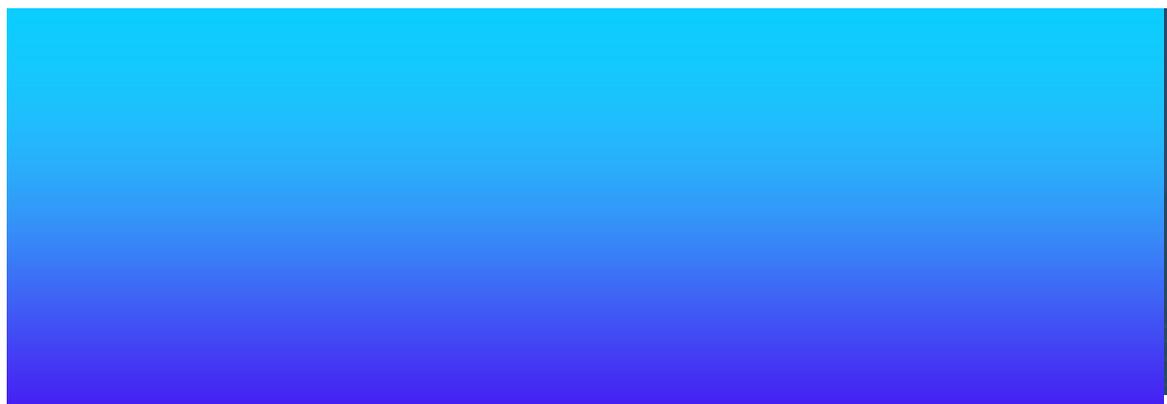


LOOP

BIZPLAN 2021





GRADUATION THESIS REPORT

LOOP

LOGISTIC • OPTIMIZE

START-UP LOOP COMPANY

- CONTAINER OPTIMIZATION PLATFORM

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Hanoi, December 17, 2021

The authors of this thesis

ABSTRACT

Nowadays, the logistics industry has become one of the most important industries not only in Vietnam but all over the world. However, since the supply chain is only as strong as its weakest link (Forbes Technology Council, 2019), there are still many problems regarding the efficiency of the process that need to be solved as soon as possible. Thus, the startup project of LOOP, which optimizes containers' usage by round-use them, was born. By applying two models of the sharing economy and crowd logistics, the LOOP platform will connect businesses in the logistics industry so they can together solve the container shortage problem, save wasted resources. The target customers are enterprises within the logistics industry, especially the import and export field. Companies that want to supply or round-use boxes will be taken care of in the most professional and dedicated way on the platform, and all transactions will be ensured to be done smoothly and transparently.

This thesis will give a detailed business plan for the LOOP platform with four core parts including market analysis, value propositions, plans for marketing and operating, as well as firm valuation. In addition, there is also have a contingency to detect material risks that may occur during the operation. The last component is future orientations that fit for the company to pursue.

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ABBREVIATION

No.	Abbreviation	Meaning
1	3PL	Third-party logistics
2	ASEAN	Association of Southeast Asian Nations
3	B2B	Business-to-business
4	CA	Current assets
5	CAGR	Compound Annual Growth Rate
6	CapEx	Capital expenditure
7	CAPM	Capital asset pricing model
8	CEO	chief executive officer
9	CFO	chief of finance officer
10	CHRO	chief of human resources officer
11	CIC	Container imbalance charge
12	CIT	Corporate income tax
13	CL	Current liabilities
14	CMO	chief of marketing officer
15	COS	Container Optimization Solution
16	CPI	Consumer price index
17	CSR	Corporate Social Responsibility
18	CTO	chief of technology officer
19	DCF	Discounted cash flow
20	DET	Detention
21	EBITDA	Earnings before interest, tax, depreciation and amortization
22	EBT	Earnings before tax
23	EOM	End of month
24	EOY	End of year
25	EVN	Vietnam Electricity Corporation
26	FCF	Free cash flow
27	FDI	Foreign direct investment
28	FTA	Free trade agreement

29	GDP	Gross domestic product
30	HKEX	HongKong Stock exchange
31	HNX	Hanoi Stock Exchange
32	HOSE	Ho Chi Minh Stock Exchange
33	HR	Human resources
34	IAS	International accounting standards
35	ICD	Inland container depot
36	IFRS	International financial reporting standards
37	IMF	International Monetary Fund
38	IT	Information technology
39	JSC.	Joint-stock company
40	KPI	Key Performance Indicator
41	LLC.	Limited liability company
42	LOLO	Lift-on lift-off
43	LPI	Logistics Performance Index
44	M&A	Merge and acquisition
45	MIRR	Modified internal rate of return
46	MoF	Ministry of Finance
47	MoIT	Ministry of Industry and Trade
48	MoT	Ministry of Transport
49	NAPAS	National Payment Corporation of Vietna
50	NWC	Net working capital
51	NYSE	New York Stock Exchange
52	OECD	Organisation for Economic Co-operation and Development
53	OpEx	Operational expenditure
54	PB	Payback period
55	POSM	Point of Sales Material
56	PR	Public relation
57	PRC	People Republic of China
58	ROI	Return on investment

59	SAM	Serviceable addressable market
60	SEM	search engine marketing
61	SEO	search engine optimization
62	SME	Small or medium-sized enterprise
63	SOCI / PL	Statement of profit or loss and other comprehensive income
64	SOFP / BS	Statement of financial position / Balance sheet
65	SOM	Serviceable obtainable market
66	TAM	Total available market
67	TEU	Twenty-foot Equivalent Unit
68	TIPS	Treasury inflation-protected security
69	UNCTAD	United Nations Conference on Trade and Development
70	VAT	Value-added tax
71	VLA	Vietnam Logistics Association
72	VN-Index	Index for stocks listed on the Ho Chi Minh Stock Exchange
73	WACC	Weighted-average cost of capital
74	WC	Working capital
75	WTO	World Trade Organization
76	Zalo OA	Zalo Official account

1. Introduction

1.1. Topic background

1.1.1. Topic relevance

With the promising development of Vietnam during the period of industrialization and modernization, the diversification of transportation is indispensable. Just only when transportation develop, the exchange of goods can become easier. Among available modes, container transport plays an extremely important role. Container transport is transporting goods in standardized re-sealable containers through the railway or seaway (OECD, 2021). Compared with other methods, containers offer a huge cargo capacity, besides the benefit of protecting goods to be intact when transported (UNCTAD, 2005). Today, with an extensive network of container shipping routes and the rise of multimodal and intermodal transportations, container shipping plays an increasingly important role in global trade. For instance, during 2020 in Vietnam, nearly 7.4 million exported twenty-foot equivalent units (TEUs) and nearly 7.3 million TEUs of imports were cleared (Vietnam Maritime Administration, 2021). These numbers are almost double the 2014’s figures, with the compound annual growth rate (CAGR) of 9.09% for exports and 8.28% for imports.

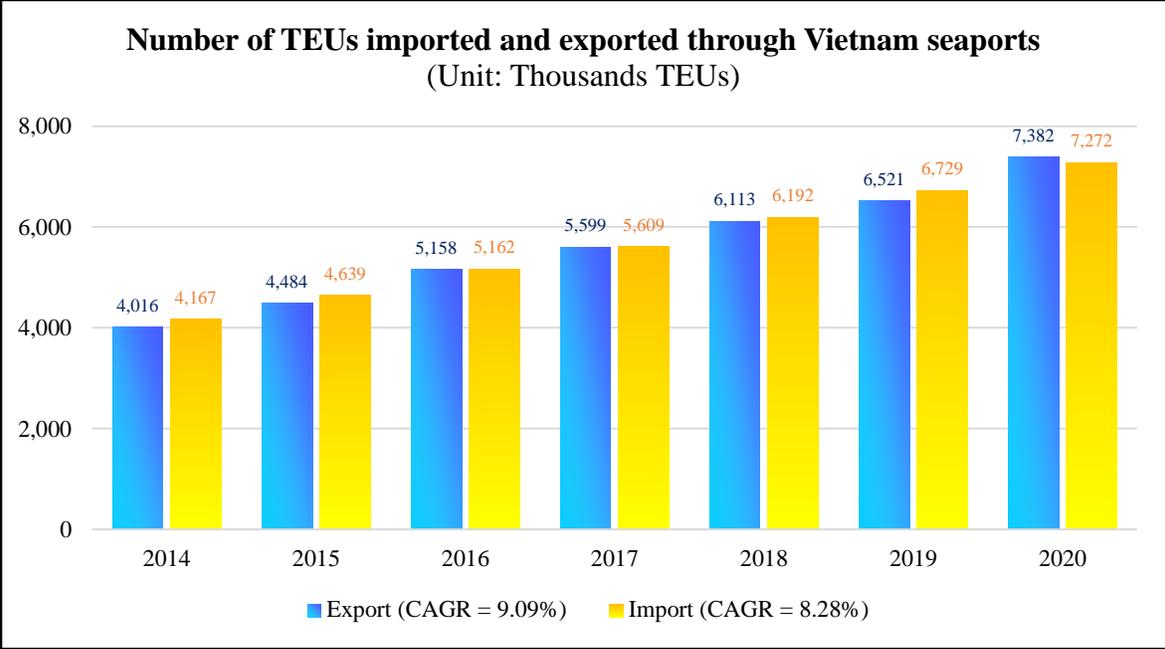


Figure 1. Number of TEUs imported and exported through Vietnam seaports (Source: Vietnam Maritime Administration, 2014, 2015, 2016, 2017, 2018, 2019, 2020; and authors)

Given the importance of container transport to Vietnam’s import-export and logistics industries, a startup plan focusing on a solution for the two most painful bottlenecks amid the COVID-19 pandemic, the shortage of containers and the surge of logistics costs, are necessary.

1.1.2. Market problem identification

There are three main reasons that lead to the scarcity of containers and the hike in logistics costs. Firstly, the COVID-19 has disrupted the global supply chain and affected all industries in recent years, including the import-export industry. The outbreaks of the pandemic, which coincided with the peak exporting season of Vietnam in May and September, also aggravated the problem of containers exported and stuck in other countries (CafeF, 2020).

Besides, the situation is also derived from Vietnam's trade surplus. This nature together with Vietnam's proactive strategy with free trade agreements (FTAs) have increased the exporting volume and boosted the demand for using containers. For example, within the first 7 months of 2021, the total two-way trade between Vietnam and the CPTPP market reached 52 billion USD, which is 23.36% more than the same period in 2020 (Center for WTO and International trade, 2021). At the same time, the number with the United Kingdom is 3.88 billion USD, an increase of 27.07% (Center for WTO and International trade, 2021). This is the premise for the rise in the lack of containers for exports, especially during the pandemic period with the scarcity of goods.

The third reason is due to the inefficiencies in moving containers between terminals, depots, and warehouses of shippers. Times spent when carrying empty containers back depots to shipping lines or when bringing rented shells from depots to exporters' warehouses have lowered the turnover rate of containers. The unpopularity of the choice to round-use containers by transporting them directly from importers to exporters has created pain points and made foreign shipping lines sometimes have to arrive at Vietnam's seaports with the most are empty shells. In fact, when being surveyed by the Vietnam Logistics Association, more than half of enterprises also responded about the poor quality in the management of empty containers (VLA, 2021).

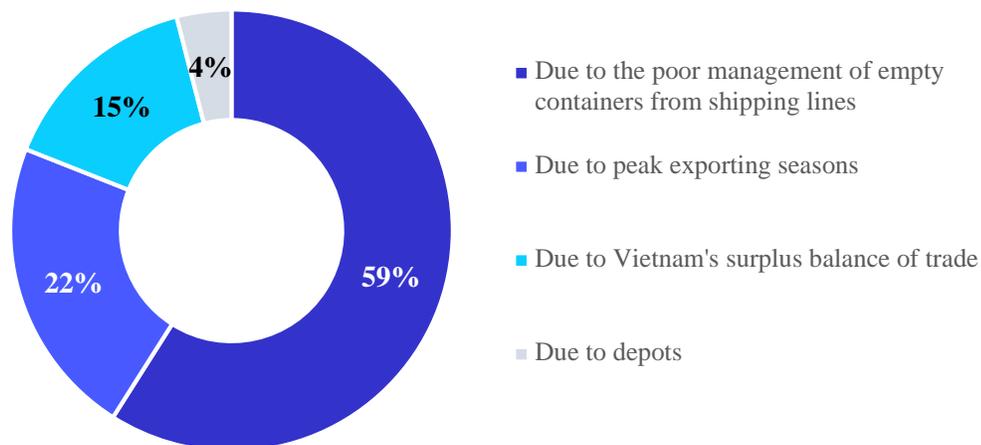


Figure 2. Survey of enterprises about the reason for the shortage of empty containers

(Source: Vietnam Logistics Review magazine, 2020)

1.1.3. Opportunity introduction

To handle the shortage, some solutions have been suggested. For instance, since June of 2021, Hoa Phat Group has built a factory in Ba Ria Vung Tau to manufacture containers (HPG News, 2021). However, the first lot of products can't be available until the early second quarter of 2022 (HPG News, 2021). Besides, since one of the main reasons that caused Vietnam to be short of empty containers is due to the lack of round-using containers, producing more containers may not solve the problem to the core. Moreover, many enterprises have proposed to take thousands of derelict containers at seaports as a source for empty containers (VnExpress, 2021). Nevertheless, the process will take a long time because infringing goods have to be exported back to the original countries and this makes the option difficult to implement (VOV, 2021). Meanwhile, there is still an average of over 300 thousand TEUs running on the roads every year - a huge number during the current shortage of containers (Smartlog, 2021).

What the import-export industry needs now is a solution that can optimize the rotation of containers and lower the shortage of shells at ports. With technology developments, it is necessary to apply the model of crowd logistics to develop a network where the optimization of containers is fulfilled by letting logistics companies round-use them. Realizing the problem, the project of the LOOP platform has been established with the hope to satisfy that demand.

1.2. Company introduction

1.2.1. Company's name and logo

The company's full name is LOOP Logistics Optimizing Joint-stock Company. Through the name and the logo formed by combining the first two letters of "logistic" and "optimize", the desire to contribute efforts in developing both Vietnam's logistics field and the general macro economy is conveyed. In addition, the way that the two letters "o" are symbolized by a loop also illustrates the smooth current of goods once the platform goes into operation and is trusted by valued customers.



Figure 3. The logo of the LOOP platform

(Source: Authors)

1.2.2. Type of enterprise

Currently, in Vietnam, an enterprise can be formed as a proprietorship, a partnership, a limited liability company, or a joint-stock company (Law of Enterprises, 2020). However, the LOOP platform will be established in the form of a joint-stock company. A joint-stock company has its charter capital divided into equal amounts called stocks (Law of Enterprises, 2020). Being a separate legal entity helps increase professionalism. Besides, the flexibility in withdrawing capital and the limited liability also bring about huge advantages for investors (Ashcroft, 2010).

1.2.3. Vision and missions

Right from the start, LOOP company sets a long-sighted vision to become the world-leading crowd logistics platform in the field of round-using empty containers by utilizing the power of innovative technologies and collaboration. That vision will be realized through accomplishing the three main missions. First and foremost, the LOOP platform aims to minimize valuable resources wasted on unnecessary logistics activities. Next, helping enterprises change mind-set and develop a smarter transport network is the way that LOOP performs its second mission. Last but not least, the service offered by LOOP will act as an engine to lever the use of collective assets and the trust among firms.

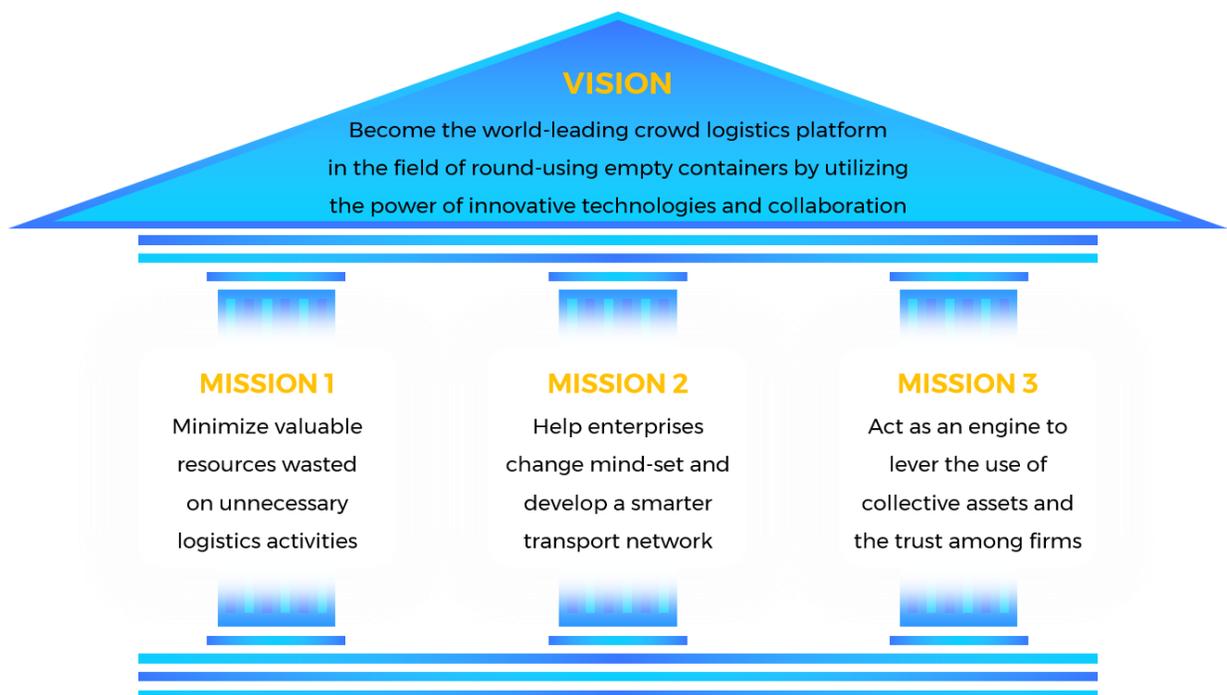


Figure 4. The vision and missions of the LOOP platform

(Source: Authors)

1.3. Idea about the service

1.3.1. Overview

LOOP is a business-to-business platform that connects importers and exporters, thereby reducing the number of empty containers running the roads and logistics costs. The idea of LOOP is captured from the term of crowd logistics in particular and the trend of sharing economy in general. Crowd logistics is a concept in which participants are encouraged to use their spare carrying capacity to carry goods for other people (Buldeo Rai, Verlinde, Merckx, & Macharis, 2017). Crowd logistics itself is already a niche of the sharing economy trend, where physical assets are shared and round-used more easily and inexpensively than ever before (Buldeo Rai, Verlinde, Merckx, & Macharis, 2017).

1.3.2. How the platform works

In the normal import cycle, most importers will go to seaports to take their containers with goods to depots or warehouses, unload the goods and return empty containers to shipping lines (Seyoum, 2021). On the other hand, in the export cycle, exporters will go to terminals to take rented containers from container yards and bring them back to their warehouses to pack the goods, then transport the laden to seaports to export to foreign countries (Seyoum, 2021). Obviously, within these procedures, both the import and export cycles remain “empty legs”.

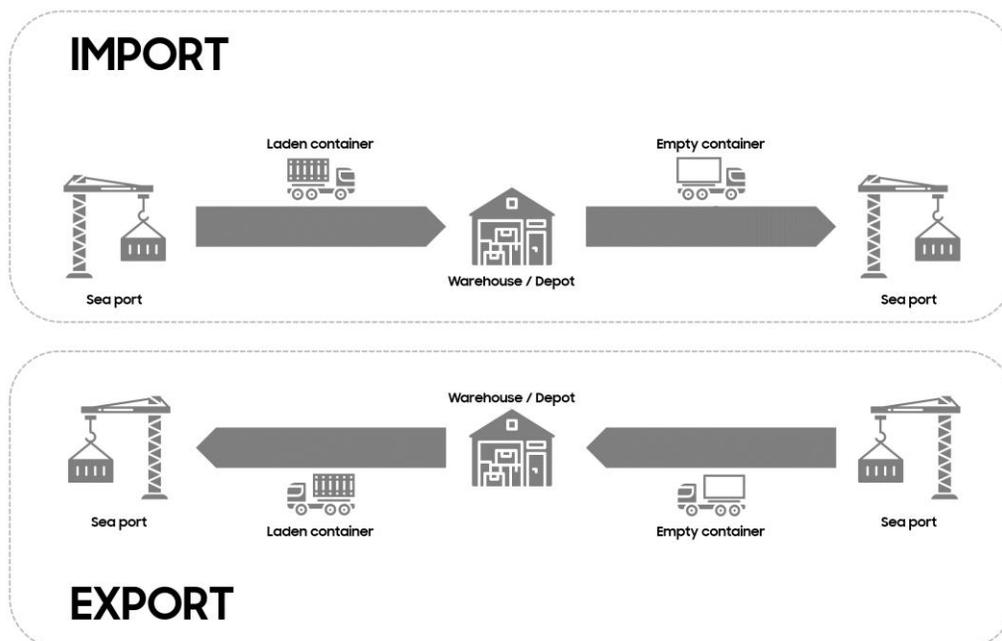


Figure 5. The normal import and export cycles

(Source: Authors)

That loophole is one of the main reasons leading to the shortage of empty containers and increasing logistics costs, especially during the COVID-19. Because it is not a real scarcity, but due to inefficiency points within the processes, the key solution must be minimizing the number of trips with empty containers. Stemming from that idea, a start-up plan for this LOOP platform has been created. The platform will be a place where those who demand empty containers (exporters) and those who can supply empty containers (importers) are connected.

