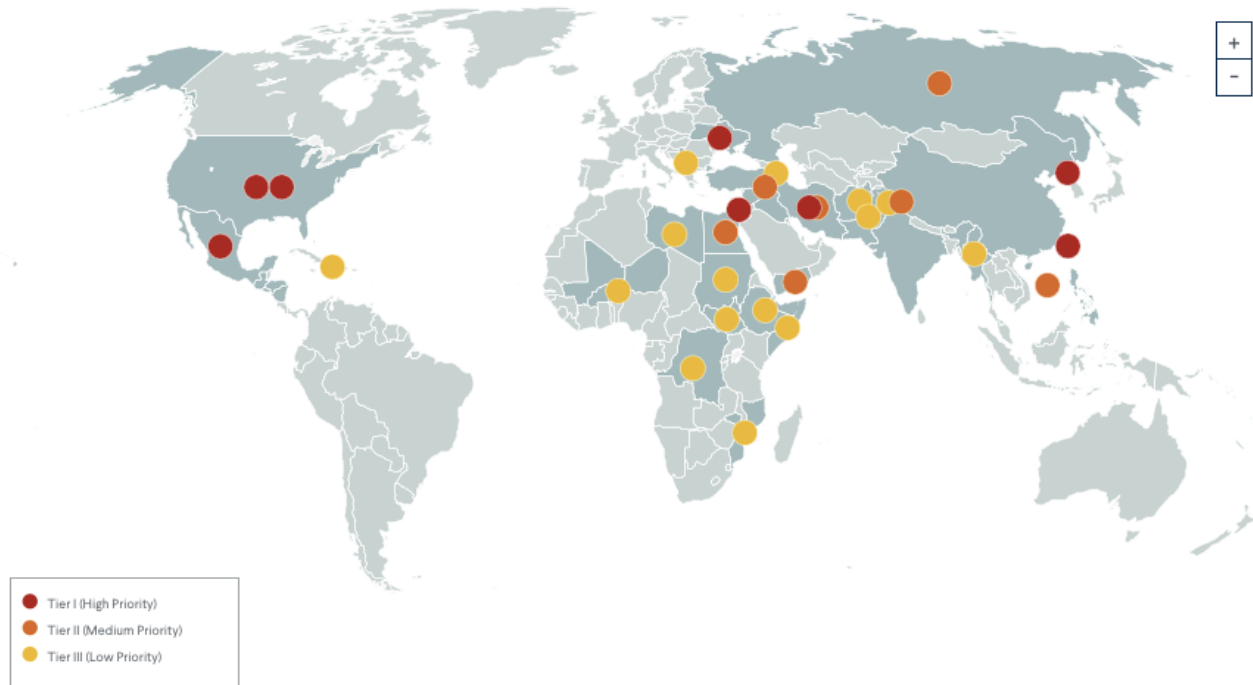
significantly impacted the supply chain of semiconductors, foods, energies, and other goods (Singh, Sharma, & Aier, 2022).

Figure 2 Market correction comparison in passive components (Paumanok, 2020)



Palladium and neon are the raw materials that are used to produce ICs. Nearly 44% of the palladium in the world is produced in Russia, and 70% of the neon gas used worldwide is sourced from Ukraine (The Economic Times, 2022). Other crucial raw materials of electronic components are also produced majority in Russia and Ukraine such as aluminum, copper, cobalt, nickel, and so on (King, 2022). Almost the chip production is concentrated in East Asia. China – Taiwan disputation is also posing risks for supply chains (Ganeshan & Boone, 2022). Hamas-Israel war is also driven implications for the supply chain disruption and the global inflation. The economy is facing a series of shocks such as the coronavirus pandemic, post-Covid 19 pandemic inflation, the Russia-Ukraine conflict, China-Taiwan disputation and now Hamas–Israel war. Indeed, Israel is currently emerging the research and development hub and home of advanced fabrication for electronic technologies (Valerio, 2023). These top conflicts are visualized on a map that are high impacts on the global economy as Figure 2 (Center for Preventive Action, 2024). Consequently, the forecast of the electronics industry is notoriously bad in the global economy.

Figure 3 Top conflicts to watch in 2024 (Center for Preventive Action, 2024)



GL is facing global economic fluctuation. It's not only requiring at competitive prices or lead time but also the stability development strategy in the market. The company has recognized the difficult circumstances ahead. Therefore, the Board of Directors would like to find new stability development strategies aim to adapt new environment in the 2024s – 2029s period. This topic is also the primary subject of the thesis.

1.2 Research questions

Research questions are questions that the research intends to create specific questions aim to narrow down the purpose statement. Eventually, the goal is seeking to be answered in the research outcomes (Creswell & Guetterman, 2019). The global economy has continuously shocks due to Covid 19, trade war, and geopolitical tensions. Inflation is always high level. In the past 2 years, FED has increased interest rates up to 11 times until November 2023. These actions are impacting investing, purchasing, and saving significantly (Royal & Baker, 2023). Consequently, the report revealed that Vietnam's GDP achieved 8% of 2022. The forecast is decelerated by 4.7% in 2023, 5.5% in 2024, and 6% in 2025 (The World Bank, 2023). Vietnam is an emerging market that is vulnerable to import-export goods and manufacturer operations.

US & EU market are accounting for over 40% of goods exports (Biswas, 2023). The raw materials are imported majority from Asia countries. Almost USD currency is used in transactions. Vietnamese companies are struggling with the global demand slumping. A survey indicated that 82% of 9650 businesses would pause their operations, 54% lay-off planning, and 22% lay-off half of employees (Asia&Pacific, 2023). GL is facing mounting difficulties. Therefore, the questions are raised:

Q1 - What are external and internal factors affecting GL in the Vietnam market?

Q2 - How are evaluation and expectations from customer's GL?

Q3 - What are new stability development strategies for GL in the 2024 – 2029 period?

There are three questions that the thesis will conduct throughout to seek answers.

1.3 Research objectives

This research intends to analyze the external factors of the business environment to identify opportunities and threats, helping the company avoid threats and take advantage for growth. Simultaneously, It also analyzes internal factors to determine what are strengths and weaknesses. It's able to determine competitive advantages. Additionally, the customer survey is implemented based on products, services, and representative staff. The results will assist in formulating strategies to meet customer requirements. Consequently, the new stability development strategies are built to adapt the new environment for GL in the 2024 – 2029 period.

Afterward, the thesis also builds strategy evaluation aim to analyze, assess and promptly changes as needed. Conclusion and suggestions are stated for the thesis in finally.

1.4 Research limitations

The scopes and limitations of the thesis are as follows:

Electronic components include active components and passive components. This research is only focusing on passive components such as MLCC, capacitors, resistors, inductors, fuses,

transformers, coils, and so on. Market is concentrated in Vietnam country only. Experts for the survey are the lead of departments, vice director, and the director from GL company.

The customer base of the company is limited. Because the company just operation in the first 5 years. So the customer survey scale is 30 samples only. The targeted customers relating to electronic manufacturing is in the electronic manufacturer services (EMS), original equipment manufacturers (OEM), original design manufacturers (ODM), traders, and design houses.

A comprehensive strategic management model is including 3 stages: strategic formulation, strategy implementation, and strategy evaluation. However, the thesis is solely conducting strategic formulation and strategic evaluation because the research is limited time. The strategies are built in the 2024 -2029 period.

Nowadays, many techniques support are supporting the strategic formulation, strategy implementation, and strategy evaluation. However, the research only uses some appropriate techniques. Especially, The PESTEL & Porter's five force model are especially used to analyze the external environment. The analytic techniques of management, marketing, finance, and accounting are applied to the internal environment. In the strategy formulation phase, the author will use the EFE matrix, CPM matrix & EFE matrix for the input stage. The SWOT matrix is utilized for matching stage and the QSPM matrix is used in the decision stage. Besides, a strategy map and Balanced Scorecard will be used in strategy evaluation.

1.5 Research methodology

The thesis will use a deductive approach to develop theories. It's possible to start with a general statement to a particular claim. This approach will derive a conclusion through the logic process based on assertion (Adams, Khan, Raeside, & White, 2007).

Firstly, the thesis will review the relevant theories for the research issues. Then, it will develop the following analytic techniques as follows.

Stage one – The research will conduct to analyze the macro environment, industrial environment, and the internal operations of the company. It's able to determine a list of external factors, competitive factors, and internal factors.

Stage two - Based on the results of stage one, the author composes a questionnaire to send experts for the first evaluation. The outcomes are the list of the crucial external factors, crucial competitive factors, and crucial internal factors.

Stage three – Based on the results of stage two, the author composes questionnaire to send to experts for the second evaluation. The results are the crucial factors that are weighted and rated.

Stage four – The author will compose and send a questionnaire to customers for evaluation. The opinions and assessments are directly collected in face-to-face meetings when sales visit customers in monthly. The questionnaire is aligned with quantitative research principles. The questions are concise and clear in terms of products, services, and representative staff. The questions are belonged to close questions, open questions, multiple choices, and intensity rating scales (Laine, 2023). The survey scale is 30 samples. The qualitative combined quantitative method will be used.

The competitive and sustainable strategies will be formed through building matrices such as the EFE matrix, CPM matrix, and IFE matrix, SWOT matrix, and QSPM matrix. In this step, the author will generate numerical information and explanation.

Data is collected from two sources. The primary data sources that I refer to value outcomes from product managers, Marketing Managers, Director, and customer surveys. The second data sources that I refer to annual reports, news analysis, investor presentations, and press releases of company operating in the market (EPS news, Supplyframe).

Studies are published by credible sources such as government organizations, global organizations (World Semiconductor Trade Statistics, McKinsey Global Institute, EU Database), Relevant associations (Electronic Component Industry Association, Semiconductor Industry Association), Levadata, etc.

1.6 Research structure

The thesis is outlined in six chapters. Each chapter has contented as follows:

Chapter one is introducing the research overview. The contents are including background, research questions, research objectives, research limitations, research methodology, research structure, and research contribution. This chapter is extremely important because it is orienting thorough in research implementation.

Chapter two is the fundamental theories that are shaped by the research topic at chapter one. Chapter two is an important chapter. It can be said that the contents of chapter two are fundamental to building the thesis. The contents consist of strategy definition, general research model, vision and mission determination, types of alternative strategies, PESTEL analysis, Porter's five forces model, EFE matrix, CPM matrix, IFE matrix, analytic techniques of internal company, SWOT matrix, QSPM matrix, Strategy map, and Balanced Scorecard. Besides, the author reviews and evaluates the previous studies. Finally, the author will propose the research process for this thesis.

Chapter three will introduce details in terms of the GL company. It also conducts analysis of the macro environment, industrial environment, and internal environment. The outcome was a list of factors such as opportunities, threats, strengths, and weaknesses.

Chapter four will be proceeded with following steps sequentially. Based on the results of Chapter three, the author composed a questionnaire and sent to experts. The outcomes after twice evaluation of experts are the list of crucial external factors, crucial competitive factors, and crucial internal factors. Then, the EFE matrix, CPM matrix, and IFE matrix are built based on the crucial factors. The feasible strategies are formed from the SWOT matrix which is built based on the results of the EFE matrix, CPM matrix, and IFE matrix. Eventually, the QSPM is built to determine attractive strategies that GL company needs to be prior to implementation.

Chapter five is going to verify the objectives for financial perspective, customer perspective, supplier perspective, process perspective, learning and growth perspective. Then, the author will build a strategy map to visualize the attractive strategies. Finally, the Balanced Scorecard is applied to measure to ensure the success of strategies.

Chapter six will summarize the research results. It figures out the answers to the research questions. Ultimately, the author will recommend some future research topics to further extend the research.

1.7 Research contribution

In the context of the global economy has inflection such as the inflation is at a high level; the supply chains are in disruption; the forecast is possibly going to recession in 2024 (Economist Intelligence Unit, 2023).

The author hopes that this thesis will be academic research that GL's board of directors can refer to implement its strategies in crisis during the 2024 -2029 period. The thesis is also fundamental research and encourages other in-depth research for electronic component distribution in the Vietnamese market.

In the beginning, the author was a struggle to come across research literature pertaining to strategic management models for small businesses. The majority of the strategic management theories the author studied consisted of case studies and examples from large, publicly traded corporations. Nevertheless, there are existing the articles and theses in terms of SMEs while the need of SMEs development is huge in the world because the SMEs are occupied in the majority of the economy. The author do hopes this thesis will contribute a part of scientific research and practical applications for SMEs through further extensive researches.

2 Theory

This chapter figures out the theories relating to strategic management. In particular, it will mention strategic management conceptions, general research model, and techniques to analyze the internal & external environments that are impacting company operations, the matrices will support for strategy formulation, balanced scorecard. Additionally, the author also reviews the number of relevant studies aiming to determine what have previous studies achieved and its limitations? Ultimately, the author will suggest a comprehensive process for this research.

2.1 Strategy definition

The word strategy has its origin in Greek language (Horwath, 2006). The ancient commanders used as magical tactics to win in battles. There are numerous ways to approach strategy from a business point of view. Strategists have had strategic conceptions from many different levels. According to Chandler (1962, P. 13), Strategy is taking appropriate actions, assigning essential resources, aim to be achieved the long-run firm's goals. Mintzberg (1978, P. 4) simplifies that strategy is a model in a flow of judgments.

A question is raised what is business strategy? The answer is only competitive advantage (Ohmae, 1982). He implies that strategy is not necessary unless the company has competitors. The strategy is created to drive the company to achieve and sustain an edge compared to rivals.

The competitive strategy is a string of involving activities which are generating distinctive and valuable a position (Porter, 1996).

Based on the particular market, The executive manager generates distinctions which are attracting or bring unique values to the customer. These actions are supposedly as a driven plans that are defined as a strategy aims to attain and maintain competencies in the market (Dyer, Godfrey , Jensen, & Bryce, 2021).

These typical definitions reveal diverse strategic conceptions in normal situations. strategists possibly predict situations in the next few years or even longer (Kraaijenbrink, 2020). They are looking forward to deciding responsive actions. But, the current circumstances is seamlessly different. The global economy is fluctuating such as supply chain disruption, high inflation,

foods & energies shortage, pandemic, and so on. Vietnam's market is also facing a lot of unprecedented factors. It's necessary to build a strategic comprehension. Therefore, the author choose strategic management definition from David, et al. (2023, p. 32), he stated that strategic management involves utilizing both creative and scientific methods in the establishment, implementation, and assessment of cross-functional decisions that allow an organization to attain its goals. His theory in terms of strategy formulation, strategy implementation, and strategy evaluation is suitable for the practical business of GL company.

2.2 General research model

The company's leader should keep in mind what are certain company situations. What goals would the company like to achieve? And how does the company achieve? These questions are as a framework aim to identify purpose and direction. David, et al. (2023, P. 30) answered these questions through a strategic management model. Moreover, this model is a comprehensive strategic management. It can apply practical business and create a clear process to achieve goals. It is shaped into three main phases consisting of strategy formulation, strategy implementation, and strategy evaluation.

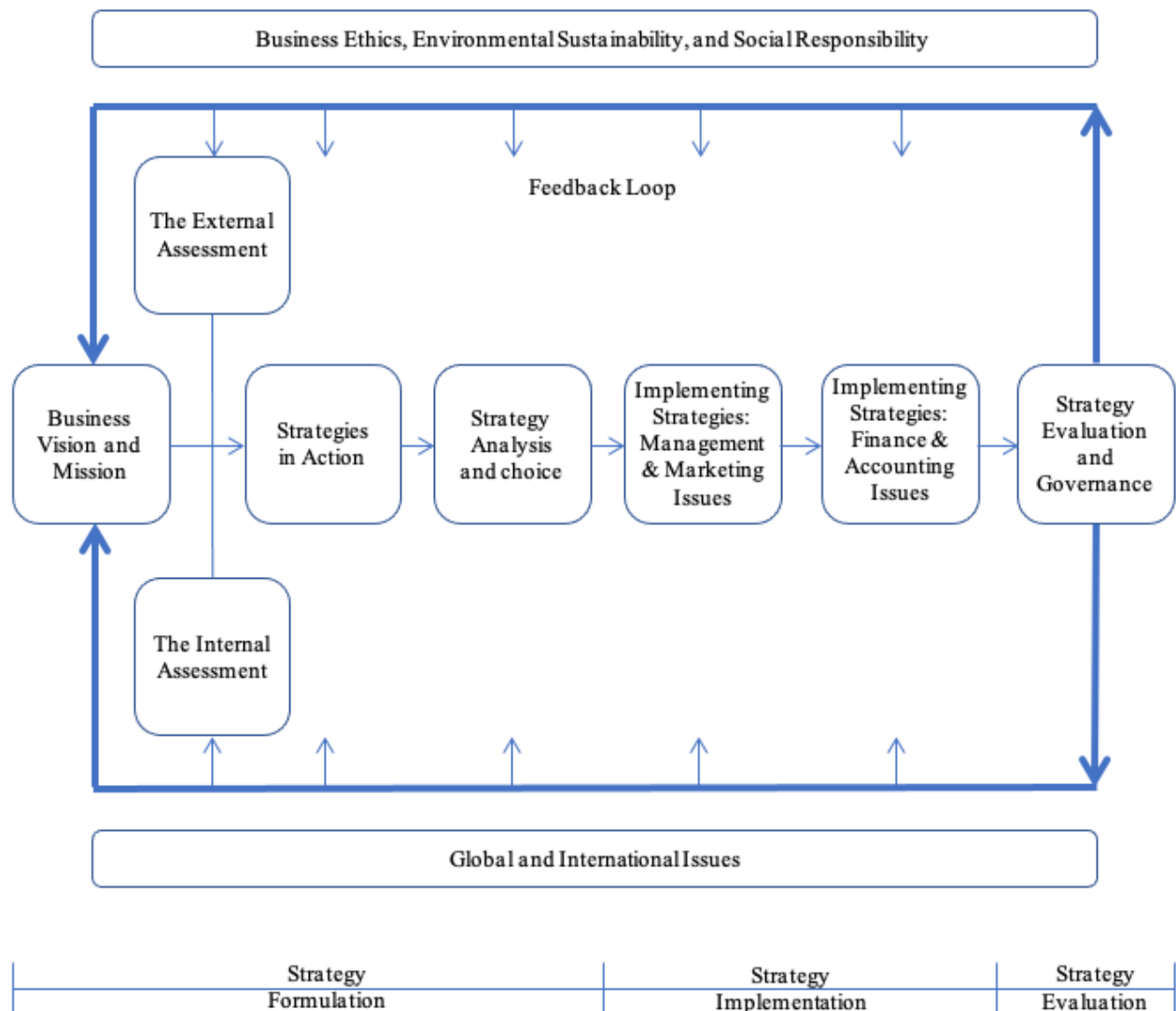
The strategy formulation is the beginning stage. Vision, mission, and existing strategies should be determined as starting point of strategic planning. Leaders will identify crucial factors that are impacting from external and internal environment through analytic techniques PESTEL analysis, and Porter's five forces (Porter, 1980). The attractive strategies will be built based on a holistic assessment of the IFE matrix, EFE matrix, CPM matrix, SWOT matrix, and QSPM matrix.

The strategy implementation is a complex and difficult stage. It is often facing resistances from the internal company. There are four critical issues that are recommended to deploy strategies including management, marketing, finance, and accounting. A successful strategy should be understood and deployed from top managers to down employees.

The business environment is always changing at every minute. Issues such as ethics, sustainability, social responsibility, and macroeconomics are also impacting every day. The strategies will become out-of-date unless leaders evaluate them properly. Therefore, strategy evaluation is a significantly stage. The balanced scorecard (Kaplan & Norton, 1992) is one of the techniques that is supporting to measure effective strategy. Following up the process, the

leaders possibly recognize challenges and modify strategies to adapt to new environments timely. Strategy formulation and strategy evaluation are two primary phases that will be implemented in this thesis because of research limitation.

Figure 4 A comprehensive strategic model (David, David, & David, 2023)



2.3 Vision & mission determination.

Generally, the vision statement looks like the company's direction. A vision statement should answer the question: What would a company like to become? (David, David, & David, 2023). A solid vision will contribute to positive company performance (Kantabutra, 2009). The solid vision must be contained below typical features:

Conciseness: The statement should be short.

Clarity: The statement must be expressed clearly.

Future orientation: Vision should concentrate on the long run of the company's objectives.

Stability: vision should not be affected by any changes in the market.

Challenge: Vision should drive the employees to the best contributions and engage them to work together.

Abstractness: Vision should be general ideas.

Desirability: Vision should mention attractive objectives and achievements.

While the vision highlights the organization's outlook and significance, the mission defines the purpose for its existence beyond just profit-driven competition (Collins & Porras, 2008). Mission is driven by company. David, et al. (2023, P. 77) figure out a mission statement should answer these questions.

What are potential clients?

What are primary products and services?

Where is the company's market?

Is the technological company being?

What are differentiations?

Is development a commitment?

What are the core values of the company?

Are the company responsibilities in society & environment?

Are staff a valuable human resource of the company?

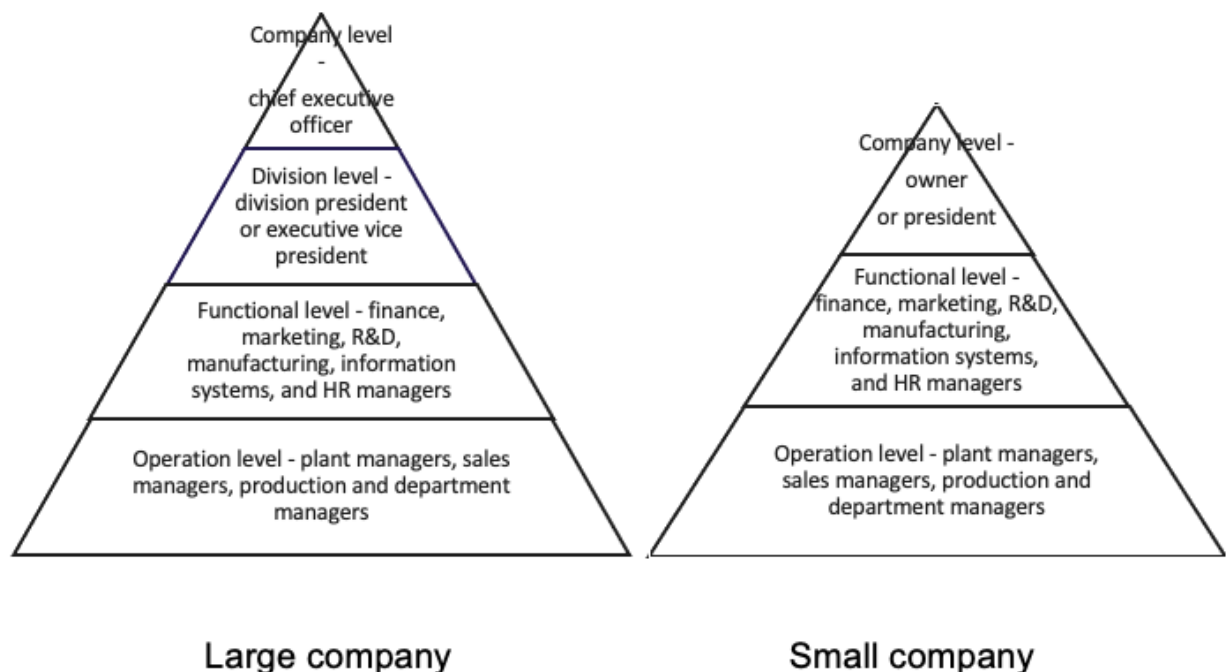
A clear mission will generate the feeling that employees are starting at the same point, and it can motivate staff for final targets.

Indeed, Vision & mission statements are significantly contributing to the firm's performance. Understanding of contents of the mission and vision is really necessary for employees and leaders who are directly driving the company's operation. The organization's goals can be easily aligned with those of its employees (Meško & Roblek, 2018). Whereas, an organization is possibly destroyed by a misunderstanding of meaningful vision & mission.

2.4 Types of alternative strategies

David, et al. (2023, P. 159) mention the types of alternative strategies. Initially, strategy is classified following the levels as belows.

Figure 5 Levels of strategies (David, David, & David, 2023)



Strategy implementation is not only company level but also functional level and operation level. The managers must ensure the strategies are clearly understood, coordinated, and committed in during implementation.

The group of integration strategies: this strategy implementation will increase the control of the company over distributors, retailers, suppliers, or competitors. It is including three strategies as follows

Strategy of forward integration refers to the process of acquiring ownership or enhanced control over either distributors or retailers. The purpose is to reduce middleman to be closer with end customers.

Strategy of backward integration refers to the process of acquiring ownership or enhanced control over suppliers. This strategy should be conducted when the suppliers lack of reliability, costly, or impossible to meet the firm's requests.

Strategy of horizontal integration will help to gain control through rivals. The company will expand its business via joint ventures, acquisition, or taking control of other companies. The objectives intend to increase scale, utilize resources, reduce competitiveness.

The group of intensive strategies aim to enhance the competitive position. There are three strategies as follows

Strategy of market penetration is a strategy which will increase market share for goods or services in existing market. This strategy possibly implemented alone or gathered with other strategies. It is done through increasing resources, increasing advertisements, promotions, or increasing efforts of employees.

Strategy of market development is conducted by existing products and services towards new applications, new segments, or new areas while the *strategy of product development* aims to increase sales by developing the products or services.

The group of diversification strategies: There are related or unrelated with services and products of firm's business. It consists of two strategies: *Strategy of related diversification* is a strategy in which the company will add new relevant products or services while the *strategy of unrelated diversification* is a strategy in which the company will add new unrelated products or services.

The group of defensive strategies aim to mitigate risks and maximize resources. It is including three strategies: *Strategy of retrenchment* is action of reducing costs and assets to response sales and profits reduction. And the action of sell all or part of organization to increase capital is *divestiture strategy*. Finally, the *strategy of liquidation* is an action of stopping the company by selling all its assets.

Additionally, David, et al. (2023, P. 172) also indicate that there are two competitive strategies from Michael Porter.

Strategy of cost leadership is built based on broad or narrow low-cost strategy. The offering the lowest prices of goods or services towards broad customer range is defined broad low-cost strategy, and limited customer range is defined narrow low-cos strategy.

Strategy of differentiation consists of a broad market segment and a narrow market segment. The customers accept to pay higher prices for specific services, available stock, tech-products, unique products, more features, so on. The successful differentiation strategy requests strongly cooperation between R&D and marketing.

2.5 Strategy formulation

David, et al. (2023, P. 30) outlined that a general framework for strategy formulation. There are 3 primary stages: input stage, matching stage and decision stage. There are techniques to support each stage.

Figure 6 The strategy formulation – General framework (David, David, & David, 2023)

| | | | | |
|--|--------------|------------|--------|-----------------------|
| <u>Stage 1: The input stage</u> | | | | |
| CPM | | | | |
| EFE matrix | matrix | | | IFE matrix |
| <u>Stage 2: the matching stage</u> | | | | |
| IE | | | | |
| SWOT matrix | SPACE matrix | BCG matrix | matrix | Grand strategy matrix |
| <u>Stage 3: the decision stage</u> | | | | |
| Quantitative strategic planning matrix | | | | |

2.5.1 PESTEL analysis

PESTEL is an analytic tool that is variant from the initial concept consisting of economic, technical, political, and social (Aguilar, 1967). It is scanning macroeconomics as political, economic, social, technological, environmental, and legal factors. All factors are not only impacting independence but also mutual affectation.

Political factors are strongly affecting the global economy nowadays. For instance, The US-China trade war, China-Taiwan disputation, Ukraine-Russia war, Hamas–Israel war international sanctions response to Russia's invasion are affecting the global economy.

Economic factors are no less important such as inflation, exchange rates, taxes, interest rates, demand so on. *Social factors* need to be carefully monitored when the leader creates strategic planning. A fruitful market involves age, gender, population, health, education, culture, and so on.