Specifically, importers still go to seaports to take laden containers to their warehouses. However, instead of immediately returning to shipping lines, empty containers will be moved from importers' warehouses to exporters to pack goods. After that, exporters will transport those containers to ports for the final terminal handling before going to other countries. This is LOOP's container round-use solution.

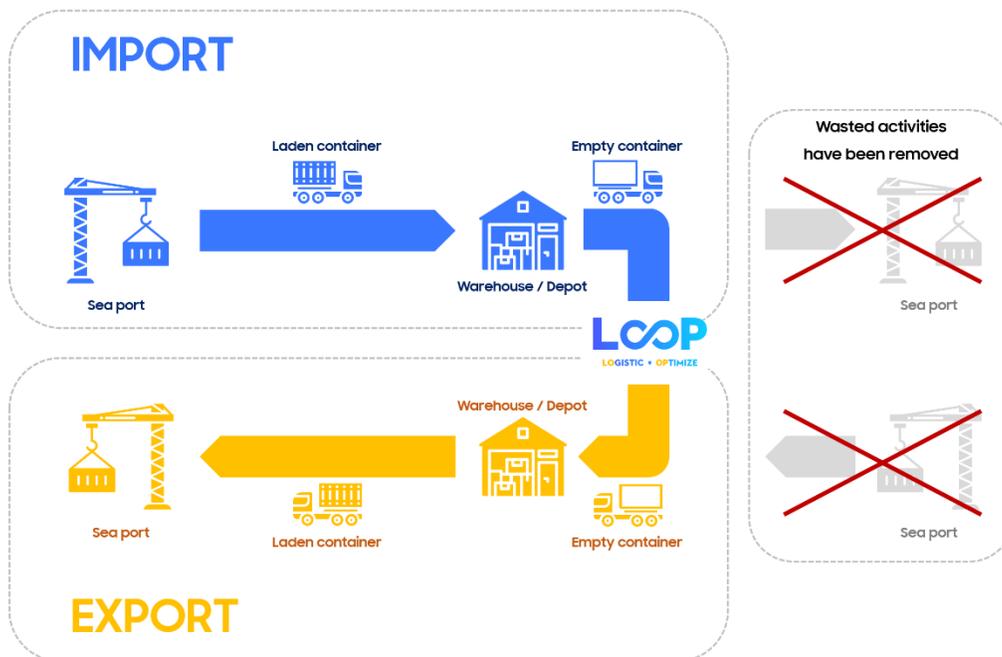


Figure 6. The process of the LOOP platform

(Source: Authors)

2. Market analysis

2.1. Industry analysis

2.1.1. PESTLE analysis

2.1.1.1. Political

Vietnam's political stability has helped foreign enterprises doing business in Vietnam, specifically international shipping lines, rest assured from political crises. In addition, after 1986,

Vietnam opened the door, moved on to the socialist-oriented market economy, and participate in global organizations such as WTO, ASEAN, etc. This Revolution policy with the direction towards an intensive integration within foreign affairs has contributed significantly in building solid foundations for FTAs and the trade surplus that are beneficial for the development of LOOP.

2.1.1.2. Economic

Because the LOOP platform focuses on matching demand and supply of empty containers between imports and exports, it is understandable that merchandise import and export turnovers are among the most concerning macroeconomic indicators. Fortunately, in the last five years, both turnovers have witnessed positive growth. Even during outbreaks of the COVID-19 pandemic, the numbers remain stable. The proof can be observed from the export turnover of goods in the first 9 months of 2021, which was estimated at 240.52 billion USD, 18.8% higher than the same period last year (General Statistics Office, 2021). The merchandise import turnover experienced the same characteristics as the number for the first 9 months of 2021 is about 242.65 billion USD, 30.5% above that of 2020 (General Statistics Office, 2021).

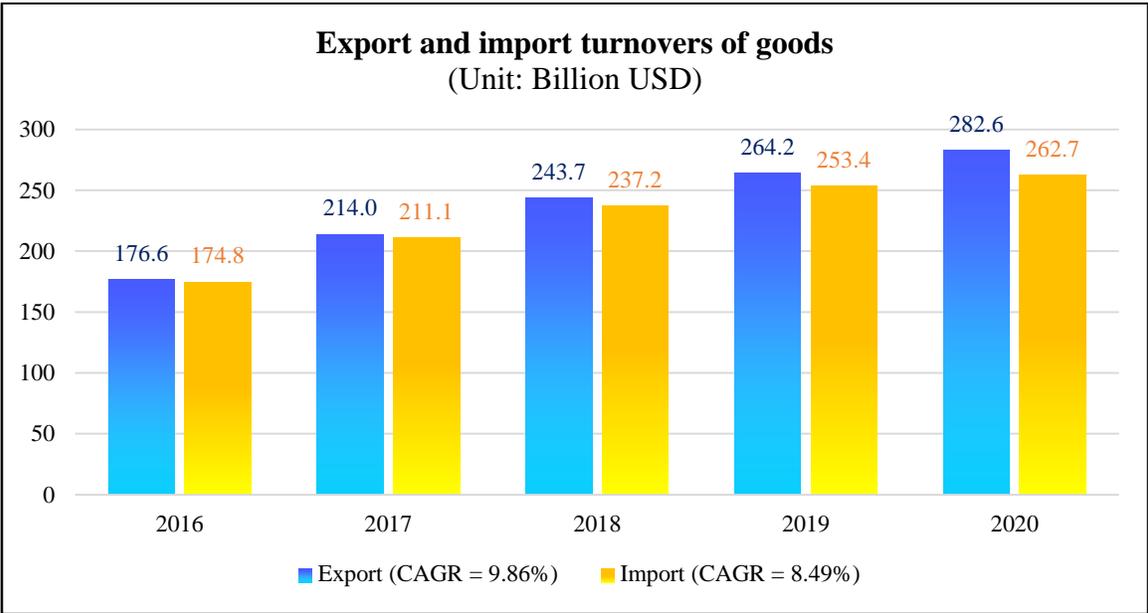


Figure 7. Vietnam’s export and import turnovers of goods from 2016 to 2020 (Source: General Statistics Office, 2016, 2017, 2018, 2019, 2020; and authors)

Historical growths of import and export turnovers as described above has a basis to continue sustainably in the future when the growth momentums are systematic and depend heavily on 14 FTAs in effect, 1 FTA that is about to be implemented as well as 2 FTAs in the negotiation.

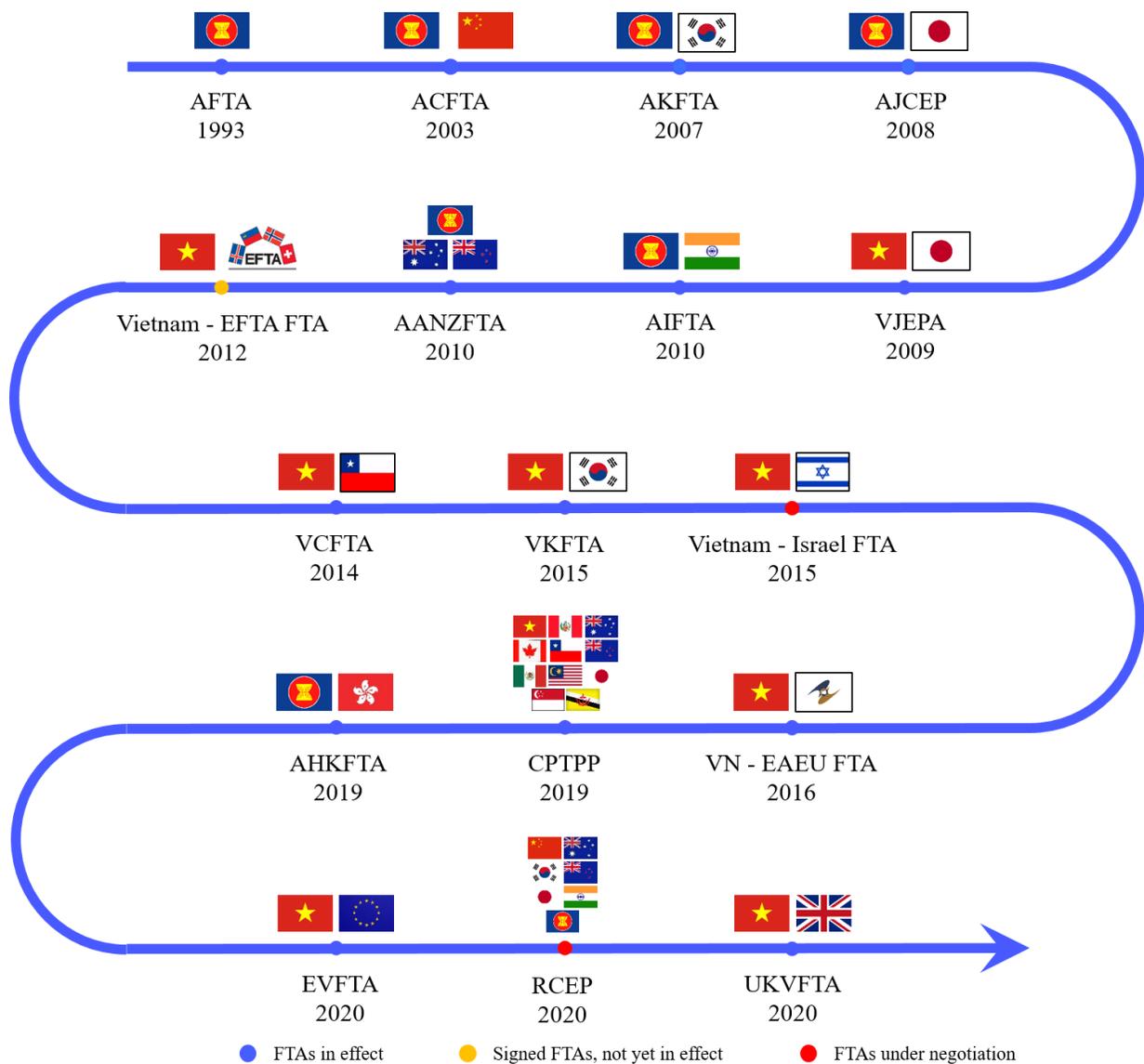


Figure 8. FTAs that Vietnam has joined

(Source: Center for WTO and International trade, 2021; illustrated by authors)

2.1.1.3. Social

Customer expectations are increasing. From individual to business customers, they demand goods to be shipped faster and at a lower cost. Trying to satisfy these requirements will help improve the customer experience, however, they also pose significant challenges for the logistics industry (PwC, 2016). These force the logistics industry to really focus on technology investments to be able to solve the trade-off problem between service levels and costs, since they allow firms to offer better service and save money. at the same time (PwC, 2016). This will be an opportunity for a technology solution like the LOOP platform to grow its business and help customers optimize their processes, especially those whose revenue is largely based on international trade.

2.1.1.4. Technological

By running a platform based on the concepts of crowd logistics in particular and sharing economy in general, LOOP is required to adopt 4.0 technologies to survive and compete against other container round-use competitors. The four core technologies can be symbolized in the first four letters of the alphabet including “A” for “Artificial intelligence”, “B” for “Blockchain”, “C” for “Cloud computing”, and “D” for "big Data" (Government Technology Agency of Singapore, 2018). Specifically, cloud computing will help the LOOP platform to quickly deploy resources without spending too much waiting time to install hardware. In another aspect, the big data technology will support LOOP to offer as many container round-use options as possible for customers. Once LOOP can successfully apply the big data, this will also lay foundations for the artificial intelligence to predict future needs and recommend for customers.

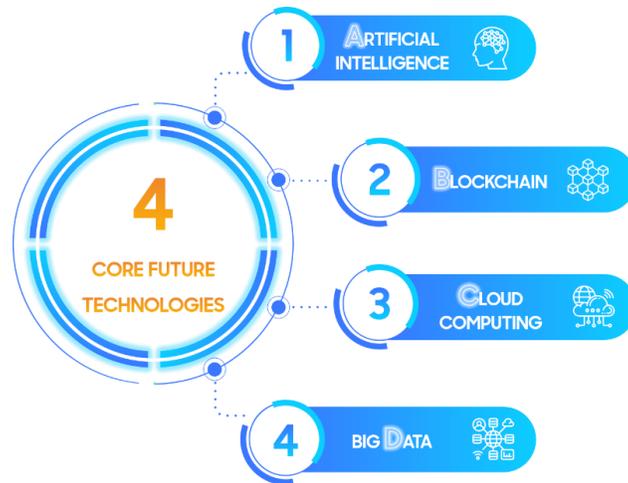


Figure 9. Four core 4.0 technologies

(Source: Government Technology Agency of Singapore, 2018)

The above orientations in applying technology into the platform are completely fit with the macro contexts when the Vietnamese Government is increasingly making supportive actions by specific administrative documents. Typical among them is the Decision 677/QD-TTg approving the project "Developing digital knowledge for Vietnamese". Such technological advancements and policies will certainly give LOOP opportunities to build a solid technical foundation for development and competitiveness.

2.1.1.5. Environmental

In recent years, as import-export activities continue to grow and the demand for logistics is increasing, the development of green logistics not only plays a role in cutting costs but also increasing the competitiveness of enterprises. In particular, the impact of natural disasters and

pandemics has made the wake-up call about the green logistics trend even stronger. On October 1, 2021, the Prime Minister also issued the Decision 1658/QĐ-TTg about "National strategy on the green growth for the period of 2021 - 2030, with a vision to 2050" to restructure the entire economy, contributing to the response to climate change and encouraging the development of economic sectors that use resources efficiently.

Green logistics contains lots of socio-economic benefits such as reducing pollution and energy consumption, improving production processes, protecting health, and promoting business activities towards a sustainable economy. However, this also poses a challenge for businesses in Vietnam, as most of them are SMEs that face difficulties to optimize the supply chain and apply this model effectively. However, green logistics now is a common trend around the world. So if not changing soon, they will be eliminated sooner or later. In line with this trend, the project of LOOP – a platform to round-use empty containers was born with the hope of helping Vietnamese businesses in optimizing costs and in reducing CO2 emission.

2.1.1.6. Legal

In recent years, Vietnam's Government has continuously promoted the development of the logistics industry. The desire has been implied by resolutions and decisions. This will play an important legal role in helping businesses like LOOP access the resources it needs to thrive. For instance, there is the Decision 283/QĐ-TTg about the 5-year plan aimed at developing the transportation industry, which clearly states the desire to increase the contribution of the logistics industry into GDP up to 8-10% and reduce logistics costs to only 10-15% GDP. To ensure the success in achieving those missions, the Government also issued the Resolution 136/NQ-CP which states some important contents related to the transport sector, including the developing scheme for logistics services to optimize transportation time and costs by applying information technologies, transport exchanges, and the green logistics model.

In addition to those grants, since LOOP has the nature of a platform, it is necessary to comply with regulations on e-commerce exchanges and contracts such as the Decree 85/2021/NĐ-CP. The decree's content requires LOOP to meet investment and business conditions, to announce information related to the issuance of the Business License. LOOP must also comply with current regulations on providing information of services' characteristics to customers to avoid misunderstanding when signing contracts. Although somewhat complicated, LOOP understands that all of those things will protect the company from unnecessary legal disputes and prosecute liabilities in need.

2.1.2. Trend analysis

2.1.2.1. Historical trend

Since the LOOP platform aims to round-use empty containers for exports instead of returning to depots, the CAGR of Vietnam's export and import turnovers of goods is a critical in building forecasts for future growth. From data in the figure 7, the export turnover of goods is always greater than the one of imports, this implies that the impact of Vietnam's trade surplus on the shortage of containers for exports has existed for a long time before. Moreover, the fact when the CAGR of exports is also larger than the import's rate implicitly predicts that the imbalance of trade will be even larger in the future and the situation in which the scarcity becomes more and more serious is just a matter of sooner or later. The more exports, the more chance for the container round-use solution of LOOP to grow.

2.1.2.2. Future growth

In the latest projection issued on October 4, the growth for 2021's exports volume for the whole of Asia has been forecasted at 14.4% while the figure for imports is 10.7% (WTO, 2021). In the further future, Asia's merchandise export is expected to bounce back even stronger and by the final quarter of 2022 will reach 18.8% higher than 2019. Similarly, 14.2% is the growth over the same period for Asia's merchandise imports (WTO, 2021). The numbers reflect the expectation for rapid recovery after the pandemic. By being a dynamic developing economy within South East Asia, the ability for Vietnam's trade surplus to reach the above general forecast is completely reasonable. Vietnam has a high probability to continue to enjoy the appealing growth observed in the past and the demand for empty containers, thanks to that, will also gain that momentum.

The driving forces of exports growth such as FTAs, the shift of FDI from China to Vietnam after the pandemic, the essential of Vietnam's key exporting products, etc. will be a long-term motivation to promote the number of import and export containers that are cleared. For example, it is expected that Vietnam's export turnover to the EU by 2030 will increase by 44.4%; to CPTPP countries by 2035 will increase by 14.3% (Constitution Research magazine, 2020). In addition, since the correlation between exports and the nominal GDP of Vietnam is solid (PwC, 2020), a forecast for the growth in GDP forecast conveys a similar momentum for exports. In a press release in June, the annual percent changes shown for Vietnam's GDP in 2021, 2022 and 2023 are 6.6%, 6.5% and 6.5% respectively (World Bank, 2021). If comparing to the growth of global GDP for the next 3 years, which are 5.6%, 4.3% and 3.1% respectively (World Bank, 2021), these are very

positive signs for Vietnam’s economy, especially during the current difficult time of the pandemic. They can be considered as relatively good consolidations for the above forecasts given by WTO.

	2021	2022	2023
Vietnam	6.6%	6.5%	6.5%
Global	5.6%	4.3%	3.1%

Table 1. Projection of GDP’s growth

(Source: World Bank, 2021)

And beyond those macroeconomic projections, as mentioned in the "Market problem identification" section, the fact that enterprises still responded that the management of empty containers was not efficient enough in the VLA’s survey is the most obvious proof for the promising market share that LOOP can expand and gain.

2.2. Competitors analysis

2.2.1. Round-use container through unofficial groups

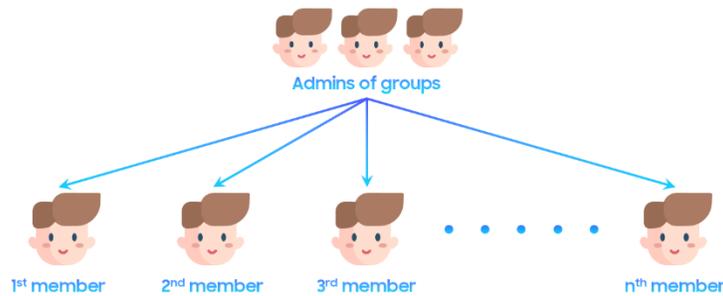


Figure 10. The model of unofficial container round-use groups

(Source: Authors)

- Strengths:

- + Satisfy minimum requirements that stakeholders such as shippers, freight forwarders, etc. expect in a container round-use solution, which are solving the shortage of empty containers for exporting and reducing logistics costs
- + Maximize the savings of time and costs needed to develop the system by taking advantage of social media sites that are already popular with Vietnamese people such as Facebook, Zalo, etc.
- + Can be operated easily by port authorities, logistics associations, etc. without the need for a third party, as long as data is available

- **Weaknesses:**

- + The operation is discrete since admins must contact each member manually to fulfill requests to round-use containers. This leads to five consequences below:
 - Increase operating costs due to the huge requirement of personnel to communicate with parties.
 - Prolong and slow down the order-matching and the decision-making
 - Match fewer orders since the number of requests that can be processed depends largely on the scale of operation teams
 - Approach only a limited number of customers since the operation based mainly on relationships between parties rather than an automatic system
 - Must follow lots of groups, thus, reduce the service quality and making it difficult to filter spams
- + Reliance on human resources to operate, easily affected by human sentiments
- + Unability in connecting to business management systems, making it difficult to forecast customers' needs and lowering customers' experience
- + No link with electronic payment services, leading to difficulties in processing and securing transactions
- + Difficulty in tracking and tracing containers
- + The lack of transparency in pricing and may not be close to the market price
- + The lack shipping lines and port authorities' supervision leads to difficulties in prosecuting liabilities and clamming compensations when things go wrong
- + Difficulty in developing sustainably in long-term as customers' requirements (about speed, convenience, security, transparency, etc.) become higher and more container round-use platforms with high reputation come out

2.2.2. Container round-use platforms (no partnership with shipping lines)

- **Strengths:**

- + Embrace strengths and solve technology limitations of the first type by moving the round-use of containers from unofficial groups to platforms
- + Enter the market easily and not under strict international standards since there is no partnership with shipping lines

- **Weaknesses:**
 - + No legitimacy. This drawback incurs since shipping lines' assets haven't approved the round-use of their assets, which are containers, on these platforms
 - + Difficulty in having supports from shipping lines and port authorities in terms of management advice, initial capital, marketing activities, etc.
 - + Unability in helping port authorities and container owners, which are shipping lines, to manage the round-use of containers

2.2.3. Container round-use platforms (have partnership with shipping lines)

Currently in Vietnam, the Container Optimization Solution (COS) of Smartlog is the only domestic container round-use platform that has partnership with shipping lines.



*Figure 11. Logo of COS
(Source: Smartlog, 2021)*

- **Website of COS:** <https://cos.gosmartlog.com/>
- **Strengths:**
 - + Solve the inadequacies of the two solutions above
 - + Reduce initial costs by receiving investments of CMA CGM shipping line
 - + CMA CGM's patent to COS within the first year, which is tied to the investment, has ended. Currently, COS is allowed to build a partnership with other shipping lines to serve diverse needs from its customers.
 - + Gather excellent human resources since about a quarter of C-level managers has a background in the field of information technology (Smartlog, 2021)
 - + Get extensive experience by having provided other logistics solutions to various types of customers in the past
 - + COS belongs to the same comprehensive eco-system with other Smartlog's logistics solutions, so it has the advantage of a one-stop solution
 - + Can integrate with customers' Enterprise Resources Planning (ERP) systems
 - + Gain reputation since the brand is verified by CMA CGM shipping line and Sao Khue Award of Vietnam Software & IT Services Association

- **Weaknesses:**

- + No reimbursement policy, but reserve the paid fee to offset future transactions
- + No demo on the website. Potential customers may feel difficult to imagine how to use the platform from the first touchpoint and they must contact the marketing & sales department instead. This leads to more costs for COS.

2.2.4. Foreign container round-use platforms

Name	Logo	Website
MatchBox Exchange		https://matchboxexchange.com/
Avantida		https://www.intra.com/container-re-use/

Table 2. Large foreign container round-use platforms

(Source: MatchBox Exchange, xChange, and Avantida, 2021)

- **Strengths:**

- + Low entry barriers by having solid partnership with shipping lines for a long time. Typically, MatchBox Exchange has announced its cooperation with Hapag-Lloyd in Vietnamese recently (MatchBox Exchange, 2021).
- + Abundant finance, technology, human resources, and experience thanks to the operation in countries and the partnership shipping lines.
- + Broad range of services by round-use containers of various shipping lines

- **Weaknesses:** Weaknesses of Vietnam's currency lowers profits that are converted into foreign currencies and transferred back to the parent company abroad.

2.3. Customers analysis

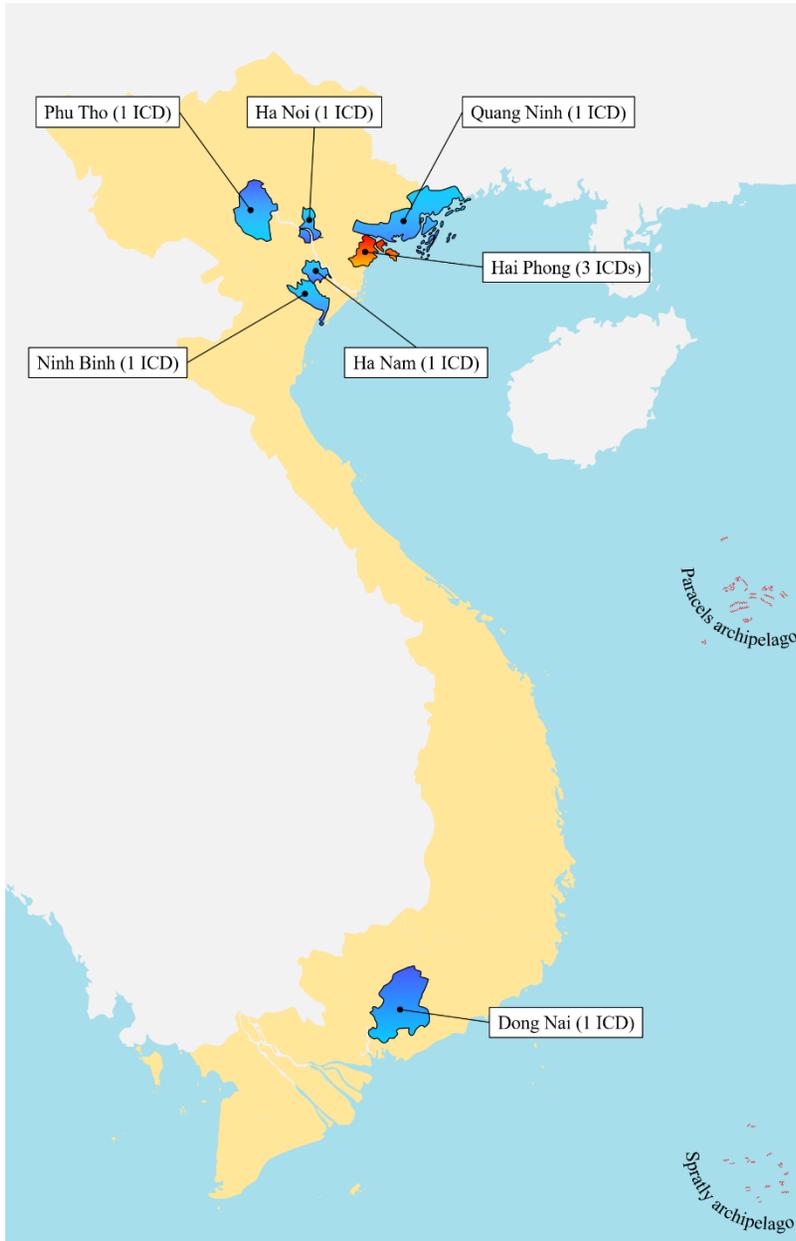
2.3.1. Geographic segmentation

Since in the standard cycle, containers after the lift-on lift-off process will be moved to container yards, the analysis of the effect of density and size of depots on the need to round-use containers is crucial and should be done in this geographic segmentation.

Currently, in the North, there are a total of 8 inland ports and 7 customs clearance stations (Ministry of Industry and Trade, 2020). However, the area of these ICDs is quite small compared to the actual demand, which makes the amount of shell aggregated usually inadequate (VLA, 2018). Not only that, they are often far from seaports and are mainly connected to the national roadway and railway systems, rather than the seaway and the inland waterway (VLA, 2018). Therefore, shippers in the North when incurring the need to use container shells often still have to spend extra time and money to go and get shells from ports. The problem is even more difficult in the Central where there are currently no licensed ICDs (Ministry of Industry and Trade, 2020). It is this inconvenience that will promote the rapidly increasing demand for round-using containers to cut logistics costs. The South, which is the economic center of the country, currently has 1 ICD and 9 customs clearance stations (Ministry of Industry and Trade, 2020). Although the number of ICD in this zone is small, in return, the clearance stations are located in prime locations scattered near industrial parks and operate relatively efficiently. These have helped southern shippers to have more advantages in getting containers when in need.

The more ICDs indeed appear, the easier it is for LOOP customers to get containers from depots. However, the construction of an ICD has never been a simple task and always consumes lots of money, a huge area, etc. Therefore, developing a dense depot system is not feasible. Secondly, even in cases when the location of ICDs is convenient for shippers, going down to depots to pick up containers cannot bring comprehensive benefits. At best, it can only reduce transportation costs and lower the possibility of violating the detention (DET) allowance. But it is not possible to trim the lift-on lift-off (LOLO) fee and container imbalance charge (CIC) for shippers. Moreover, the number of ICDs can never be as large as the number of importers and transport service companies willing to post information of empty containers on the platform. This makes the supply of containers from ICDs much less flexible.

However, LOOP realizes that the network of ICDs is not a competitor, but in turn, supports the platform to recommend the nearest depot for shippers to return and pick up empty containers in cases of force majeure. For example, when cannot find any options that fit with the matching constraints or when empty containers are too badly damaged or unsanitary to round-use, etc. The partnership between LOOP and shipping lines will be the premise for this add-on feature to be available. And of course, LOOP has to build algorithms to ensure that returning and picking up containers at the depot does not cost customers more, in terms of money, time, and effort, than going to the locations appointed by shipping lines.



List of ICDs in Vietnam

No.	Name of ICD	City / Province
1	ICD Hai Linh	Phu Thọ
2	ICD Km3+4 Mong Cai	Quang Ninh
3	ICD Tan Cang Hai Phong	Hai Phong
4	ICD Đình Vu - Quang Bình	
5	ICD Hoang Thanh	
6	ICD Long Bien	Ha Noi
7	ICD Tan Cang Ha Nam	Ha Nam
8	ICD Phuc Loc - Ninh Binh	Ninh Binh
9	ICD Tân Cang Nhon Trach	Đông Nai

Table 3. List of ICDs in Vietnam

(Source: Ministry of Transport, 2020)

Figure 12. The map of ICDs in Vietnam

(Source: Ministry of Transport, 2020; and authors)

2.3.2. Segmentation by the role in the supply chain

2.3.2.1. Shippers

Shippers are senders of shipments in contracts of transport, who want to have their goods moved as quickly and safely as possible (Seyoum, 2021). Since a country's trade balance always has two aspects of export and import (Mankiw, 2021), it is reasonable to classify shippers into two basic transportation purposes including export and import. Originally, importers need to return shells to shipping companies after unloading, so they can act as suppliers of empty containers on the platform. On the opposite, exporters are people who demand those containers as most of their cargo cannot be shipped without being packed into containers.

Since importers and exporters have different transportation purposes, the difficulties that they face are more or less different. For example, high logistics costs have always been one of the common pain points of the entire industry that all shippers, both importers, and exporters, must face. The evidence is clearly shown by the ratio of logistics costs to GDP. On average, Vietnam's logistics costs about 16-17% of GDP every year (VLA, 2018). This is a very high number compared to 7-8% of GDP in developed countries like the US (Ministry of Industry and Trade, 2020). Costs maintaining such high records make it difficult for shippers to both maintain profits and provide goods to consumers at an affordable price. One of the main reasons for this situation is due to the logistics cost structure currently including too many items, even unofficial surcharges. Since this is an unsystematic cause that businesses can solve on their own instead of waiting for a solution from the government and authorities, LOOP has launched a solution to match and round-use containers to reduce the LOLO cost, transportation costs, etc. for goods owners.

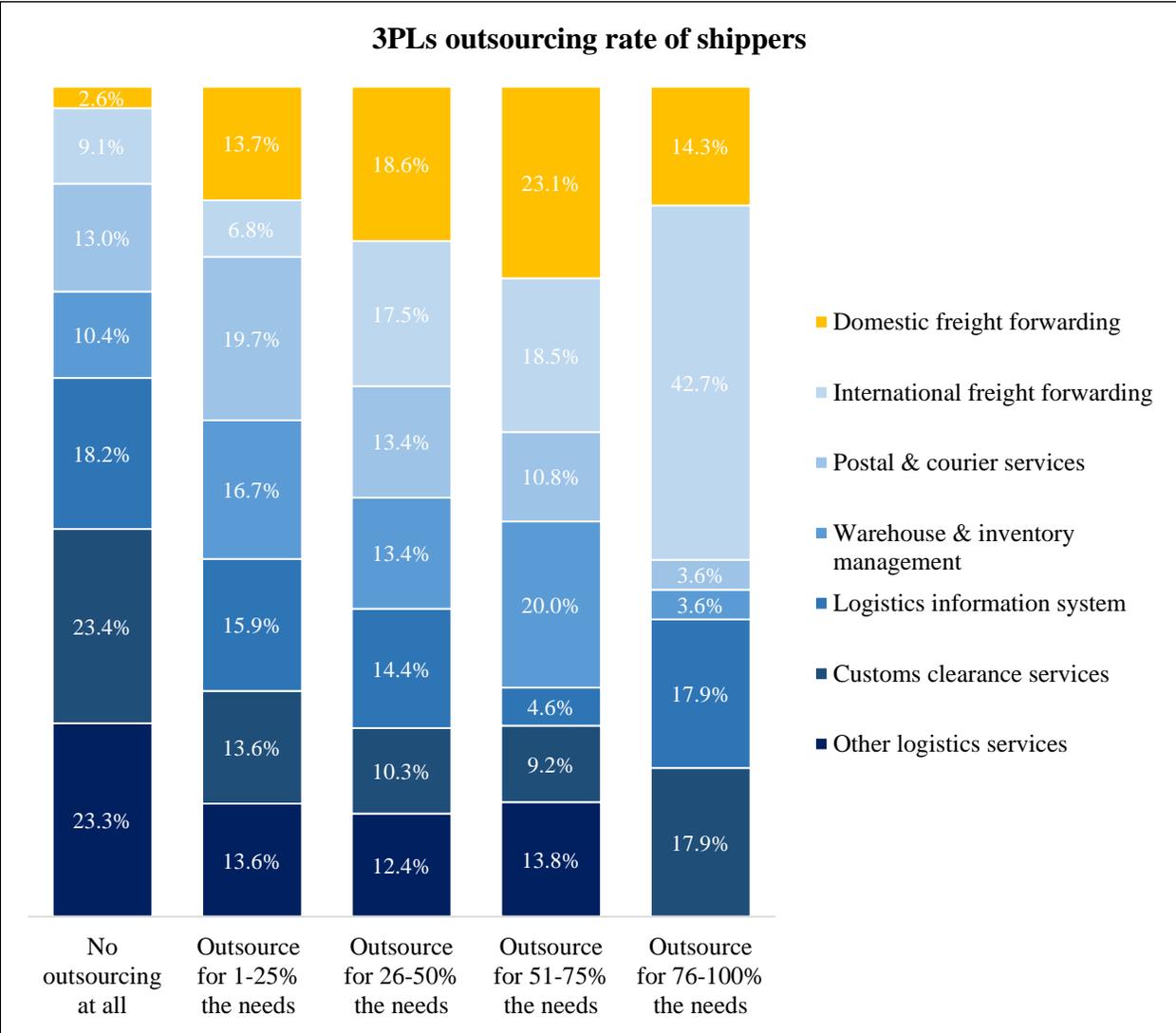
In addition to the high logistics costs, Vietnamese shippers are also under pressure from the lack of containers, especially with 40ft length containers (Labor News, 2020). However, unlike the first issue, the lack of containers is a unique difficulty for exporters. The fact that Vietnam has sustained a trade surplus for many years means there has been a deficit in the supply of empty containers. The lack of containers makes it impossible for shippers to pack goods to deliver to customers on time assigned in contracts (Tien Phong News, 2021). This, in turn, has forced them to suspend the export of old orders, refuse to accept new orders, suffer idle inventories, and lose revenues. According to LOOP's assessment, the pandemic will just make the reposition of containers between countries more delayed, while it is difficult for exporters to wait any longer, especially for fresh food exporters, so the demand to maximize available resources, which is empty containers from import to export, is higher than ever.

From the above analysis, it is obvious that shippers are bearing the brunt of the price hike and the opportunity costs caused by the lack of containers. And this burden tends to increase during the COVID-19. The enterprises must endure any price offered by shipping lines without having a basis to determine whether the fees are correct or not. Therefore, LOOP is currently considering shippers as the primary segment that needs the platform most and needs to be given priority.

2.3.2.2. Transport service companies

Transport service companies are responsible for transporting containers between ports, ICDs, and shippers' warehouses, which is the domestic leg of import and export (Seyoum, 2021). This nature makes the abundance of data of laden and empty containers so large that these companies have, either themselves or through unofficial groups, round-used containers secretly or with customer consent to increase the return on investment (ROI) of their vehicles and reduce costs to be able to provide services at the most competitive prices possible. However, to be able to round-use containers truly effectively, moving to an official platform that partners with shipping lines and operates automatically by technology like LOOP is inevitable. Therefore, transport service companies will be potential customers of LOOP. In addition, by approaching major carriers is indirectly approaching a huge network of importers and exporters, LOOP will save a lot of marketing costs when it is no longer necessary to convince each shipper to use the container round-use service.

The growth of this market is reflected in the increasingly popular trend of outsourcing third-party logistics (3PLs) for domestic transportation among shippers. This is because most shippers still do not own necessary vehicles, and also because shippers become more proactive in outsourcing to focus on their main businesses, reduce costs, and improve customer service quality. It can be seen that Vietnam's markets of 3PLs in general and of outsourcing domestic transportation in particular are still immature and their growth potential cannot be ignored. Up to 2019, the rate of outsourcing and self-implementing logistics services of enterprises has reached 50%-50%, while the figure in previous years has skewed towards self-implementation rather than outsourcing (Ministry of Industry and Trade, 2019). As shown in the chart below, among businesses that do not use 3PLs, only 2.6% do not sub-contract domestic transportation. Meanwhile, up to 23.1% of businesses, which outsource 51-75% of their logistics needs, have hired 3PLs to provide domestic transportation services. To meet that strong demand, the fleet of container trucks has also developed a lot. As of 2020, Vietnam has 47,878 container trucks and 8,291 tractors (Ministry of Industry and Trade, 2020).



*Figure 13. 3PLs outsourcing rate of shippers
(Source: Ministry of Industry and Trade, 2019; and authors)*

3. Value proposition

3.1. Values of the container round-use solution

3.1.1. Values for shippers

As described in the “Customer analysis” section, the two most obstacles that shippers are currently facing include the hike in logistics costs and the shortage of containers to pack exporting goods. Starting from that point, the way that LOOP can help importers and exporters will be presented more clearly here. Specifically, LOOP will save the lift-on lift-off (LOLO) charge and transportation costs. In addition, not only the solution for the lack of export containers but also its derivative issue, which is the rise in the container imbalance charge (CIC), will also be mentioned.

3.1.1.1. Reduce the lift-on lift-off charge

3.1.1.1.1. The lift-on lift-off process

Lift-on lift-off (LOLO) is a cargo handling technique involving lifting containers on or off trailers. This process is conducted by specialized machines hired at inland depots or seaports such as reach stacker, top loader, forklift, etc., rather than equipment owned by shippers and transport service companies. Since import and export cycles are different in the movements of laden and empty containers, there are contrasts in the practice of LOLO in each case.

For importers, laden containers will be lifted from the ground onto trucks (figures 1, 2, 3). When trailers are pulled to storage units, except when importers have their gears, the goods will be unloaded while containers remain on trailers (figures 4, 5). So in most cases, it is assumed that there will be no lifting of laden containers off to the ground to unpack things inside. Thus, there will be no lifting of empty shells on back to trailers. After unloading, the door end of containers will be closed and trucks will take empty boxes to ICDs or seaports to perform the second time, and also the last time, of LOLO, which is lifting off empty containers (figures 6, 7, 8).