Technology is creating globalization. The factors are related to artificial intelligence, electronic commerce, digital marketing, or edge technologies such as ICs, 5G, 6G, and so on. Those factors are affecting to management, cost, services, quality, and competitive advantages.

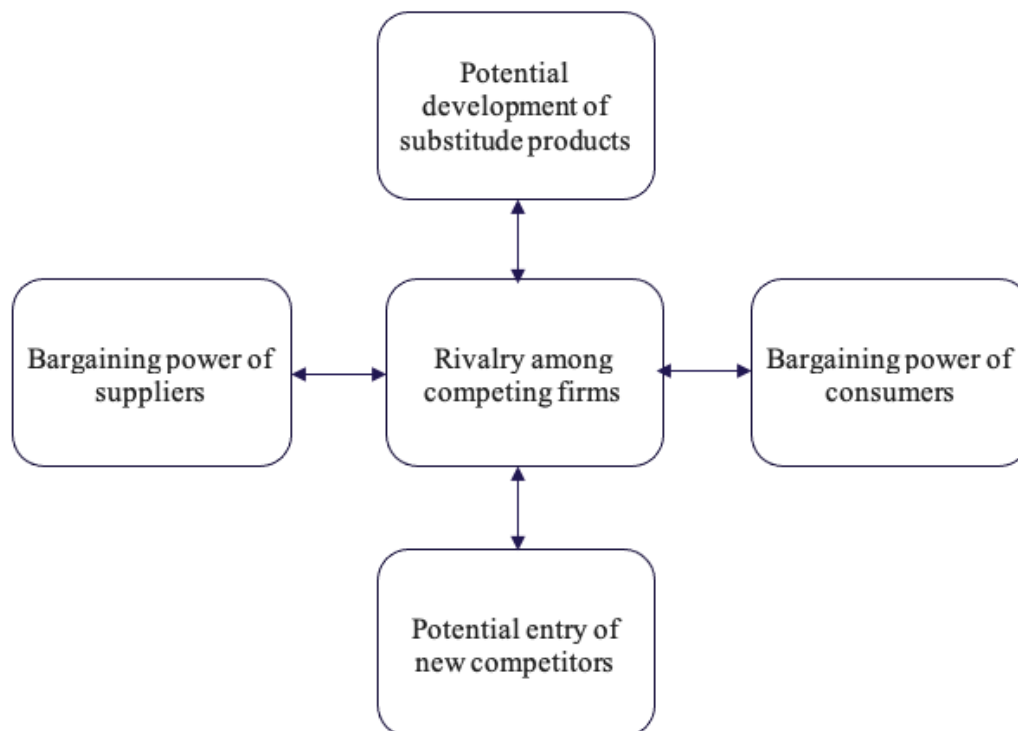
Environmental factors include climate change, environmental regulations, ecological, insurance, weather, and so on while *legal factors* are a general framework for company operation. There are many factors as labor law, antitrust law, anti-corruption law, criminal law, labor union law, intellectual property law, and so on. A company is just able to operate if it complies with the laws.

2.5.2 Porter's five forces model

According to Porter (1980, P.4), there are five forces that a company is usually impacted by the external environment. The first force, the existing competitors belong to the same industrial field. They strive to attractive customers through selling prices, advertisements, and services which are contributing costs of products. The second force, the model indicates whether the company's products are not hard to be replaced by other products. It's the potentially to lose the market. The third force are derived from new rivals who can easily join the market. The marketplace intensity leads to an increase in bargaining both of suppliers and customers. It is

negatively affecting the profit. The fourth forces are mentioned ability to deal with prices through volume, cost information, demand slumping, the plenty of rivals in the market, and so on. The fifth forces, the negotiable ability of suppliers are a critical factor. The competitive advantages will be reduced if the suppliers increase the prices, or switch to other competitors if the company doesn't meet their requests.

Figure 7 The five-forces model of competition (David, David, & David, 2023)



2.5.3 EFE matrix

David, et al. (2023, P. 107) guide step by step to conduct external factors evaluation in the following.

- List the crucial opportunities and threats in external evaluation.
- These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The total weight should be equal to 1.0. It means the factor will get more weight than others if it's more important in the industry.

- Assign a rating for these factors, which are poor response (1), average response (2), above average response (3), or superior response (4). They are indicating that affective level of factors to the company's current strategies.
- Multiply the rating and weight together, the result is the weighted score of each variable.
- Total weighted score is computed sum of weighted scores.

The result is in the range from 1 (low) to 4 (high). 2.5 is the average of the total weighted score. If the total weighted score ≤ 2.5 , it is meaning the company's strategies are low response to changes of the world. Whereas it is in high response, or the company is taking advantage of existing opportunities and minimizing threats in its strategies.

2.5.4 CPM matrix

In the study by David, et al. (2023, P. 110), the CPM matrix is a tool to assess rivals including strengths, weaknesses, strategies, and positions. The evaluative outcomes reinforce competitive strategy formulation. In both CPM and EFE, the weights and total weighted scores carry the same significance. The matrix is built step by step in the following.

- List crucial strengths and weaknesses of the firm's business environment compared to competitors.
- These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The total weight should be equal to 1.0. It means the factor gets more weight than others if it's more effective on company performance. The weight is based on the industry site.
- Assign a rating for these factors that are a major strength (4), a minor strength (3), a minor weakness (2), or a major weakness (1). Ratings are based on the company site.
- Rating multiplied by weight equals weighted score for each variable.
- Total weighted score is equal sum of weighted scores.

The outcome is in the range from 1 (low) to 4 (high). 2.5 is the average of the total weighted score. If the total weighted score ≤ 2.5 , it means the company's strategies are low response with impact factors. Whereas it is in high response or the company takes existing strengths to minimize weaknesses in its strategies.

2.5.5 The functional department analysis

According to David, et al. (2023, P. 126), every company has its unique strengths and weaknesses. They are different in each business field. The strengths and weaknesses are not equal in a company. The distinctive competencies are the firm's strengths that the rivals are not easy to duplicate. The building of competitive advantages needs to utilize distinctive competencies. Building new strategies aims to improve the weaknesses and turn them into strengths or distinctive competencies if it is possible. To evaluate the strengths and weaknesses of an organization, we will analyze and evaluate through the activities of the functional departments as follows.

Functional management is evaluated through the phases of activities of planning, activities of organizing, activities of motivating, and activities of controlling while functional marketing is described as the process of fulfill the satisfaction and potential demands of customers. It includes activities of research and development of the market, activities of product planning, activities of price determination, activities of promotion, and activities of distributional determination.

Functional finance and accounting are generally consisting of three decisions: investment, finance, and dividend. To form an effective strategy, it is necessary to identify the strengths and financial factors through a comparison of financial ratios with the industry average time by time. However, the analysis of financial ratios just indicates the weaknesses and strengths of an organization. It doesn't figure out the roots where it is from. why is it coming? Or What are the reasons? And so on. The analysis needs to be conducted carefully before the conclusion.

The functional management information system synthetizes activities and outcomes of departments. It is a critical source for managers to make decisions. An effective information system will help to determine the weaknesses and strengths of the company. Based on helpful information, the managers can boost competitive advantage and improve disadvantages.

2.5.6 IFE matrix

David, et al. (2023, P. 141) figure out how to develop internal factors evaluation as follows.

- List crucial strengths and weaknesses in internal evaluation.
- These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The total weight should be equal to 1.0. It means the factor gets more weight than others if it's more effective on company performance. The weight is based on the industry site.
- Assign a rating for these factors, which are a major weakness (1), a minor weakness (2), a minor strength (3), or a major strength (4). Ratings are based on the company site.
- The weighted score of each variable is multiplied rating by weight.
- Total weighted score is equal to the sum of weighted scores.

The result is in the range from 1 (low) to 4 (high). The average score is 2.5. It indicates that the company will be weak internally If the total weighted score is < 2.5. Whereas the company will be strong internally. It will be stronger than if the total weighted score is getting closer to 4.

2.5.7 SWOT matrix

This stage is based on outcomes from the input stage. SWOT matrix (David, David, & David, 2023) will be used as a technique to match strengths, weaknesses, opportunities, and threats. This technique will create alternative strategies practicably. The crucial factors are collected from the second time evaluation of experts.

SO (strengths-opportunities) strategies aim to take advantage external opportunities and use internal strengths. And *WO (Weaknesses-Opportunities)* strategies aim to improve weaknesses by taking advantage of external opportunities.

ST (Strengths and threats) strategies uses strengths of the company to mitigate external threats while *WT (Weaknesses and threats) strategies* are defensive tactics to reduce internal weaknesses and avoid external threats.

Table 1 The basic SWOT matrix format (David, David, & David, 2023)

| | | |
|--------------------------|-----------------------|------------------------|
| | Crucial Strengths - S | Crucial Weaknesses - W |
| Crucial Opportunities -O | SO strategies | WO strategies |
| Crucial Threats - T | ST strategies | WT strategies |

2.5.8 QSPM Matrix

This stage will generate attractive strategies. The quantitative strategic planning matrix (David, David, & David, 2023) is solely the technique for this stage. The input data is derived from stage 1 and stage 2. This matrix is built step by step as follows.

- List of the crucial internal factors and crucial external factors from the IFE matrix and EFE matrix. These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The weight is the same of the IFE matrix and EFE matrix.
- Get alternative strategies that derive from the SWOT matrix.
- The attractiveness score (AS) is determined by answer the question “Is this variable influencing the selection of strategies?” If the answer is yes, the range of AS is not attractive (1), somewhat attractive (2), reasonably attractive (3), and highly attractive (4). It indicates that the relative attractiveness of each strategy with a single factor. If the answer is no, please leave it.
- The total attractiveness score (TAS) is equal weight multiplied by AS. It means how are these internal & external factors affecting alternative strategies?

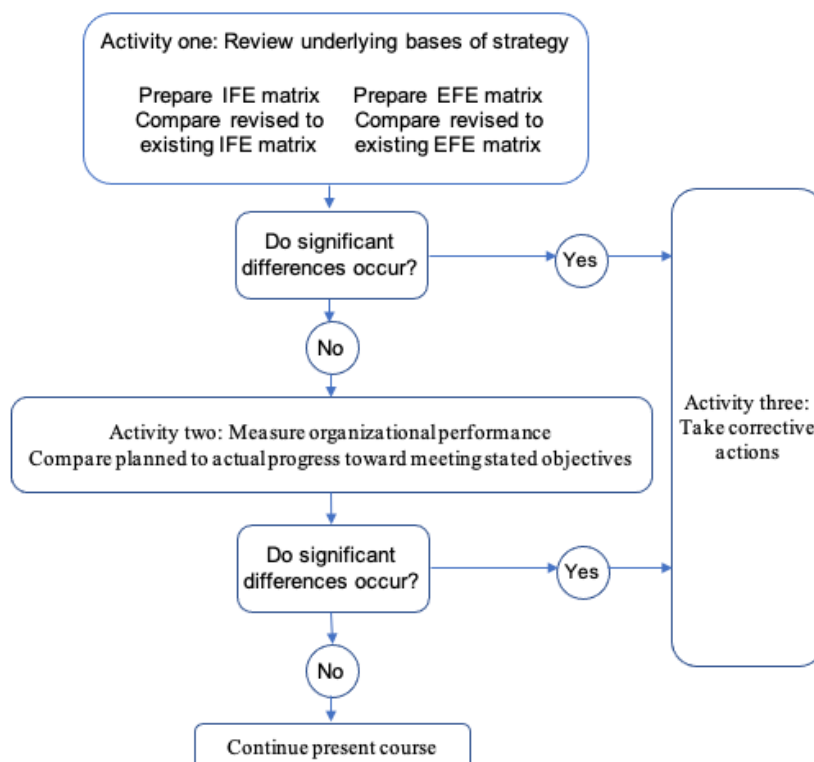
- The sum of the total attractiveness score indicates that the strategies with a higher scores will be more attractive/reliable than other strategies. And we can choose as alternative strategies.

2.6 Strategy evaluation

A British scientist stated important measurement that you gain knowledge if these things can be measured clearly. Whereas the knowledge is blurred, or less values if it can not return numerate or measurable, or even we can not develop it (Kelvin, 1883).

An evaluation framework as Figure 7 is developed by David, et al. (2023, P. 304). The assessment and measurement are two important steps in the whole progress. Firstly, leaders should monitor changes. Even, It happens internal environment or external environment of the company. A small change also impacts significantly or even prevents the strategy's goals and the long run development of the company. Evaluation will generate corrective actions to remove inefficiencies such as out-of-date strategies, inappropriate activities in implementation, and optimistic goals. Or strategists will modify the strategies to adapt to new situations.

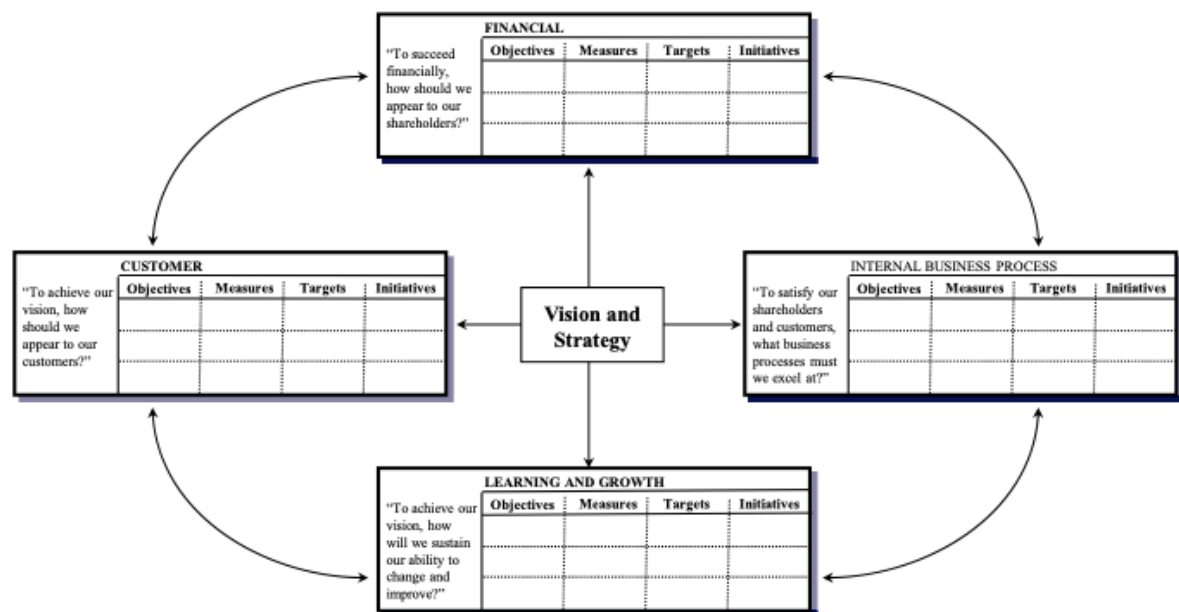
Figure 8 A strategy - evaluation framework (David, David, & David, 2023)



In case, all factors don't affect existing strategies. And, existing strategies seamlessly enable the growth. The second step should review whether strategic affection can attain the targets. Comparison of both actual outcomes and targets is essential action. Whether objectives are achievable? How to meet the targets? When will the company hit target or even How much is the company going over targets? Those questions should be answered clearly. Otherwise, the leader needs to take response activities. This process should continuously implement in company cooperation.

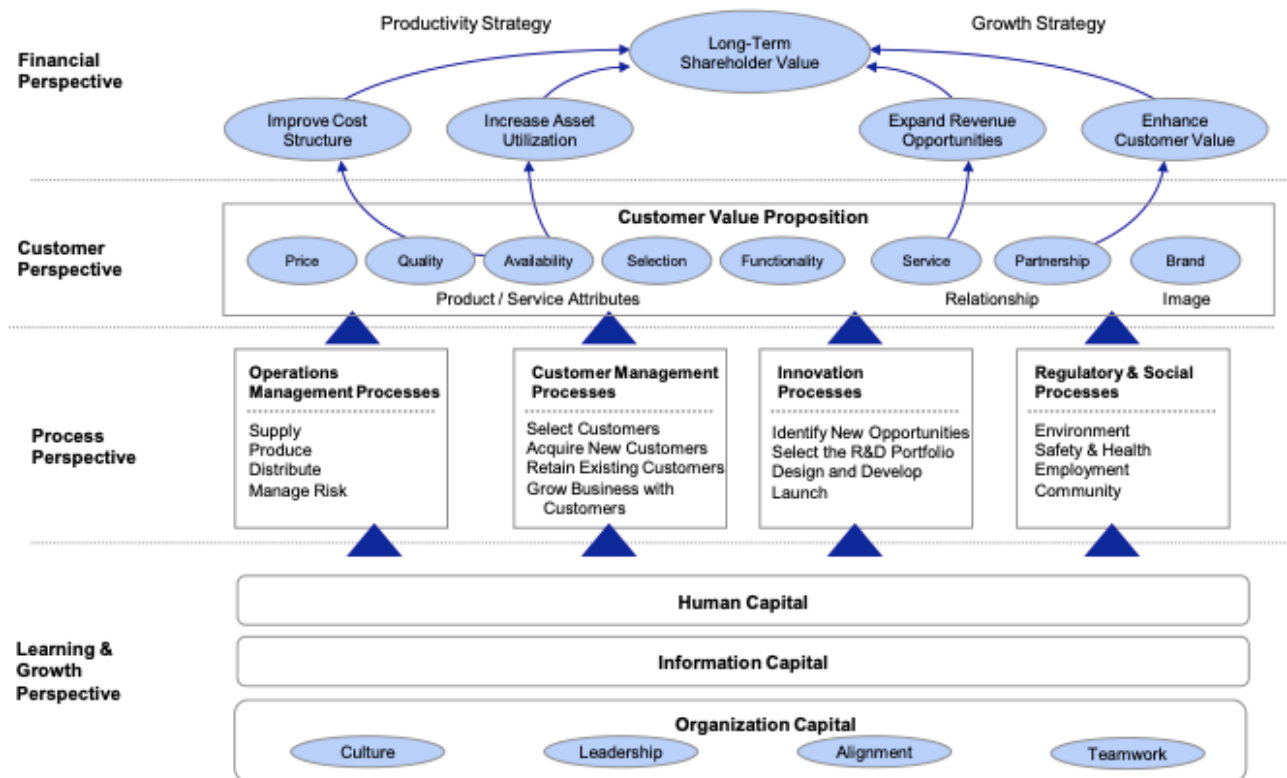
A management tool used to measure in firm's performance is called the balanced scorecard (Kaplan & Norton, 1992). Initially, the financial metrics are used to measure successful company finally. Customer perspectives, internal business process perspectives, learning and growth perspectives are as value adds in the long term.

Figure 9 Translating vision and strategy: Four perspectives (Kaplan & Norton, 1992)



Nowadays, evaluation is not only a demand in the private sector but also public sectors and non-profit sectors. Achievable measurement is an essential way that leaders and scientists always want to approach (Kaplan, 2010). Therefore, He developed to comprehension structure of a strategy map.

Figure 10 The strategy map links intangible assets and critical processes to the value proposition and customer and financial outcomes (Kaplan, 2010)



David, et al. (2023, P. 308) indicate that the balanced scorecard can be adjusted following the specific circumstances of the company. The measurement must adapt to new environment in diverse industries. The evaluation of objectives should be based on key quantitative and qualitative aims to balance concerns in short term with strategies in long term. There are six matters which are suggested to evaluate: customers, managers/employees, operations/processes, community/social responsibility, business ethics/natural environment, and finance.

2.7 The previous research reviews

The author will go through several previous representative researches to determine what the reasearch achived, and what its limitations being. Based on this foundation, the author will suggest the research process.

The first topic: “Developing a new strategy for a micro company” (Niskala, 2022). The re-search model is figured out in Appendix 1.

Achievement: The research has presented the basics of strategy management for a micro company. PESTEL analysis, SWOT analysis, vision & mission review, and blue ocean strategy are applied in case of company reality. The customer survey is also conducted via Zoom.

Limitations: The research is only focusing on strategy formulation. It is seemingly not clear how are customer expectations contributing to new strategy creation.

The second topic: *“Formulating a Competitive Strategy: A proposal for a micro size enterprise in Logistics and Taxi Business”* (Kokeyo, 2020). The research model is figured out in Appendix 2.

Achievement: The research has mentioned the matters of general competitive strategies. Porter’s five forces, strengths & weaknesses points are analyzed to determine existing strategies. The qualitative method is used in the research. The author interviewed the owner company, employees & customers. Based on these outcomes & theories, the author proposed new alternative strategies to gain competitive advantages.

Limitations: The thesis is solely solving strategy formulation and strategy implementation. All new strategies concentrate on differentiation.

The third topic: *“Development of Business Strategy for Company X”* (Marova, 2014). The research model is figured out in Appendix 3.

Achievement: The research indicates the empirical strategy management. The techniques of PESTEL analysis, BCG matrix, SWOT analysis, Porter’s five forces model, and SFAS matrix are used. The thesis is using qualitative research.

Limitations: The research focuses on analyzing of internal & external environment, strategy formulation, assessment in terms of existing business, and gauging the compatibility of business strategy and functional strategies. It’s seemingly shortage objective assessment from the customer.

The fourth topic: *“Case Company Expansion Strategy in the Electric Surfboards in Europe”* (Shamray, 2023). The research model is figured out in Appendix 4.

Achievement: The research has meaningfully applied the basic strategy theories in the practical case company. Porter's five forces, balanced scorecard, competitor review, Benchmarking, and measurement through KPIs & OKRs are effective analysis and measurements that cover successful expansion. Finally, the author has summarized the strategies in a one-page model.

Limitations: The research will be more reliable and feasible if the market survey is applied. Or the strategy will be more valuable if workshops are conducted with experts in related industry.

The fifth topic: *"The Balanced Scorecard to the Rescue of Small Business: Building a Strategic System for the Needs of a Growing Technology Company"* (Talvensaari, 2021). The research model is figured out in Appendix 5.

Achievement: The research has successfully mentioned strategy management. Techniques as Porter's five forces, SWOT analysis, balanced scorecard, blue ocean strategy, business model canvas, and strategy map is applied in the research.

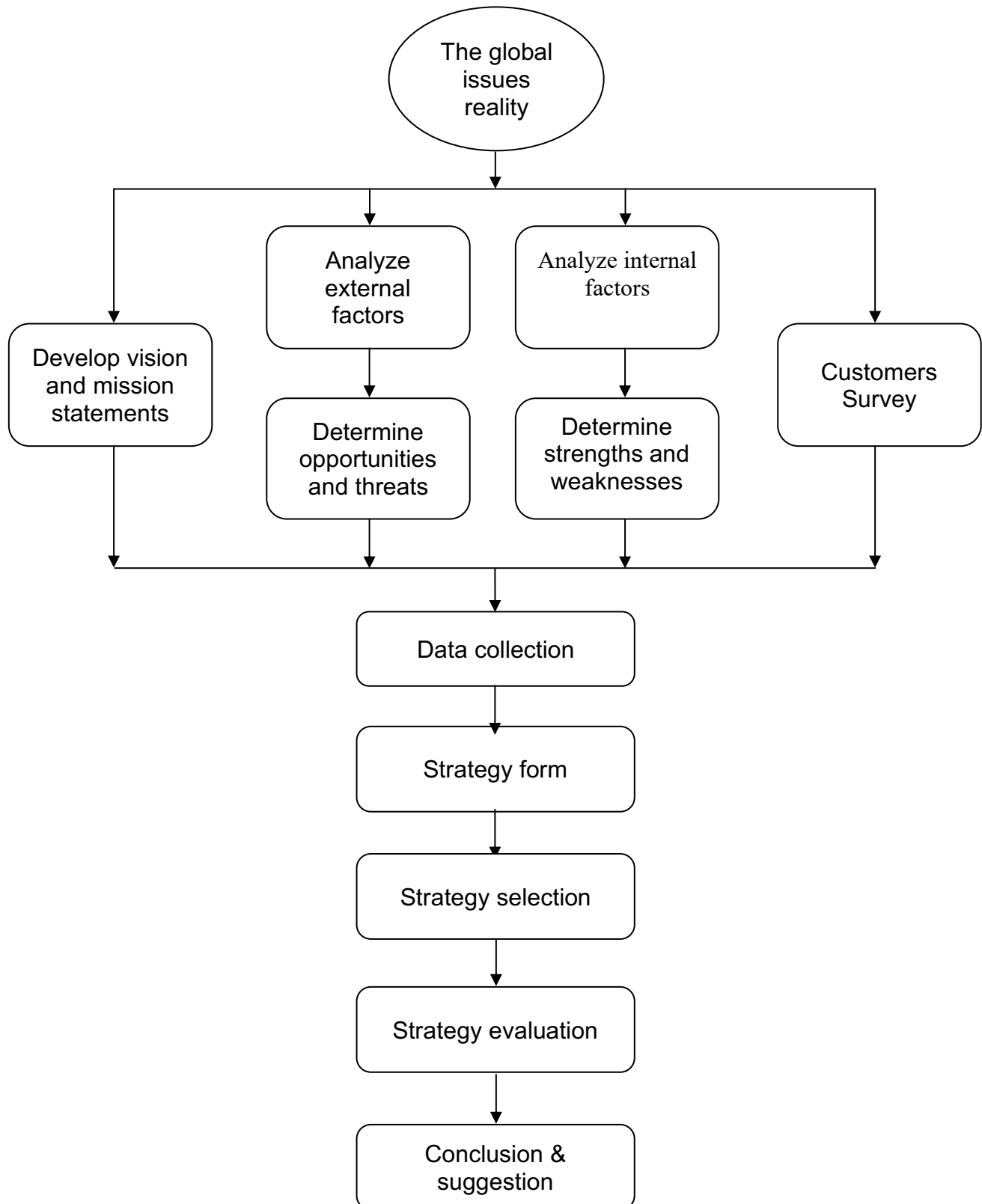
Limitations: Employee survey to determine internal competency. The workshop is conducted via team. The author suggests that traditional theories should be cleared when the research combines between traditional and modern theories.

In a nutshell, the review indicated that most of the previous research has approached by classical models and empirical theories. The qualitative method is approached. The couple of research is purely built on strategic formulation by empirical theories. It seems that a comprehensive strategy has not been approached in the studies.

2.8 The research process proposal

The idea that this research should approach a distinctive model of strategic management compared to previous studies; The research should solve the matters of SMEs's strategy that have not been studied before; the audience can approach the strategy from multiple perspectives. Therefore, the author would like to propose a process for this research based on the limitations of previous studies, David's strategy model, GL company's situation, and the impacts of the economic crisis.

Figure 11 The research process proposal (the author's proposal, 2023)



3 GL's business environment screening

Based on the fundamental theories in Chapter 2, the author will analyze the impacts on GL's business environment. In particular, the author will conduct three major parts.

The company introduction.

The external factors are affecting GL company.

The internal factors are affecting GL company.

The analysis will be implemented as follows.