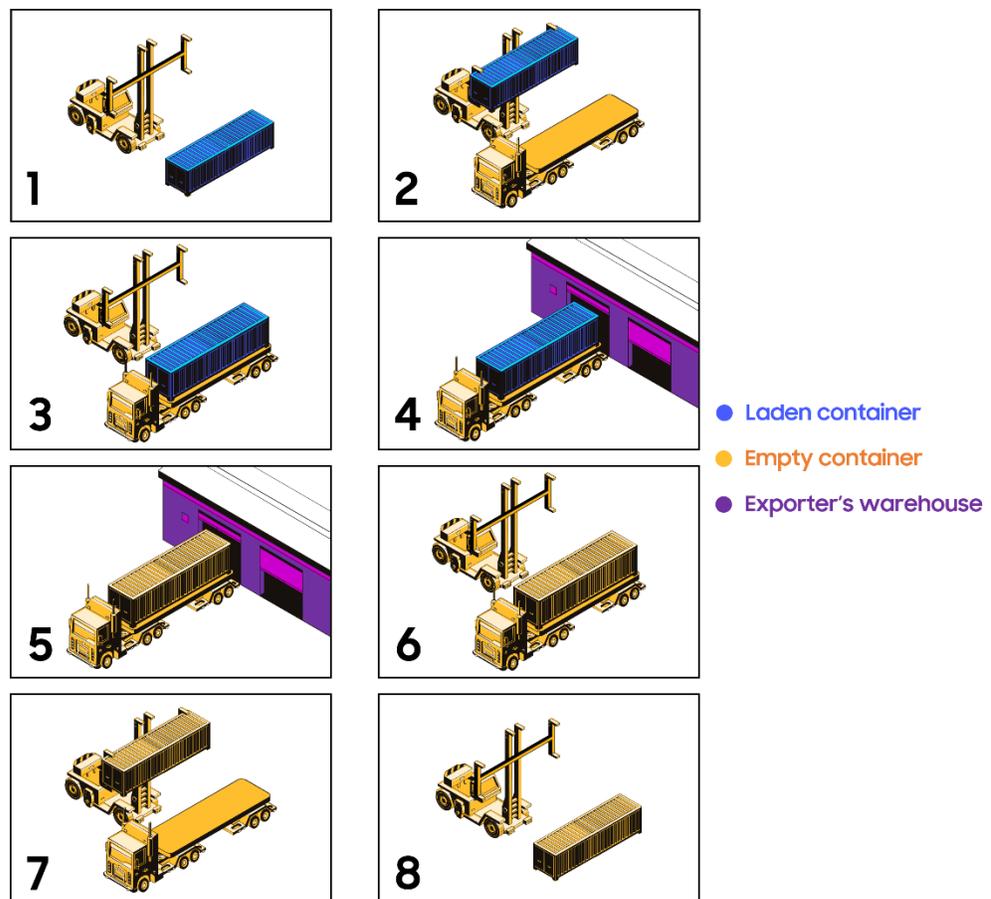


Figure 14. The imports LOLO process

(Source: Authors)

Although the LOLO process must also be performed as a mandatory step so that containers can be moved between depots and drop-off locations, the LOLO model in the export cycle will be reversed as the lifting on off empty boxes will be executed first. The lift-off of laden containers will take place later, after being driven to terminals. This distinction appears since exporters want to pack goods, rather than unpack like importers.

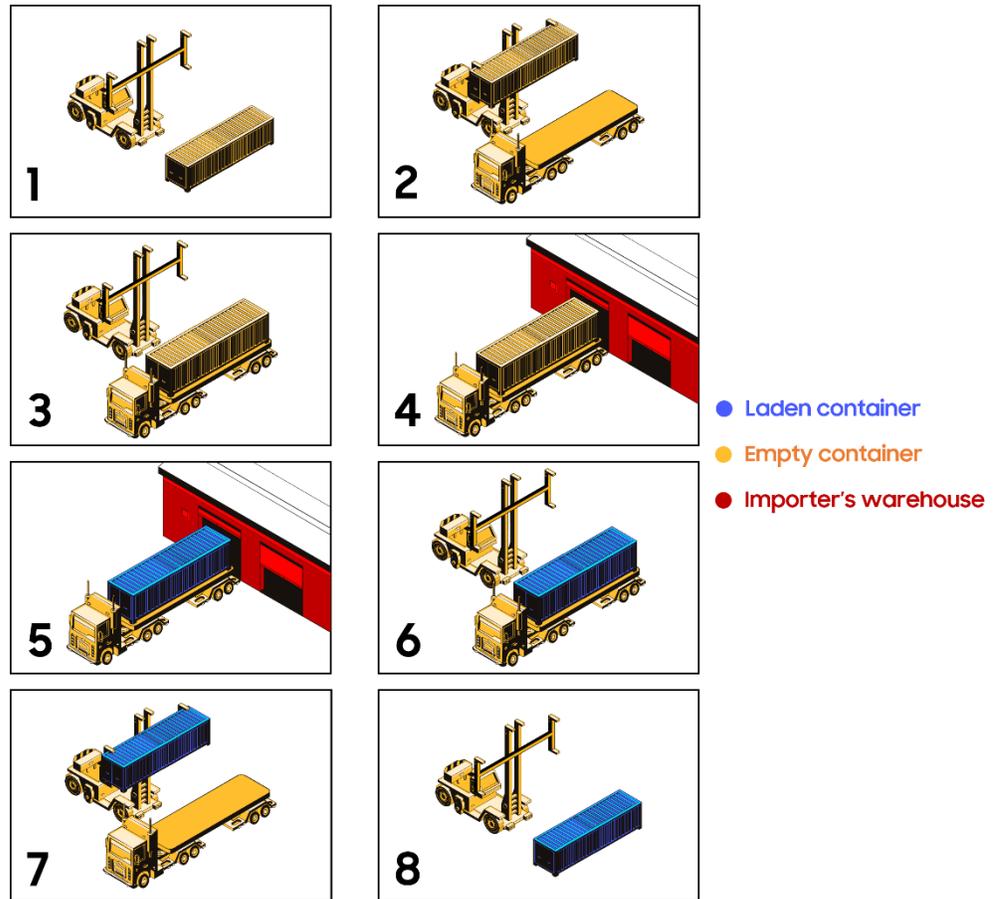


Figure 15. The exports LOLO process

(Source: Authors)

The LOLO process is operated by specialized machines, and these machines also need to be operated by skilled workers. That is why the LOLO charge was born as a port charge for renting equipment and hiring operators in two lifts, and it is paid when receiving containers. Two other points need to be noted about the LOLO fee. Firstly, it is charged per container. Therefore, the amount will correlate positively with the number of containers used by shippers. The more containers, the higher the LOLO charge. Secondly, the specific rate of the LOLO fee varies with each ICD, the size of containers, as well as whether it is lifting laden or empty containers, etc.

3.1.1.1.2. How LOOP helps shippers save the LOTO charge

Since platform LOOP allows containers to be round-used by sending shells from locations where imports are unloaded straightforward to exporters' premises, importers will no longer have to return boxes to depots and there will be no cost spent to lift off containers. On the other hand, exporters by dint of LOOP will also no longer go to ICDs or ports to get shells. They just pack their goods right on containers that are still on trailers hooked from importers' storages to reduce costs which once paid to lift on different empty containers. It can be seen that the import-export process will be improved and there exist only two laden lifts, rather than including two more redundant empty lifts. The LOTO charges, thanks to that, are saved for both importers and exporters.

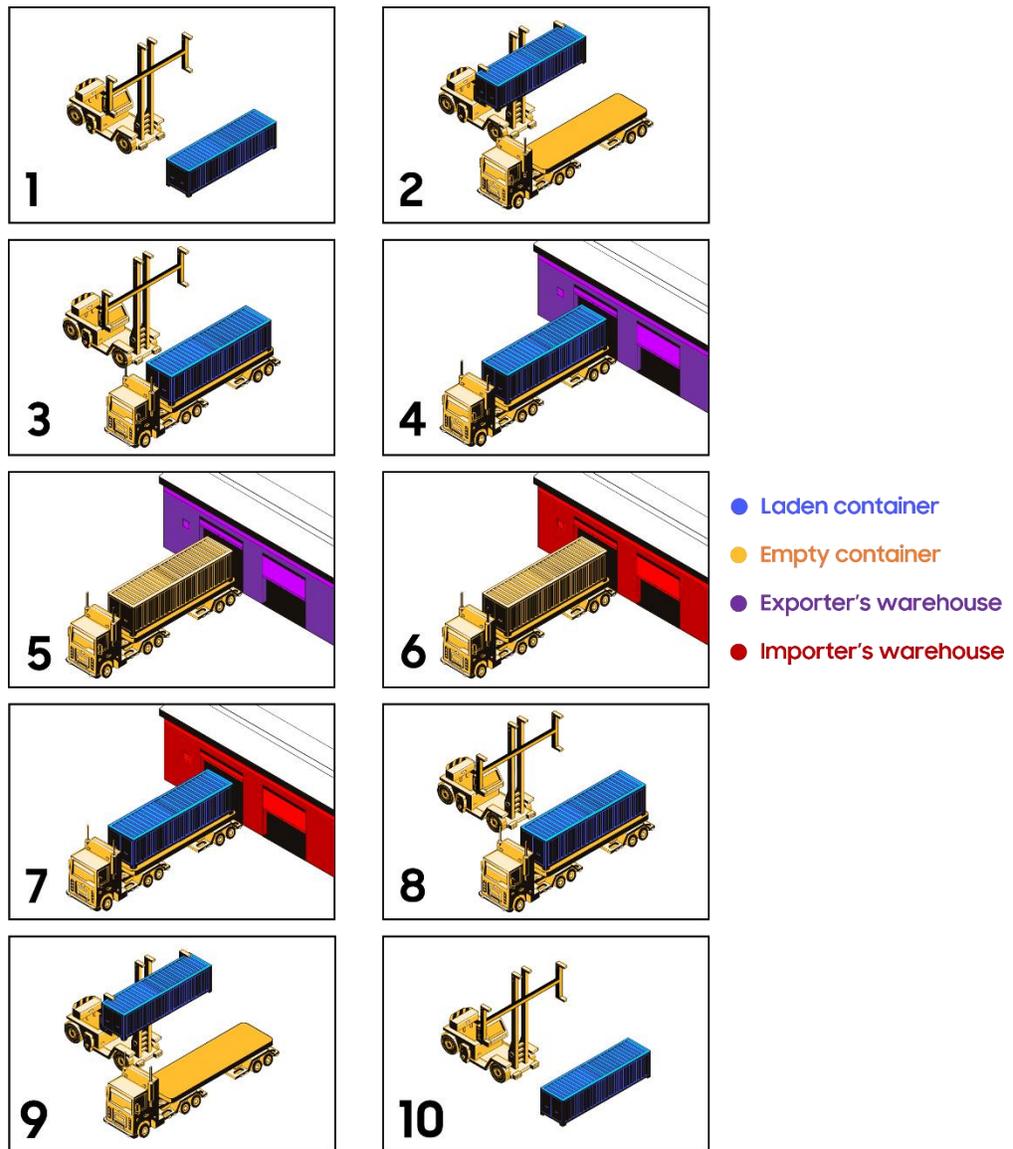


Figure 16. The LOTO process when round-use containers
(Source: Authors)

3.1.1.2. Reduce transportation costs

3.1.1.2.1. Inland transportation of import-export containers

Since LOOP optimizes the domestic leg of import-export containers by round-using shells, the transportation costs considered here are only within that leg. As described in the "Idea of service" section, the inland transportation of imported containers begins with moving laden boxes from seaports, depots, or inland customs clearance stations to drop-off locations of importers. After that, empty shells will be towed to container yards and sent back to shipping companies. This process is reversed vice versa with exported containers, which begin by bringing empty boxes to warehouses and end by returning loaded ones. Obviously, in the original model, it takes two trips, of which one is tractors pulling empty containers.

For both importers and exporters, the inland transportation of containers requires lots of resources, not only in terms of vehicle, manpower but also related paperwork. The costs that shippers paid to implement them in-house or outsource 3PLs are called transportation costs. In case transport service companies are sub-contracted, the costs are quoted per kilometer of laden movements, however, other items throughout empty legs have already been included implicitly.

3.1.1.2.2. How LOOP helps shippers save transportation costs

With the support from the LOOP platform, containers after being unloaded at import warehouses will be immediately transferred to the export storage while still laid on trailers. Thus, empty routes to return boxes to shipping lines and empty routes to retrieve shells from depots will become unnecessary and be erased. Shippers will get the most sense of the decrease in transportation costs when they carry out inland shipments by themselves. On the other hand, when outsourcing a third party, shippers will indirectly help transport service companies save not only costs but also time and distance traveled by actively round-using containers, but whether the freight is lower or not and how much the reduction depends on the negotiation skills of shippers.

3.1.1.3. Reduce the container shortage and the container imbalance charge

3.1.1.3.1. The reposition of containers and the CIC

In the ideal situation, nowhere has the shortage or the stockpile of containers. However, the reality is much different as there are countries with trade deficits and also countries with surplus, rather than everywhere maintaining the zero trade balance. Since imports and exports rarely match up perfectly, territories where the exports turnover is higher than imports, of which

Vietnam is a typical example, will fall into a deficit of empty containers for exports. As containers cannot move on their own between countries, to address this global imbalance, shipping lines have had to incur additional shipments to reposit containers from ports that are stacked up with empty boxes. Despite efforts combining these with imported shipments, container repositioning has always been a costly activity for the maritime industry in general and the container-shipping industry in particular. Therefore, shipping lines have imposed the container imbalance charge (CIC) to transfer costs to shippers. Furthermore, the CIC tends to increase during the COVID-19 as voyages are delayed due to quarantine issues and the reposition becomes more difficult than usual. When the CIC is charged, shippers will have to spend more just to make the same amount of money. Their profits, for that reason, are also reduced by every extra dollar of the CIC.

3.1.1.3.2. How LOOP helps shippers save the CIC

Although the main solution to the shortage of containers is the repositioning from shipping lines, taking advantage of available resources, which are empty boxes, between Vietnam's importers and exporters is never a bad idea and will significantly lower the severity of container deficits as well as the CIC stemming from structural imbalances. Fortunately, the LOOP platform appears to fit well for this task. While differences in trade balances of countries are systematic, the round-use of empty shells offered by marketplaces like LOOP will more or less reduce roughly one-third of the CIC (Boston Consulting Group, 2015).

3.1.2. Values for transport service companies

The benefits that container-transport carriers can enjoy from the round-use service of LOOP are encapsulated in two elements: the responsive supply and the utilized resources. Firstly, when using LOOP, the flexibility of transport service companies will be greatly increased because the response speed to exporters' tractor-trailer booking requests will be faster than the traditional method. Tractors can tow empty containers laid on trailers straight from importer sites to exporters' warehouses without going to depots to get shells. And not only orders from export shippers but even the agility in processing those from importers is increased. That is because the LOOP platform will help the company be more proactive in finding customers. Trucks can now fill two needs with one deed by receiving new imports laden containers right after returning exports laden at depots. The responsive supply is truly a huge competitive advantage, which can turn container-transport companies into preferred suppliers with increased market share.

Secondly, transport service companies will be able to utilize their resources better when doing business with LOOP. Instead of taking two vehicles with four trips, including two empty legs, just one vehicle can now take care of the same number of loaded container trips. The number of vehicles that need to be invested to complete a full cycle will be reduced and idle trucks can be deployed to move other pairs of laden. Revenue increased by being a preferred supplier with an increased booking rate, while all three expense categories of capital expenses (CapEx) for container trucks, operating expenses (OpEx) for fuel, wages, salaries, and opportunity costs for time and distance traveled, are reduced. Achieving those efficiencies means an enhanced financial performance, higher profit margins, and a higher return on investment (ROI) are just a matter of sooner or later.

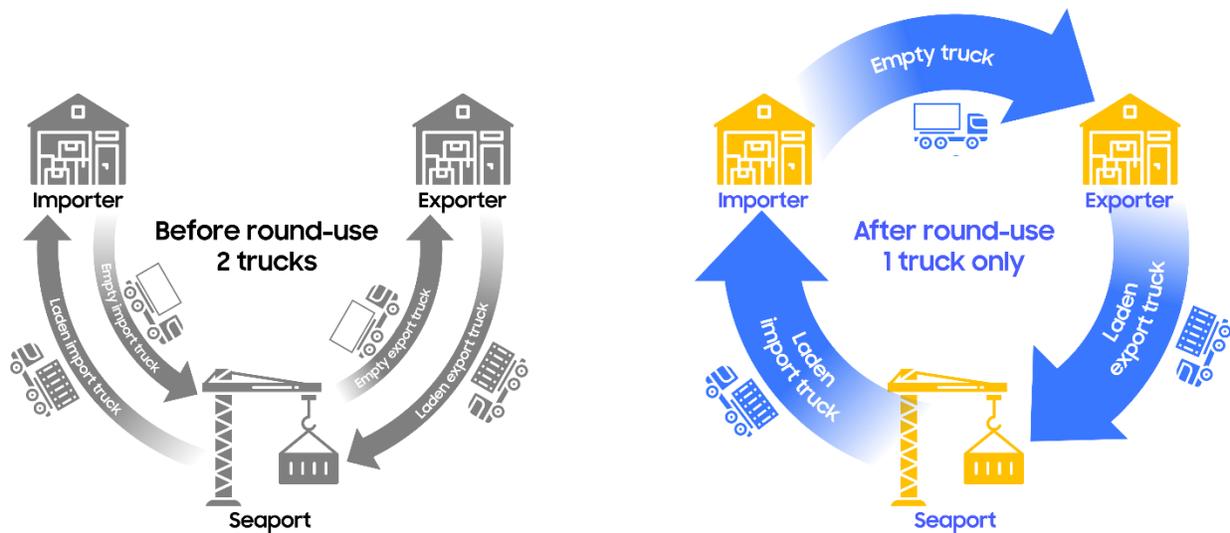


Figure 17. Number of vehicles invested before and after the round-use
(Source: Authors)

3.1.3. Values for shipping lines

Two added values that the LOOP platform can bring to shipping lines include improved service quality and resource utilization. First of all, the quality of service can be improved since shipping lines can partner with LOOP and have an additional supply of containers, which are round-used boxes from importers, besides repositioning between countries and manufacturing, leasing, or buying new containers. Shippers and freight forwarders will surely be satisfied thanks to this higher readiness. The rate of export shipments being delayed and high fees due to the lack of empty shells will also be reduced. Brochures that cross-border maritime transport companies will become more diverse and richer when they can add LOOP's container round-use solution as

an add-on besides the main service of sea transportation. LOOP is confident those reasons are strong enough to increase competitiveness and revenues for shipping lines.

The second and also the most important aspect, which is the utilization of resources, is realized in three ways below. First, since exporters can take empty containers more easily by round-using from importers and goods can arrive at seaports sooner, rather than waiting the next voyage, the number of full ships leaving terminals will be boosted. Besides, the time that containers are left empty throughout the useful life will decline significantly and the turnaround of boxes will be faster. Moreover, similar to when container-transport carriers can downsize the number of trips, shipping lines also can halve the number of containers to fulfill a typical cycle. This will mitigate container stockpiles at depots and terminals and ease the money paid to reposition boxes. Inflated revenues from more satisfied customers and more full shipments, accompanied by lower investment costs on containers will raise the assets turnover and the ROI.



Figure 18. Number of containers invested before and after the round-use

(Source: Authors)

3.1.4. Values for other stakeholders

The positive influences of LOOP on five related stakeholders including consumers, depots, Vietnam's logistics industry, the national economy, and the environment will be discussed here. Since logistics at the end was born to deliver goods to consumers at the cheapest cost in the shortest time, the way that LOOP can help logistics businesses cut expenses and improve efficiency as described in previous paragraphs will certainly support attempts to accomplish this goal. The faster and smoother movement of goods that consumers can hope to experience is also the good impact conveyed in the logo and the name of the LOOP platform.

Larger stakeholders are not out of consideration. Typically, ICDs gain benefits as the lift-on lift-off equipment now only lifts laden containers and improves efficiency while cargo congestion due to the lack of shells to pack export goods is reduced. It is also crucial to mention the logistics industry of Vietnam here because the introduction of LOOP will contribute to realizing the goals set in Decision 283/QD-TTg, which is reducing logistics costs down to 10-15% of GDP and maintaining Vietnam's Logistics Performance Index (LPI) rank of 50th and above.

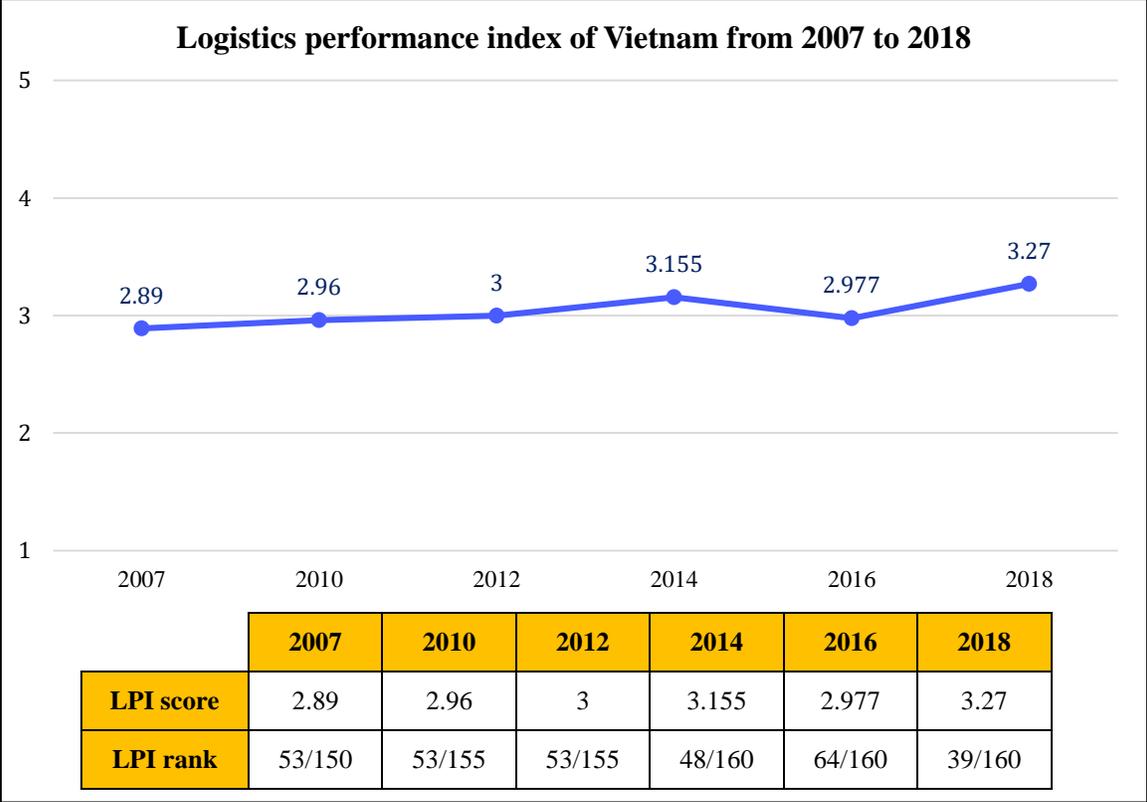


Figure 19. Logistics performance index of Vietnam from 2007 to 2018
(Source: World Bank Indicator, 2021)

In terms of the macroeconomy, once exports are relieved from the lack of shell, the trade surplus in particular and the GDP in general will gain basis to promote growth and bounce back after the pandemic. Last but not least, for the environment, which is the inevitable factor in modern corporate social responsibilities (CSR) models, LOOP can also make positive environmental footprints more feasible. For instance, there are reducing traffic congestion, releasing the burden on urban infrastructure, cutting down carbon dioxide and greenhouse gasses, reducing consumption of nonrenewable fuels, and even achieving Vietnam's net-zero emissions commitment around 2050.

3.2. Unique selling points

3.2.1. Allow to round-use types of containers

One of the things that makes LOOP special from its competitors is the ability to round-use many different types of containers depending on the needs of shippers and transport service companies. This not only enhances customer experiences by helping them attain more options that meet their individual needs but also brings higher revenues through a broader customer base.

Building a detailed set of matching constraints, including the container classification in sizes, reefer or dry containers, etc., is extremely important in ensuring customers do not get lost in a wide range of services and still can search for exactly what they need. Businesses now no longer have to join many groups just to find empty containers, but only need LOOP to manage all transactions in one place, which is much more convenient.

In addition to extra revenues, the round-use for types of containers requires LOOP to add other related services. One of them is the container cleaning service to ensure that boxes are in the best possible condition for exporters to pack goods. LOOP aims to connect and advertise 3PLs providing container cleaning services on the homepage so that importers can choose the appropriate provider while placing orders to supply shells. This is a decent solution since it helps LOOP avoid the silo effect, escape from Muda wasted on duplicated works, and earn additional revenue from advertising and affiliate fees.

3.2.2. Return, refund, and exchange policies

Since LOOP in nature is still an online marketplace, though the type of goods being traded, which are empty containers, is somewhat more unique compared to other common e-commerce platforms, terms and conditions regarding the return, refund, and exchange are essential. From the legal aspect, LOOP has full discretion without any obligation to offer such policies and can simply state that all sales are final. However, the company always considers them as an inevitable unique selling point to build trust with customers towards such a new business-to-business (B2B) platform. Customers will have more options on LOOP when things go wrong besides storing credit for future orders, which is the typical option that is available on other platforms.

Policies are essential because they lay down the course of actions for LOOP and customers should the need arise. Typical cases include when a customer changes their mind about the purchase made or when exporters are dissatisfied with the quality of containers received. Components of terms such as a list of situations for return and exchange, forms of refund,

timeframe and costs of refund, the process to claim, etc. will all be presented as a separate and easy to find section on the landing page. Conditions will also be described in simple and understandable language to avoid the existence of any unnecessary misinterpretation. This is the assertion of LOOP about the compliance with the Decree 85/2021/ND-CP, the most updated Vietnam's regulations for e-commerce.

Existing policies applied by the Big 4 in Vietnam's e-commerce industry (Shopee, Lazada, Tiki, Sendo) can be used as prepared and ready-to-use templates. However, LOOP will only consider them as reference sources to customize appropriate and concrete policies that are beneficial for the company. These are the necessary modifications so that a B2B platform such as LOOP can have a set of applicable terms and conditions.

3.2.3. Reputation scoring system

Users of the LOOP platform are vulnerable to potential risks related to fraud, especially when participants are not closely and regularly managed. Therefore, LOOP will provide a reputation scoring system to ensure that transactions are always transparent, and customers can find trustworthy partners and feel secure when making deals. Businesses with high rating scores will enjoy marketing-in-app packages like the prioritization in search results, which helps them match requests to demand and supply containers faster. This scoring system contains three main functions including the publication of company profiles, the peer reviews and ratings, and the verification from LOOP.

First, the policy to public profiles of participants will require customers to provide the most basic information, such as the logo and the official company name, contact info (address, email, and hotline), the foundation time, and the time joins the LOOP platform. Enterprises will also have to finish a brief description that complies with the community standards. Moreover, the profile will reveal the transaction history within the latest 12 months, including the number of transactions and those partners worked with previously on the platform. All those things empower LOOP's customers to check the reputation companies that they will make deals with by themselves. Since confidential data like details of container types or the value of round-use transactions are encrypted and hidden, the policies can be carried out without the worry about the security of private info.

Second, the peer reviews and rating policy allows both supply and demand parties to review and rate after each successful transaction. Customers can review as they wish, or according to suggested criteria by LOOP including the quality and the accuracy of information provided, the response time, and the supply/demand commitment. Rates will be measured on a scale from 1 to

5 stars for each category above. To encourage enterprises to participate, this policy will accumulate reviews in exchange for free usings of the round-use service. This is also a way to stimulate shippers and transport service companies to interact and build a strong logistics community.

Third, when customers want to register an account on LOOP, they will be required to submit documents to be verified before using the platform's services. This will make only authorized users able to access operational features redirected from the landing page. The Company Registration is the mandatory document. In addition, LOOP recommends customers provide other documents to complete the entire background check and to have a verified badge, such as a scan of the passport of the CEO or an authorized representative; financial statements within the last 3 years, especially audited versions. Businesses with a verified badge will have the highest reputation on the platform and can increase the likelihood of finding parties that agree with their container round-use requests.

4. Key activities plan

4.1. Operation

4.1.1. Building the LOOP platform

LOOP plans to develop an online platform as the interface between services and customers. The IT department will be in charge of maintaining, developing, and improving the website's efficiency. They also find ways to limit system errors during operation.

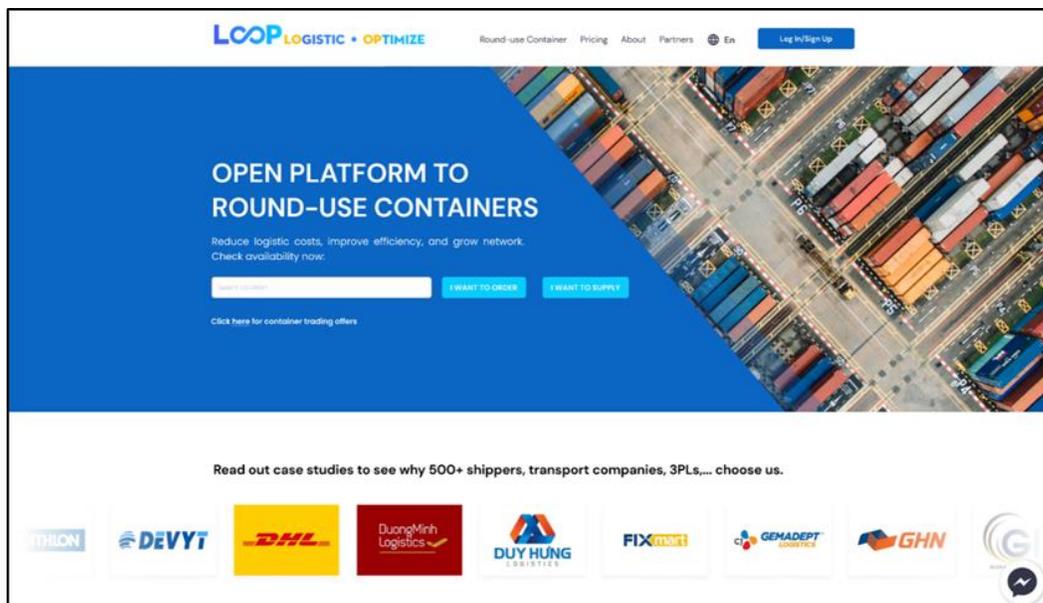


Figure 20. The homepage for guests

(Source: Authors)

Customers will have to register accounts through the registration section in the top right corner of the web and fill in some compulsory information including phone number, business email, company name, etc. After all that steps, LOOP's marketing department will contact the customers to confirm some security-related information and recommendations based on the customer's needs. After being verified by LOOP and successfully having an account, customers can freely make transactions.

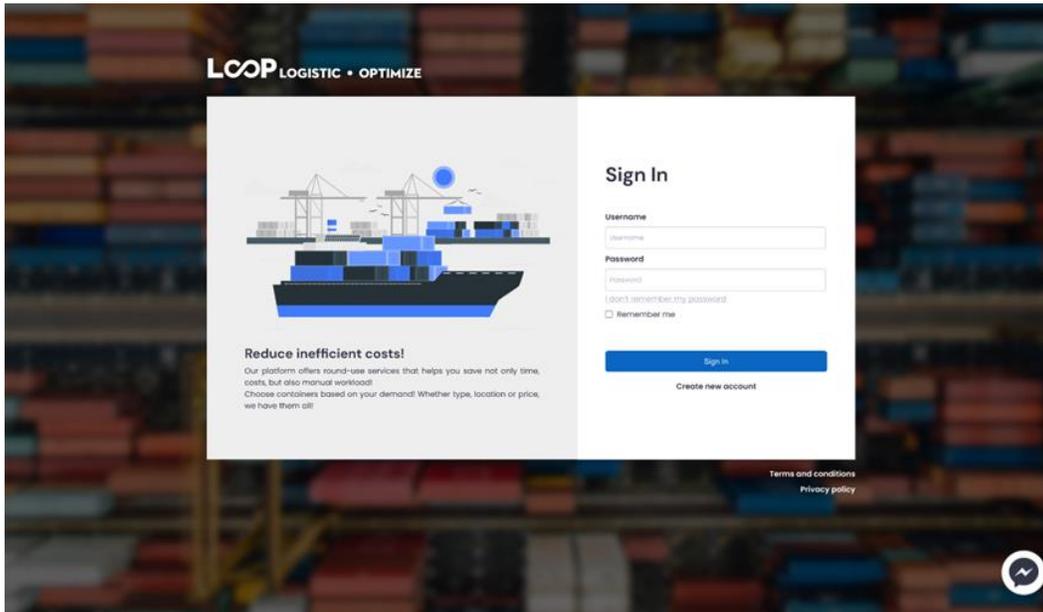


Figure 21. The sign-in page
(Source: Authors)

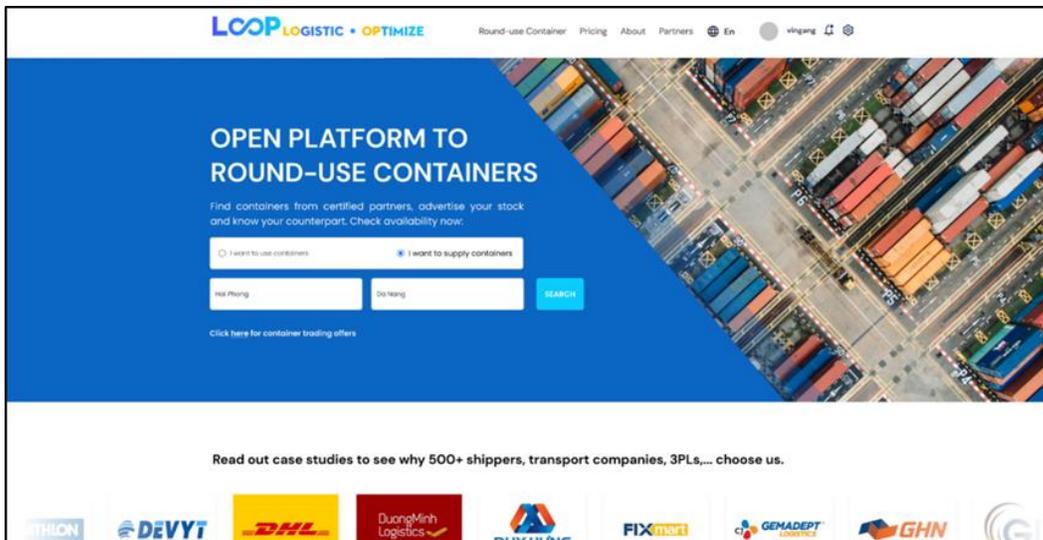
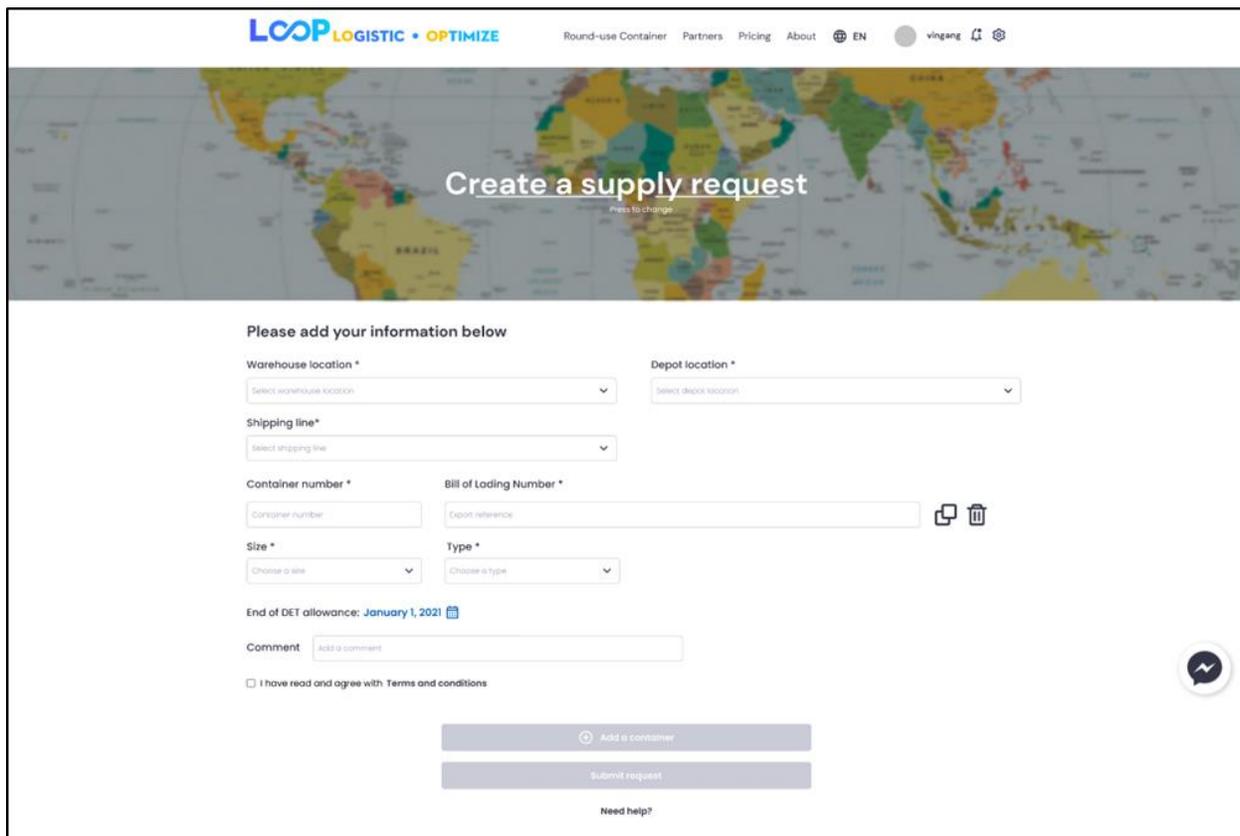


Figure 22. The homepage for users
(Source: Authors)

Suppliers in the round-use process mainly are importers and transport service companies who can supply empty containers after unpacking goods. To create a supply request on the LOOP platform, they will need to post information of the container in advance, including warehouse location, depot location, shipping line, container number, bill of lading number, size, type, end of DET allowance, and photos of the container if possible. The more details, the easier exporters can choose suitable containers and the faster suppliers' requests can be approved.



The screenshot shows the 'Create a supply request' page on the LOOP Logistic platform. The page features a header with the logo 'LOOP LOGISTIC • OPTIMIZE' and navigation links for 'Round-use Container', 'Partners', 'Pricing', and 'About'. There are also language and user profile options. The main content area is titled 'Create a supply request' and includes a form with the following fields:

- Warehouse location ***: A dropdown menu with the placeholder 'Select warehouse location'.
- Depot location ***: A dropdown menu with the placeholder 'Select depot location'.
- Shipping line ***: A dropdown menu with the placeholder 'Select shipping line'.
- Container number ***: A text input field with the placeholder 'Container number'.
- Bill of Lading Number ***: A text input field with the placeholder 'Export reference', accompanied by copy and delete icons.
- Size ***: A dropdown menu with the placeholder 'Choose a size'.
- Type ***: A dropdown menu with the placeholder 'Choose a type'.
- End of DET allowance:** A date field showing 'January 1, 2021' with a calendar icon.
- Comment:** A text area with the placeholder 'Add a comment'.
- I have read and agree with [Terms and conditions](#)

At the bottom of the form, there are two buttons: 'Add a container' and 'Submit request'. A 'Need help?' link is located at the very bottom of the page.

Figure 23. The page for suppliers to post requests

(Source: Authors)

Exporters and transport service companies, who need empty containers to pack export goods, will fill in some information regarding the type of containers that they need, including warehouse location, depot location, shipping line, bill of lading number, size, type, round-use date, and any specific note if they have.