3.1 Company introduction.

3.1.1 The establishment and development description

The owner has deeply experienced electronic business in the Vietnam market for many years. The founder was promoted to positions such as representative sales, Senior sales, Sales Manager, and Country Head in multi-national companies from the US, EU, and Singapore. While working, she faced many problems regarding customer service. For instance, international companies are working constraints on the processes. In particular, the debts are warranted by third party (a financial companies). The third party evaluates customers through financial reports or bank performance which SMEs are usually not good enough in indicators. Therefore, international companies don't want to support SMEs in the Vietnam market. Or even they don't want to work because of low volumes. Moreover, the warehouses of global distributors are based in other countries such as Germany, the US, Singapore, and China. Delivery term is normally offered ex-works term in electronic distribution. Because international companies don't want to push more workforces relating to local laws which they are not clear in each country/region. So, it is not convenient for domestic companies. Vietnam is an emerging market. This market has become a hub of manufacturing companies in the global supply chain. SMEs account for 96% of all businesses (OECD iLibrary, 2021). They need support with technical things, delivery, financee, raw materials. Therefore, GL Electronic Vietnam Co., Ltd has been established as a start-up company since 2019. This is a private company with 100 % capital from the owner. The company became one of the electronic component distributors in

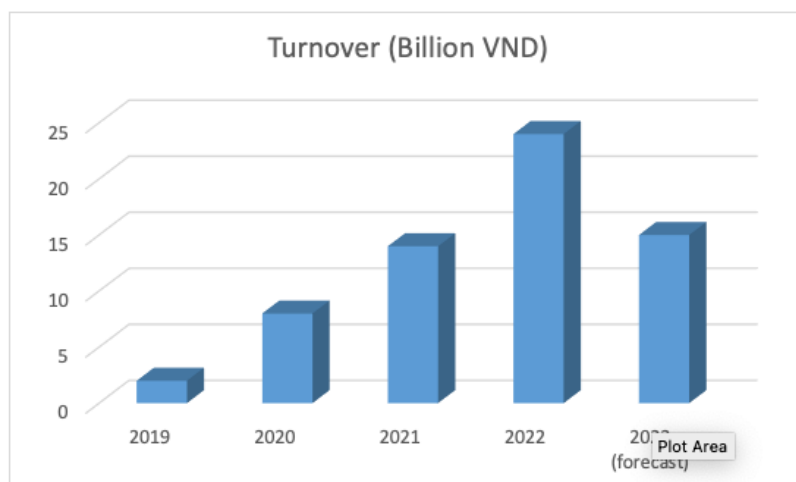
the Vietnam market. During the first 2 years, the company has an office and warehouse in Ho Chi Minh City (Southern Vietnam). Then, The company has extended one representative office in Da Nang (Central Vietnam) and one representative office in Ha Noi (Northern Vietnam) in the last year. So far, the company has covered the whole Vietnam market.

Figure 12 The GL's offices location (GL, 2023)



Since the beginning of its establishment until now, GL has taken the opportunities and strengths. Therefore, the company turnover is increasing year by year. However, It has trended down because of difficulties in the economic situations.

Figure 13 Turnover of GL Electronic Vietnam Co., Ltd (GL, 2023)



GL is continually developing and affirming its reliability, position, and brand in the passive electronic component business in the Vietnam market. The investment to extend representative offices as a strong commitment to a long term development strategy in the Vietnam market.

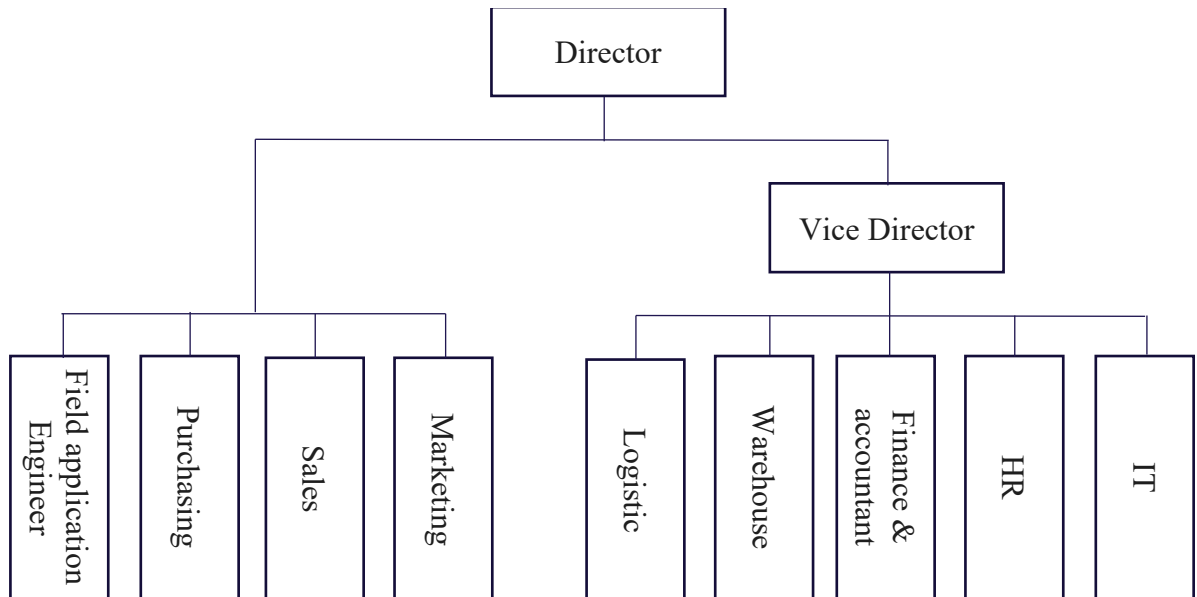
3.1.2 GL organization

The Director directly manages departments such as Marketing, Sales, Purchasing, and Field Application Engineer.

The Vice Director will report to the Director. He is in charge of IT, HR, Finance & Accountant, Warehouse and Logistic.

Each department has a manager who will directly manage its operations. The manager has the responsibilities to report to his/her direct manager (Director/Vice director).

Figure 14 GL organization (GL, 2023)



3.1.3 Human resource

GL has currently 19 employees who have owned educational levels from vocational to master's degrees. All staff are Vietnamese people. The majority workforce is concentrated in Ho Chi Minh City. Because headquarter is based in here. Ha Noi City and Da Nang City are the only representative offices with few sales and engineers as the initial steps of market penetration.

Region allocation

Table 2 Workforce is allocated by region (GL,2023)

| Total workforce: 19 staff (until 31/12/2023) | |
|--|-----------|
| Location | Workforce |
| Ha Noi | 3 |
| Da Nang | 2 |
| Ho Chi Minh | 14 |

Department allocation

Table 3 Workforce is allocated by department (GL,2023)

| Total workforce: 19 staff (until 31/12/2023) | |
|--|-----------|
| Department | Workforce |
| Board of Director | 2 |
| Sales | 6 |
| Marketing | 1 |
| Purchasing | 1 |
| Field Application Engineer | 2 |
| Logistic | 1 |
| Warehouse | 3 |
| Finance & Accountant | 1 |
| HR | 1 |
| IT | 1 |

Educational allocation

Table 4 the educational level (GL, 2023)

| Educational level | Workforce |
|-------------------|-----------|
| Master degree | 3 |
| Bachelor degree | 13 |
| Vocational degree | 3 |

3.1.4 The process operations.

The delivery process: refer to Appendix 6.

The receive process: refer to Appendix 7.

The payment process: refer to Appendix 8.

3.1.5 The products

GL is supplying passive components with authorized brands such as Huawei, Weidy, Setfuse, Zonkas, Topdiode, Y.Lin, and WTL. There are thousands of passive components in the electronic market. However, the author will present the basic components as protection components, capacitors, resistors, LEDs, and crystal. It helps audience easily imagine what are the products supplied by GL company. The author will not describe all passive components because of thesis limitations.

Protection components

Over temperature protection: Thermal link alloy type (ATCO), direct current thermal link alloy type (DC-ATCO), thermal link organic type (OTCO), and so on.

Over voltage protection: transient voltage suppression diodes (TVS), metal oxide varistor (MOV), electrostatic discharge (ESD), Surge protective device (SPD), gas discharge tube (GDT), thyristor surge suppressors (TSS), thermal fuse varistor (TFV), so on.

Over current protection: Low voltage fuses (LV), thermally protected resistor (TPR), miniature fuses, cartridge fuse-links (CFL), sub-miniature fuse, surface mount fuse, fusible wirewound resistor, thermal link & fusing resistor.

Figure 15 protection components (Setfuse, 2023)



Capacitors:

There are many types of capacitors which are shaped in surface-mounted technology (SMD), radial, snap-in, screw terminal.

Aluminum electrolytic capacitor: ultra-miniature, standard, low-impedance, high reliability, bipolar, wide temperature, wide temperature – long life, low ESR, Low ESR – long life, low leakage current, high ripple current, so on

Conductive polymer hybrid aluminum electrolytic capacitors: standard, high temperature

Conductive polymer aluminum solid capacitors: standard, low ESR, long life, high temperature, high voltage.

Figure 16 Aluminum electrolytic capacitors (Changzhou Huawei Electronics, n.d.)



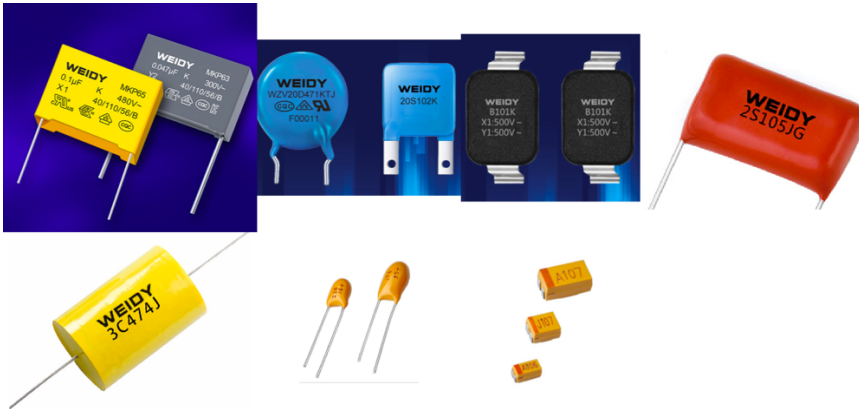
Film capacitors: polyester film capacitor, polypropylene film capacitor, interference suppression capacitor, voltage-reduction capacitor, power electronic capacitor, AC capacitors.

Ceramic capacitors: safety recognized ceramic capacitors, temperature compensating type ceramic capacitors, high dielectric constant type ceramic capacitors.

Varistors: surge protection, power varistor.

Tantalum capacitor: epoxy dipped tantalum, chip tantalum, Low ESR chip tantalum, polymer tantalum

Figure 17 Film, ceramic, varistor, tantalum capacitor (Weidy Industrial Electronic, n.d.)



Resistors: Thick film chip resistor, thick film chip resistor network, multilayer resistor networks, carbon film fixed resistor, precision metal film fixed resistor, fusible resistor, metal oxide film fixed resistor, wire-wound fixed resistor, jumper wires & zero-ohm resistor, terminal, cement fixed resistor, metal glaze film fixed resistor, so on.

Figure 18 resistors (Zonkas, n.d.)



LEDs: Dip LED, SMD LED, IR LED, digital display, UV LED

Figure 19 LEDs (Y.Lin, n.d.)



Crystals: quartz crystal, tuning fork crystal, crystal oscillator, fastxo crystal oscillator, VCXO, OCXO, TCXO/VCTCXO, saw resonator, saw filter.

Figure 20 crystals (WTL, n.d.)



3.1.6 The services

GL has committed to supporting customers 24/7. The company is offering delivery at the customer's warehouse. Sales will present to clarify and solve defective goods within 2 days. The samples will be supported free for quality evaluation. The company supports customers for inventory if they have a production schedule and forecast clearly. The purchasing department will support customers to pull in, push out or cancel with suppliers if the projects have any changes.

Financial support: Besides payment in advance, the Director will evaluate customers and support depts as credit payment within 15 days, 30 days, or 45 days. This evaluation based on payment history and how are potential customers.

Technical support: The company has field application engineers who will support customers in technical things. Particularly, engineers and sales will work together. They will support the customer's sourcing team to cross parts – and find alternative parts with competitive prices. They also work with customers' R&D to offer new solutions and edge technologies.

Representative sales will closely follow customer's purchasing, sourcing, and R&D to bid in new projects or pre-bid in existing projects, provide certificates, catalogs, and datasheets. They will help customers to cost down BOM.

3.1.7 Customer and supplier target

The targeted customers who are designing and producing electronic devices. They are normally electronic manufacturer services (EMS), original equipment manufacturers (OEM),

original design manufacturers (ODM), traders, and design houses. The market is related to power supply, lighting, telecommunication, automotive, security & protection, home appliances, medical devices, toys, smart devices, and so on.

The targeted suppliers are electronic components manufacturers who have owned technologies and factories. They have experience in many years. They got product certificates for safety, environment, ISO, and quality standards. They commit to supporting and protecting demand creation. They accept to grant authorization for GL in the Vietnam market.

Existing suppliers are as follows.

Changzhou Huawei Electronics Co., Ltd was established in 1987. This is a subsidiary of Huawei Corporation. They owned R&D, and manufacturing. They got a lot of quality awards. Their products are accepted in strict markets such as the US, Japan, Korea, Germany, and so on.

Weidy Industrial Electronic was founded in 1998. The company owned technologies and its production. They got ISO certificates, product certificates, and corporate honors.

Xiamen SET Electronics Co., Ltd was established in 2000. The products are exporting more than 40 countries. They got a lot of certificates like standard quality and safety, environment, and management system. They have technologies, a testing center, and a factory.

Zonkas Electronic Co., Ltd was built in 1982. They have offices in Taiwan and Suzhou, China. Their factory is in Dongguan. Their products are certified by the environment, safety, and management system. They have technologies in capacitors, inductors, varistors, and transformers.

WTL International Limited is a high-tech enterprise in frequency components who is founded in 2012. Their products are exported to the UK, Canada, the US, Singapore, Taiwan, and so on. They owned Lab tests, factories, ERP systems, quality certificates, environment certificates, and export standards of the EU.

Topdiode has manufacturing facilities, R&D center. This company is built in 1996. They have achieved quality awards and a management system. Their customers are Bosch, Midea, Philips, Delphi, and so on.

Y.Lin Electronics Co., Ltd was founded in 2005. They have technologies with R&D team and manufacturing management team. They are a high-tech LED company. They got ISO certificates and quality certificates.

3.1.8 Vision, mission, and core value of GL company

Vision: The leading distributor of passive electronic components in Vietnam by 2033.

Mision:

To diversify the products by increasing authorized brands.

To Focus on customers to increase market share.

To be a profitable business to contribute to the company's development.

To behave community responsibility through tax obligation & annual charity.

Core values: Integrity, customer focus, teamwork.

3.1.9 The achievement and limitation

The author will outline the progress and challenges of GL's strategy implementation during the years 2019 to 2023 before analyzing the impact factors of the internal and external environment.

Achievements:

After five years of operation, GL has become one of the reputation, quality, and professional electronic component suppliers in Vietnam. Customers spread across many fields: home appliances, smart homes, medical equipment, power supply, amplifiers, and so on.

Facilities, the company has a system of offices in the three regions and a warehouse in Ho Chi Minh. The company has invested forklifts and transport vehicles to respond the customer requests.

Customer satisfaction is our top priority. Our workforce is young, dynamic, and enthusiastic. Employees are trained in specialized skills, available in the three regions, and ready to meet customer expectations.

The company built internal labor regulations, salary, and sales incentives. The friendly and professional environment has created engagement and got the best contributions. ISO is a management system in the progress building aiming to gain operation standards & quality standards.

Limitations:

Some sources are highly competing compared to rivals. So, the profit is low in business. The company has not planned to find alternative sources yet. The company is focusing on market penetration in the first five years. The targeted customers are not determined to increase the profit.

The company has not conducted maximized cost of operations such as purchasing, sales, transportation, and administration. Several employees who have not paid attention in spirits and responsibilities to achieve the best performance. The intercommunication is still not enough fast, proper, and accurate.

3.2 External environment analysis

The global environment impacts, and domestic impacts will be analyzed by techniques of PESTEL and Porter's five forces model. The author will figure out opportunities and threats that are possibly affecting GL's company in the next five years.

3.2.1 The factors of macro-environment impact

PESTEL is applied to analyze the factors of macro-environment in the following.

Political factors

Stable politics is an advantageous business environment for both local enterprises and foreign companies. This is the main factor in attracting FDI (Masan Group, 2023).

Vietnam and the US have signed bilateral trade and investment ties. Vietnam probably become a manufacturing hub to contribute to the global supply chain. Viet Nam will be a destination for US technology companies like Intel, Google, Marvell, Amkor, and so on. The US supports Vietnam to train engineers in design chips (Bose, Guarascio, & Hunnicutt, 2023). The electronic ecosystem is developed through the US-Vietnam relationships. The electronic market is in bright aspect to develop for GL company

China-US trade war imposes tariff barriers. It is directly impacting export goods, supply chain disruption, and cost increase. Electronic companies try to escape taxes by shifting their production to other countries. Vietnam is one of their destinations (Cali, 2018). Vietnam get benefits from this tension which plays a crucial role as a provider of components and a significant end market.

The Russia-Ukraine war is contributing to inflation in the globe. The energy prices hike exacerbates the economic situation. The cost of transport, inventory, production, and raw materials is gradually increasing. Especially, Electronic components are in severe shortage. Because the crucial materials for chip production are in Russia (44% palladium of the world) and Ukraine (70% neon in the globe) (The Economic Times, 2022). The production schedule is pushed out or canceled because of ICs shortages. GL is affected by high inventory level.

Israel – Hamas war is significantly impacting global logistics. It rises the cost of premium surcharges. Even, marine vessels are not allowed to move in this red sea because of terrorists. Transportation time is taking longer and more costs. The transportation is going through the Indian Ocean instead of the Red Sea as before. Israel is also a center for designing chips and fabrication factories (Valerio, 2023). The risk of component shortage possibly happens if the war escalates in long time.

The geopolitical tension between of China and Taiwan has posed instability and uncertainty for the global economy such as supply chain disruption, logistic & material prices increase, goods costs increasing. Particularly, Taiwan is the source of global semiconductors (accounting for 63%). Almost, the electronic factories are impossible to operate if they don't have chips. The electronic component prices will hike because of 78% of global metal from China (Salimullah & Kirubakaran, 2023). GL has a potential impact on suppliers and demand slow-down. It's reducing competency because of unprecedented transportation.

Vietnam has geopolitical conveniences. Indeed, Vietnam is located in the central of Southeast Asia. The coastal length is over 3000 km. it has borders with Laos, Cambodia, and China. The transport infrastructure consists of seaports, railways, airports, freeways, and inland waterways is rapidly developed to adapt to the economy.

Economic factors

Trade agreements are a leverage in the economy. Viet Nam is expecting benefits from 2022 to 2026. Several significant agreements are such as RCEP, EVFTA, and CPPTP (OOSGA, 2023). These agreements are supporting to reduction of barriers in business aim to attract FDI companies. GL got tax benefits from these agreements.

The US policy for building a resilient supply chain in the globe. Vietnam is one of countries to join the global supply chain. The US has launched its strategy for the Indo-Pacific Economic Framework for Prosperity (IPEF). The economic connection ensures benefits for SMEs in the e-commerce sector. Moreover. This framework also focuses on economic resilience, a clean economy, and a fair economy (The White House, 2022). This policy will create favorable conditions to develop potential foreign customers who are contributing to GL's development in the long term.

The foreign investment hike: Although the Vietnam economy is facing difficult factors, its foreign investment increased more than 20% in the first 10 months of 2023 (General Statistics Office, 2023). This is a positive signal that GL possibly focus its strategies on foreign customers in the next 5 years.

The inflation is at a high level. FED tried to amend interest rates up to 11 times in 2022 – 2023. This action is impacting investing and purchasing significantly (Royal & Baker, 2023). it is causing demand slowdown in long term.

The USD exchange rate rising has a crucial impact on import - export goods (Vietnam News, 2023). Indeed, the gap in USD exchange rates between contract confirmation for customers and payment for suppliers has reduced GL's profits in short term. Because the costs of goods, inventory, and logistics are increasing.

Amidst foreign exchange pressure and high inflation, the State Bank of Vietnam has reduced interest rates (WTO Center, 2023). The enterprises are easy to access capital. Their business and production are favorable to loan costs. The purpose boosts the economy and macro economy stability.

Vietnam's logistic cost is still high compared to other countries in the region and the world. It accounts for 16.8% of GDP compared to the global average of 10.7% (Thanh Nien Magazine, 2023). GL is paying more charges when shipping the goods, and the company is facing many additional costs and long time for customs clearance. It is affecting competitive advantages.

The global supply chain disruption is impacting raw material prices. Vietnam becomes the manufacturing hub. Almost, the country is importing components and exporting the finished goods. The economy is facing factors: missing long-term planning, local supply base shortage, delivery challenges, human resources, technology, and digital solutions (Zuerl, n.d.).

The growth rate of FDI companies is significantly increased in the past decade. The component suppliers are continuously dominated by global distributors and regional distributors. SMEs are facing a lot of challenges as competitive prices, quality issues, capital, inventory capability, and reliability lead to constraints of joining the supply chain for foreign enterprises (International Labour Organization, 2022).

The global economy is slowing down reasons from inflation, monetary policies, geopolitical disputation, wars, energy crisis. The US market and EU market are potential headwinds to forecast recession. It is significantly affecting the global demand (Dapice, 2023).

Social factors

Vietnam is a potential market for goods and services. The population is rapidly growing year by year. It is estimated over 99 million in 2023 (Worldometer, n.d.). It is also a flourishing resource and talent pool.

Vietnam has a young and dynamic population. The statistic is indicating Vietnamese is getting 32.8 years for median age in 2023 (Worldometer, n.d.). this is an expectation of the other developing countries. Because it contributes abundant workforce.

The population is majority located in big cities and industrial areas (Worldometer, n.d.). It is creating unequal development between areas.

Generally, Vietnam people have a family culture. The young people respect the elder people. China occupied Vietnam for roughly 1000 years, Western countries invaded for about 100 years. So, Vietnam is affected by culture in many countries. Additionally, Vietnam has many ethnic groups and distinct languages. Vietnamese is basically used in education. This factor needs to consider to develop customers and employees.

The labor cost is low compared to other countries in the region. Normally, labor cost is approximately 55% of operation cost. Vietnam is ranked third in Southeast Asia. It is suitable to develop for electronic manufacturing (Bartels, 2022).

Vietnam lacks high-skilled labor. High-skilled accounts for 9% only in 2021 (YANG & Anh, 2022). Because there are mismatches between education and practical workplace, and company in Vietnam are often on a small scale. They have no chance to adapt the complex manufacturing processes.

Technological factors

AI development: This technology is supporting the companies to develop practical applications, learning machines, input/output analysis, smart home, smart devices, smart agriculture, and so on. It boosts demand for electronic components. (Lonnon, 2023)

5G network is deployed in the world. It generates huge electronic component demand. Because network infrastructure is upgraded, a number of devices are also re-design for compatible technology (Lonnon, 2023)

Electric vehicle technology: Electric vehicles are being boomed in the market. So, the electronic components belonging to automotive grade are concentrated manufacturing and high competition in technology. The charging station, navigation, safety alarms, and CPU of cars are in high demand (Lonnon, 2023).

IoT technology: The devices are popular nowadays. Communication modules demand is surging in the market. The component trend must follow smaller and smaller sizes with

competitive prices. Because, These applications are used in the consumer sector (Lonnon, 2023).

The digital transformation is rapidly developing. The Vietnamese government allows the companies to implement online for their operation process. For instance, invoice issuing, and customs declaration are conducting a fast and effective way. It is saving time, cost, and corruption reduction certainly.

Organic electronics: Nowadays, climate change has impacted human life. The organic electronics is a solution to solve pollution. Furthermore, this material has advantages compared to typical electronic components. It is low cost, lightweight, and less electric consumption (Econotimes, 2022). This is a trend of sustainable development. It will create differentiation with rivals.

3D printing: this is cutting-edge technology that is forecasted for a huge development in the next decade. So far, it is developing in the US and EU. This technology will hit \$55.8 billion in 2027 compared to \$5.8 billion in 2017 (Econotimes, 2022). GL is possibly to create its competitive advantages if the company supplies these components to support this technology.

Environmental factors

Vietnam is one of the vulnerable countries that is severely impacted by climate change. storms, landslides, droughts, and flash floods strike Vietnam yearly (USAID, 2022). It is possible to destroy the economy and society.

Vietnam is investing in reliable power supply by renewable energies. Renewable investment in Vietnam accounted for 31%, ranked second of ten developing countries in the world (United Nations, 2023). This factor figures out that Vietnam is still a safe destination to attract FDI in long term.

Zero carbon emissions are targeted in 2050 at COP26 by the Vietnamese government. Vietnam signed numerous agreements in terms of emission cutting to align this commitment (USAID, 2022). The solar projects and wind projects are contributing to mitigating greenhouse gas emitters.

The air and wastewater pollution are negatively impacting the economy. There are losses of 5% of GDP because of air pollution yearly (Winrock, 2023). Vietnam is ranked 13th among 25 regional countries and 115th of the global 180 countries in terms of the environmental performance index in 2020.

Legal factors

Decision No. 879/QĐ-TTg of Prime Minister in terms of electronics and telecommunication technologies is oriented to develop from 2025 to 2035. Particularly, electronic components and devices are a priority developed until 2025 (Prime Minister of the Socialist Republic of Vietnam, 2014).

Resolution No. 115/NQ-CP: The government encourages the development of industrial support. The target achieves 45% local demand in 2025, and up to 70% in 2030 (Vietnam Briefing, 2020). Electronic components belong to be industrial supporting to development electronic industry.

Anti-corruption law: Vietnamese government has strongly implemented an anti-corruption campaign since 2019. So far, this campaign achieved a positive impact on the economy. The provincial competitiveness index is reducing by 41.4% in 2021 compared to 70% in 2006 (Giang, 2023). It means unexpected costs are reduced in business, attractive FDI because of the transparent environment, and driven SMEs development because of interest group elimination. However, this law is in progress. This issue is still a concern for investors.

Law of investment incentives: The purpose of these incentives is to attract investment from both local and foreign companies through advantageous tax rates and tax exemptions. Electronics is a targeted industry to develop in the 2020-2030 period (Vietnam Briefing, n.d.).

Intellectual property rights: Investors are highly concerned this factor. The Watch List for 2023 includes Vietnam (U.S. Department of State, n.d.). Indeed, this is a negative impact on the investment decisions for high-tech companies.

3.2.2 The factors of electronic industry impact

Porter's five forces model will be applied to analyze the factors of the electronic industry in the following.

The competitors

Thegioiic Company.

Thegioiic is a Vietnamese company. The company was founded in 2012. They have experiences in the Vietnam market for over 10 years. This company is located in Ho Chi Minh City. The brands are almost from Chinese manufacturers. They are doing business as a distributor and trader. They are successful in e-commerce. The components are almost sold through the website. The products include passive components, active components, modules, and electronics accessories. The customer base is the majority of students, Vietnamese startup design companies, and local manufacturers who need to be fast in support, and available components. However, they are not strong enough to sell components following the lead time, and the market is focusing on Southern Vietnam. It is less focused in Central and Northern Vietnam. They are concentrating the prices rather than quality.

AT-COM Electronic Co., Ltd.

ATC was established in 2010. This is a Vietnamese company. They are operating both Distributor and Design House. Their market is widespread in Vietnam. But, the strongest market is still Southern Vietnam. They are also selling to several Southeast Asia countries for specific projects. The products consist of passive components, active components, and modules. The company is strong in antennas, wireless, Bluetooth, and GSM/GPRS modules. The targeted customers are OEM, ODM, and EMS companies in the local market. The majority of brands come from China. There are some well-known brands. They build development strategy based on elements of employees, quality, technical solutions, the competitive prices.

EPI Vietnam Technologies Co., Ltd.