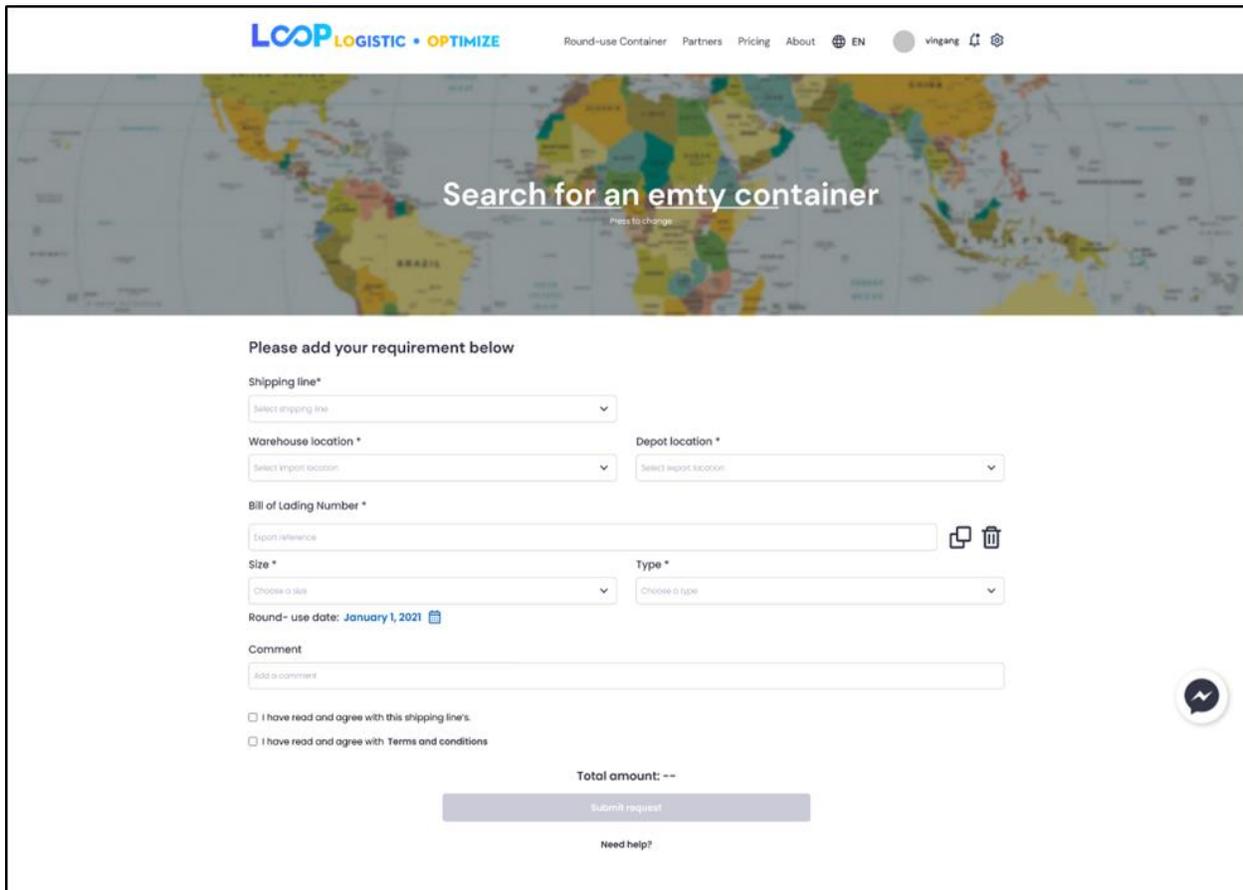


Figure 24. The page to search for containers

(Source: Authors)

After filling in the information, customers who demand containers will see a result page that contains different suppliers that fit the requirements before. They can filter the results with the details on the left corner, or click “View” on the right corner to see more details about the profile of each supplier.

The screenshot shows the 'Find empty containers' page on the LOOP Logistic website. The page is divided into a search filter section on the left and a results section on the right. The search filter includes options for Location (Warehouse and Depot), Details (Container size and type), and Rating (5 stars & up, 4 stars & up, 3 stars & up, 2 stars & up). The results section displays a table of container listings from various suppliers, including Deutsche Post DHL Group, TBS Logistics, HATECO Logistics Jsc., GHN Jsc., and SOTRANS - South Logistics Jsc. Each listing includes equipment details, location, price, date, and buttons for 'View' and 'Book'.

Supplier	Equipment	Location	Price	Date	View	Book
Deutsche Post DHL Group	MEDU 870768-8 20ft DC	Ha Noi	...	25/11/2021	View	Book
TBS Logistics	MSKU 523569-6 45ft DC	Ho Chi Minh	...	14/11/2021	View	Book
HATECO Logistics Jsc.	CKUS 357487-2 45ft RE	Khanh Hoa	...	04/11/2021	View	Book
GHN Jsc.	JTFH 456833-4 45ft HC	Dong Nai	...	29/10/2021	View	Book
SOTRANS - South Logistics Jsc.	EAFR 754234-4 20ft DC	Nam Dinh	...	20/10/2021	View	Book

Figure 25. The page of searching results

(Source: Authors)

On the profile page of a typical supplier, it can see the basic information such as founded year, location, introduction, etc. There are also rates and reviews from other companies that have made transactions with this supplier. From these, exporters can choose whether to book containers.

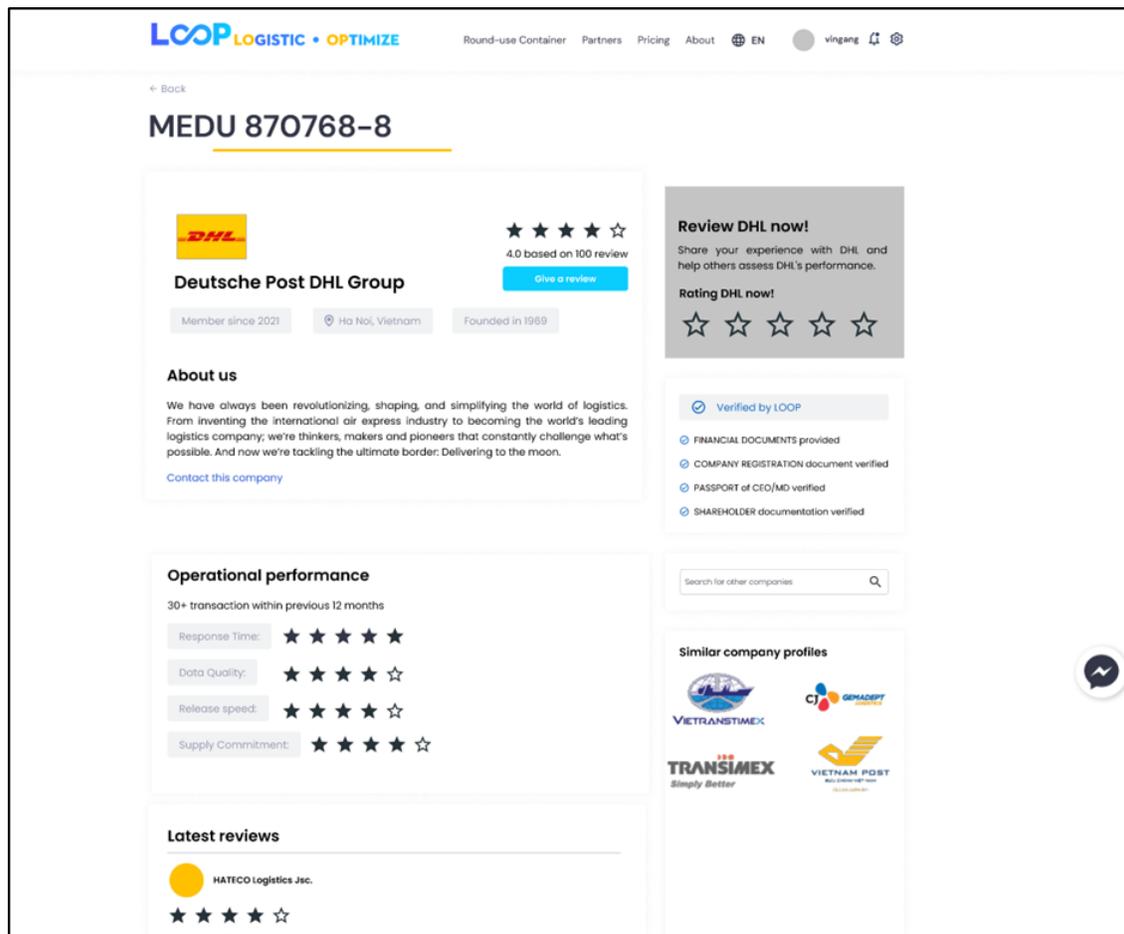


Figure 26. The profile of a typical supplier

(Source: Authors)

4.1.2. Matching constraint system

Matching constraints will help the back-end of the LOOP platform to automatically match information about containers uploaded by importers with the demand of exporters. In this way, customers can easily find suitable containers to round-use containers just in seconds.

Type	Length (20ft, 40ft, 45ft) Purpose (dry, reefer, etc.)
Shipping line	CMA-CGM, MAERSK, MSC, etc.
Availability	Right now, In xxx days, From day xxx to day xxx
Time	Date (November 24, December 1 st , etc.)
Price	500,000 VND/TEU
Geography proximity	Km (20km, 30km, etc.)

Table 4. LOOP's matching constraint system

(Source: Authors)

4.1.3. Payment methods

To provide the most convenient experience for customers, the platform will be integrated with online payment methods provided by banks, transaction intermediaries, and e-wallets. The payment process will be carefully set up by LOOP's banking partners and the IT department to minimize errors and processing time. The system will be also updated with the latest technology to ensure the minimum internal controls are fulfilled. In case errors incur within the payment process, the reason will be detected as soon as possible and a list of proper solutions will be built in advance to deal with such incidents.

4.1.4. Information security management

To ensure the safety of customers from the risk of being exploited by fraudulent organizations, customers are required to provide business information to authenticate accounts. As LOOP understands the importance of protecting the information of users against being leaked, all information about organizations as well as the transaction history will be stored safely in the system's server. Such activities to provide confidentiality are complied with the Law 86/2015/QH13 of cyber information security. Along with that, to help users feel safe when giving their personal information to LOOP, the platform's employees must sign clauses of keeping customer information confidential in their labor contracts from the beginning. Moreover, LOOP will monitor and check the system periodically to avoid errors in security and operation.

4.2. Marketing plan

To affirm brand name and awareness in the competitive market, LOOP's marketing plan including marketing mix 4Ps and specific marketing activities in the short term will be built to support reaching the right target audience and thus, improve the company's sales and profits.

4.2.1. The 4Ps model

4.2.1.1. Product and service

LOOP is a platform optimizing empty container usage via the service of container round-use. Rather than bringing back empty containers to seaports or assigned depots, importers can request round-use the containers and bring them straight to exporters' destination to get loaded. The movement, the time, and the cost spent on the LOLO process empty containers now can be cut down and saved. To help customers minimize inefficiencies in the transportation of exporting and importing cargoes, the company aims to bring in the highest services quality to customers that:

- All transactions will be done on LOOP's online platform, making it easier for customers to look up information and book empty containers.
- Customers are provided with full information of every transaction, including suppliers' information, the public price, and detailed transaction steps.
- Customers will be able to choose their suppliers according to preferences. Information of containers such as type and purpose will also be shown in the transaction process.
- The platform has a reputation scoring system, which helps customers verify suppliers they will deal with, and the policy of refund, return, and exchange to gain customers' loyalty.
- With the advantage of technology, the LOOP platform will be updated regularly in real-time, minimizing the risks of slow transactions or bugs.
- With a team of experienced staff in the field of logistics and import-export, customers will be supported 24/7 to make effective transactions.
- Simple and user-friendly interface design makes it easy for customers to research information or transact on LOOP's platform.

4.2.1.2. Price

LOOP will collect service fees from customers, specifically 500,000 VND per TEU (excluding 10% VAT). The foundation for the setting of LOOP's price is based on realistic market researches. The average LOLO fee of a typical import or export cycle in Hai Phong port is around 800,000-1,000,000 VND for 40ft containers (Hai Phong Port JSC., 2020). Since LOOP has already reduced two redundant empty lifts, customers can save up to half of the LOLO fee, which is around 400,000-500,000 VND. In addition, the transportation fee that customers can save from removing unnecessary trips when using LOOP will add to their total savings.

On the other hand, our fee is also reasonable compared with the overall market. For instance, Avantida, a competitor working with the CMA CGM shipping line, has set up the price of \$20 in the Thailand market (CMA CGM, 2020). The Matchbox Exchange – another competitor offers \$30 for the round-use service in the Philippines (CMA CGM, 2021). Smartlog is currently charging from 550,000 VND to 1,150,000 VND to round-use to types containers (CMA CGM, 2021). Thus, it can be concluded that the average price from round-use service providers in Asia will be around \$20-\$30 per TEU. To fit with the common market and still be able to attract new users and compete with competitors, LOOP will quote a fair price of 500,000 VND per TEU.

This fee can cover all necessary costs and create profits from each transaction on LOOP. In the future, when market conditions change, LOOP might adjust the price if necessary so that customers can promptly keep up with the situation and have no problems with transactions.

4.2.1.3. Place

LOOP is an online platform providing round-use containers services for customers all over Vietnam. The website address is looplogistics.com, which is also the place used to gain revenues. And since mobile apps are an emerging trend to foster e-commerce, LOOP will release an application for smartphones and tablets that has a user-friendly interface. With such various online channels, convenience can be enhanced and customers can access and transact anytime, anywhere.

4.2.1.4. Promotion

LOOP will use promotional mix tools which include advertising, sales promotion, direct marketing, and public relations. Since there are different objectives for each business stage, the most suitable tools will be implemented for each.

	Promotional mix objectives	Promotion tools
Inform	Increase awareness	Advertising
	Explain how the platform work	Sales promotion
	Suggest new uses	Direct marketing
	Build company image	
Persuade	Encourage brand switching	Sales promotion
	Change customers' perception	Direct marketing
	Influence buying decision	Public relations
	Persuade customers to call	
Remind	Remind that the service is in need	Advertising
	Remind customers to use LOOP	Direct marketing
	Maintain customer awareness	Public relations

Table 5. LOOP's promotion mix

(Source: Authors)

4.2.1.4.1. Advertising

Advertising will be the main tool to increase and maintain LOOP's brand awareness. The company will promote the brand through several channels, especially the two following search engine marketing (SEM) and social media advertising.

SEM is a popular form of advertising that has emerged in the last decade in which advertisements are shown to the customers based on their search and browsing history. This can result in relevant advertising to high potential customers who are already interested in products and looking for information regarding it.

In terms of social media, Facebook is the most popular for the young to middle-aged population in Vietnam. Meanwhile, Zalo is one of the top working channels for business customers, especially the logistics field. As a result, these will be two major social media channels for LOOP to approach business customers. Facebook and Zalo ads are also easy to implement and can reach a wide number of customers based on their interest, income, age, and location.

4.2.1.4.2. Sales promotion

Promotion is an incentive to drive up short-term sales and can have many objectives such as grabbing the attention of new people, rewarding loyal customers, and increasing consumption from occasional users. For LOOP, after creating purchasing reasons by advertising, sales promotion will create incentives to buy. The main incentives will be cashback and reward by member points.

In addition to that, sales promotion will be expressed in the form of affiliate marketing, when customers are encouraged to invite others to use the service. For every successful invitation, which is counted when the invitee has the first transaction on the platform, customers will receive a free round-use. This policy not only increases the number of active customers but also encourages them to transact more on the platform by giving them opportunities to experience qualified service.

4.2.1.4.3. Public relation

Companies cannot survive in isolation and they need to have constant interaction with customers, employees, and different stakeholders. Rather than only communicating about services to customers and partners, LOOP must keep interaction with all stakeholders, by managing press releases, creating and maintaining the corporate image to the public, etc. Some of the PR activities that will be implemented in the marketing plan for the first stage include (but are not limited to):

- **Partnership:** Building and maintaining partnership with shipping lines, government authorities to provide logistics optimization solutions in Vietnam.
- **Social media engagement:** Creating and managing groups on social media to share experience and knowledge of logistics, export-import, and LOOP. Customers can also discuss in the groups how they can use LOOP to optimize their logistics activities.

- **Customer relationship:** Communicating with customers frequently by participating in events such as workshops, talk-shows that share professional knowledge of logistics and export-import management. In the future, when LOOP has a more stable background, the company will sponsor these events to advertise the brand further.

4.2.1.4.4. Direct marketing

Direct marketing has shown tremendous growth in recent years because it helps customers to save time, reduce costs, and have a personal and pleasant experience. This method is also one of the most popular ways to approach potential customers in the logistics field, in which salespeople directly contact customers for faster communication. LOOP will foster direct marketing for the beginning stages of launching to reach potential customers by face-to-face selling, direct e-mails, catalog marketing, and telemarketing.

4.2.2. Marketing plan in the near future

Since the idea of a container round-use platform is quite new to Vietnam exporters, importers, and transport service companies, LOOP needs to approach customers and educate the market gradually and effectively. Along with the marketing mix strategy, there is a short-term marketing plan with specific activities, objectives, and budget allocation for each media channel.

Objectives	Target	Timeline	Media	Budget
Launch platform Increase awareness	2,000+ transactions 150+ active users	First 3 months	Google SEO & SEM Social media ads PR (partner shipping lines)	1,200,000,000 VND
Persuade customers Maintain awareness Increase sales	4,000 transactions 250+ active users	Next 3 months	Social media ads Press release Direct selling PR (co-marketing events)	800,000,000 VND

Table 6. The overview of the marketing plan in the first 6 months

(Source: Authors)

4.2.2.1. First phase: Three months after the launching

At this stage, LOOP enters the market, so it is necessary to educate potential customers and give them time to understand what is being offered, how the platform works, and why they need

it. During this period, the company will focus on online marketing to approach mass audiences, as well as sales promotion and direct marketing to attract customers to experience services.

To attain social engagement through Zalo and Facebook ads, LOOP needs to agree on the content and images used on these networking sites to get the best communication effect. Besides, as at the early stage of launching and development, when customers have demand for empty containers and search for information on Google, if LOOP’s website displays within the first results, they would tend to visit for more specific information. By taking advantage of Google SEO, both the website’s reach as well as impressions on customers’ minds will be increased.

As a container round-use platform that is connected with shipping lines, building partnership with them is the most important thing to the company. Without doing so, LOOP will be unable to launch officially and will be no more than existing unofficial groups. Another offline method, which is direct marketing, is also essential at the early stage. The sales department will meet customers face-to-face to introduce the service, the benefits of the solution, and how to use the platform. Convincing customers to use the service at the first stage requires time as they need specific guidance and advice. That is the reason why direct marketing is critical to be invested.

4.2.2.2. Second phase: Next three months

After the first stage, when mass channels have helped LOOP reach the majority of customers and they begin to remember the brand name, the next goal is to turn potential customers into sales. Different from the previous stage, direct selling and events will be focused more to engage customers and fulfill sales targets. The relationships with sea-way carriers, which have been built before, now can let LOOP take advantage of their existing customer base or create co-marketing programs to urge customers to switch from current competitors.

4.3. Human resources management

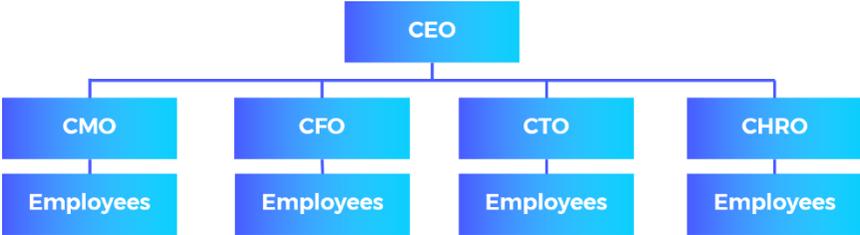


Figure 27. LOOP’s organizational structure

(Source: Authors)

The management board includes five leading positions to manage work most effectively.

- The Chief executive officer (CEO) is responsible for the direction and specific plans of the company. As a result, he needs to have an expansive vision to be able to seize potential s.
- The Chief of marketing officer (CMO) will manage the market research and analysis to come up with suitable marketing strategies. He will also be in charge of building channels like website, Zalo, Facebook to bring LOOP's services to as many customers as possible.
- The Chief of finance officer (CFO) will seek potential capital for LOOP. In addition, he will also manage the financial planning to ensure a stable revenue stream for the company.
- The Chief of technology (CTO) is in charge of technical issues related to the platform such as ensuring smooth operation, fixing errors as quickly as possible when there is a problem.
- The Chief of human resources officer (CHRO) will manage the human resources activities, including recruiting and training. Besides, he also builds a suitable culture that supports the self-development of employees.

Besides the C-level, LOOP will recruit additional employees. The HR department will be in charge of recruiting through various means of social networks, platform's website, etc. LOOP wants to find people who are passionate about logistics, poss high creativity, and not afraid of hard work. Candidates also need to be flexible and proactive in their work to bring out the expected outcomes. Those experienced in the logistics field or IT will be given priority if they wish to join.