EPI was founded in 2013. Vision is the lead in electronic component distribution in the Vietnam market. It is located in Northern Vietnam. This is a Vietnamese company. Initially, they strongly support Vietnamese companies. In recent years, they have been penetrating international EMS

companies. The company is concentrating on applications such as electronic consumer, telecommunication, IoT, and smart home. It has achieved the management certificate ISO 9001-2015. The products include active parts, passive parts, wire harnesses, accessories, and tools. They have sales team in Northern, Central, and Southern Vietnam

Additionally, there are existing global distributors, regional distributors, and E-Commerce channels in the Vietnam market. They are giant electronic component companies. They have hundreds of famous brands in the globe. Their products cover almost all electronic components field. They are strongly in supplier base, customer base, capital, and big data. The targeted customer is focusing on international companies, EMS, ODM, and OEM companies. They are providing solutions, technologies, and components as well.

Global distributors: Future Electronics, TTI, Avnet, Arrow Electronics, Rutronik.

Regional distributors: Lechamp, IC Resources, Excelpoint, Nexcomm Asia, Agastya.

E-Commerce channels: DigiKey, Mouser, Element14, Farnell, Octopart, Newark.

The alternative products

Passive components are likely replaced by alternative parts. There are also several parts that they can't change or find the alternative parts. It depends on design, application, technology, and manufacturer. However, the engineers are almost able to find out pin-to-pin compatibility from other manufacturers. It's not so high technologies.

The new rival entry

In several years recently, Vietnam become an electronic manufacturing hub, and this country joined the global supply chain. Therefore, many passive component suppliers are focusing on Vietnam as a potential market. Many passive suppliers have joined such as global distributors, local distributors, regional distributors, traders, stockists, and online channels. Each supplier has different competitive advantages such as competitive prices, high quality, reliable sources, reputation brands, and inventory.

The global distributors normally come from the US or EU. They have many authorized line cards. They are focusing on big projects and global projects. They supported customers worldwide. So, they are trying to get business when the projects come to Vietnam for production. They are protected by component manufacturers.

The regional distributors are majority from India, and Singapore. They have a lot of authorized line cards. Their line cards are usually less than the global distributors. However, they are still very strong in the market. They are supporting the regional projects.

The local distributors are weaker than global and regional distributors. There are Vietnamese startup companies or joint ventures between Chinese and Vietnamese companies. Almost, they are supporting the local customers. Because they understand cultures and regulations. So, it is easy to penetrate the domestic market. GL belongs to this supplier group.

Additionally, there are operation of traders, stockists, and online channels. They are supporting flexibility. They have advantages in the pandemic because of supply chain disruption, and they are fulfilling demands which customers need fast support. Customers accept to pay in higher prices or old date codes compared to authorized distributors. This supplier group is usually competing for the prices.

In a nutshell, the new suppliers are easy to join the market. The Vietnam market is highly competing for the electronic component field.

The bargain ability of customers

The electronic component business is a specific field. In the normal process, the distributor will support new solutions and new edge technologies for customers when they have concepts at the beginning of designs. Simultaneously, samples will be supported for testing in the prototype phase. This distributor will report the project information and project scale for the manufacturer. This effort is often called design in or demand creation. The manufacturer will record and track this project until it comes to the mass production site. The manufacturer will protect for this effort. For example, GL supports a design in the US. Mass production is running in Vietnam. If GL is authorized to sell in the Vietnam market. The manufacturer will prioritize allowing GL to sell to the customer. The manufacturer will not quote to any other authorized distributor. In case, GL doesn't have authorization in the Vietnam market. The manufacturer will quote for

another authorized distributor to sell to a customer. GL will be paid incentives for demand creation efforts or GL will be handed over to these other projects to compensate for these efforts. This will depend on a case by case. If customers don't want to work with the existing authorized distributor, they can request to change distributor in reasonable reasons or they can decide to buy from traders, stockists, or online by themselves. However, when quality issues happen, it will not be the responsibilities of the manufacturer and distributor. So, customers prefer to buy from authorized distributors rather than traders, stockists, or online because of reliability. This process will mitigate the price confliction and distributor conflict. It is not hard to approach the sources for customers.

Vietnam market has many passive component suppliers. Customers can buy passive components from global distributors, local distributors, regional distributors, traders, stockiest, or online channels. There are many options. It is easy to customer approach new suppliers.

Moreover, GL is a startup company that doesn't have much line card compared to the global distributors. Generally, customers have highly powered bargains.

The bargain ability of suppliers

The suppliers are electronic component manufacturers. They own technologies and solutions for designs. The suppliers have highly powered bargains in global projects. Because customers don't want to replace components unless there are obsolete parts in the BOM. The replacement is a complicate process. It takes long time and more costs to test and re-apply certificates for the markets.

In contrast, the suppliers have less bargaining power than for small projects or local projects. Because designers are easy to use alternative parts. They can modify their designs easily. In the first 5 years of operation, GL company just focused on market penetration. The targeted customers are high-end and low volume. The negotiation has a low chance. Therefore, the bargaining power of suppliers depends on special projects.

3.3 Internal environment analysis

The author will go through the departments of the company to analyze strengths and weak points which need to be improved more and more for the company development strategy.

3.3.1 Management

The Director and Vice Director are educated at the Master of Business level. They have deeply experienced and achieved outstanding results in the industry at multinational companies before.

The company is focusing on sales to penetrate the market in the first operation in five years. So, the sales employees more than other departments. There is one Sales Manager is educated at Master level. The rest of the managers have been educated Bachelors. However, they have almost experienced and enthusiastic jobs.

The company is on a small scale. The majority of departments are limited employees. Currently, the employees are expected to solve jobs rather than manage their teams. So, the Board of Directors has not paid attention to training except the sales department. In the growth progress, the company has planned short-term courses to train skills in management.

Previously, wage was built based on experience, ranking, merit, difficulty, type of work, attitude, and incentives based on the results of work. However, it is seamlessly not fair for individual outstanding performance. The company needs to review aim to boost employees to work in the best efforts.

The task allocation is not equal to expectation. Therefore, some are overloaded departments, and others do not have pressures. It has not been satisfied in feeling between departments yet. The sales manager is managing the margin. Sales don't have the power to decide selling prices. This matter needs empowered appropriately.

The suppliers and quality products evaluation are necessary to ensure reliability and increase the company's reputation. The Board of Directors and Managers should consider strategy appropriately, generate operation processes, and internal company policies to increase productivity, save costs aim to increase profits for the company.

3.3.2 Purchasing Department

The purchaser has experience in the electronic component business. The responses are implemented quickly when sales need support such as placing orders, canceling orders, working

with suppliers to determine delivery schedule, pull in or pushing out goods when a customer's production has been changed schedule. The purchasing is almost following back-to-back ordering aims to maximize quantity inventory and reduce inventory cost. Besides that, the purchaser has also placed orders to stock following customer demands.

The passive components are bought by manufacturers from China. The negotiation is not highly effective. The purchaser doesn't have much power to deal with prices, payment terms, and delivery terms. Because it probably affects a part of the company's scale.

The company has not set up people in the department to evaluate quality manufacturers, and products practically. So, it is being potentially defective goods.

The purchasing orders are separately placed to manufacturers. The purchaser has no strategy to consolidate orders aims to increase volume, reduce prices, and delivery costs. The workload is heavy. The employees usually follow the normal processes to complete the tasks. They lack creation of jobs.

Besides the increasing volume of consolidated shipments, the purchaser needs to work with sales to find reasonable reasons. For example, competitors, competing prices, potential projects, and potential alternative sources to cost down prices aim to increase competitive advantages. The majority of passive components are imported with tax incentives except for connectors, LEDs, and cable harnesses. Because these components are reduced by domestic manufacturers.

3.3.3 Marketing Department

The marketing employee has closely worked with sales employees to visit customers in monthly. Based on the customer's BOM, customer demands, and feedback from customers, The marketing employee finds new sources, and work with existing suppliers to fulfill customer requests.

The marketing department is a successfully representative company to contact and convince new manufacturers to accept granting authorization for GL in the Vietnam market. Initially, they negotiate with suppliers through potential projects, potential customers, market share, volume, GL's advantages, and so on.

They are friendly in building relationships with existing manufacturers. Normally, Engineers and Sales from suppliers will come to visit Vietnamese customers quarterly. They would like to support and evaluate both GL and customers. The GL's Sales and Marketing arrange to visit potential customers, report potential projects and results.

The purchasing and marketing employees are working together to achieve effective negotiation in prices, payment terms, and delivery terms to support the sales department and create competitive advantages for the company. The company joins tech exhibitions to introduce products, services, and GL's brands to customers and market.

Initially, the company has not built a website and catalog for the introduction. The employees are almost introduced through tablets or laptops when they visit customers.

There is high pressure to report suppliers and are forced to solve issues from sales. They don't have enough time to cover all jobs. They worked on prior issues to complete tasks. So, there are some complaints from Sales or purchasing employees. It creates internal conflicts. Need focus on developing more reliable brands and famous brands. The source needs to be diversified origin from the US, and EU rather than China only.

3.3.4 Sales and Field Application Engineer Department

The employees are young, dynamic, and enthusiastic in jobs. They have experienced and achieved good results in the same industry before. The employees are often trained in technologies and products by engineers or marketing teams of suppliers. Field application engineers are closely working with customer's R&D to introduce solutions, and edge technologies, and support customers in designs.

Sales employees work together customer's sourcing team, purchasing team, quality control team, and warehouse to introduce the company's advantages, services, products through visiting regularly. They cooperate with internal purchasing and internal marketing to fulfill customer requests aim to increase customer satisfaction. The outcomes are reported to Managers, Marketing, and Director in monthly and quarterly. The sales department has explored the market segments through competitor analysis.

Besides, there are limitations that need to be overcome such as.

There are some mistakes in the paperwork. The new employees need to train negotiation skills, language skills and convince customers. The sales employees need to comply with time and regulations strictly. For existing customers, Sales need work to get forecast at least quarterly. It will be the best if the demand is forecasted in half a year or even one year. The company is possibly to consolidate in import goods and ensure inventory level.

Sales employees need to be explor more applications as 3D printing, telecommunication, medical devices, aerospace, electronic vehicles, army instead of focusing on smart homes, IoT, consumers, home appliances. GL is facing a lot of challenges including prices, reliable sources, and inventory capability led to constraints of joining the supply chain for foreign enterprises. The sales need to concentrate on developing a customer base. In particular, the FDI companies is potential customers that need to be explored in the next five years.

3.3.5 Finance-Accountant Department

The inflation is high level. The government is conducting tight monetary policies. The loan interest rate is very high. It is crucially impacted the capital of the company. The financial employee needs to monitor indexes of accounts receivable turnover, accounts payable turnover, cash flow to maximize working capital, and working capital turnover. Capital is allocated suitable for effective operation.

Additionally, the demand of the market is slowing down. Customers try to pull in and push out the goods causing inventory fluctuation. So, Inventory turnover is an important indicator to reduce costs. This indicator needs to be reduced to 30 days instead of 60 days currently. The financial team is also working on the balance sheet, and financial statement. Based on financial indicators, they consult the solutions for the Director.

The accountant has responsibilities to double-check and approve documents relating to importing goods and delivery of goods to customers such as invoices, contracts, delivery notes, purchase orders, sales orders, proforma invoices, and so on. They ensure all documents have accurate information and commit to internal regulations and Vietnamese laws. However, there are some small mistakes in reports that government audits have raised periodically. These issues need to be corrected in the reports.

3.3.6 Warehouse

The employees are young, healthy, and dynamic. Besides, the company trains skilled job, the staff are also trained in behavior and attitude to communicate with customers. The employees always comply with safety requirements, operation processes, inspection, and goods packaging aiming to mitigate unexpected risks and damages. The products are stored based on labels and code through software applications. It is convenient to check quality, quantity and trace the original of goods.

Delivery is supported by a forklift and truck. The warehouse is based in Southern Vietnam. GL's advantages are active in product delivery at the customer's warehouse and saving time when customers need support. While delivery term's global distributors and regional distributors are ex-works (EXW) or free on board (FOB). Because their warehouses are located in Singapore, China, or somewhere else in the EU or the US.

Besides, there are weaknesses which need to improve more and more. The job responsibility is not high leading to delivery shortages or delivery time does not meet customer expectations. Delivery should be managed safely, and effectiveness to ensure quality and reduce costs. The periodic inventory needs conducted in accurate quantity. Warehouse should support the sales team and purchasing team to ensure stock for customers.

3.3.7 IT

IT employees are simply supporting to set up equipment & computers, install software programs, data saving, and network. The company has regularly held internal meetings, technical training, customer meetings, and supplier meetings. So, the information is necessary for company operation. IT will ensure the information system can operate smoothly.

In the initial operation years, the company has not yet built a website, e-commerce system, ERP application, and CRM application. This is a further plan for company cooperation. The role of the IT department is necessary for company development.

4 Building the competitive strategies for GL company

Based the results of analyzing and evaluating at chapter 3, the author will build IEF the matrix, CPM matrix and EFE matrix. The objectives intend to evaluate responses of existing strategies with external business environment, determine internal power of company, and identify potential rivals. The SWOT matrix is built based on the outcomes of the IEF matrix, CPM matrix and EFE matrix. It will reveal the feasible strategies that might support GL company to overcome the challenges of the economic fluctuation. Finally, the QSPM matrix will be used to find out attractive strategies which should be for prior implementation because of constraints in terms of GL company's resources.

4.1 Characteristics of survey research

Characteristics of expert survey in the first times.

The number of samplings is intentionally distributed to 10 samples. The valid results returned 10 samples. The experts are being lead of departments. They have deeply experienced many years in the electronic industry. Males account for 50%, and 50% are female.

Table 5 Statistical information of experts (result of expert survey in the first times, 2023)

| Characteristics of survey sampling | |
|------------------------------------|---|
| The number of samples | 10 samples |
| Gender | 5 female, 5 male |
| Working place | GL Electronic Vietnam Company Limited |
| Position | Lead of department |
| Educational level | 10 peoples owned Bachelor degree |
| Time of working | 5 peoples worked in 5 years, 3 peoples worked in 4 years, 2 peoples worked in 2 years |

Characteristics of expert survey in the second times.

The number of samplings is distributed to 3 samples. The valid results are gotten back 3 samples. The experts are intentionally chosen as being Director, Vice Director, and Lead of the Sales Department. They have deeply experienced many years in the electronic industry. Males account for 33.3%, and 66.7% are female.

Table 6 Statistical information of experts (result of expert survey in the second times, 2023)

| Characteristics of survey sampling | |
|------------------------------------|---|
| The number of samples | 3 samples |
| Gender | 2 female, 1 male |
| Working place | GL Electronic Vietnam Company Limited |
| Position | Director, Vice of Director and Lead of Sales Department |
| Educational level | Three people owned Master degree |
| Time of working | Three peoples worked in 5 years |

Characteristics of customer survey.

The number of samplings is randomly distributed to 35 samples. The sampling returned 35 samples. The valid results are 30 samples. The colleagues have supported sending questionnaire and collecting results through face-to-face meetings directly. They are representative sales of the company who have usually chanced to visit customers. Customers are existing in Northern, Central, and Southern Vietnam. The customer's representative evaluation is the person in charge who has experience such as lead of procurement, sourcing, purchasing, engineering, and warehouse. Males account for 46.7%, and 53.3% are female.

Table 7 Statistical information of customers (result of customer survey, 2023)

| Characteristics of survey sampling | |
|------------------------------------|---|
| The number of valid samples | 30 samples |
| Gender | 16 female, 14 male |
| Working place | 16 companies at Southern, 3 companies at Central, 11 companies at Nothern |
| Position | 3 peoples - Lead of Procurement, 5 peoples - Engineers, 2 peoples - Warehouse, 9 peoples - Sourcing, 11 peoples - Purchasing |
| Educational level | 4 peoples owned Master degree, 26 peoples owned Bachelor degree, |
| Time of working | 7 peoples experienced 4 years, 2 peoples experienced 5 years, 10 peoples experienced 6 years, 7 peoples experienced 7 years, 1 people experienced 9 years, 3 peoples experienced 10 years |

4.2 The input phase

4.2.1 The factors of industrial environment evaluation matrix (EFE)

Based on analytic factors of industrial environment impact and statistical results in Chapter three, the author determines 25 factors in the following.

Table 8 External factors of industrial environment impact (result of analysis and statistic at chapter 3 of thesis)

| No | The industrial factors |
|----|--|
| 1 | Import tax incentives |
| 2 | The political stability |
| 3 | The global inflation |
| 4 | Electronic FDI company increasingly |
| 5 | Vietnam geopolitical conveniences. |
| 6 | Trade agreements |
| 7 | USD exchange pressure |
| 8 | Logistic cost |
| 9 | Loan interest rate |
| 10 | The global demand slow down |
| 11 | The abundant workforce |
| 12 | The low labor cost |
| 13 | Vietnamese culture |
| 14 | AI, 5G, EVs, IoT, 3D printing technology development |
| 15 | Digital transformation |
| 16 | Organic electronic components trend |
| 17 | Climate change |
| 18 | Renewable energy development policy |
| 19 | The zero carbon emission commitment |
| 20 | the air and wastewater pollution |
| 21 | The skilled job labor |
| 22 | The global supply chain disruption |
| 23 | China and US trade war |
| 24 | law of investment incentives |
| 25 | Anti-corruption, Intellectual property laws |

The author composes the questionnaire to send to 10 experts for the first times as Appendix 9. The experts evaluate the impact level independently. Besides, they proposed additional three external factors of GL's business environment impact as Appendix 10.

Based on the results of the expert survey the first times, the author identifies 20 crucial factors that have strongly impacted GL's business environment in the following.

Table 9 The crucial factors of industrial environment impact (Result of expert survey in the first times)

| No | The crucial factors of industrial environment |
|----|--|
| 1 | Import tax incentives |
| 2 | The political stability |
| 3 | The global inflation |
| 4 | Electronic FDI company increasingly |
| 5 | Trade agreements |
| 6 | USD exchange pressure |
| 7 | Logistic cost |
| 8 | Loan interest rate |
| 9 | The global demand slow down |
| 10 | The low labor cost |
| 11 | AI, 5G, EVs, IoT, 3D printing technology development |
| 12 | Digital transformation |
| 13 | Organic electronic components trend |
| 14 | The skilled job labor |
| 15 | The global supply chain disruption |
| 16 | China and US trade war |
| 17 | law of investment incentives |
| 18 | electric power shortage |
| 19 | Fuel, electricity price increasing |
| 20 | Preferential in foreign trade zones |

From 20 crucial factors, the author composes the questionnaire as Appendix 13 to send three experts the second times. The experts assigned weight and rating for these factors.

The outcomes of the expert survey the second times are fundamental for building the EFE matrix. This matrix is indicating the response of current GL's strategies to external factors. Eventually, the EFE matrix is built as follows.

Table 10 External factor evaluation matrix (result of expert survey in the second times, 2023)

| No | Statement | Weight | Rating | Weighted Score |
|--------------|--|--------|--------|----------------|
| 1 | Import tax incentives | 0.06 | 4 | 0.24 |
| 2 | The political stability | 0.07 | 4 | 0.28 |
| 3 | Electronic FDI company increasingly | 0.05 | 1 | 0.05 |
| 4 | Trade agreements | 0.04 | 4 | 0.16 |
| 5 | The low labor cost | 0.02 | 3 | 0.06 |
| 6 | AI, 5G, EVs, IoT, 3D printing technology development | 0.07 | 2 | 0.14 |
| 7 | Organic electronic components trend | 0.03 | 1 | 0.03 |
| 8 | The skilled job labor | 0.02 | 2 | 0.04 |
| 9 | China and US trade war | 0.06 | 2 | 0.12 |
| 10 | Digital transformation | 0.03 | 2 | 0.06 |
| 11 | law of investment incentives | 0.04 | 2 | 0.08 |
| 12 | The global inflation | 0.07 | 1 | 0.07 |
| 13 | USD exchange pressure | 0.04 | 3 | 0.12 |
| 14 | Logistic cost | 0.06 | 1 | 0.06 |
| 15 | Loan interest rate | 0.07 | 1 | 0.07 |
| 16 | The global demand slow down | 0.08 | 1 | 0.08 |
| 17 | The global supply chain disruption | 0.07 | 2 | 0.14 |
| 18 | electric power shortage | 0.05 | 2 | 0.1 |
| 19 | Fuel, electricity price increasing | 0.03 | 2 | 0.06 |
| 20 | Preferential in foreign trade zones | 0.04 | 2 | 0.08 |
| Total | | 1.00 | | 2.04 |

The total weighted score is 2.04 lower than the 2.5 average level. This is indicating the current GL strategies are low response to economic fluctuation in the globe. The company needs to build new competitive strategies to adapt new environment. Indeed, the company is facing numerous threats. the global economy is at high inflation level. FED has tightened monetary policy. This is affecting the Vietnam market. The Vietnamese government has relatively actioned for national monetary. Consequently, loan interest rate increases, and USD exchange pressure are affecting increased costs and loan capital. The post-covid-19 affection and wars are also causing supply chain disruption and global inflation. GL is facing high logistic costs and component price increases. It is reducing the competency of the company. Customers are pushing out their productions or even stopping production. Because the global supply chain disruption is causing a shortage of electronic components. The global demand is slowing down. Customers don't get new long term orders. They are just running existing orders in the short-

term. Therefore, GL's turnover is significant going down. However, GL can utilize the opportunities to develop the company. China and the US trade war has an opportunity for Vietnam to increase electronic FDI companies in the market. AI, 5G, EVs, IoT, 3D printing, and organic component technology development are creating a huge demand for electronic components. This is possible to expand potential customers and increase turnover through new applications. The company should utilize factors such as low labor costs, trade agreements, and import tax incentives to increase competency for building new strategies.

4.2.2 The factors of competitive evaluation matrix (CPM)

Based on analytic factors of competitive environment impact and statistical results in Chapter three, the author determines 16 factors in the following.

Table 11 External factors of competitive environment impact (result of analysis and statistic at chapter 3 of thesis)

| No | Competitive factors |
|----|--|
| 1 | The competitive prices |
| 2 | The quality products |
| 3 | The reliable sources |
| 4 | Product diversity |
| 5 | Origin diversity |
| 6 | Alternative products |
| 7 | Delivery |
| 8 | Inventory |
| 9 | Targeted customers |
| 10 | The targeted applications to sell products in the market |
| 11 | Services |
| 12 | Financial support |
| 13 | The defective goods response |
| 14 | Attitude of representative staff |
| 15 | Negotiation ability with suppliers. |
| 16 | Negotiation ability with customers. |

The author composes the questionnaire to send to 10 experts the first times as Appendix 9. The experts evaluate the impact level independently. Besides, they proposed additional four external factors of GL's business environment impact as appendix 11.

Based on the results of the expert survey the first times, the author identifies 20 crucial factors that have strongly impacted GL's business environment in the following.

Table 12 The crucial factors of competitive environment impact (Result of expert survey in the first times)

| No | The crucial factors of competitive environment |
|-----------|--|
| 1 | The competitive prices |
| 2 | The quality products |
| 3 | The reliable sources |
| 4 | Product diversity |
| 5 | Origin diversity |
| 6 | Alternative products |
| 7 | Delivery |
| 8 | Inventory |
| 9 | Targeted customers |
| 10 | The targeted applications to sell products in the market |
| 11 | Services |
| 12 | Financial support |
| 13 | The defective goods response |
| 14 | Attitude of representative staff |
| 15 | Negotiation ability with suppliers. |
| 16 | Negotiation ability with customers. |
| 17 | Company reputation |
| 18 | Employee benefits |
| 19 | Quality control |
| 20 | Technical support |

From 20 crucial factors, the author composes the questionnaire to send to three experts for the second times as Appendix 13. The experts assigned weight and rating for these factors.

The outcome of the expert survey the second times is fundamental for building the CPM matrix. This matrix aims to identify actual competitors, advantages, and disadvantages to build suitable strategies. The CPM matrix is built as follows.

Table 13 The competitive profile matrix (result of expert survey in the second times, 2023)

| N o | Statement | Weig ht | GL | | Thegioiic | | AT-COM | | EPI | |
|--------------|--|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | | | Ratin g | Scor e | Ratin g | Scor e | Ratin g | Scor e | Ratin g | Scor e |
| 1 | The competitive prices | 0.07 | 3 | 0.21 | 4 | 0.28 | 3 | 0.21 | 4 | 0.28 |
| 2 | The quality products | 0.07 | 3 | 0.21 | 1 | 0.07 | 3 | 0.21 | 3 | 0.21 |
| 3 | The reliable sources | 0.07 | 2 | 0.14 | 1 | 0.07 | 3 | 0.21 | 3 | 0.21 |
| 4 | Product diversity | 0.06 | 1 | 0.06 | 3 | 0.18 | 3 | 0.18 | 3 | 0.18 |
| 5 | Origin diversity | 0.06 | 1 | 0.06 | 2 | 0.12 | 2 | 0.12 | 3 | 0.18 |
| 6 | Alternative products | 0.04 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 3 | 0.12 |
| 7 | Inventory | 0.06 | 3 | 0.18 | 3 | 0.18 | 2 | 0.12 | 3 | 0.18 |
| 8 | Targeted customers | 0.03 | 2 | 0.06 | 2 | 0.06 | 3 | 0.09 | 3 | 0.09 |
| 9 | The targeted applications to sell products in the market | 0.03 | 2 | 0.06 | 2 | 0.06 | 3 | 0.09 | 3 | 0.09 |
| 10 | Services | 0.06 | 4 | 0.24 | 2 | 0.12 | 2 | 0.12 | 3 | 0.18 |
| 11 | Financial support | 0.05 | 3 | 0.15 | 1 | 0.05 | 2 | 0.1 | 3 | 0.15 |
| 12 | Delivery | 0.03 | 4 | 0.12 | 2 | 0.06 | 3 | 0.09 | 2 | 0.06 |
| 13 | The defective goods response | 0.03 | 3 | 0.09 | 2 | 0.06 | 2 | 0.06 | 2 | 0.06 |
| 14 | Attitude of representative staff | 0.05 | 3 | 0.15 | 2 | 0.1 | 2 | 0.1 | 3 | 0.15 |
| 15 | Negotiation ability with suppliers. | 0.05 | 2 | 0.1 | 3 | 0.15 | 2 | 0.1 | 3 | 0.15 |
| 16 | Negotiation ability with customers. | 0.05 | 2 | 0.1 | 3 | 0.15 | 3 | 0.15 | 3 | 0.15 |
| 17 | Company reputation | 0.05 | 1 | 0.05 | 1 | 0.05 | 2 | 0.1 | 2 | 0.1 |
| 18 | Employee benefits | 0.03 | 2 | 0.06 | 2 | 0.06 | 2 | 0.06 | 2 | 0.06 |
| 19 | Quality control | 0.05 | 1 | 0.05 | 1 | 0.05 | 1 | 0.05 | 2 | 0.1 |
| 20 | Technical support | 0.06 | 3 | 0.18 | 2 | 0.12 | 3 | 0.18 | 2 | 0.12 |
| Total | | 1.00 | | 2.35 | | 2.07 | | 2.42 | | 2.82 |

The result shows that GL's total weighted score is 2.35. It is over Thegioic company with 2.07. But this achievement is still lower than 2.42 of AT-COM and 2.82 of EPI. Significantly, the GL's result is also lower than the average level of 2.5. The results indicate that GL's competency is lower than expected.

Besides the global suppliers and regional suppliers, the CPM matrix proves GL has also two local competitors EPI and AT-COM. While EPI is the strongest competition. Because, they are highly competing for various brands, reliable sources, quality products, and competitive prices. They are focusing on developing customers following the applications of the industry. They are established longer than GL. So, they have time to penetrate the market. EPI is well-known as the first local electronic component supplier. Their capital is seemingly stronger than GL. So, their bargaining ability is better than the other local distributors. However, they have also some weak points that GL can improve for its competitive strategies. Customers complained about EPI services, the attitude staff, quality control, and technical support. Customers must pick up products from EPI's warehouse in Northern Vietnam.