5. Firm valuation

5.1. Fixed factors

High-growth stage		
Point of time to finish initial investments	EOM June 2022	Note 5.4
Time horizon	4.5 years (1 st July 2022 – EOY 2026)	Note 5.4
Time to have additional CapEx	2024	Note 5.14.3
Period	% of SOM to TAM	Growth of SOM
Half year ended on 31 st Dec 2022	1%	
Full year ended on 31 st Dec 2023	2.2%	120%
Full year ended on 31 st Dec 2024	2.5%	10%
Full year ended on 31 st Dec 2025	2.8%	7.5%
Full year ended on 31 st Dec 2026	2.9%	5%
Long-term growth in the stable-growth stage 4%		Note 5.17

Table 7. The two-stage model of LOOP

(Source: Authors)

Marginal corporate income tax (CIT) rate	20%	Note 5.13
Effects of value-added tax (VAT)	Excluded	Note 5.6
Depreciation & Amortization rate	20%/year	Note 5.14.2
Amount to add back depreciation & amortization	80% original value	Note 5.13

Table 8. Tax, depreciation & amortization of LOOP

(Source: Authors)

Plug	Cash & cash equivalents	Note 5.8
Items of non-cash working capitals	% to sales	
Prepaid expenses	2%	Note 5.15
Unearned revenue	8%	
Accrued expenses	15%	

Table 9. Factors related to LOOP's pro-forma balance sheets

(Source: Authors)

IMF's forecast cho Vietnam long-term inflation rate = 4%/year		Note 5.5
Coefficient to adjust		
EOM June 2022	$(1 + 4\%)^{0.5}$	
EOY 2022	$(1 + 4\%)^1$	
EOY 2023	$(1 + 4\%)^2$	
EOY 2024	$(1 + 4\%)^3$	
EOY 2025	$(1 + 4\%)^4$	
EOY 2026	$(1 + 4\%)^5$	

Table 10. Coefficient to adjust for inflation

(Source: Authors)

Weighted-average cost of capital (WACC) = 8.51%		Note 5.16.4
Coefficient to discount cash flows		
EOM June 2022	$1 / (1 + 8.51\%)^{0.5}$	
EOY 2022	$1 / (1 + 8.51\%)^1$	
EOY 2023	$1 / (1 + 8.51\%)^2$	
EOY 2024	$1 / (1 + 8.51\%)^3$	
EOY 2025	$1 / (1 + 8.51\%)^4$	
EOY 2026 & Terminal value	$1 / (1 + 8.51\%)^5$	

Table 11. Coefficient to take into account the time value of money

(Source: Authors)

5.2. Scenario analysis

5.2.1. Summary of scenarios

Three valuation criteria including the Firm value computed by the Discounted cash flow (DCF) model, the Modified internal rate of return (MIRR), and the Discounted payback period (Discounted PB), will be used to evaluate cases one by one. The firm value will equal the accumulation of DCF adding up with the balance of cash and cash equivalents at the EOM June 2022. The adoption of MIRR, which assumes that cash flows generated are reinvested at a more realistic rate of WACC, will solve the disadvantages of the normal IRR (Parrino, Kidwell, & Bates, 2012). Similarly, to bring in more reasonable results, LOOP will employ the Discounted PB and take into account the time value of money.

As other costs and sales commission varies to sales while sales are already adjusted between cases, to avoid duplication, they will be added separately instead of being justified $\pm 5\%$ with other components of operating expenses. That makes the item of operating expenses within pessimistic và optimistic scenarios is under two effects at the same time. For example, in the better case, other components of operating expenses would reduce 5% compared to the normal one, while other costs & sales commission increase 5%. So, it is critical to remember that, most of the notes from 5.3 to 5.17 are stated in the most likely scenario.

Scenario	Pessimistic	Most likely	Optimistic
Initial outlay ($\pm 5\%$)	105%	(Note 5.14.1)	95%
Office equipments	637,638,416	607,274,682	576,910,948
Intellectual assets	1,071,436,574	1,020,415,785	969,394,996
Sales forecast ($\pm 5\%$)	95%	(Note 5.10)	105%
2022	8,930	9,400	9,870
2023	20,900	22,000	23,100
2024	24,377	25,660	26,943
2025	27,693	29,150	30,608
2026	30,628	32,240	33,852
Costs of service ($\pm 5\%$)	105%	(Note 5.11)	95%
2022	398,569,080	379,589,600	360,610,120
2023	828,137,856	788,702,720	749,267,584
2024	861,263,370	820,250,829	779,238,287
2025	895,713,905	853,060,862	810,407,819
2026	931,542,461	887,183,296	842,824,132

Operating expenses ($\pm 5\%$)		(Note 5.12)	
2022	5,541,948,516	5,292,011,920	5,248,463,324
2023	9,049,104,405	8,652,187,814	8,255,271,224
2024	9,469,735,863	9,060,030,361	8,650,324,858
2025	9,906,631,588	9,483,603,479	9,060,575,371
2026	10,356,469,120	9,862,947,618	9,482,209,841
Dividend payout ratio ($\pm 10\%$)		40%	(Note 5.9) 20%
Valuation criteria	Note 5.2.4	Note 5.2.2	Note 5.2.3
Firm value	75,006,255,518	85,022,818,275	93,544,579,522
MIRR	31%	48%	57%
Discounted PB	3.23	1.65	1.38

Table 12. Summary of scenarios

(Source: Authors)

When walking through from the pessimistic scenario to the optimistic one, three of them have proved that the LOOP platform is a profitable project as the present firm value is always positive and much higher than the charter capital of 3 billion VND. The MIRR in three cases is also higher than the company's WACC of 8.51%. And there is no scenario in which LOOP cannot pay back within the high-growth stage.

5.2.2. Most likely scenario

VALUATION CRITERIA	
Firm value	85,022,818,275
Modified internal rate of return (MIRR)	48%
Discounted payback period (Discounted PB)	1.65

Table 13. Firm valuation in the most likely scenario

(Source: Authors)

PRO-FORMA INCOME STATEMENT						
Calendar year	Note	Half year 2022	2023	2024	2025	2026
End of notional year		1	2	3	4	5
Sales volume	5.2.1	9,400	22,000	25,660	29,150	32,240
Unit price per TEU (before VAT)		500,000	500,000	500,000	500,000	500,000
Revenue		4,700,000,000	11,000,000,000	12,830,000,000	14,575,000,000	16,120,000,000
Costs of service	5.2.1	(379,589,600)	(788,702,720)	(820,250,829)	(853,060,862)	(887,183,296)
Gross profit		4,320,410,400	10,211,297,280	12,009,749,171	13,721,939,138	15,232,816,704
Operating expenses	5.2.1	(5,292,011,920)	(8,652,187,814)	(9,060,030,361)	(9,483,603,479)	(9,862,947,618)
EBITDA		(971,601,520)	1,559,109,466	2,949,718,811	4,238,335,659	5,369,869,085
Depreciation (20%)	5.14.2	(60,727,468)	(121,454,936)	(121,454,936)	(256,537,117)	(256,537,117)
Amortization (20%)	5.14.2	(102,041,579)	(204,083,157)	(204,083,157)	(431,064,444)	(431,064,444)
EBT		(1,134,370,567)	1,233,571,372	2,624,180,717	3,550,734,098	4,682,267,524
Corporate income tax (CIT) (20%)	5.13	0	(19,840,161)	(544,676,305)	(1,254,823,124)	(2,191,276,629)
Net income		(1,134,370,567)	1,213,731,211	2,079,504,413	2,295,910,974	2,490,990,895
Dividend (30%)	5.2.1	0	0	(623,851,324)	(688,773,292)	(747,297,269)
Retained earnings		(1,134,370,567)	1,213,731,211	1,455,653,089	1,607,137,682	1,743,693,627

Table 14. Pro-forma income statement in the most likely scenario

(Source: Authors)

PRO-FORMA BALANCE SHEET

Calendar year End of notional year	Note	June 2022 0.5	2022 1	2023 2	2024 3	2025 4	2026 5
Assets							
Current assets							
Cash & marketable securities	5.8	1,372,309,533	1,387,708,013	4,249,977,317	6,415,468,500	7,266,340,405	10,022,085,592
Prepayments & other current assets	5.15.3	-	94,000,000	220,000,000	256,600,000	291,500,000	322,400,000
Total current assets		1,372,309,533	1,481,708,013	4,469,977,317	6,672,068,500	7,557,840,405	10,344,485,592
Non-current assets							
Office equipments							
At cost		607,274,682	607,274,682	607,274,682	607,274,682	1,282,685,584	1,282,685,584
Accumulated depreciation		-	(60,727,468)	(182,182,405)	(303,637,341)	(560,174,458)	(816,711,575)
Net value		607,274,682	546,547,214	425,092,278	303,637,341	722,511,126	465,974,009
Intangible assets							
At cost		1,020,415,785	1,020,415,785	1,020,415,785	1,020,415,785	2,155,322,221	2,155,322,221
Accumulated ammortization		-	(102,041,579)	(306,124,736)	(510,207,893)	(941,272,337)	(1,372,336,781)
Net value		1,020,415,785	918,374,207	714,291,050	510,207,893	1,214,049,884	782,985,440
Total non-current assets		1,627,690,467	1,464,921,421	1,139,383,327	813,845,234	1,936,561,010	1,248,959,449
Total assets		3,000,000,000	2,946,629,433	5,609,360,644	7,485,913,733	9,494,401,415	11,593,445,042
Liabilities & equity							
Current liabilities							
Deferred revenue	5.15.3	-	376,000,000	880,000,000	1,026,400,000	1,166,000,000	1,289,600,000
Accrued expenses	5.15.3	-	705,000,000	1,650,000,000	1,924,500,000	2,186,250,000	2,418,000,000
Total current liabilities		-	1,081,000,000	2,530,000,000	2,950,900,000	3,352,250,000	3,707,600,000
Equity							
Ordinary shares	5.7	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Accumulated retained earnings		-	(1,134,370,567)	79,360,644	1,535,013,733	3,142,151,415	4,885,845,042
Total equity		3,000,000,000	1,865,629,433	3,079,360,644	4,535,013,733	6,142,151,415	7,885,845,042
Total liabilities & equity		3,000,000,000	2,946,629,433	5,609,360,644	7,485,913,733	9,494,401,415	11,593,445,042

Table 15. Pro-forma balance sheet in the most likely scenario

(Source: Authors)

PRO-FORMA CASHFLOW STATEMENT								
Calendar year End of notional year	Note	Jun-22 0.5	2022 1	2023 2	2024 3	2025 4	2026 5	Terminal value
CapEx	5.14	(1,627,690,467)	-	-	(1,810,317,338)	-	(3,438,007,805)	
Non-cash NWC		-	(987,000,000)	(2,310,000,000)	(2,694,300,000)	(3,060,750,000)	(3,385,200,000)	
Change in non-cash NWC		-	987,000,000	1,323,000,000	384,300,000	366,450,000	324,450,000	
Net income		-	(1,134,370,567)	1,213,731,211	2,079,504,413	2,295,910,974	2,490,990,895	
Add back 80% depreciation	5.13	-	60,727,468	97,163,949	97,163,949	205,229,693	205,229,693	
Add back 80% ammortization	5.13	-	102,041,579	163,266,526	163,266,526	344,851,555	344,851,555	
Operating cash flow		-	(971,601,520)	1,474,161,686	2,339,934,887	2,845,992,223	3,041,072,144	
FCF		(1,627,690,467)	15,398,480	2,797,161,686	913,917,550	3,212,442,223	3,365,522,144	77,608,492,902
DCF		(1,562,560,848)	14,190,840	2,375,625,858	715,315,650	2,317,161,326	2,237,193,944	77,608,492,902
Accumulation		(1,562,560,848)	(1,548,370,008)	827,255,850	1,542,571,500	3,859,732,826	6,096,926,770	83,705,419,672

Table 16. Pro-forma cashflow statements in the most likely scenario

(Source: Authors)

5.2.3. Optimistic scenario

VALUATION CRITERIA	
Firm value	93,544,579,522
Modified internal rate of return (MIRR)	57%
Discounted payback period (Discounted PB)	1.38

Table 17. Firm valuation in the optimistic scenario

(Source: Authors)

PRO-FORMA INCOME STATEMENT						
Calendar year	Note	Half year 2022	2023	2024	2025	2026
End of notional year		1	2	3	4	5
Sales volume	5.2.1	9,870	23,100	26,943	30,608	33,852
Unit price per TEU (before VAT)		500,000	500,000	500,000	500,000	500,000
Revenue		4,935,000,000	11,550,000,000	13,471,500,000	15,303,750,000	16,926,000,000
Costs of service	5.2.1	(360,610,120)	(749,267,584)	(779,238,287)	(810,407,819)	(842,824,132)
Gross profit		4,574,389,880	10,800,732,416	12,692,261,713	14,493,342,181	16,083,175,868
Operating expenses	5.2.1	(5,248,463,324)	(8,255,271,224)	(8,650,324,858)	(9,060,575,371)	(9,482,209,841)
EBITDA		(674,073,444)	2,545,461,192	4,041,936,855	5,432,766,810	6,600,966,028
Depreciation (20%)	5.14.2	(57,691,095)	(115,382,190)	(115,382,190)	(243,710,261)	(243,710,261)
Ammortization (20%)	5.14.2	(96,939,500)	(193,878,999)	(193,878,999)	(409,511,222)	(409,511,222)
EBT		(828,704,038)	2,236,200,004	3,732,675,666	4,779,545,328	5,947,744,545
Corporate income tax (CIT) (20%)	5.13	0	(281,499,193)	(1,028,034,326)	(1,983,943,392)	(3,173,492,301)
Net income		(828,704,038)	1,954,700,811	2,704,641,340	2,795,601,936	2,774,252,244
Dividend (20%)	5.2.1	0	0	(540,928,268)	(559,120,387)	(554,850,449)
Retained earnings		(828,704,038)	1,954,700,811	2,163,713,072	2,236,481,549	2,219,401,795

Table 18. Pro-forma income statement in the optimistic scenario

(Source: Authors)

PRO-FORMA BALANCE SHEET							
<i>Calendar year</i> <i>End of notional year</i>	<i>Note</i>	<i>Jun-22</i> <i>0.5</i>	<i>2022</i> <i>1</i>	<i>2023</i> <i>2</i>	<i>2024</i> <i>3</i>	<i>2025</i> <i>4</i>	<i>2026</i> <i>5</i>
Assets							
Current assets							
Cash & marketable securities	5.8	1,453,694,056	1,815,970,612	5,469,082,611	8,345,571,872	9,900,245,933	13,113,541,711
Prepayments & other current assets	5.15.3	-	98,700,000	231,000,000	269,430,000	306,075,000	338,520,000
Total current assets		1,453,694,056	1,914,670,612	5,700,082,611	8,615,001,872	10,206,320,933	13,452,061,711
Non-current assets							
Office equipments							
At cost		576,910,948	576,910,948	576,910,948	576,910,948	1,218,551,305	1,218,551,305
Accumulated depreciation		-	(57,691,095)	(173,073,284)	(288,455,474)	(532,165,735)	(775,875,996)
Net value		576,910,948	519,219,853	403,837,664	288,455,474	686,385,570	442,675,309
Intangible assets							
At cost		969,394,996	969,394,996	969,394,996	969,394,996	2,047,556,110	2,047,556,110
Accumulated ammortization		-	(96,939,500)	(290,818,499)	(484,697,498)	(894,208,720)	(1,303,719,942)
Net value		969,394,996	872,455,496	678,576,497	484,697,498	1,153,347,390	743,836,168
Total fixed assets		1,546,305,944	1,391,675,349	1,082,414,161	773,152,972	1,839,732,960	1,186,511,477
Total assets		3,000,000,000	3,306,345,962	6,782,496,772	9,388,154,844	12,046,053,893	14,638,573,188
Liabilities & equity							
Current liabilities							
Deferred revenue	5.15.3	-	394,800,000	924,000,000	1,077,720,000	1,224,300,000	1,354,080,000
Accrued expenses	5.15.3	-	740,250,000	1,732,500,000	2,020,725,000	2,295,562,500	2,538,900,000
Total current liabilities		-	1,135,050,000	2,656,500,000	3,098,445,000	3,519,862,500	3,892,980,000
Equity							
Ordinary shares	5.7	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Accumulated retained earnings		-	(828,704,038)	1,125,996,772	3,289,709,844	5,526,191,393	7,745,593,188
Total equity		3,000,000,000	2,171,295,962	4,125,996,772	6,289,709,844	8,526,191,393	10,745,593,188
Total liabilities & equity		3,000,000,000	3,306,345,962	6,782,496,772	9,388,154,844	12,046,053,893	14,638,573,188

Table 19. Pro-forma balance sheet in the optimistic scenario

(Source: Authors)

PRO-FORMA CASHFLOW STATEMENT								
<i>Calendar year</i> <i>End of notional year</i>	<i>Note</i>	<i>Jun-22</i> <i>0.5</i>	<i>2022</i> <i>1</i>	<i>2023</i> <i>2</i>	<i>2024</i> <i>3</i>	<i>2025</i> <i>4</i>	<i>2026</i> <i>5</i>	<i>Terminal value</i>
CapEx	5.2.1	(1,546,305,944)	-	-	(1,719,801,471)	-	-	
Non-cash NWC		-	(1,036,350,000)	(2,425,500,000)	(2,829,015,000)	(3,213,787,500)	(3,554,460,000)	
Change in non-cash NWC		-	1,036,350,000	1,389,150,000	403,515,000	384,772,500	340,672,500	
Net income		-	(828,704,038)	1,954,700,811	2,704,641,340	2,795,601,936	2,774,252,244	
Add back 80% depreciation	5.13	-	57,691,095	92,305,752	92,305,752	194,968,209	194,968,209	
Add back 80% ammortization	5.13	-	96,939,500	155,103,199	155,103,199	327,608,978	327,608,978	
Operating cash flow		-	(674,073,444)	2,202,109,762	2,952,050,291	3,318,179,122	3,296,829,430	
FCF		(1,546,305,944)	362,276,556	3,591,259,762	1,635,763,820	3,702,951,622	3,637,501,930	83,880,310,592
DCF		(1,484,432,805)	333,864,672	3,050,052,343	1,280,298,710	2,670,969,841	2,417,989,525	83,880,310,592
Accumulation		(1,484,432,805)	(1,150,568,133)	1,899,484,210	3,179,782,920	5,850,752,761	8,268,742,285	92,149,052,877

Table 20. Pro-forma cashflow statements in the optimistic scenario

(Source: Authors)

5.2.4. Pessimistic scenario

VALUATION CRITERIA	
Firm value	75,006,255,518
Modified internal rate of return (MIRR)	31%
Discounted payback period (Discounted PB)	3.23

Table 21. Firm valuation in the pessimistic scenario

(Source: Authors)

PRO-FORMA INCOME STATEMENT						
Calendar year	Note	Half year 2022	2023	2024	2025	2026
End of notional year		1	2	3	4	5
Sales volume	5.2.1	8,930	20,900	24,377	27,693	30,628
Unit price per TEU (before VAT)		500,000	500,000	500,000	500,000	500,000
Revenue		4,465,000,000	10,450,000,000	12,188,500,000	13,846,250,000	15,314,000,000
Costs of service	5.2.1	(398,569,080)	(828,137,856)	(861,263,370)	(895,713,905)	(931,542,461)
Gross profit		4,066,430,920	9,621,862,144	11,327,236,630	12,950,536,095	14,382,457,539
Operating expenses	5.2.1	(5,541,948,516)	(9,049,104,405)	(9,469,735,863)	(9,906,631,588)	(10,356,469,120)
EBITDA		(1,475,517,596)	572,757,739	1,857,500,767	3,043,904,507	4,025,988,419
Depreciation (20%)	5.14.2	(63,763,842)	(127,527,683)	(127,527,683)	(269,363,973)	(269,363,973)
Ammortization (20%)	5.14.2	(107,143,657)	(214,287,315)	(214,287,315)	(452,617,666)	(452,617,666)
EBT		(1,646,425,095)	230,942,741	1,515,685,768	2,321,922,868	3,304,006,780
Corporate income tax (CIT) (20%)	5.13	0	0	(20,040,683)	(484,425,256)	(1,145,226,612)
Net income		(1,646,425,095)	230,942,741	1,495,645,086	1,837,497,612	2,158,780,167
Dividend (40%)	5.2.1	0	0	0	(734,999,045)	(863,512,067)
Retained earnings		(1,646,425,095)	230,942,741	1,495,645,086	1,102,498,567	1,295,268,100