AT-COM company is less competitive than EPI. It achieves 2.42 lower than 2.5 average level. But. It is also a GL's competitor. This company provides good services to support government companies, universities, and Vietnamese companies. Because they have relationships with customers. Their products have competitive prices and are outstanding as Wifi, Bluetooth, and GSM/GPRS modules with reliable sources. So, the applications are focusing on navigation for vehicles, smart homes, and smart devices. The company is founded longer than GL. Nevertheless, customers complain about quality components. It has taken long time to solve defective goods. The delivery and finance are being less supported than other distributors. Their employees usually resign and switch to work for competitors.

Thegioic is the least competition. This company just sells products through an e-commerce channel. They have available stock. The prices are competing. Because the origin is major from China. The quality is low without reliable sources. They don't have targeted customers and targeted applications. The customers often work with Thegioic when they need to buy small volumes and fast support.

GL has outstanding competition such as competitive prices, quality components, good services, fast solving the problems, and support finance & delivery. However, GL needs to take advantage to be more weakness improvement. The company needs to have diverse sources

and origins. Focusing on famous brands is necessary. It will support the market penetration. The customer base should be expanded through selling for FDI companies. Demand creation should be focused as a prior action. Besides, the company should care about quality control to create its company brand reliability.

4.2.3 The factors of internal evaluation matrix (IFE)

Based on analytic factors of internal environment impact and statistical results in Chapter three, the author determines 20 factors in the following.

Table 14 The factors of internal environment impact (result of analysis and statistic at chapter 3 of thesis)

| No | The internal factors |
|----|---|
| 1 | Employees are young, dynamic and enthusiasm |
| 2 | Company scale |
| 3 | Wages and incentives structure clearly. |
| 4 | Resolve internal conflicts |
| 5 | Operation process improvement |
| 6 | Achivable vision and mision |
| 7 | Shipment consolidation |
| 8 | Building supplier relationship |
| 9 | Electronic technilogy exhibition |
| 10 | The skilled job training |
| 11 | Customer's demand forecast |
| 12 | Capital |
| 13 | FDI customer exploration |
| 14 | Warehouse |
| 15 | The representative sales offices |
| 16 | Business technology platform (CRM & ERP) |
| 17 | Company regulations |
| 18 | The selling price decision |
| 19 | Demand creation |
| 20 | The backend assistant of departments |

The author composes the questionnaire to send to 10 experts for the first times as Appendix 9. The experts evaluate the impact level independently. Besides, they proposed additional four internal factors of GL's business environment impact as Appendix 12.

Based on the results of the expert survey the first times, the author identifies 20 crucial factors that have strongly impacted GL's business environment in the following.

Table 15 The crucial factors of internal environment impact (Result of expert survey in the first times)

| No | The crucial factors of internal environment |
|----|---|
| 1 | Employees are young, dynamic and enthusiasm |
| 2 | Company scale |
| 3 | Wages and incentives structure clearly. |
| 4 | Resolve internal conflicts |
| 5 | Achivable vision and mision |
| 6 | Shipment consolidation |
| 7 | Building supplier relationship |
| 8 | The skilled job training |
| 9 | Customer's demand forecast |
| 10 | Capital |
| 11 | FDI customer exploration |
| 12 | Warehouse |
| 13 | The representative sales offices |
| 14 | Business technology platform (CRM & ERP) |
| 15 | Company regulations |
| 16 | The selling price decision |
| 17 | Demand creation |
| 18 | The backend assistant of departments |
| 19 | Empowerment |
| 20 | Allowance improvement |

From 20 crucial factors, the author composes the questionnaire to send to three experts for the second times as Appendix 13. The experts assigned weight and rating for these factors.

The outcome of the expert survey in the second times is fundamental for building the IFE matrix. This matrix summarizes and evaluates the strength points of the company. It also figures out the weak points which are affecting the company's development. Ultimately, the IFE matrix is built as follows.

Table 16 Internal factor evaluation matrix (result of expert survey in the second times, 2023)

| No | Statement | Weight | Rating | Weighted Score |
|--------------|---|-------------|--------|----------------|
| 1 | Employees are young, dynamic and enthusiasm | 0.02 | 4 | 0.08 |
| 2 | Wages and incentives structure clearly. | 0.03 | 3 | 0.09 |
| 3 | Resolve internal conflicts | 0.03 | 3 | 0.09 |
| 4 | Achivable vision and mision | 0.02 | 3 | 0.06 |
| 5 | The skilled job training | 0.05 | 3 | 0.15 |
| 6 | Customer's demand forecast | 0.04 | 3 | 0.12 |
| 7 | Warehouse | 0.07 | 3 | 0.21 |
| 8 | The representative sales offices | 0.07 | 4 | 0.28 |
| 9 | Company regulations | 0.03 | 3 | 0.09 |
| 10 | The backend assistant of departments | 0.08 | 3 | 0.24 |
| 11 | Allowance improvement | 0.02 | 2 | 0.04 |
| 12 | Company scale | 0.08 | 1 | 0.08 |
| 13 | Shipment consolidation | 0.06 | 1 | 0.06 |
| 14 | Building supplier relationship | 0.05 | 2 | 0.1 |
| 15 | Capital | 0.08 | 1 | 0.08 |
| 16 | FDI customer exploration | 0.05 | 2 | 0.1 |
| 17 | Business technology platform (CRM & ERP) | 0.05 | 1 | 0.05 |
| 18 | The selling price decision | 0.03 | 1 | 0.03 |
| 19 | Demand creation | 0.1 | 2 | 0.2 |
| 20 | Empowerment | 0.04 | 1 | 0.04 |
| Total | | 1.00 | | 2.19 |

The total weighted score is 2.19 lower than the 2.5 average level. It shows that the company is weak internally. GL company is just operating in its first five-year operation. Its scale is still small compared to competitors lead to constraint negotiation and capability to join supply chain for FDI companies. The company is getting orders separately because of the limited customer base. It is hard to consolidate shipments leading to high logistic costs, low bargaining power with suppliers, and competency reducing. The major capital is used from loans. This is affecting inventory capability and invest business technology platforms to increase professional management. However, GL can utilize its strength points to create competency. The employees are young, dynamic, and enthusiastic. The equality in wage structure, performance incentives, promotion and transparent environment are boosting the internal efforts of employees. Additionally, the achievable vision has missions and orientation. These factors are contributing to company's development in long term. The company possibly takes its strength points to mitigate the weak points. The backend assistant of departments is supporting to improve the

services. The local warehouse is supporting faster response to customer requests than other distributors. The sales should be accurate customer forecasts to maximize the inventory level and capital. The representative offices are presenting in 3 areas which are convenient to cover customers in the Vietnam market. They can focus FDI customers to expand their customer base for sustainability development strategy.

4.2.4 Customer survey results

Besides the analysis and evaluation of industrial factors, competitive factors, and internal factors, the author is also conducting customer survey to evaluate products, services, and serving attitudes of representative staff through a questionnaire at Appendix 14. The author has sent 35 samples. The result is returned 35 samples. There are 30 valid samples. There are eliminated five samples. Because they are evaluated by new customers. They don't experience working with GL before. Customer's awareness towards GL company is as follows.

Table 17 Customer's awareness towards GL company (Statistic of customer survey, 2023)

| | |
|-------------------------------------|--|
| Customers have known GL | 100 % samples |
| Customer bought products from GL | 100 % samples |
| Customer is buying products from GL | 100 % samples |
| Purchase time | 14 company over 3 years, 16 company from 1 to 3 years. |
| Customer's number of employees | 9 company above 100 employees, 17 company from 50 to 100 employees, 4 company from 15 to 50 employees |
| Customer's turnover | 7 company above VND 100 billion, 19 company from VND 10 billion to VND 100 billion, 4 company from VND 1 billion to VND 10 billion |

The outcomes of the survey will contribute to building competitiveness as well as strategy development.

Table 18 Result of customer survey (statistic from customer survey, 2023)

| Factors | Statements | Average score of Northern customer s | Average score of Central customer s | Average score of Southern customer s | Average score of three regions |
|----------------|---|---|--|---|---------------------------------------|
| Products | The products have electrical safety certificates | 4.2 | 4.0 | 4.3 | 4.2 |
| | The products have environmental safety certificates | 4.1 | 4.3 | 4.2 | 4.2 |
| | The measurable tolerances comply international standards | 4.2 | 4.3 | 4.4 | 4.3 |
| | Electro-tolerances comply with international standards | 3.9 | 4.7 | 4.3 | 4.3 |
| | Goods is delivered together with CO, CQ | 4.0 | 4.0 | 4.1 | 4.0 |
| | There are options for origin | 1.6 | 1.7 | 1.6 | 1.6 |
| | There are options for manufacturers | 2.1 | 1.7 | 2.1 | 1.9 |
| | There are various kind of passive electronic components | 3.5 | 3.7 | 3.6 | 3.6 |
| | GL has available stock for your company demand | 1.2 | 1.3 | 1.2 | 1.2 |
| | The prices of products are competing with other suppliers | 3.1 | 2.7 | 2.9 | 2.9 |
| | GL is a reliable supplier | 3.2 | 3.3 | 3.1 | 3.2 |
| Services | Delivery is on time as your request | 4.4 | 4.3 | 4.2 | 4.3 |
| | Goods is delivered exact quantity | 4.3 | 4.3 | 4.4 | 4.3 |
| | Delivery process is simplification | 4.3 | 4.0 | 4.3 | 4.2 |
| | GL is supporting to pull in goods | 4.5 | 4.3 | 4.6 | 4.5 |
| | GL is supporting to pull out goods | 3.4 | 3.3 | 3.8 | 3.5 |
| | Goods is carefully packed | 4.3 | 3.7 | 4.4 | 4.1 |
| | Trucks is used suitable with goods's measurement. | 4.5 | 4.0 | 4.6 | 4.3 |
| | Support free samples for testing | 4.2 | 4.7 | 4.2 | 4.3 |
| | Fast response to solve defective goods | 4.5 | 4.3 | 4.3 | 4.4 |

| | | | | | |
|-------|---|-----|-----|-----|-----|
| | The exchange defective goods process is simplification | 4.2 | 4.7 | 4.1 | 4.3 |
| | Support inventory as request | 4.5 | 4.3 | 4.1 | 4.3 |
| | Support credit for customer | 3.7 | 4.3 | 3.8 | 4.0 |
| | Coveniences to contact through phone numbers, representative sales | 4.4 | 4.7 | 4.3 | 4.4 |
| Staff | Sales staff introduced new brands | 4.1 | 4.0 | 4.3 | 4.1 |
| | Sales staff introduced alternative parts | 4.2 | 4.0 | 4.0 | 4.1 |
| | Sales staff introduced new solutions / new edge-technologies | 4.3 | 4.7 | 4.1 | 4.4 |
| | Sales staff quoted on time | 4.2 | 4.3 | 4.3 | 4.3 |
| | Sales staff supported to cross parts | 4.5 | 4.3 | 4.3 | 4.3 |
| | Field Application Engineer is in good support technical things | 4.4 | 4.3 | 4.1 | 4.3 |
| | Sales staff have closely worked with your purchasing team | 4.1 | 4.3 | 4.4 | 4.3 |
| | Sales staff have closely worked with your sourcing team | 4.5 | 4.3 | 4.6 | 4.5 |
| | Sales staff is lated to solve defective goods. | 1.3 | 1.0 | 1.0 | 1.1 |
| | Warehouse staff supported when customer come to pick up goods. | 4.2 | 4.3 | 4.1 | 4.2 |
| | Transporter delivered goods on time & on place. | 4.0 | 3.7 | 4.3 | 4.0 |
| | It's easy contact sales staff out of working time when the issues need be solved urgently | 4.2 | 4.0 | 4.0 | 4.1 |

Generally, customer evaluation in terms of products is not much different in the three regions. Customers are highly satisfied and feel reliable when they buy products from GL. However, there are some factors which customers have not satisfied yet. The prices are still not competing with competitors. The inventory has not enough to support customer's requests. It is not an option for manufacturers and origins. This can be explained as follows. GL bought goods with low volume and low the bargaining power. The shipments are not combined leading to high logistic costs compared to rivals. Although, the inventory is a high level. It doesn't meet

customer's expectations. Because the available stock is just supporting for who have forecast clearly. In the past 5 years, the supply chain of electronic components is disrupted because of Covid 19. Customers are looking for available stock to fulfill. The company has not targeted this demand. Because it happens in short term and has potential dead stock. The diversity of manufacturers and origins is a prior action of GL in next five years. This is a weak point which the new strategies need be solved.

Regarding the services, there are differences. But it is not significant. The services are seemingly evaluated better than the products. There are two points consisting of push-out support and credit support which GL is evaluated as lower than other points. In the Covid-19 time, the company allowed their staff to work from home. The students are studied online. Almost all the people stayed at home because of quarantine. The huge demand surged for electronic devices. The electronic company tried to produce to meet the market demand. They tried to pull in electronic components for production. They place orders a year in advance. But the components are not enough to run productions at all. Particularly, the active components are being shortages semiconductors because of Covid 19 and wars. They tried to push out passive components to wait for active components as much as possible. Moreover, the market demand is slowing down because of inflation in the globe, customers are trying to push out or even stop production. GL is facing risks in high inventory levels. To mitigate risks, So, GL has not allowed to support push out for these cases. Otherwise, the dead stock will be increased. Additionally, GL's capital is majority from loans. It is limited in capital. So, the Board of Director needs to evaluate carefully before a customer is granted the credit. The payment is in advance, 15 days, 30 days, or 45 days. It depends how is potential customer, financial health, and payment history.

In terms of the people, GL employees are highly appreciated in three regions. This is efforts of training and hiring. It is reflecting the correct orientation of the Board of Director that the employees are the foundation in long term company development. However, the sales team should pay more attention to introduce new products & bidding on time. Field application engineers need to focus more and more on introducing new solutions, new edge technologies, and support customers to cross obsolete parts or end-of-life parts. The warehouse team cares delivery on time and in place to meet customers' requests. The purpose increase customer satisfaction and create new business opportunities.

Overall, for all three regions, customers have a high level of satisfaction. However, there are still some factors that need more and more improvements. GL's Board of Directors needs to consider and come up with appropriate strategies to improve weaknesses and increase customer satisfaction levels to create the company's competitiveness compared to competitors.

4.3 The matching phase

The outcomes of analyzing the IFE matrix, CPM matrix, and EFE matrix have figured out the overview of business environment impacts. They are a significant foundation for building a SWOT matrix as Appendix 15. Noticeably, the factors are not only impacting the GL company independently but also mutual impacts.

SO strategies.

Electronic companies try to escape taxes by shifting their production to other countries because of the US and China trade war. Vietnam has political stability. Additionally, the attractive factors such as investment incentives, low labor costs, trade agreements, and import tax incentives have returned Vietnam as one of their destinations. The electronic FDI company has increased in recent years. GL company can take these advantages and combines its strengths such as the employees are young, dynamic, and enthusiastic, and technical support. Moreover, the company has representative offices in all three regions, warehouse, services, backend assistant of departments, delivery, competitive prices, and quality products. Market penetration strategy is a feasible strategy that can help GL company to use internal strengths to take advantage of external opportunities. Based on this strategy, the company possibly increase its market share.

Furthermore, the development of AI, 5G, EVs, IoT, 3D printing technology, and organic electronic components trends have an opportunity to develop new products. Product development strategy is also a feasible strategy that GL company can use to take these opportunities based on its strengths.

WO strategies

In the first five-year operation, The GL company is just serving the domestic companies, and FDI customer exploration is weak. Customers are not targeted for sustainability strategy. So,

it is a part of affecting the company's reputation. These weaknesses can be improved by taking external opportunities such as political stability, increasing electronic FDI companies, China, and the US trade war. Along with the development of AI, 5G, EVs, IoT, 3D printing technology, and organic electronic components trend, the GL company can utilize to improve weaknesses such as demand creation, product diversity, and origin diversity. Additionally, the competitive advantages of import tax incentives, trade agreements, and investment incentives are contributing to a potential market. Therefore, the improvement of the bargaining ability with suppliers is possibly conducted through these external opportunities. The backward integration strategy is a feasible strategy that the GL company can consider increasing control with suppliers. This strategy will enhance competencies through new brands, various products, and origins, the competitive price support.

ST strategies

The external threats are global inflation, demand slowing down, and supply chain disruption which can be mitigated by taking advantage of strengths such as: The employees are young, dynamic, enthusiastic, and have good attitudes. In terms of the facilities are covered by representative offices and warehouses. The sales are closely working with customers to get accurate forecasts. Additionally, there are strongly supported by backend departments. The best services are provided as inventory ability, door-to-door delivery, competitive prices, quality products, and financial support. Last but not least, the GL company has clearly its achievable vision and mission. Based on this combination, related diversification strategy is one of the feasible strategies that the GL company can consider for choosing.

Along with the above threats, and the company is also facing a lot of costs from USD exchange pressure, logistic costs, Loan interest rates, increasing energy prices. It is affecting the profit of the company. These threats can be constrained by implementing an unrelated diversification strategy. Based on its strengths such as clear vision & mission, strong technical support, young and dynamic employees, backend assistant of departments, and the best in services, the company can develop products that are using in new technologies of AI, 5G, EVs, IoT, 3D printing. It shouldn't focus on products with high competitiveness and low profit.

WT strategies

GL's turnover, profit, and capital are significantly reduced because they are impacted by external threats such as increasing logistic cost, global inflation, increasing USD currency exchange, increasing loan interest rate, global supply chain disruption, the global demand slow down, and increasing energies. Therefore, the author proposes a retrenchment strategy which is one of the feasible strategies for company development. This strategy implementation will support the company in avoiding the impact of external threats and mitigating internal weaknesses. If the strategy is conducted efficiently, it helps the GL company to reduce costs, increase turnover, and maximize profit & capital.

In a nutshell, the building SWOT matrix generates feasible strategies consisting of a market penetration strategy, product development strategy, backward integration strategy, related diversification strategy, unrelated diversification strategy, and retrenchment strategy. These matrices will basically contribute to building the QSPM matrix. The outcomes of QSPM matrix are reliable evaluations for choosing appropriate development strategies from now until 2029.

4.4 The decision phase

The matching stage has indicated the feasible alternative strategies. However, the GL company's resources have limited. It is not a smart choice if the company implements all feasible strategies at the same time or concentrates a strategy only. This is not maximizing the efficiencies. Or even it might fail. So, the determination of attractive strategies is essential for GL's Board of Directors. The quantitative strategic planning matrix (QSPM) is a tool that helps to determine which strategy needs to be prior to implementation. The perfect decision is depending on experiences, accurate evaluations, and specific circumstances. Finally, the quantitative strategic planning matrix is built as Appendix 16.

The analytic results of SO strategies figure out that there are two attractive strategies for choosing. They are market penetration strategy and product development strategy. The market penetration strategy achieves a total attractive score of 4.84 while the product development strategy gets total attractive score of 4.6. It reveals that market penetration strategy is more attractive than product development strategy. Therefore, the market penetration strategy is chosen as a prior strategy to develop GL company in the next 5 years. Indeed, it is also suitable for the real situations of the company. GL company might utilize its strengths such as the representative offices are covering whole Vietnam market. It is serving customers in three regions. The

warehouse ready supports customers to stock goods as much as possible. The company also cares about internal issues such as conflict solving, building wages and incentives structure clearly, and training employees to enhance their skills for jobs. It promotes an internal environment. Additionally, the employees are young, dynamic, and enthusiastic. These factors have boosted the employees to make the best efforts in their jobs. Particularly, the backend assistant of departments is strongly supporting for sales team to penetrate the market as well. Last but not least, the Board of Directors has set an achievable vision and mission which engage their efforts for the brightness aspect of company development. Based on the existing internal strengths, the company takes advantage of external opportunities as Vietnam has political stability. The government has attracted electronic foreign investments through taxes, trade agreements, investment incentives, and low-cost labor markets. The US and China trade war has contributed to the perfect condition that Vietnam has become a bright destination to attract electronic manufacturing investors. Consequently, the electronic FDI company has exploded in Vietnam market in recent years. This is advantages that support GL in extending its customer base through penetration of the electronic FDI company market. Furthermore, the development of AI, 5G, EVs, IoT, 3D printing technology, and Organic electronic components are the trend in the electronic component industry. It is creating huge electronic component demand in the market. By the young, dynamic, and enthusiastic employees, the company can take these opportunities for sustainable company development.

By the analytic result of the WO group strategy and the outcomes of the QSPM strategy, there is solely a backward integration strategy for choosing. It gains a total attractive score of 4.68. The author decides to choose this strategy as GL's development strategy from now until 2029. Because the GL is necessary to improve competitive advantages through increasing its supplier control ability. Based on external opportunities, particularly the potential electronic customers are booming in the Vietnam market. GL's employees pay efforts on new designs to create new opportunity orders. The purchase will be monitored to maximize shipment consolidation. The company scale is also expanded by exploring the FDI companies. The marketing team and purchasing team build the relationship to get support from suppliers. The combination of purchasing big volume, potential customers, and the potential market will be factors to increase the bargaining power with suppliers. It will reduce costs and increase the competencies compared to rivals. A backward integration strategy supports for sales team to penetrate the market. In other words, the backward integration strategy supports for success of the market penetration strategy.

The analytic results of ST strategies have revealed two attractive strategies comprise of a related diversification strategy and an unrelated diversification strategy. By evaluation of the QSPM matrix, the total attractive score of the related diversification strategy is 4.78, and the total attractive score of the unrelated diversification strategy is 4.2. It is definitely the related diversification strategy that is more attractive than the unrelated diversification strategy. Hence, the related diversification strategy is chosen. This is entirely consistent with GL's resources. Although the global demand is slowing down in the short-term because of inflation, the electronic component market outlook is rapidly promising resilience. Because the technologies are sharply developing such as quantum computing, AI, 5G, EVs, IoT, and 3D printing. It is generating huge electronic demand in the market. Likewise, above analyzing of strengths, GL company can take its strengths to develop new passive components and improve the existing services. The development is built on the related products. The objectives intend to optimize the resources. The company can create competitive advantages through product diversity, supplier diversity, and origin diversity. This diversification is also one of the solutions to mitigate affections of the global supply chain disruption and minimize logistic costs. This strategy will increase internal power for the sales team to penetrate the market. The related diversification strategy supports the market penetration strategy significantly.

The author doesn't choose an unrelated diversification strategy. Because this strategy develops new products or new services. GL company needs to take time to do a market survey. The purchasing team and marketing need to make efforts to find reliable sources. The sales team needs to introduce products to customers. Then, the company needs to evaluate the response from the market for further actions. It will take time and costs for the company. Particularly, it will fragment the capital and the employees which are used for existing successful strategies while these two resources are extremely important for GL currently.

The analytic result of the group WT strategy shows that there is a feasible retrenchment strategy which gets a total attractive score of 4.68. This strategy meets the board of directors's expectations. Thus, the author decides to choose retrenchment as a strategy to contribute to the company's development. This strategy is completely suitable to the current company situation. The company operation is no long time. It poses weaknesses such as market penetration, supplier relationships, fewer new designs, high operation costs, and particularly capital. For instance, the purchasing team possibly reduces the logistic costs through shipment consolidation or reduces the price costs through the bargaining ability with suppliers that is

supported from a backward integration strategy. Capital is a crucial factor which is supporting GL company to overcome external challenges such as global inflation, USD exchange pressure, increasing logistic costs, high loan interest rates, so on. Therefore, the company needs to maximize its capital to reinforce internal power aims to support successful the other strategies.

Through analyzing the QSPM matrix, the author has selected four appropriate strategies to contribute to competitive and sustainable company development in challenges of the economy as follows: market penetration strategy, related diversification strategy, backward integration strategy, and retrenchment strategy. Market penetration strategy supports the company in expanding its customer base through exploring electronic FDI customers. This strategy will contribute the turnover, profit, and company reputation aims to develop the company in sustainability. The related diversification strategy is creating fruitful products and services that will support the sales team and GL company to conduct a market penetration strategy successfully. A backward integration strategy will increase competencies and create profit for the company. This strategy also supports for the success of the market penetration strategy and related diversification strategy. Finally, the retrenchment strategy will help GL company to maximize its capital. It is creating the internal power that aims to contribute to the successes of penetration strategy, related diversification strategy and backward integration strategy.

In a nutshell, based on the fundamental theories at Chapter two, the author analyzes the impact factors of the business environment at Chapter three. The results of Chapter three contribute to the building of the IFE matrix, EFE matrix, CPM matrix, SWOT matrix, and QSPM matrix. Through analyzing these matrices, the author has selected four suitable strategies to overcome the challenges of the market and support the competitiveness and sustainability of the company development. The Chapter five will conduct strategy measurement.

5 Strategy measurement

The economy is always suffered by objective impacts or subjective impacts. So, the factors are also changed accordingly. It is vital for scanning GL's business operation including internal and external environment. Even a small impact possibly affects to short-term or long-term strategies. Thus, the board of director needs to take corrective and timely actions to eliminate inappropriate strategies or monitor whether the company will be achieved goals as the strategy's expectations. This chapter will come up with strategy objectives and measures through a Balanced Scorecard.

5.1 Strategy map

Based on the results of the QSPM matrix, fundamental balanced scorecard theories, and the current company conditions, the author has modified the balanced scorecard following five perspectives to suitable business circumstances: financial perspective, customer perspective, supplier perspective, process perspective, learning & growth perspective. The strategy map helps to visualize the connection of strategic objectives.

Financial perspective

The GL company determines its development from now until 2029 based on capital growth and productivity growth. The analysis in Chapter four has figured out that GL company implements a market penetration strategy to increase its customer base and enhance the company brand. It will expand the market by developing electronic FDI customers and offering products relating to new technologies like quantum computing, AI, 5G, EVs, IoT, 3D printing, and organic electronic component trends. The capital is developed through increasing gross turnover, profit, and enhanced customer value while the productivity growth is conducted based on costs optimism such as price costs, logistic costs, inventory costs, and maintaining receivables turnover ratio. Eventually, there are seven objectives for financial perspective: Increase net turnover, increase net profit, enhance customer value, reduce price cost, reduce logistic cost, reduce inventory cost, and maintain receivables turnover ratio.

Customer perspective

By related integration strategy, the company intends to explore more electronic FDI customers through the sales team and field application engineer team. The sales team will offer new quality products and the best services for customers. The maximize selling parts in a BOM will be prior action. Furthermore, building customer relationships is vital role for improving support from customers who will provide accurate forecast and coming potential demands. Field application engineer support solutions and new cutting-edge technologies in new designs for customer's R&D and help customer's sourcing team to cross alternative parts when they face obsolete parts or end-of-life parts. These supports will create demand creation, which is highly evaluated by suppliers, and increase new business opportunities for the company. Finally, there are five objectives for a customer perspective: expand electronic FDI customers, offer new quality products and the best services, maximize selling parts in a BOM, build customer relationships, and increase demand creation.

Supplier perspective

By implementing the backward integration strategy and retrenchment strategy, the marketing team works closely with the sales team to identify product segmentation. Based on the feasible outcomes, the marketing will develop reliable sources through related product diversity, supplier diversity, and origin diversity. This is creating the competencies for the company. Moreover, the marketing team also takes an important task for building supplier relationships which is getting support in price costs, handover potential demands, and market information. The purchasing team needs to get the demand forecast from the sales team. It is essential to combine orders as much as possible for shipment consolidation or back-to-back ordering. They take responsibility for price dealing for high-volume purchasing. Last but not least, quality control is one of the conditions that need to be committed by suppliers. In a nutshell, there are six objectives for supplier perspective: related product diversity, supplier diversity, origin diversity, building supplier relationships, shipment consolidation, and quality control.

Processes perspective

GL company will build internal processes to evaluate its effectiveness. The financial department conducts inventory management in the operation management process to minimize the costs. Customer management will be evaluated based on elements such as acquire new customers and understanding existing customers aim to get accurate forecasts, and potential demands. The innovation process will be boosted by developing reliable suppliers as well as

taking opportunities from them. Generally, there are three management processes that are been objectives for processes perspective: inventory management, acquiring new customers and understanding existing customers, and developing reliable sources as well as take opportunities from new suppliers.

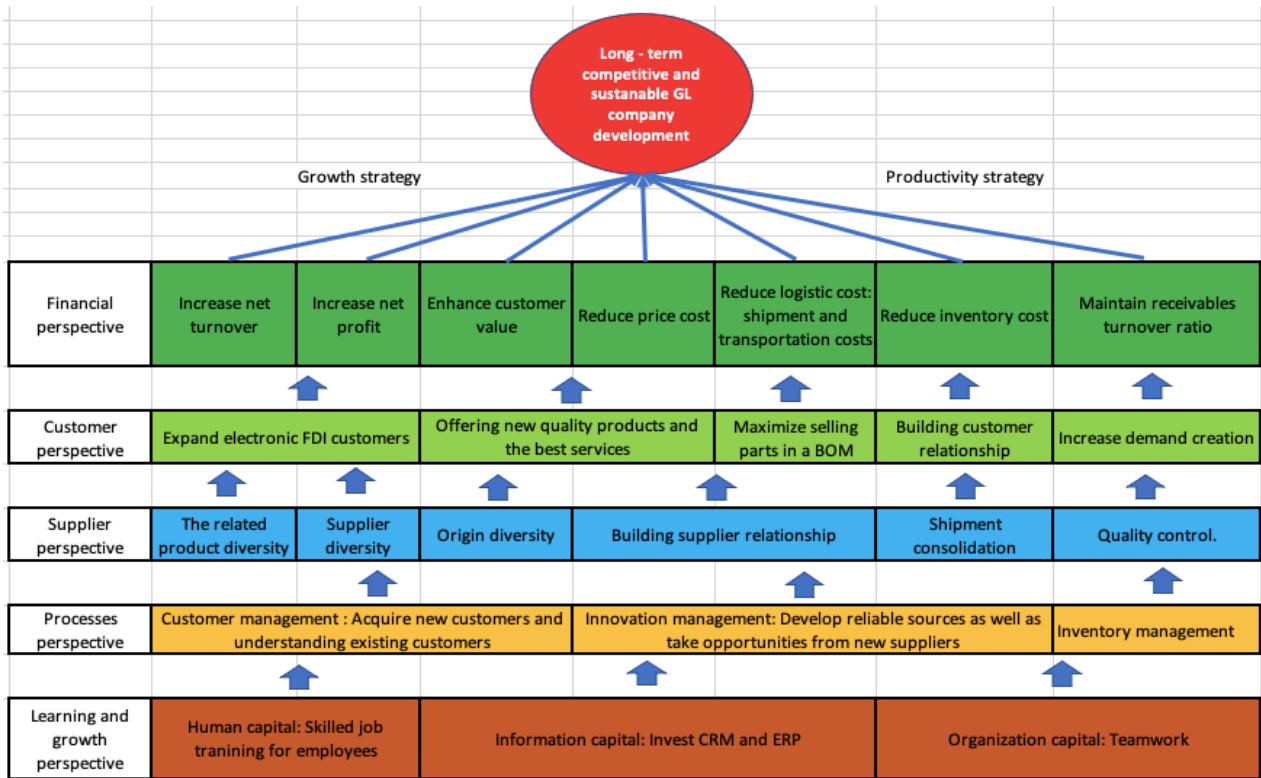
Learning and growth perspective

GL company will train skilled jobs for employees. Particularly, the sales team, marketing team & field application engineer team are often trained in new techniques, new products, applications, and market segments by suppliers. Simultaneously, the company also invests business technology platforms including customer relationship management (CRM) and enterprise resource planning (ERP) to support the company in managing its resources professionally. Additionally, the company also improves teamwork. Ultimately, there are three objectives for learning and growth perspective: training skilled jobs, invest CRM & ERP system, and teamwork.

Strategy map

Based on fundamental theory and the above objectives for five perspectives, the author generates a strategy map for GL company. This map visualizes prior strategies and relates between an objective to other objectives aim to strategy implementation successfully. In case, the strategies have changing, the strategy map needs to be reviewed if it is necessary.

Figure 21 Strategy map for GL company (Author, 2023)



5.2 Measurement

Based on the above objectives for five perspectives, the author builds the metrics of objectives. The purpose is to scan the potential issues by comparison. The board of director needs to identify which objectives have trends to be changed or risks. When will they happen? What is the potential scale of impacts? How much is estimated for damages? Those questions are important to keep in mind for screening. The answers will help to take responses timely.

Financial measures

The increasing net turnover and increasing net profit used year over year (YoY, %) as a metric to examine how is GL company the growth over each quarter. This measurement aims to compare indicators in the quarters. When the trend is going down, the board of directors can take action in fast-responses.

The customer value is measured by customer satisfaction through customer surveys yearly. It is conducted by three group factors including service evaluation, product evaluation, and

representative evaluation. The outcomes will be used to modify appropriate strategies to fulfill customer satisfaction.

Besides, GL company also conducts to measure the crucial costs. They include the price cost, inventory cost, and logistic costs. Each factor has a different metric. The price cost will be measured per unit (%) while inventory cost is measured by days on hand. It figures out the number of days when goods are delivered to customers as fast as possible. The purpose is to monitor inventory costs. Logistic costs are considering both shipping costs and transportation costs. Shipping cost is measured per cubic meter (CBM) and transportation will be measured by the on-time and in-full (OTIF, %).

It is vital to maintain the accounts receivables turnover ratio in 30 days. This measurement will help GL company to evaluate a part of the customer's financial health, maximize the capital, and optimize the payment processes for banks and suppliers.

Customer measurement

The customer base expansion through increasing electronic FDI customers is measured by the onboarding success rate (%). It reveals the percentage of the new FDI customers who are working or buying the products/services from GL company in a specific period. The percentage of onboarding success rate equals the number of customers who are working or buying divided total number of new customer

The assessment outcomes of offering new quality products, services, and building customer relationships will be measured through customer surveys yearly. The measurement is implemented in service evaluation, product evaluation, and representative evaluation. The outcomes will be utilized to improve strategies aimed to customer satisfaction.

The maximize selling parts in a BOM is measured by the number of sold parts in a project. These results will be monitored in sales meetings monthly and quarterly. It is helps to maximize the turnover of a customer while the costs of serving are the same.

The demand creation is an extremely important factor in the electronic component industry. It is creating the value of distributors and new business opportunities. This factor is measured by

the number of design wins. GL company uses it to report to suppliers as an advantage to gain the bargaining ability.

Supplier measurement

Source diversity is one of the priority actions that GL company implements for its strategies. They include the related product diversity, supplier diversity, and origin diversity. The related product diversity is measured by the number of new related products. It will be evaluated in sales meeting quarterly. The supplier diversity and origin diversity are measured by the number of new reliable suppliers and the number of countries of origin. This diversification will help GL company to improve its competencies and enhance the company brand.

The building supplier relationship will reflect the results through the price cost and lead time of these orders from a supplier compared to these other alternative suppliers. The shipment consolidation is measured by shipping cost per quarter. It is evaluated by a summary from the financial department. Quality control is measured by defective parts per million (PPM). It is contributing to company brand as well.

Process measurement

Customer management will be monitored by two factors which consist of developing the number of new customers and understanding existing customers through getting new potential demands and accurate forecast. It is measured by average revenue by account in quarterly (ARPA).

Innovation management is evaluated based on developing reliable sources as well as taking opportunities from new suppliers. This process is measured by the total cost of ownership (TCO). It includes purchase price and ongoing expenses such as entertainment to build the relationships, and visiting costs to verify the quality.

Inventory management will be measured by inventory turnover (%). Inventory turnover equals the cost of goods sold divided average value of inventory in a specific period. It will figure out whether the warehouse in good management, exceeds stock, has low sales, or has dead stock. The board of directors need to raise to verify what are the exact reasons to improve it.

Learning and growth seasurement

The employees are trained skilled-job. Particularly, sales, marketing, and field application engineers have updated skills and knowledge in terms of products, applications, markets, solutions, and technologies frequently. It is measured by the percentage of participation.

Based on the development situation, the board of directors has planned to invest in CRM and ERP systems. The purpose support to manage the resources effectively. It is measured by best practices utilization (%).

Teamwork will be engaged in company operations. it is evaluated by the percentage of participants and interaction. The metric of measurement is achieving goals in an efficient team.

5.3 The Balanced Scorecard

GL company belongs to a small and medium-sized enterprises. So, All objectives should be considered as small business aspects. It means that the measurements need to be created in simplification. The targets should be achievable and convenient improvements. The initiative has an affordable budget to boost the company development. Based on the results of the objectives measurement, the author implement the Balanced Scorecard as follows.

| Area of objectives | Objectives | Measures | Targets | initiatives |
|--------------------|-------------------------------------|------------------------------------|--------------------------------------|--|
| Finance | Increase net turnover | Year over Year(%) | + 30% end of fiscal year | Sales commission, company trip, year-end bonuses |
| | Increase net profit | Year over Year (%) | + 25% end of fiscal year | |
| | Enhance customer value | Customer satisfaction | >/= fair satisfaction, once per year | |
| | Reduce price cost | Price cost per unit | >/= -3% each part | |
| | Reduce shipment cost | Cubic meter (CBM) | </= \$10 US dollar / CBM | |
| | Reduce transportation cost | The on-time and in-full (OTIF) (%) | >/= 70% | |
| | Reduce inventory cost | Days on hand | </= 30 days | |
| | Maintain receivables turnover ratio | Receivables turnover ratio | 30 days | |

| | | | | |
|---------------------|---|---------------------------------------|---|---|
| Customer | Expand electronic FDI customers | Onboarding success rate (%) | 6 FDI customers per quarter | Employee of quarter award |
| | Offering new quality products and the best services | Customer satisfaction | Gained from 70-100 scores, ranking in top 10 reliable suppliers end of year | Year-end bonuses |
| | Maximize selling parts in a BOM | The number of sold parts in a project | > 1 part | |
| | Building customer relationship | Customer satisfaction | >= fair satisfaction, once per year | |
| | Increase demand creation | The number of design win | 3 designs win per quarter | Incentive design win achievement |
| Supplier | The related product diversity | Number of new related products | 3 new related parts per quarter | Employee of quarter award |
| | Supplier diversity | Number of new related products | 2 different manufacturers per years | Year-end bonuses |
| | Origin diversity | Number of new related products | 2 different countries per years | |
| | Building supplier relationship | Price & lead time | < other alternative suppliers | |
| | Shipment consolidation | Shipping cost | > - 20% per quarter | |
| | Quality control | Defective parts per million | <2% | |
| Process | Acquire new customers and understanding existing customers | Average revenue per account (ARPA) | \$10000 US dollar per month | Sales commission |
| | Develop reliable sources as well as take opportunities from new suppliers | Total cost of ownership (TCO) | \$500 thousand US dollar innitial year | Incentive for potential supplier |
| | Inventory management | Inventory turnover | 30 days | Year-end bonuses |
| Learning and growth | Skilled job tranining | participation (%) | 100% pass after training monthly | Held traning skills, products, markets, applications, edge-technologies |
| | Invest CRM and ERP | Best practices utilisation (%) | 100% features used in work reality | Year-end bonuses |
| | Teamwork | Achieving goals (%) | 100% timely | Year-end bonuses |

This Balanced Scorecard is a dynamic tool for GL company to implement its strategies successfully. It generates a brief framework to tackle the problems and vital needs. As above the Balanced Scorecard figures out that the objectives, measures, targets, and initiatives are presented to commit the same rules for employees and managers. It is structured with more specific tasks and is easy to do rather than the manager only reflects from financial indicators. The Balanced Scorecard empowers managers to anticipate issues and implement prompt solutions before they affect the company's performance and financial statements.

In summary, the determination of objectives and measurements is extremely important to contribute effectiveness and success of strategies. Based on four selected strategies which are built in chapter four, the author has established the objectives for financial perspective, customer perspective, supplier perspective, process perspective, learning and growth perspective in chapter five. A strategy map is also used to visualize the strategies. Based on these objectives, the author has determined feasible measures, achievable targets, and initiatives to boost the efforts of employees to build the strategy successfully.

6 Conclusion

6.1 Conclusion

The author has built the thesis based on the real issues that GL company is suffered impacts. Manager needs to take appropriate actions to modify its strategies. There are four research questions which are raised for this research. Initially, the author has utilized David's comprehensive strategic management model associated with analytic & statistical techniques, Michael Porter's five forces, Kaplan's strategy map, and Kaplan & Norton's Balanced Scorecard as a corrective solution to solve issues of GL company. The author has throughout the GL company introduction, analyzed the impacts of the macro environment, impacts of the industrial environment, and impacts of the internal environment sequentially.

Based on analyzing and statistical impacts of the macro environment, the author determines twenty-eight external factors including proposals from experts. In the first evaluation of experts, the list of twenty crucial external factors is generated which have strongly impacted GL company. The EFE matrix is built based on crucial external factors. It reveals the results 2.04 lower than the 2.5 average level. The conclusion is the existing GL's strategies are low responses with impacts from the macro environment.

Likewise, twenty-four internal factors are collected from analyzing and statistical impacts of the internal company including contributions from experts. The list of twenty crucial factors is chosen through expert valuation. The IFE matrix is established based on the crucial factors of the internal company. The total weighted score is 2.19 lower than the 2.5 average level. It is showing that the company is weak internally. Additionally, the author also identifies twenty crucial factors from the competitive environment. The CPM matrix indicates that GL is competing with a competitor (Thegioiic), while there are two competitors stronger than GL (AT-COM and EPI). These outcomes answer the first research question "What are external and internal factors affecting GL in the Vietnam market?".

The second research question "How are evaluation and expectations from customer's GL?" is also answered through the customer survey's conclusion that customers have felt satisfaction and chosen GL as one of the reliable vendors in terms of products. The services are evaluated better than the products. Finally, the representative staff is highly appreciated for their serving

to customers. However, there are a couple of points for improvements such as the competitiveness of selling prices, available stock, support to push out delivery schedule, support credit, introduce new products, bidding timely, design in new edge technologies, and support to cross-obsolete parts. Generally, the results are not much different between the three regions.

Based on the results of the EFE matrix, CPM matrix, IFE matrix, and customer survey, the SWOT matrix is implemented to determine feasible strategies that GL company needs to consider during the strategy form. The six feasible strategies consisting of market penetration strategy, product development strategy, backward integration strategy, related diversification strategy, unrelated diversification strategy, and retrenchment strategy are generated from the SWOT matrix. These results contributed to building the QSPM matrix. The outcomes of the QSPM matrix show market penetration strategy, related diversification strategy, backward integration strategy, and retrenchment strategy are attractive strategies. These strategies need to be prior to implementation because of GL's resources limitations. The outcomes of the QSPM matrix also answers the third question "What are new stability development strategies for GL in the 2024 – 2029 period".

Besides, the research questions have been answered completely. The author also defines the objectives for a financial perspective, customer perspective, supplier perspective, process perspective, and learning & growth perspective. The strategy map is built to visualize the strategy. Ultimately, the Balanced Scorecard is applied to measure the effectiveness and success of these attractive strategies.

However, the electronic component industry is frequently changed by affecting the global economy, technology development, political decisions from governments, and so on. Therefore, GL company is always impacted by internal factors, external factors, suppliers, competitors, and customers. The objectives are also changed accordingly. The scanning of impact factors is really necessary. The company should promptly take the appropriate actions to modify its strategies to adapt environment. The Balanced Scorecard needs to review these objectives, measures, and targets frequently. It helps to improve and keep the Balanced Scorecard as a dynamic tool for successful strategy implementation.

6.2 Further research suggestion

Although the author has deeply analyzed to build for this research “Electronic component distribution development strategy for a Vietnamese startup in a new environment post-Covid 19 Pandemic”. However, there are still some limitations that are found while during building the strategies. The author recommends that further research should continuously develop the constraint aspects to evaluate comprehensive strategies as follows:

The research will be abundant if the financial indicators need to be analyzed in the research. They are reliable results to reflect the company situation and set the targets a reality. To attain this expectation, the researcher should ensure the real financial statements must be shared and collaborated with the company.

The customer survey of this research has limited the number of samples because of GL’s customer base limitation. The number of samples should be conducted as much as possible. It helps to evaluate objectively and accurately the customer’s expectations. Based on the results, the author is likely to build the valued strategies to meet needs.

The experts who are supporting to evaluation of the impact factors through questionnaire. They are deliberately selected from managers, vice director, and director of GL company. This is just contributing to the internal company’s perspectives. The results have still not been collected in the objective completely. Therefore, the survey needs to be extended to evaluate by external experts through workshops.

Additionally, the further research should be expanded and specialized for these topics such as: Building a financial strategy for GL company, building the development strategy for a specific region (Northern, Central, or Southern Vietnam) aims to narrow these variant strategies because of different cultures and economic structure, research on customer satisfaction for GL’s electronic component products, or building the development strategy for specific product segment.

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APPENDICES

Appendix 1. Driving factor hierarchy in strategy

Appendix 2. The gate model

Appendix 3. The basic activities of strategic management

Appendix 4. Radinn business model canvas

Appendix 5. Abridged BSC model

Appendix 6. GL's delivery process

Appendix 7. GL's receive process

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Appendix 9. Expert survey (The first times) – The environmental impacts on GL Company's business operation.

Appendix 10. Result of expert survey (The first times) – The industrial environmental impacts

Appendix 11. Result of expert survey (The first times) – The rival's competitive environmental impacts.

Appendix 12. Result of expert survey (The first times) – The internal environmental impacts.

Appendix 13. Expert Survey (The second times) – The environmental impacts on GL Company's business operation.

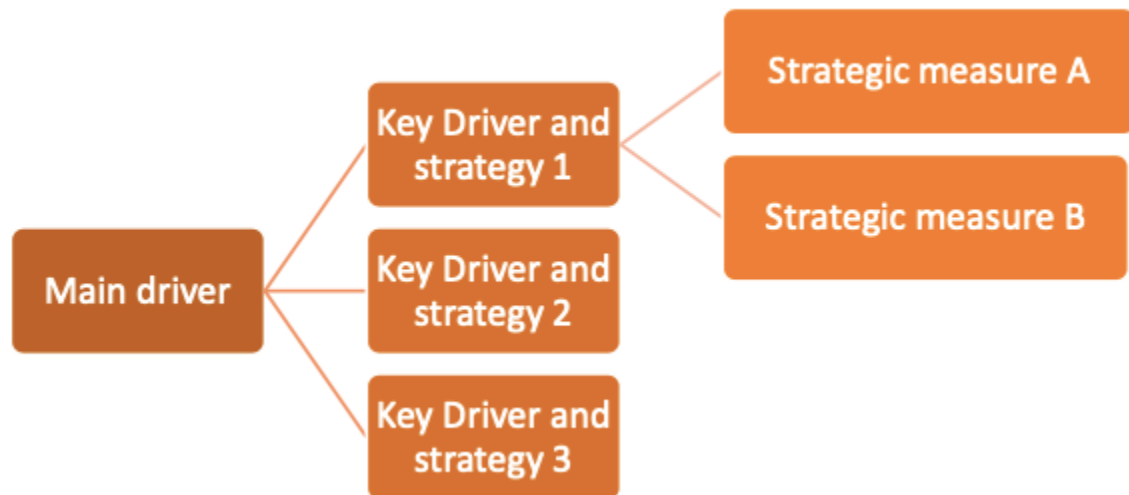
Appendix 14. Customer Survey – The evaluation for products, services and representative staff of GL company

Appendix 15. SWOT matrix

Appendix 16. QSPM matrix

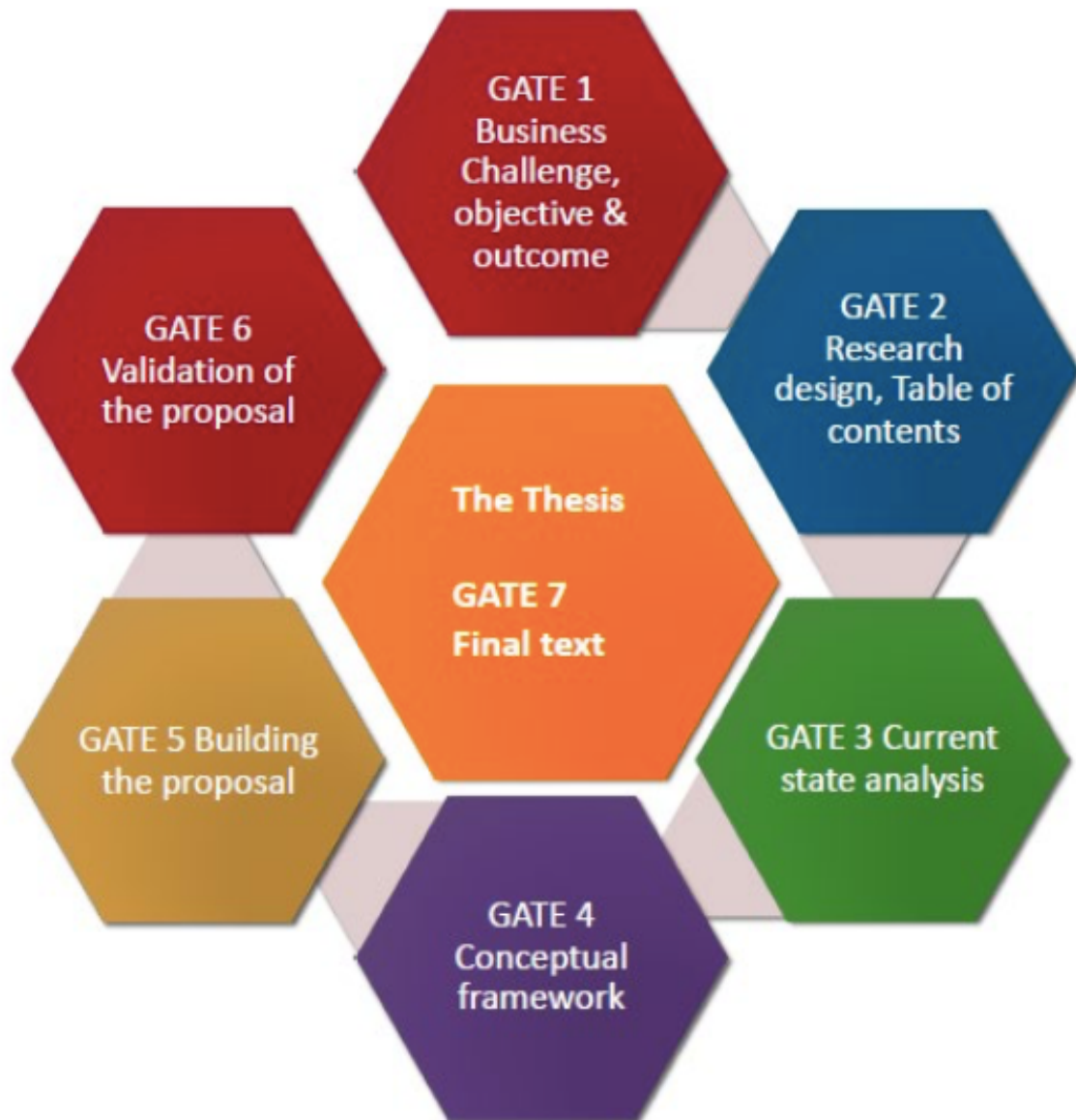
Appendix 1. Driving factor hierarchy in strategy

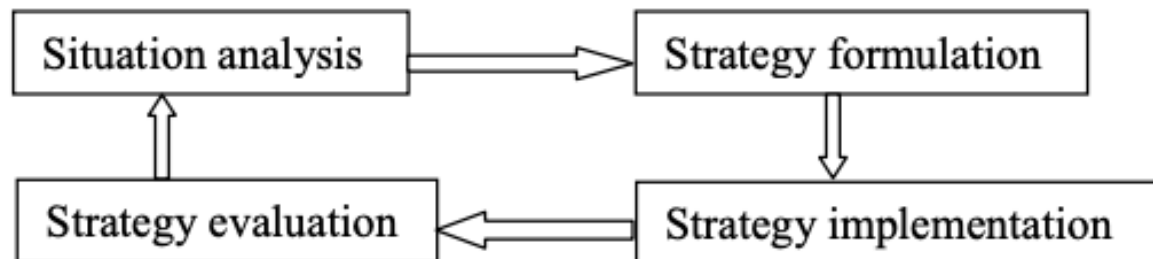
Figure 22 Driving factor hierarchy in strategy adapted from Kamensky (Niskala, 2022)



Appendix 2. The gate model

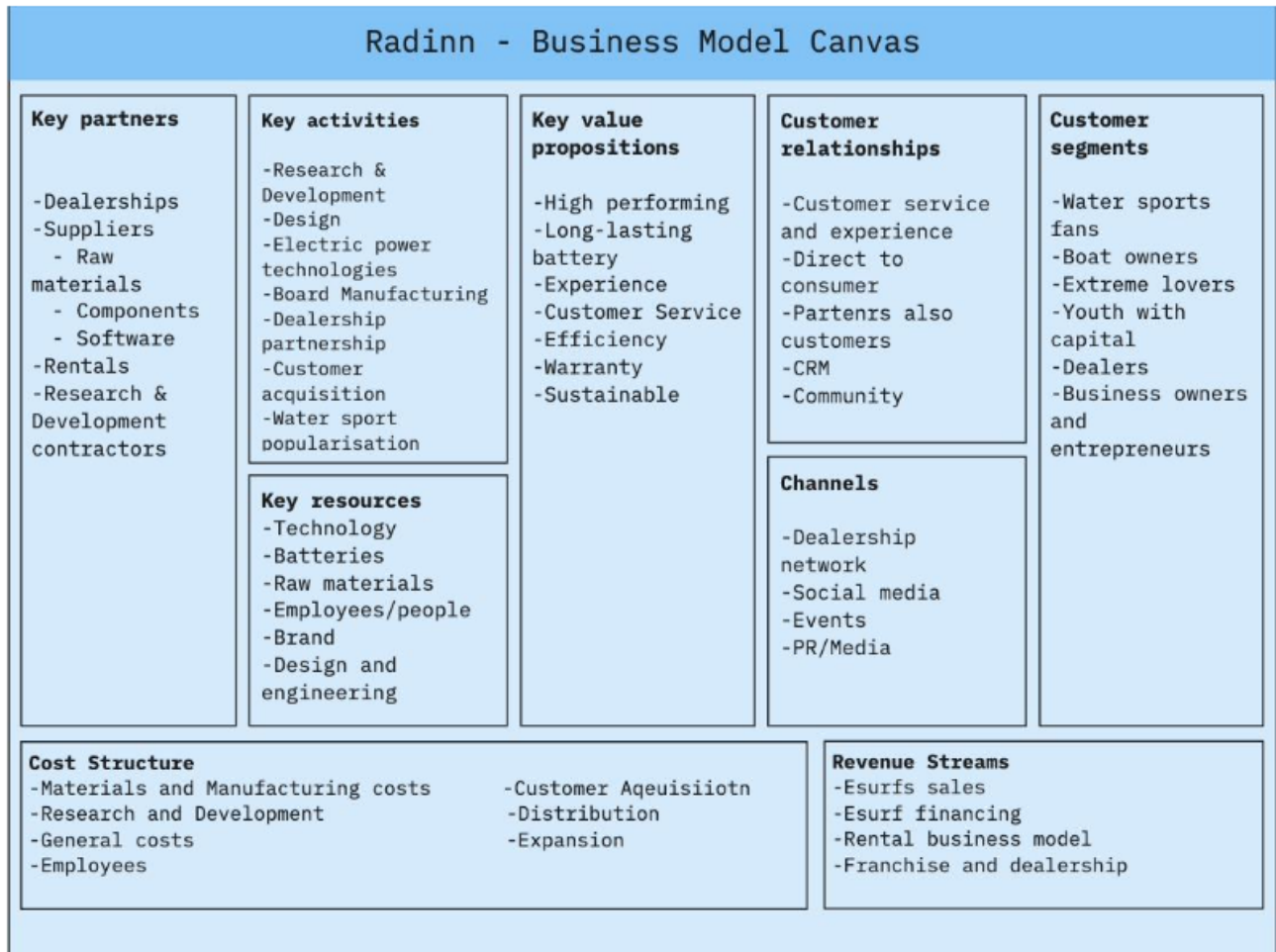
Figure 23 The gate model (Kokeyo, 2020)



Appendix 3. The basic activities of strategic management*Figure 24 Strategic process (Marova, 2014)*

Appendix 4. Radinn business model canvas

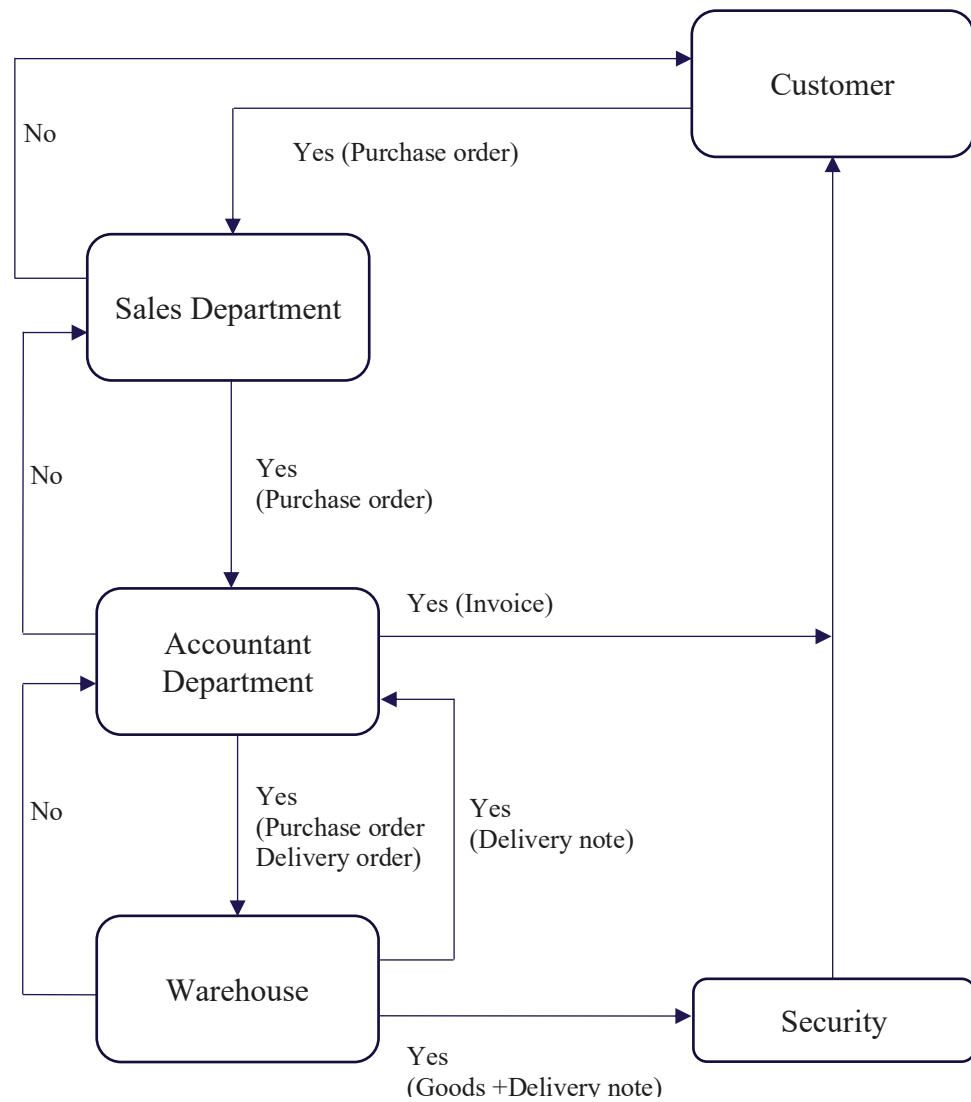
Figure 25 Radinn-Business model canvas (Shamray, 2023)



Appendix 5 Abridged BSC model

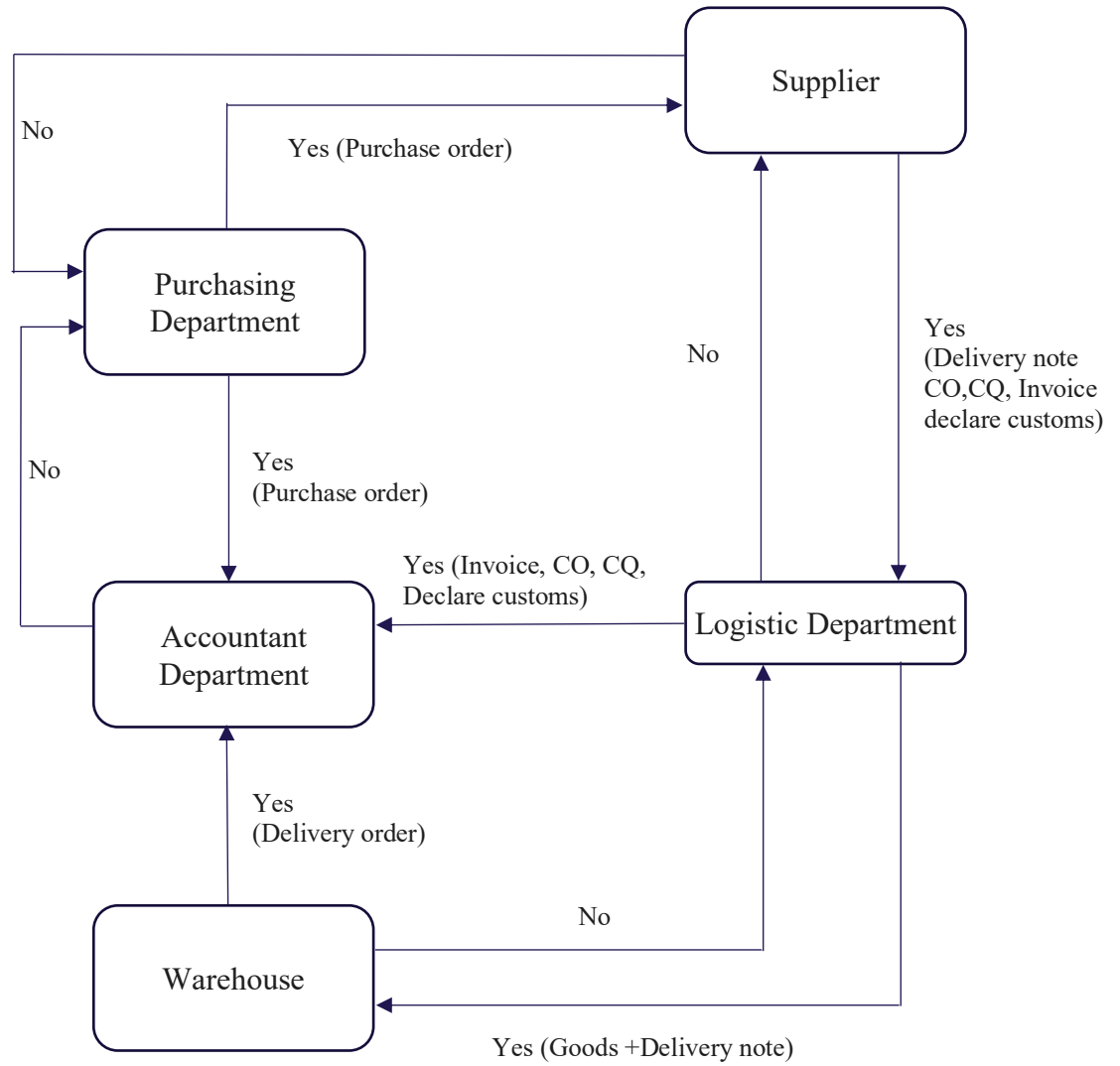
Figure 26 Abridged BSC model (Talvensaaari, 2021)

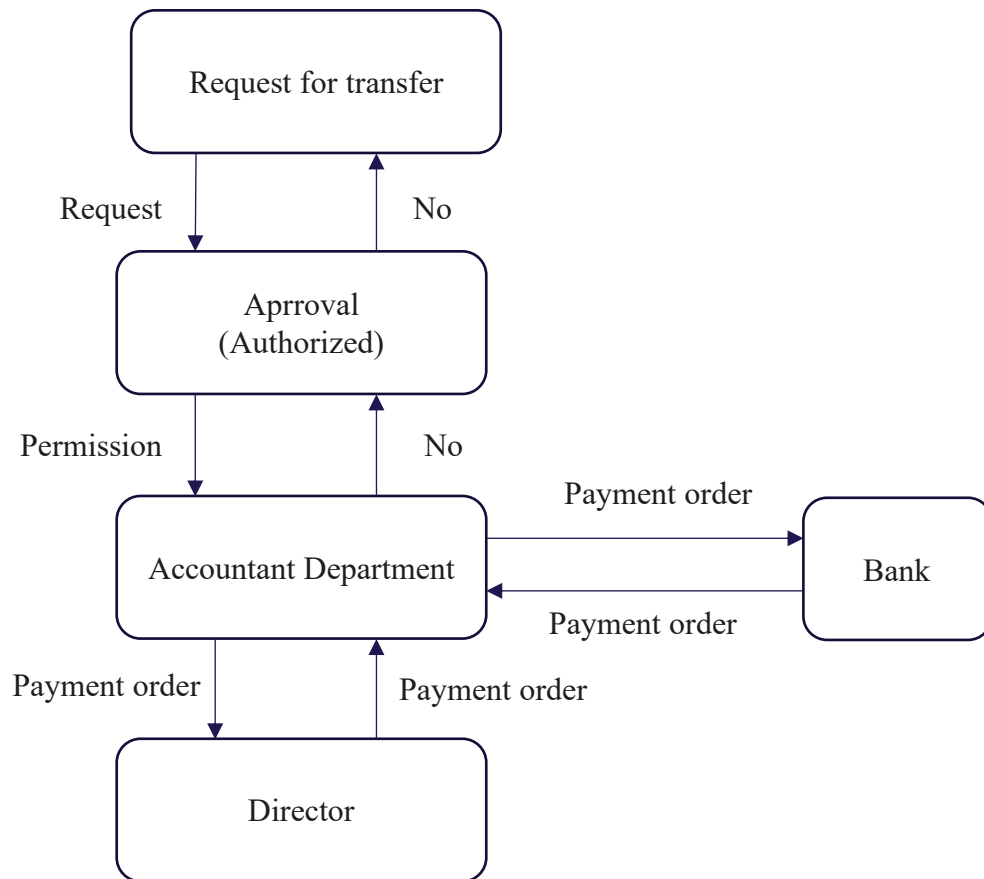
| | | | |
|----|---|--|--|
| 1 | Gather data, make strategic analysis and interpretation. | Lack of strategy usually creates a road-block for BSC project. There are many analysis methods; Market research, company CRM and ERP systems, employee interviews, customer interviews, etc. Choose the simple and effective ones. This phase takes the longest time, but it is suggested not to cut corners in this stage. | 1 –2 months |
| 2 | Make a clear decision to launch the Balanced Scorecard project. | Inform all employees in the monthly meeting and use enough time to explain what it means and how everyone should be involved, also explain how it will help the company and employees. | 4 hours |
| 3 | Get a genuine commitment of the whole company (managers and employees) to the project. | Discuss with all employees individually so that you can address the concerns immediately. Get them onboard. | 1h/employee (within one week of phase 2) |
| 4 | Choose one knowledgeable BSC lead from the company or find a suitable BSC partner for small business needs. | BSC project requires knowledge of the project method and BSC as a management system. This knowledge can be developed inside the company if there is enough time. If in a hurry, buy time by buying a BSC lead. | 2+ months of extensive studying. / Quote requests from BSC consultants. |
| 5 | Workshop 1 with all employees – clarify company vision and strategy. | Based on phase 3 data, clarify company vision and strategy, choose perspectives, and discuss suitable objectives and measures. - Seminar with open discussions - Questionnaire after the discussions | 4 – 6 hours + Questionnaire results |
| 6 | Create Strategy Map | Condense questionnaire answers to Strategy Map. See if it makes sense. If there are significant concerns, invite all employees to the second workshop. If the strategy map makes sense, investigate if it is possible to get the required data for the suggested measures from current IT-systems, the current status of the measure, and define potential targets. | 2 – 3 working days |
| 7 | Workshop 2 with all employees if needed to re-evaluate objectives and measures based on the strategy map. | During workshop two, re-evaluation and new discussion regarding Strategy Map were made. - Seminar with open discussions - Questionnaire after the discussions (if consensus is not reached and a new questionnaire seems important) | 2-4 hours |
| 8 | Create a new Strategy Map and the Balanced Scorecard. | Recreate Strategy Map and condense the Balanced Scorecard to one sheet for all employees to understand. | 3 – 5 working days |
| 9 | Workshop 3 with all employees. Introduce the Balanced Scorecard and start action plan discussions to move on with the recognized improvement areas. | Introduce everything together; 1. The crystallized strategy (best to create a one-page strategy for future use) 2. The Strategy Map to show internal linkages between perspectives. 3. The Balanced Scorecard with reporting information. Start action plan discussions to move on with the recognized improvement areas. | 4 – 6 hours |
| 10 | Set one-on-one employee discussions to go through individual Balanced Scorecard measures and activities as fast as possible. | Phase ten is critical. To reach the company-wide targets, all employees need individual measures and targets for their actions. This should be communicated fast. | Two working days for preparation, 2 hours/employee (within two weeks of earlier phase) |
| 11 | Plan and execute a continuous development plan | The BSC launch is just the beginning. The management needs to plan and execute the future. | Five working days |

Apendix 6 GL's delivery process*Figure 27 GL's Delivery process (GL, 2023)*

Apendix 7 GL's receive process

Figure 28 GL's receive process (GL, 2023)



Appendix 8 GL's payment process*Figure 29 GL's payment process (GL, 2023)*

Appendix 9 Expert survey (The first times) – The environmental impacts on GL Company's business operation.

Dear Lady/Gentleman,

My name is Lam Phuoc Giau who is studying Master of Business Administration at Seinäjoki University of Applied Sciences. I am individually conducting the research in term of the external & internal environment impacts on GL company's operation. The survey objective intends to complete works of thesis titled "Electronic component distribution development strategy for a Vietnamese startup in a new environment post-Covid 19 Pandemic". Your answers will not be judged true or false in this evaluation. Nevertheless, these answers will be meaningful for the research's objectives. Your private information will be confidentiality.

The surveyor information

Full name:

Career:.....

The company's name:

Gender: ☐ Male ☐ Female

Working time: ☐ Less than 3 months ☐ From 3 month to a year

☐ From a year to 3 years ☐ More than 3 years

Education level: ☐ Vocational ☐ Bachelor's degree

☐ Master's degree ☐ Others:

The factors are impacted from external environment.

- ♦ The factors are derived from industrial analysis. The score scale measures the impact level increasingly from 1 to 5, where 1 is little impact, and 5 is great impact.

| No | Statement | Impact level | | | | |
|----|-------------------------------------|--------------|---|---|---|---|
| 1 | Import tax incentives | 1 | 2 | 3 | 4 | 5 |
| 2 | The political stability | 1 | 2 | 3 | 4 | 5 |
| 3 | The global inflation | 1 | 2 | 3 | 4 | 5 |
| 4 | Electronic FDI company increasingly | 1 | 2 | 3 | 4 | 5 |
| 5 | Vietnam geopolitical conveniences. | 1 | 2 | 3 | 4 | 5 |
| 6 | Trade agreements | 1 | 2 | 3 | 4 | 5 |
| 7 | USD exchange pressure | 1 | 2 | 3 | 4 | 5 |
| 8 | Logistic cost | 1 | 2 | 3 | 4 | 5 |
| 9 | Loan interest rate | 1 | 2 | 3 | 4 | 5 |
| 10 | The global demand slow down | 1 | 2 | 3 | 4 | 5 |
| 11 | The abundant workforce | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|--|---|---|---|---|---|
| 12 | The low labor cost | 1 | 2 | 3 | 4 | 5 |
| 13 | Vietnamese culture | 1 | 2 | 3 | 4 | 5 |
| 14 | AI, 5G, EVs, IoT, 3D printing technology development | 1 | 2 | 3 | 4 | 5 |
| 15 | Digital transformation | 1 | 2 | 3 | 4 | 5 |
| 16 | Organic electronic components trend | 1 | 2 | 3 | 4 | 5 |
| 17 | Climate change | 1 | 2 | 3 | 4 | 5 |
| 18 | Renewable energy development policy | 1 | 2 | 3 | 4 | 5 |
| 19 | The zero carbon emission commitment | 1 | 2 | 3 | 4 | 5 |
| 20 | the air and wastewater pollution | 1 | 2 | 3 | 4 | 5 |
| 21 | The skilled job labor | 1 | 2 | 3 | 4 | 5 |
| 22 | The global supply chain disruption | 1 | 2 | 3 | 4 | 5 |
| 23 | China and US trade war | 1 | 2 | 3 | 4 | 5 |
| 24 | law of investment incentives | 1 | 2 | 3 | 4 | 5 |
| 25 | Anti-corruption, Intellectual property laws | 1 | 2 | 3 | 4 | 5 |

Additionally, do you think there are any other factors from industrial environment? Please write out your proposals! The score scale measures the impact level increasingly from 1 to 5, where 1 is little impact, and 5 is great impact.

| No | Statement | Impact level | | | | |
|----|-----------|--------------|---|---|---|---|
| 1 | | 1 | 2 | 3 | 4 | 5 |
| 2 | | 1 | 2 | 3 | 4 | 5 |
| 3 | | 1 | 2 | 3 | 4 | 5 |

The factors are derived from competitors. The score scale measures the impact level increasingly from 1 to 5, where 1 is little impact, and 5 is great impact.

| No | Competitive factors with rivals | Impact level | | | | |
|----|--|--------------|---|---|---|---|
| 1 | The competitive prices | 1 | 2 | 3 | 4 | 5 |
| 2 | The quality products | 1 | 2 | 3 | 4 | 5 |
| 3 | The reliable sources | 1 | 2 | 3 | 4 | 5 |
| 4 | Product diversity | 1 | 2 | 3 | 4 | 5 |
| 5 | Origin diversity | 1 | 2 | 3 | 4 | 5 |
| 6 | Alternative products | 1 | 2 | 3 | 4 | 5 |
| 7 | Delivery | 1 | 2 | 3 | 4 | 5 |
| 8 | Inventory | 1 | 2 | 3 | 4 | 5 |
| 9 | Targeted customers | 1 | 2 | 3 | 4 | 5 |
| 10 | The targeted applications to sell products in the market | 1 | 2 | 3 | 4 | 5 |
| 11 | Services | 1 | 2 | 3 | 4 | 5 |
| 12 | Financial support | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|-------------------------------------|---|---|---|---|---|
| 13 | The defective goods response | 1 | 2 | 3 | 4 | 5 |
| 14 | Attitude of representative staff | 1 | 2 | 3 | 4 | 5 |
| 15 | Negotiation ability with suppliers. | 1 | 2 | 3 | 4 | 5 |
| 16 | Negotiation ability with customers. | 1 | 2 | 3 | 4 | 5 |

Additionally, do you think there are any other factors from competitors? Please write out your proposals! The score scale measures the impact level increasingly from 1 to 5, where 1 is little impact, and 5 is great impact.

| No | Statement | Impact level | | | | |
|----|-----------|--------------|---|---|---|---|
| 1 | | 1 | 2 | 3 | 4 | 5 |
| 2 | | 1 | 2 | 3 | 4 | 5 |
| 3 | | 1 | 2 | 3 | 4 | 5 |

The factors are impacted from internal environment.

The score scale measures the impact level increasingly from 1 to 5, where 1 is little impact, and 5 is great impact.

| No | Internal factors | Impact level | | | | |
|----|---|--------------|---|---|---|---|
| 1 | Employees are young, dynamic and enthusiasm | 1 | 2 | 3 | 4 | 5 |
| 2 | Company scale | 1 | 2 | 3 | 4 | 5 |
| 3 | Wages and incentives structure clearly. | 1 | 2 | 3 | 4 | 5 |
| 4 | Resolve internal conflicts | 1 | 2 | 3 | 4 | 5 |
| 5 | Operation process improvement | 1 | 2 | 3 | 4 | 5 |
| 6 | Achivable vision and mision | 1 | 2 | 3 | 4 | 5 |
| 7 | Shipment consolidation | 1 | 2 | 3 | 4 | 5 |
| 8 | Building supplier relationship | 1 | 2 | 3 | 4 | 5 |
| 9 | Electronic technology exhibition | 1 | 2 | 3 | 4 | 5 |
| 10 | The skilled job training | 1 | 2 | 3 | 4 | 5 |
| 11 | Customer's demand forecast | 1 | 2 | 3 | 4 | 5 |
| 12 | Capital | 1 | 2 | 3 | 4 | 5 |
| 13 | FDI customer exploration | 1 | 2 | 3 | 4 | 5 |
| 14 | Warehouse | 1 | 2 | 3 | 4 | 5 |
| 15 | The representative sales offices | 1 | 2 | 3 | 4 | 5 |
| 16 | Business technology platform (CRM & ERP) | 1 | 2 | 3 | 4 | 5 |
| 17 | Company regulations | 1 | 2 | 3 | 4 | 5 |
| 18 | The selling price decision | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|--------------------------------------|---|---|---|---|---|
| 19 | Demand creation | 1 | 2 | 3 | 4 | 5 |
| 20 | The backend assistant of departments | 1 | 2 | 3 | 4 | 5 |

Additionally, do you think there are any other factors from internal environment? Please write out your proposals! The score scale measures the impact level increasingly from 1 to 5, where 1 is little impact, and 5 is great impact.

| No | Statement | Impact level | | | | |
|----|-----------|--------------|---|---|---|---|
| 1 | | 1 | 2 | 3 | 4 | 5 |
| 2 | | 1 | 2 | 3 | 4 | 5 |
| 3 | | 1 | 2 | 3 | 4 | 5 |

The outcomes of survey will be shared for purposes of connecting knowledges & research development. If you are interesting the results, please feel free to contact me in the following email address: lamphuocgiau86@gmail.com. I sincerely appreciate your evaluation. Because, these answers are practical data for the research. It's also foundation for alternative strategy proposal, aim to develop company. Thank you very much for your valuable time in the survey contribution.

Appendix 10 Result of expert survey (The first times) – The industrial environmental impacts

Table 19 The impact level of industrial factors (Results of expert survey in the first times, 2023).

| No | Statement | Expert evaluation in terms of impact level | | | | | | | | | | Total score | Average score | Impact level (%) |
|----|--|--|----|----|----|----|----|----|----|----|-----|-------------|---------------|------------------|
| | | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | E10 | | | |
| 1 | Import tax incentives | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 25 | 2.5 | 3.4% |
| 2 | The political stability | 3 | 2 | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 4 | 31 | 3.1 | 4.2% |
| 3 | The global inflation | 4 | 4 | 5 | 3 | 4 | 4 | 3 | 4 | 3 | 5 | 39 | 3.9 | 5.2% |
| 4 | Electronic FDI company increasingly | 4 | 3 | 3 | 5 | 3 | 3 | 4 | 3 | 3 | 4 | 35 | 3.5 | 4.7% |
| 5 | Vietnam geopolitical conveniences. | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 14 | 1.4 | 1.9% |
| 6 | Trade agreements | 3 | 4 | 5 | 4 | 4 | 3 | 4 | 5 | 3 | 4 | 39 | 3.9 | 5.2% |
| 7 | USD exchange pressure | 4 | 5 | 4 | 5 | 4 | 5 | 3 | 5 | 5 | 4 | 44 | 4.4 | 5.9% |
| 8 | Logistic cost | 5 | 4 | 4 | 3 | 5 | 4 | 4 | 4 | 4 | 5 | 42 | 4.2 | 5.6% |
| 9 | Loan interest rate | 3 | 5 | 5 | 4 | 3 | 4 | 5 | 5 | 3 | 4 | 41 | 4.1 | 5.5% |
| 10 | The global demand slow down | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 47 | 4.7 | 6.3% |
| 11 | The abundant workforce | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 14 | 1.4 | 1.9% |
| 12 | The low labor cost | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 26 | 2.6 | 3.5% |
| 13 | Vietnamese culture | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 13 | 1.3 | 1.7% |
| 14 | AI, 5G, EVs, IoT, 3D printing technology development | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 37 | 3.7 | 5.0% |
| 15 | Digital transformation | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 1 | 23 | 2.3 | 3.1% |
| 16 | Organic electronic components trend | 2 | 3 | 2 | 4 | 3 | 2 | 3 | 2 | 4 | 2 | 27 | 2.7 | 3.6% |
| 17 | Climate change | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 14 | 1.4 | 1.9% |
| 18 | Renewable energy development policy | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 12 | 1.2 | 1.6% |
| 19 | The zero carbon emission commitment | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 12 | 1.2 | 1.6% |
| 20 | the air and wastewater pollution | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 13 | 1.3 | 1.7% |
| 21 | The skilled job labor | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 24 | 2.4 | 3.2% |
| 22 | The global supply chain disruption | 3 | 4 | 3 | 4 | 3 | 4 | 5 | 4 | 3 | 4 | 37 | 3.7 | 5.0% |
| 23 | China and US trade war | 4 | 3 | 4 | 5 | 4 | 4 | 3 | 5 | 4 | 3 | 39 | 3.9 | 5.2% |

| | | | | | | | | | | | | | | |
|--|---|---|-----|---|---|---|-----|-----|-----|---|-----|----|-------------|-------------|
| 24 | law of investment incentives | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 18 | 1.8 | 2.4% |
| 25 | Anti-corruption, Intellectual property laws | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 14 | 1.4 | 1.9% |
| Factors are proposed from experts | | | | | | | | | | | | | | |
| 1 | electric power shortage | 2 | N/A | 3 | 3 | 4 | 3 | 2 | N/A | 4 | N/A | 21 | 2.1 | 2.8% |
| 2 | Fuel, electricity price increasing | 2 | 3 | 2 | 3 | 2 | N/A | 3 | 2 | 2 | 2 | 21 | 2.1 | 2.8% |
| 3 | Preferential in foreign trade zones | 4 | 3 | 2 | 3 | 4 | 2 | N/A | 3 | 3 | N/A | 24 | 2.4 | 3.2% |
| Total | | | | | | | | | | | | | 74.6 | 100% |

Appendix 11 Result of expert survey (The first times) – The rival's competitive environmental impacts.

Table 20 The impact level of competitive factors (Results of expert survey in the first times, 2023).

| No | Statement | Expert evaluation in terms of impact level | | | | | | | | | | Total score | Average score | Impact level (%) |
|--|--|--|----|-----|----|----|-----|----|----|-----|-----|-------------|---------------|------------------|
| | | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | E10 | | | |
| 1 | The competitive prices | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | 43 | 4.3 | 6.1% |
| 2 | The quality products | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 4 | 47 | 4.7 | 6.6% |
| 3 | The reliable sources | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 46 | 4.6 | 6.5% |
| 4 | Product diversity | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 5 | 44 | 4.4 | 6.2% |
| 5 | Origin diversity | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 5 | 4 | 44 | 4.4 | 6.2% |
| 6 | Alternative products | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 35 | 3.5 | 4.9% |
| 7 | Delivery | 3 | 3 | 4 | 3 | 2 | 3 | 2 | 4 | 3 | 5 | 32 | 3.2 | 4.5% |
| 8 | Inventory | 2 | 3 | 2 | 5 | 3 | 2 | 2 | 2 | 3 | 2 | 26 | 2.6 | 3.7% |
| 9 | Targeted customers | 3 | 5 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 35 | 3.5 | 4.9% |
| 10 | The targeted applications to sell products in the market | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 5 | 4 | 36 | 3.6 | 5.1% |
| 11 | Services | 4 | 5 | 4 | 3 | 4 | 4 | 3 | 4 | 5 | 4 | 40 | 4 | 5.6% |
| 12 | Financial support | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 25 | 2.5 | 3.5% |
| 13 | The defective goods response | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 5 | 4 | 44 | 4.4 | 6.2% |
| 14 | Attitude of representative staff | 4 | 5 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 44 | 4.4 | 6.2% |
| 15 | Negotiation ability with suppliers. | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 29 | 2.9 | 4.1% |
| 16 | Negotiation ability with customers. | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 32 | 3.2 | 4.5% |
| Factors are proposed from experts | | | | | | | | | | | | | | |
| 1 | Company reputation | 3 | 3 | N/A | 3 | 2 | N/A | 3 | 3 | N/A | 3 | 20 | 2.0 | 2.8% |
| 2 | Employee benefits | 3 | 2 | N/A | 3 | 4 | 2 | 3 | 4 | 3 | 2 | 26 | 2.6 | 3.7% |
| 3 | Quality control | 3 | 2 | 3 | 1 | 2 | N/A | 2 | 3 | 3 | N/A | 19 | 1.9 | 2.7% |
| 4 | Technical support | 4 | 4 | 5 | 4 | 3 | 5 | 4 | 4 | 5 | 4 | 42 | 4.2 | 5.9% |
| Total | | | | | | | | | | | | | 70.9 | 100% |

Appendix 12 Result of expert survey (The first times) – The internal environmental impacts.

Table 21 The impact level of internal factors (Results of expert survey in the first times, 2023).

| No | Statement | Expert evaluation in terms of impact level | | | | | | | | | | Total score | Average score | Impact level (%) |
|-----------------------------------|---|--|----|----|----|----|----|----|----|----|-----|-------------|---------------|------------------|
| | | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | E10 | | | |
| 1 | Employees are young, dynamic and enthusiasm | 1 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 24 | 2.4 | 3.2% |
| 2 | Company scale | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 31 | 3.1 | 4.2% |
| 3 | Wages and incentives structure clearly. | 3 | 3 | 5 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 35 | 3.5 | 4.7% |
| 4 | Resolve internal conflicts | 3 | 4 | 2 | 4 | 3 | 5 | 4 | 3 | 4 | 2 | 34 | 3.4 | 4.6% |
| 5 | Operation process improvement | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 14 | 1.4 | 1.9% |
| 6 | Achivable vision and mision | 2 | 3 | 2 | 4 | 3 | 2 | 3 | 2 | 1 | 2 | 24 | 2.4 | 3.2% |
| 7 | Shipment consolidation | 5 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 35 | 3.5 | 4.7% |
| 8 | Building supplier relationship | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 33 | 3.3 | 4.5% |
| 9 | Electronic technology exhibition | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 14 | 1.4 | 1.9% |
| 10 | The skilled job training | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 34 | 3.4 | 4.6% |
| 11 | Customer's demand forecast | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 41 | 4.1 | 5.5% |
| 12 | Capital | 4 | 5 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 44 | 4.4 | 5.9% |
| 13 | FDI customer exploration | 3 | 3 | 4 | 3 | 4 | 5 | 4 | 3 | 3 | 5 | 37 | 3.7 | 5.0% |
| 14 | Warehouse | 4 | 5 | 4 | 5 | 4 | 5 | 4 | 5 | 4 | 4 | 44 | 4.4 | 5.9% |
| 15 | The representative sales offices | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 43 | 4.3 | 5.8% |
| 16 | Business technology platform (CRM & ERP) | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 33 | 3.3 | 4.5% |
| 17 | Company regulations | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 3 | 25 | 2.5 | 3.4% |
| 18 | The selling price decision | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 27 | 2.7 | 3.6% |
| 19 | Demand creation | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 47 | 4.7 | 6.4% |
| 20 | The backend assistant of departments | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 5 | 38 | 3.8 | 5.1% |
| Factors are proposed from experts | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|--------------|--|-----|---|---|-----|-----|-----|---|-----|---|-----|----|-------------|-------------|
| 1 | Empowerment | N/A | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | N/A | 28 | 2.8 | 3.8% |
| 2 | Information exchange between departments | 1 | 2 | 1 | 2 | N/A | 2 | 1 | 2 | 1 | 2 | 14 | 1.4 | 1.9% |
| 3 | Employee engagement activities | N/A | 2 | 1 | 2 | 2 | N/A | 2 | 2 | 1 | 2 | 14 | 1.4 | 1.9% |
| 4 | Allowance improvement | 3 | 4 | 2 | N/A | 4 | 3 | 4 | N/A | 4 | 3 | 27 | 2.7 | 3.6% |
| Total | | | | | | | | | | | | | 74.0 | 100% |

Appendix 13 Expert Survey (The second times) – The environmental impacts on GL Company's business operation.

Dear Lady/Gentleman,

My name is Lam Phuoc Giau who is studying Master of Business Administration at Seinäjoki University of Applied Sciences. I am individually conducting the research in term of the external & internal environment impacts on GL company's operation. The survey objective intends to complete works of thesis titled "Electronic component distribution development strategy for a Vietnamese startup in a new environment post-Covid 19 Pandemic". Your answers will not be judged true or false in this evaluation. Nevertheless, these answers will be meaningful for the research's objectives. Your private information will be confidentiality.

The surveyor information

Full name:

Career:.....

The company's name:

| | | | | |
|------------------|--------------------------|------------------------|--------------------------|------------------------|
| Gender: | <input type="checkbox"/> | Male | <input type="checkbox"/> | Female |
| Working time: | <input type="checkbox"/> | Less than 3 months | <input type="checkbox"/> | From 3 month to a year |
| | <input type="checkbox"/> | From a year to 3 years | <input type="checkbox"/> | More than 3 years |
| Education level: | <input type="checkbox"/> | Vocational | <input type="checkbox"/> | Bachelor's degree |
| | <input type="checkbox"/> | Master's degree | <input type="checkbox"/> | Others: |

.....

The factors are impacted from external environment.

- ◆ The factors are derived from industrial analysis. These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The total weight should be equal to 1.0. It's meaning the factor will get more weight than others if it's more important on firm's industry.

Assign rating for these factors, which are poor response (1), average response (2), above average response (3), or superior response (4). They are indicating that the company's current strategies response opportunities and threats.

| No | Statement | Weight (Important level) | Rating (Response level) | | | |
|----|--|--------------------------------|-------------------------------|---|---|---|
| 1 | Import tax incentives | | 1 | 2 | 3 | 4 |
| 2 | The political stability | | 1 | 2 | 3 | 4 |
| 3 | The global inflation | | 1 | 2 | 3 | 4 |
| 4 | Electronic FDI company increasingly | | 1 | 2 | 3 | 4 |
| 5 | Trade agreements | | 1 | 2 | 3 | 4 |
| 6 | USD exchange pressure | | 1 | 2 | 3 | 4 |
| 7 | Logistic cost | | 1 | 2 | 3 | 4 |
| 8 | Loan interest rate | | 1 | 2 | 3 | 4 |
| 9 | The global demand slow down | | 1 | 2 | 3 | 4 |
| 10 | The low labor cost | | 1 | 2 | 3 | 4 |
| 11 | AI, 5G, EVs, IoT, 3D printing technology development | | 1 | 2 | 3 | 4 |
| 12 | Digital transformation | | 1 | 2 | 3 | 4 |
| 13 | Organic electronic components trend | | 1 | 2 | 3 | 4 |
| 14 | The skilled job labor | | 1 | 2 | 3 | 4 |
| 15 | The global supply chain disruption | | 1 | 2 | 3 | 4 |
| 16 | China and US trade war | | 1 | 2 | 3 | 4 |
| 17 | law of investment incentives | | 1 | 2 | 3 | 4 |
| 18 | electric power shortage | | 1 | 2 | 3 | 4 |
| 19 | Fuel, electricity price increasing | | 1 | 2 | 3 | 4 |
| 20 | Preferential in foreign trade zones | | 1 | 2 | 3 | 4 |

- ◆ The factors are derived from competitive analysis. These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The total weight should be equal to 1.0. It's meaning the factor will get more weight than others if it's more important on firm's industry.

Assign rating for these factors, which are major weakness (1), minor weakness (2), minor strength (3), or major strength (4). They are indicating that affective level of factors to current company.

| No | Statement | Weight (Important level) | Rating (Response level) | | | |
|----|------------------------|--------------------------------|-------------------------|-----------|--------|-----|
| | | | GL | Thegioiic | AT-COM | EPI |
| 1 | The competitive prices | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 2 | The quality products | | | | | |
| 3 | The reliable sources | | | | | |
| 4 | Product diversity | | | | | |
| 5 | Origin diversity | | | | | |
| 6 | Alternative products | | | | | |
| 7 | Delivery | | | | | |
| 8 | Inventory | | | | | |
| 9 | Targeted customers | | | | | |
| 10 | The targeted applications to sell products in the market | | | | | |
| 11 | Services | | | | | |
| 12 | Financial support | | | | | |
| 13 | The defective goods response | | | | | |
| 14 | Attitude of representative staff | | | | | |
| 15 | Negotiation ability with suppliers. | | | | | |
| 16 | Negotiation ability with customers. | | | | | |
| 17 | Company reputation | | | | | |
| 18 | Employee benefits | | | | | |
| 19 | Quality control | | | | | |
| 20 | Technical support | | | | | |

The factors are impacted from internal environment.

These factors are assigned a weight that ranges from 0.0 (not important) to 1.0 (very important). The total weight should be equal to 1.0. It's meaning the factor will get more weight than others if it's more important on firm's industry.

Assign rating for these factors, which are major weakness (1), minor weakness (2), minor strength (3), or major strength (4). They are indicating that affective level of factors to current company.

| No | Statement | Weight (Important level) | Rating (Response level) | | | |
|----|---|-----------------------------|----------------------------|---|---|---|
| No | Statement | | 1 | 2 | 3 | 4 |
| 1 | Employees are young, dynamic and enthusiasm | | 1 | 2 | 3 | 4 |
| 2 | Company scale | | 1 | 2 | 3 | 4 |
| 3 | Wages and incentives structure clearly. | | 1 | 2 | 3 | 4 |
| 4 | Resolve internal conflicts | | 1 | 2 | 3 | 4 |

| | | | | | | |
|----|--|--|---|---|---|---|
| 5 | Achivable vision and mision | | 1 | 2 | 3 | 4 |
| 6 | Shipment consolidation | | 1 | 2 | 3 | 4 |
| 7 | Building supplier relationship | | 1 | 2 | 3 | 4 |
| 8 | The skilled job trainning | | 1 | 2 | 3 | 4 |
| 9 | Customer's demand forecast | | 1 | 2 | 3 | 4 |
| 10 | Capital | | 1 | 2 | 3 | 4 |
| 11 | FDI customer exploration | | 1 | 2 | 3 | 4 |
| 12 | Warehouse | | 1 | 2 | 3 | 4 |
| 13 | The representative sales offices | | 1 | 2 | 3 | 4 |
| 14 | Business technology platform (CRM & ERP) | | 1 | 2 | 3 | 4 |
| 15 | Company regulations | | 1 | 2 | 3 | 4 |
| 16 | The selling price decision | | 1 | 2 | 3 | 4 |
| 17 | Demand creation | | 1 | 2 | 3 | 4 |
| 18 | The backend assistant of departments | | 1 | 2 | 3 | 4 |
| 19 | Empowerment | | 1 | 2 | 3 | 4 |
| 20 | Allowance improvement | | 1 | 2 | 3 | 4 |

The outcomes of survey will be shared for purposes of connecting knowledges & research development. If you are interesting the results, please feel free to contact me in the following email address: lamphuocgiau86@gmail.com. I sincerely appreciate your evaluation. Because these answers are practical data for the research. It's also foundation for alternative strategy proposal, aim to develop company. Thank you very much for your valuable time in the survey contribution.

Appendix 14 Customer Survey – The evaluation for products, services and representative staff of GL company

Dear Lady/Gentleman,

My name is Lam Phuoc Giau who is studying Master of Business Administration at Seinäjoki University of Applied Sciences. I am individually conducting the research in term of the evaluation for products, services and representative staff of GL company. The survey objective intends to complete works of thesis titled “Electronic component distribution development strategy for a Vietnamese startup in a new environment post-Covid 19 Pandemic”. Your answers will not be judged true or false in this evaluation. Nevertheless, these answers will be meaningful for the research’s objectives. Your private information will be confidentiality.

The surveyor information

Full name:

Career:.....

The company’s name:

| | | | | |
|------------------|--------------------------|------------------------|--------------------------|------------------------|
| Gender: | <input type="checkbox"/> | Male | <input type="checkbox"/> | Female |
| Working time: | <input type="checkbox"/> | Less than 3 months | <input type="checkbox"/> | From 3 month to a year |
| | <input type="checkbox"/> | From a year to 3 years | <input type="checkbox"/> | More than 3 years |
| Education level: | <input type="checkbox"/> | Vocational | <input type="checkbox"/> | Bachelor’s degree |
| | <input type="checkbox"/> | Master’s degree | <input type="checkbox"/> | Others: |

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The company awareness

1. Did you know GL?

- ☐ Yes.
☐ No.

2. Did you buy electronic components from GL?

- ☐ Yes.
☐ No.

3. Are you buying electronic components from GL?

- ☐ Yes.
☐ No.

(Please stop answer below questions if you didn’t buy electronic components from GL)

4. How long did you buy electronic components from GL?

- ☐ Less than 3 months
- ☐ From 3 months to a year
- ☐ From a year to 3 years
- ☐ More than 3 years

5. What is your responsibility for electronic components purchasing at GL?

- ☐ Buyer
- ☐ Sourcing staff
- ☐ Warehouse keeper
- ☐ Approval purchasing
- ☐ others (Please write details):

6. How many employees does your company have?

- ☐ Less than 15 employees.
- ☐ From 15 to 50 employees
- ☐ From 50 to 100 employees
- ☐ More than 100 employees.

7. How much turnover did your company achieve in last year?

- ☐ Less than VND 1 billions
- ☐ From VND 1 billion to VND 10 billion.
- ☐ From VND 10 billion to VND 100 billion.
- ☐ More than VND 100 billion

The products, services and representative staff evaluation

- ◆ Evaluate GL's products compared to other suppliers. The score scale is increasingly from 1 to 5, where 1 is little agreement and 5 is most agreement.

| No | Statement | Agreement level | | | | |
|----|---|-----------------|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | The products have electrical safety certificates | 1 | 2 | 3 | 4 | 5 |
| 2 | The products have environmental safety certificates | 1 | 2 | 3 | 4 | 5 |
| 3 | The measurable tolerances comply international standards | 1 | 2 | 3 | 4 | 5 |
| 4 | Electro-tolerances comply with international standards | 1 | 2 | 3 | 4 | 5 |
| 5 | Goods is delivered together with CO, CQ | 1 | 2 | 3 | 4 | 5 |
| 6 | There are options for origin | 1 | 2 | 3 | 4 | 5 |
| 7 | There are options for manufacturers | 1 | 2 | 3 | 4 | 5 |
| 8 | There are various kind of passive electronic components | 1 | 2 | 3 | 4 | 5 |
| 9 | GL has available stock for your company demand | 1 | 2 | 3 | 4 | 5 |
| 10 | The prices of products are competing with other suppliers | 1 | 2 | 3 | 4 | 5 |
| 11 | GL is a reliable supplier | 1 | 2 | 3 | 4 | 5 |

12. Do you have other comments to improve GL's products?

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- ♦ Evaluate GL's services compared to other suppliers. The score scale is increasingly from 1 to 5, where 1 is little agreement and 5 is most agreement.

| No | Statement | Agreement level | | | | |
|----|--|-----------------|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | Delivery is on time as your request | 1 | 2 | 3 | 4 | 5 |
| 2 | Goods is delivered exact quantity | 1 | 2 | 3 | 4 | 5 |
| 3 | Delivery process is simplification | 1 | 2 | 3 | 4 | 5 |
| 4 | GL is supporting to pull in goods | 1 | 2 | 3 | 4 | 5 |
| 5 | GL is supporting to pull out goods | 1 | 2 | 3 | 4 | 5 |
| 6 | Goods is carefully packed | 1 | 2 | 3 | 4 | 5 |
| 7 | Trucks is used suitable with goods's measurement. | 1 | 2 | 3 | 4 | 5 |
| 8 | Support free samples for testing | 1 | 2 | 3 | 4 | 5 |
| 9 | Fast response to solve defective goods | 1 | 2 | 3 | 4 | 5 |
| 10 | The exchange defective goods process is simplification | 1 | 2 | 3 | 4 | 5 |
| 11 | Support inventory as request | 1 | 2 | 3 | 4 | 5 |
| 12 | Support credit for customer | 1 | 2 | 3 | 4 | 5 |
| 13 | Coveniences to contact through phone numbers, representative sales | 1 | 2 | 3 | 4 | 5 |

14. Do you have other comments to improve GL's services?

.....

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.....

- ♦ Evaluate GL's representative staff compared to other suppliers. The score scale is increasingly from 1 to 5, where 1 is little agreement and 5 is most agreement.

| No | Statement | Agreement level | | | | |
|----|--|-----------------|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | Sales staff introduced new brands | 1 | 2 | 3 | 4 | 5 |
| 2 | Sales staff introduced alternative parts | 1 | 2 | 3 | 4 | 5 |
| 3 | Sales staff introduced new solutions / new edge-technologies | 1 | 2 | 3 | 4 | 5 |
| 4 | Sales staff quoted on time | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|---|---|---|---|---|---|
| 5 | Sales staff supported to cross parts | 1 | 2 | 3 | 4 | 5 |
| 6 | Field Application Engineer is in good support technical things | 1 | 2 | 3 | 4 | 5 |
| 7 | Sales staff have closely worked with your purchasing team | 1 | 2 | 3 | 4 | 5 |
| 8 | Sales staff have closely worked with your sourcing team | 1 | 2 | 3 | 4 | 5 |
| 9 | Sales staff is lated to solve defective goods. | 1 | 2 | 3 | 4 | 5 |
| 10 | Warehouse staff supported when customer come to pick up goods. | 1 | 2 | 3 | 4 | 5 |
| 11 | Transporter delivered goods on time & on place. | 1 | 2 | 3 | 4 | 5 |
| 12 | It's easy contact sales staff out of working time when the issues need be solved urgently | 1 | 2 | 3 | 4 | 5 |

13. Do you have other comments to improve quality serving?

.....

The outcomes of survey will be shared for purposes of connecting knowledges & research development. If you are interesting the results, please feel free to contact me in the following email address: lamphuocgiau86@gmail.com. I sincerely appreciate your evaluation. Because these answers are practical data for the research. It's also foundation for alternative strategy proposal, aim to develop company. Thank you very much for your valuable time in the survey contribution.

Appendix 15 SWOT matrix

| | | |
|--|---|--|
| | <p>Crucial Strengths - S</p> <ol style="list-style-type: none"> 1. Employees are young, dynamic and enthusiasm 2. Wages and incentives structure clearly. 3. Resolve internal conflicts 4. Achivable vision and mision 5. The skilled job training 6. Customer's demand forecast 7. Warehouse 8. The representative sales offices 9. Company regulations 10. The backend assistant of departments 11. Delivery 12. Services 13. The competitive prices 14. The quality products 15. Inventory 16. Financial support 17. The defective goods response 18. Attitude of representative staff 19. Technical support | <p>Crucial Weaknesses - W</p> <ol style="list-style-type: none"> 1. Company scale 2. Shipment consolidation 3. Building supplier relationship 4. Capital 5. FDI customer exploration 6. Business technology platform (CRM & ERP) 7. The selling price decision 8. Demand creation 9. Empowerment 10. The reliable sources 11. Alternative products 12. Targeted customers 13. The targeted applications to sell products in the market 14. Negotiation ability with suppliers. 15. Negotiation ability with customers. 16. Employee benefits 17. Product diversity 18. Origin diversity 19. Company reputation 20. Quality control 21. Allowance improvement |
|--|---|--|

| | | |
|--|--|---|
| <p>Crucial Opportunities - O</p> <ol style="list-style-type: none"> 1. Import tax incentives 2. The political stability 3. Electronic FDI company increasingly 4. Trade agreements 5. The low labor cost 6. AI, 5G, EVs, IoT, 3D printing technology development 7. Organic electronic components trend 8. The skilled job labor 9. China and US trade war 10. Digital transformation 11. law of investment incentives | <p>SO strategies</p> <p>Market penetration (O1, O2, O3, O4, O5, O8, O9, O10, O11, S1, S4, S5, S6, S7, S8, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19)</p> <p>Product development (O2, O3, O6, O7, O9, S1, S4, S5, S6, S7, S8, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19)</p> | <p>WO strategies</p> <p>Backward integration (W5, , W8, W12, W14, W17, W18, W19, O2, O3, O9, O1, O4, O11)</p> |
| <p>Crucial Threats - T</p> <ol style="list-style-type: none"> 1. The global inflation 2. USD exchange pressure 3. Logistic cost 4. Loan interest rate 5. The global demand slow down 6. The global supply chain disruption 7. Electric power shortage 8. Fuel, electricity price increasing 9. Preferential in foreign trade zones | <p>ST strategies</p> <p>Related diversification (T1, T5, T6, S1, S4, S6, S7 S8, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19).</p> <p>unrelated diversification (T2, T3, T4, T5, T6, T8, S1, S4, S5, S6, S7 S8, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19)</p> | <p>WT strategies</p> <p>Retrenchment (T1, T2, T3, T4, T5,T6, T7, T8, W2, W3, W5, W6, W8, W10, W11, W12, W13, W14, W15, W17, W18)</p> |

Appendix 16 QSPM matrix

| Key factors | | Weight | The feasible alternative strategies | | | | | | | | | | | |
|---------------|--|--------|-------------------------------------|------|---------------------|------|-------------------------|------|---------------------------|------|----------------------|------|--------------|------|
| | | | Market penetration | | Product development | | Related diversification | | unrelated diversification | | Backward integration | | Retrenchment | |
| | | | AS | TAS | AS | TAS | AS | TAS | AS | TAS | AS | TAS | AS | TAS |
| Opportunities | Import tax incentives | 0.06 | 2 | 0.12 | 2 | 0.12 | 2 | 0.12 | 2 | 0.12 | 2 | 0.12 | 2 | 0.12 |
| | The political stability | 0.07 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 2 | 0.14 |
| | Electronic FDI company increasingly | 0.05 | 4 | 0.2 | 3 | 0.15 | 4 | 0.2 | 3 | 0.15 | 4 | 0.2 | 4 | 0.2 |
| | Trade agreements | 0.04 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 |
| | The low labor cost | 0.02 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | AI, 5G, EVs, IoT, 3D printing technology development | 0.07 | 3 | 0.21 | 4 | 0.28 | 4 | 0.28 | 4 | 0.28 | 3 | 0.21 | 3 | 0.21 |
| | Organic electronic components trend | 0.03 | 2 | 0.06 | 4 | 0.12 | 3 | 0.09 | 4 | 0.12 | 3 | 0.09 | 3 | 0.09 |
| | The skilled job labor | 0.02 | 2 | 0.04 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | China and US trade war | 0.06 | 4 | 0.24 | 3 | 0.18 | 3 | 0.18 | 3 | 0.18 | 3 | 0.18 | 2 | 0.12 |
| | Digital transformation | 0.03 | 2 | 0.06 | | 0 | | 0 | 1 | 0.03 | 2 | 0.06 | 2 | 0.06 |
| | law of investment incentives | 0.04 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 |
| Threats | The global inflation | 0.07 | 3 | 0.21 | 2 | 0.14 | 2 | 0.14 | 2 | 0.14 | 2 | 0.14 | 3 | 0.21 |
| | USD exchange pressure | 0.04 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 1 | 0.04 | 2 | 0.08 |
| | Logistic cost | 0.06 | 3 | 0.18 | 3 | 0.18 | 3 | 0.18 | 2 | 0.12 | 2 | 0.12 | 2 | 0.12 |
| | Loan interest rate | 0.07 | 2 | 0.14 | 2 | 0.14 | 2 | 0.14 | 1 | 0.07 | 1 | 0.07 | 2 | 0.14 |

| | | | | | | | | | | | | | | |
|-----------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|
| | The global demand slow down | 0.08 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 |
| | The global supply chain disruption | 0.07 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 |
| | electric power shortage | 0.05 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 1 | 0.05 | 2 | 0.1 | 2 | 0.1 |
| | Fuel, electricity price increasing | 0.03 | 2 | 0.06 | 2 | 0.06 | 2 | 0.06 | 1 | 0.03 | 2 | 0.06 | 2 | 0.06 |
| | Preferential in foreign trade zones | 0.04 | 2 | 0.08 | 1 | 0.04 | 1 | 0.04 | | 0 | | 0 | | 0 |
| Total | | 1.00 | | | | | | | | | | | | |
| Strengths | Employees are young, dynamic and enthusiasm | 0.02 | 3 | 0.06 | 3 | 0.06 | 3 | 0.06 | 3 | 0.06 | 3 | 0.06 | 2 | 0.04 |
| | Wages and incentives structure clearly. | 0.03 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | Resolve internal conflicts | 0.03 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | Achivable vision and mision | 0.02 | 2 | 0.04 | 2 | 0.04 | 2 | 0.04 | 2 | 0.04 | 2 | 0.04 | 2 | 0.04 |
| | The skilled job training | 0.05 | 3 | 0.15 | 3 | 0.15 | 3 | 0.15 | 3 | 0.15 | 2 | 0.1 | 2 | 0.1 |
| | Customer's demand forecast | 0.04 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 2 | 0.08 | 3 | 0.12 | 4 | 0.16 |
| | Warehouse | 0.07 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 2 | 0.14 | 3 | 0.21 | 3 | 0.21 |
| | The representative sales offices | 0.07 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 | 3 | 0.21 |
| | Company regulations | 0.03 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | The backend assistant of departments | 0.08 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 |
| Weakn | Allowance improvement | 0.02 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | Company scale | 0.08 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 4 | 0.32 | 3 | 0.24 |

| | | | | | | | | | | | | | | |
|-------|--|------|---|------|---|------|---|------|---|------|---|------|---|------|
| | Shipment consolidation | 0.06 | 2 | 0.12 | 2 | 0.12 | 3 | 0.18 | 1 | 0.06 | 3 | 0.18 | 4 | 0.24 |
| | Building supplier relationship | 0.05 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 1 | 0.05 | 2 | 0.1 | 3 | 0.15 |
| | Capital | 0.08 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 | 3 | 0.24 |
| | FDI customer exploration | 0.05 | 3 | 0.15 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 3 | 0.15 | 3 | 0.15 |
| | Business technology platform (CRM & ERP) | 0.05 | | 0 | | 0 | 2 | 0.1 | | 0 | 2 | 0.1 | 2 | 0.1 |
| | The selling price decision | 0.03 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| | Demand creation | 0.1 | 4 | 0.4 | 4 | 0.4 | 4 | 0.4 | 4 | 0.4 | 4 | 0.4 | 3 | 0.3 |
| | Empowerment | 0.04 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| Total | | 1.00 | | 4.84 | | 4.60 | | 4.78 | | 4.20 | | 4.68 | | 4.68 |