Table 22. Pro-forma income statement in the pessimistic scenario

(Source: Authors)

PRO-FORMA BALANCE SHEET							
Calendar year End of notional year	Note	Jun-22 0.5	2022 1	2023 2	2024 3	2025 4	2026 5
Assets							
Current assets							
Cash & marketable securities	5.8	1,290,925,009	753,057,413	2,582,665,152	4,785,210,236	5,056,984,738	7,382,461,977
Prepayments & other current assets	5.15.3	-	89,300,000	209,000,000	243,770,000	276,925,000	306,280,000
Total current assets		1,290,925,009	842,357,413	2,791,665,152	5,028,980,236	5,333,909,738	7,688,741,977
Non-current assets							
Office equipments							
At cost		637,638,416	637,638,416	637,638,416	637,638,416	1,346,819,863	1,346,819,863
Accumulated depreciation		-	(63,763,842)	(191,291,525)	(318,819,208)	(588,183,181)	(857,547,153)
Net value		637,638,416	573,874,575	446,346,891	318,819,208	758,636,682	489,272,710
Intangible assets							
At cost		1,071,436,574	1,071,436,574	1,071,436,574	1,071,436,574	2,263,088,332	2,263,088,332
Accumulated ammortization		-	(107,143,657)	(321,430,972)	(535,718,287)	(988,335,954)	(1,440,953,620)
Net value		1,071,436,574	964,292,917	750,005,602	535,718,287	1,274,752,379	822,134,712
Total fixed assets		1,709,074,991	1,538,167,492	1,196,352,493	854,537,495	2,033,389,061	1,311,407,422
Total assets		3,000,000,000	2,380,524,905	3,988,017,646	5,883,517,731	7,367,298,798	9,000,149,399
Liabilities & equity							
Current liabilities							
Deferred revenue	5.15.3	-	357,200,000	836,000,000	975,080,000	1,107,700,000	1,225,120,000
Accrued expenses	5.15.3	-	669,750,000	1,567,500,000	1,828,275,000	2,076,937,500	2,297,100,000
Total current liabilities		-	1,026,950,000	2,403,500,000	2,803,355,000	3,184,637,500	3,522,220,000
Equity							
Ordinary shares	5.7	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Accumulated retained earnings		-	(1,646,425,095)	(1,415,482,354)	80,162,731	1,182,661,298	2,477,929,399
Total equity		3,000,000,000	1,353,574,905	1,584,517,646	3,080,162,731	4,182,661,298	5,477,929,399
Total liabilities & equity		3,000,000,000	2,380,524,905	3,988,017,646	5,883,517,731	7,367,298,798	9,000,149,399

Table 23. Pro-forma balance sheet in the pessimistic scenario

(Source: Authors)

PRO-FORMA CASHFLOW STATEMENT								
<i>Calendar year</i> <i>End of notional year</i>	<i>Note</i>	<i>Jun-22</i> <i>0.5</i>	<i>2022</i> <i>1</i>	<i>2023</i> <i>2</i>	<i>2024</i> <i>3</i>	<i>2025</i> <i>4</i>	<i>2026</i> <i>5</i>	<i>Terminal value</i>
CapEx	5.2.1	(1,709,074,991)	-	-	(1,900,833,205)	-	-	
Non-cash NWC		-	(937,650,000)	(2,194,500,000)	(2,559,585,000)	(2,907,712,500)	(3,215,940,000)	
Change in non-cash NWC		-	937,650,000	1,256,850,000	365,085,000	348,127,500	308,227,500	
Net income		-	(1,646,425,095)	230,942,741	1,495,645,086	1,837,497,612	2,158,780,167	
Add back 80%depreciation	5.13	-	63,763,842	102,022,147	102,022,147	215,491,178	215,491,178	
Add back 80% ammortization	5.13	-	107,143,657	171,429,852	171,429,852	362,094,133	362,094,133	
Operating cash flow		-	(1,475,517,596)	504,394,739	1,769,097,084	2,415,082,923	2,736,365,479	
FCF		(1,709,074,991)	(537,867,596)	1,761,244,739	233,348,880	2,763,210,423	3,044,592,979	70,207,909,040
DCF		(1,640,688,890)	(495,684,818)	1,495,822,915	182,640,223	1,993,126,689	2,023,859,800	70,207,909,040
Accumulation		(1,640,688,890)	(2,136,373,708)	(640,550,794)	(457,910,570)	1,535,216,118	3,559,075,918	73,766,984,958

Table 24. Pro-forma cashflow statements in the pessimistic scenario

(Source: Authors)

5.3. Peer group

Company	Exchange	Peer group for		
		Useful life of platform	Beta in CAPM	% of non-cash working capitals to sales
FPT (Sendo)	HOSE	✓	✓	
CMC	HOSE	✓	✓	
ELCOM	HOSE	✓	✓	
ITD	HOSE	✓	✓	
Alibaba (Lazada)	NYSE HKEX			✓

Table 25. Peer group of LOOP

(Source: Authors)

Companies that belong to LOOP's peer group do business or have a business line in industries closed to the one of LOOP. Besides, they are all listed and have issued audited consolidated financial statements. That helps information extracted is free from material misstatement. However, the peer group for beta differs and only consists of those firms that traded on the HOSE as their return will be regressed against the return of VN-Index to ensure LOOP's beta is reasonable and acceptable.

5.4. Time horizon

Since the business of LOOP is operating a container round-use platform, the going-concern assumption is affected directly by its useful life. With the project's high prospects, restricting the company's life span within the platform's useful life is not appropriate. By instead, the high growth period will be set equal to the useful life of typical software owned by the peer group, and LOOP will continue go on with the business thereafter.

Company name	Useful life of software
FPT	3-5 years
CMC	3-8 years
ELCOM	3-5 years
ITD	3 years

Table 26. Useful life for a typical software

(Source: Notes of audited consolidated financial statements of FPT, CMC, ELCOM, ITD, 2021)

As data presented in the above table, setting the high-growth period of LOOP to 5 years is a proper choice. The first half of 2022 will be the time to raise capital, make initial investments, and the business will only be deployed since the 1st July 2022.

5.5. Inflation adjustments

The rate that will be used is Vietnam's forecasted CPI rate, which is mentioned in the outlook released by IMF in October 2021. Three items that need to be adjusted for inflation include costs of service, operating expenses, and capital expenditures (CapEx).

The sales volume will not be justified for inflation since it is extracted from the TAM SAM SOM analysis, which is influenced by the regression analysis by the number of TEUs exported rather than the CPI rate. The unit price will also not have adjustments for CPI as LOOP's policy is trying to get a stable price level. The price of LOOP's service will not increase, at least in the middle-way of macroeconomic cycles. Depreciation of office equipment and amortization of platform are not altered by inflation since both are just the written off of CapEx.

5.6. Adjustments for valued-added tax

Value-added tax (VAT), if included, will not create any effects on the bottom line of the pro-forma income statement since the remaining amount after the input VAT has been credited will be collected by tax authorities. Besides, according to Circular 219/2013/TT-BTC, such input VAT credits are subjected to not only costs of service and operating expenses but also CapEx spent on fixed assets. Due to those reasons, the unit price of LOOP, as well as expense items, will be stated as before VAT.

5.7. Plan to raise capitals

Seed money used to establish LOOP will come from founders with the total of 3 billion VND. LOOP is just a start-up and it will be challenging to raise any fund from bank borrowings or corporate bonds. Thus, the debt financing will be set as zero.

5.8. Plug for pro-forma balance sheet

Cash & marketable securities will play the role of the plug for pro-forma BSs of LOOP. Debt cannot be the plug since the chance for LOOP to be able to obtain debts from financial intermediaries is critically low. Though being regarded as a joint-stock company, stock is also inappropriate to be the plug since for a start-up like LOOP, the value of ordinary shares is hard to change flexibly so that the balance sheet is kept balanced.

5.9. Dividend payout policies

Since the dividend is the amount that shareholders of LOOP are distributed if the company gets positive net incomes, they will receive any cash for the dividend if the net income equals zero or is negative. In addition, to ensure that LOOP can retain enough resources to reinvest in the business, there will be an extra policy that lets none of the dividend be paid when the accumulated retained earnings in the previous year are smaller or equal to zero.

5.10. TAM SAM SOM analysis

As the LOOP platform earns revenues and solves the shortage of containers for exports by processing round-use container requests, it is reasonable to base the TAM SAM SOM analysis on the regression analysis about the number of TEUs exported by Vietnam.

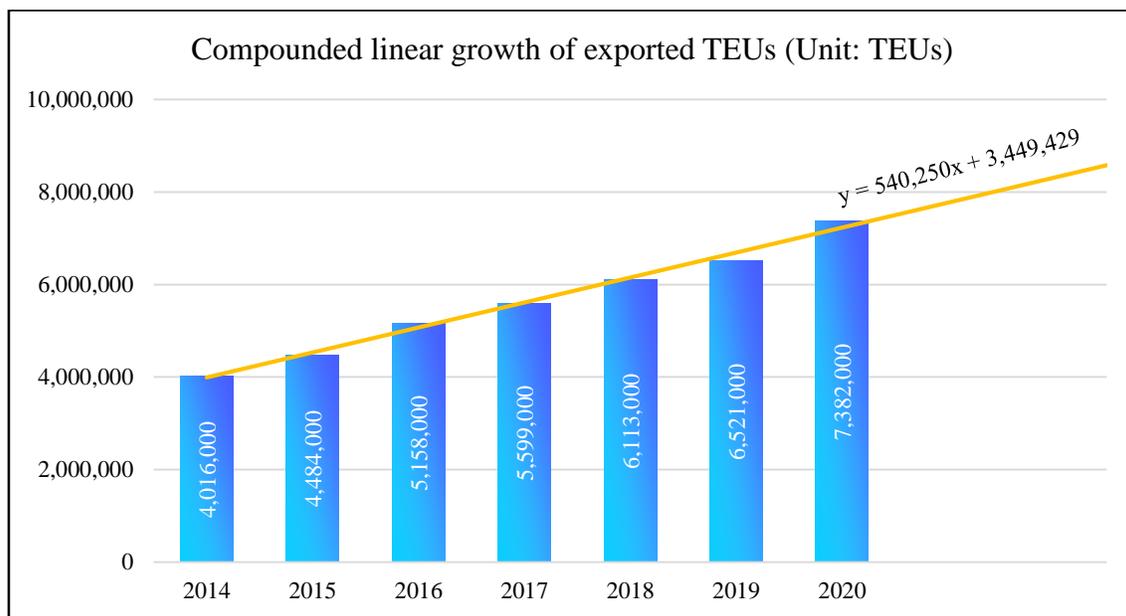


Figure 28. Compounded linear growth of exported TEUs

(Source: Authors)

Following numbers extracted from the above figure, it is clear to see that from 2020, Vietnam's export will grow about 540,250 TEUs per year. The volume of the total available market (TAM) is proportionate with the totals of TEUs that will be exported. The reason is that, even in the perfect situation, LOOP only can optimize the usage of containers by round-using empty boxes that are moved inefficiently. According to Container xChange, a platform specialized in container trading and leasing, every third container moved is empty and there is up to 1/3 of this number due to the inefficiencies. Thus, setting the volume of TAM equals 1/9 the total TEUs exported will be an applicable forecast for LOOP.

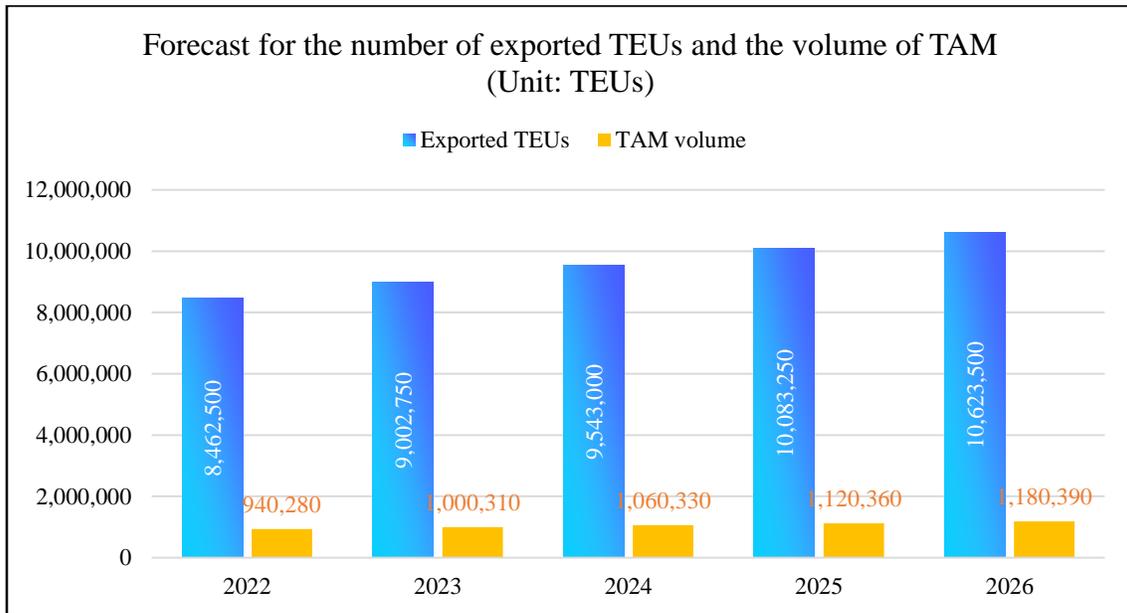


Figure 29. Forecast for the number of exported TEUs and the volume of TAM

(Source: Authors)

About the serviceable addressable market (SAM), as the business model operates online, the coverage of the market that LOOP can approach and address in fact is not limited in the geographic term. By aside, since LOOP just facilitates the round-use of containers, which are the outside boxes used to pack goods, the SAM is also not restricted by the type of goods loaded inside and the industry that business customers belong to. Aware of all those facts, for LOOP, the volume of SAM will agree with that of TAM.

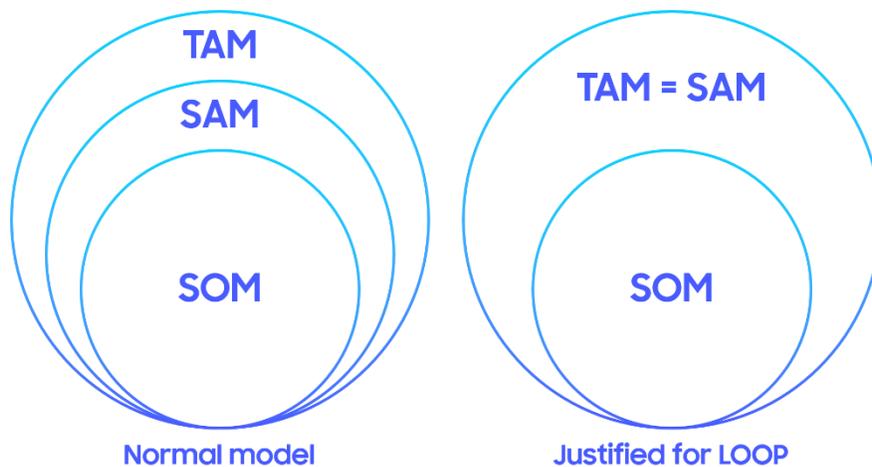


Figure 30. TAM SAM SOM model when justified for LOOP

(Source: Authors)

The target of the market share that LOOP must acquire successfully at each EOY will be the benchmark to compute the volume of the serviceable obtainable market (SOM). Since the

company will take up to the first 6 months of 2022 just for initial investments and the business will only be implemented after that, the percentage of TAM that LOOP expects to obtain and turn into its SOM will be only 1%. However, to compensate, this customer base will expand massively in the years after, especially within 2023. The growth of 120% is estimated as LOOP hopes that until EOY2023 the company can attain 110% the double of the previous year. The gradual in SOM's growth will help the transition between two stages of LOOP not become too abrupt and sudden.

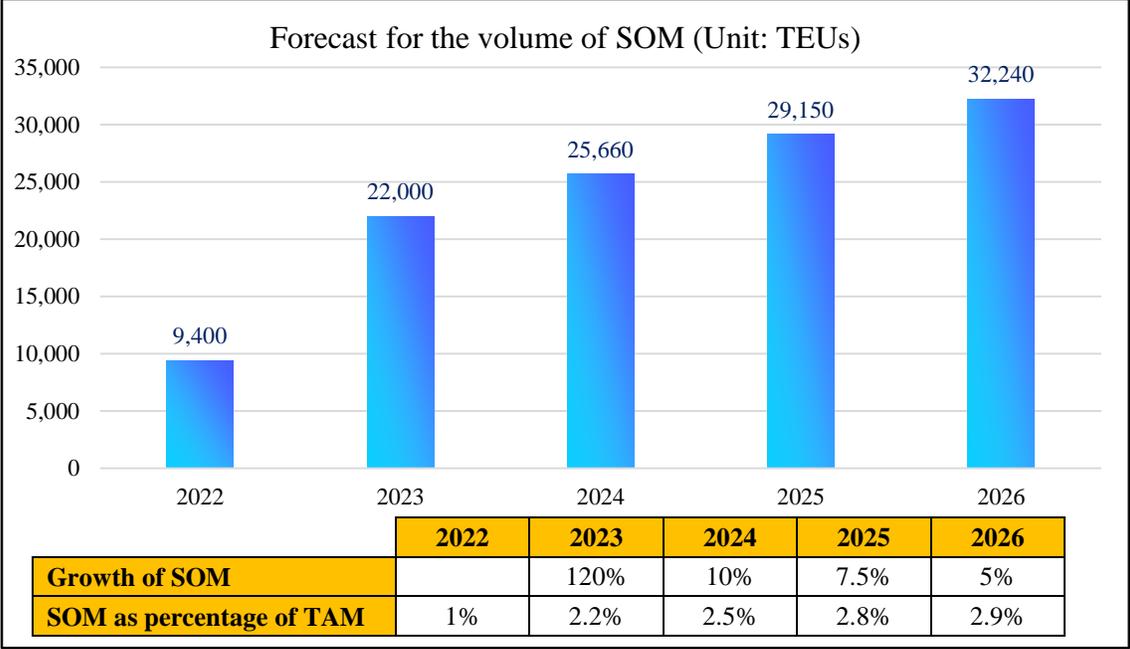


Figure 31. Forecast for the volume of SOM
(Source: Authors)

5.11. Costs of service

As computer hardware requires a huge investment while LOOP is just an emerging start-up with limited finance, using services provided by third parties, compared with the option of self-employ all infrastructure will be a smarter and better choice for the company.

Items	Package	Supplier	Fee	Unit price (before VAT)	Halved for the year ended 2022
Cloud computing server	vDPC	Viettel	Monthly cost	60,600,000VND	Yes
Domain	Domain .com	Viettel	Move domain to a data center	260,000VND	No
			Annual cost	260,000VND	Yes
Web hosting	HOSTPRO 04	Viettel	Monthly cost	145,000VND	Yes

Table 27. Items belong to LOOP's costs of service
(Source: Viettel, 2021, and authors)

Items	2022	2023	2024	2025	2026
Cloud computing server	363,600,000	727,200,000	727,200,000	727,200,000	727,200,000
Domain	520,000	260,000	260,000	260,000	260,000
Web hosting	870,000	1,740,000	1,740,000	1,740,000	1,740,000
Costs of service (before adjustment)	364,990,000	729,200,000	729,200,000	729,200,000	729,200,000
Coefficient to adjust for inflation (Note 5.1)	(1 + 4%) ¹	(1 + 4%) ²	(1 + 4%) ³	(1 + 4%) ⁴	(1 + 4%) ⁵
Costs of service (after adjustment)	379,589,600	788,702,720	820,250,829	853,060,862	887,183,296

Table 28. Costs of service for LOOP

(Source: Authors)

5.12. Operating expenses

Item	Note	2022	2023	2024	2025	2026
Marketing expenses	5.12.1	2,002,730,000	2,005,460,000	2,005,460,000	2,005,460,000	2,005,460,000
Payroll expenses	5.12.2	2,550,440,000	5,105,480,000	5,123,780,000	5,141,230,000	5,156,680,000
Office expenses	5.12.3	441,303,000	668,494,000	668,494,000	668,434,000	668,434,000
Other costs (2% sales)	5.12.4	94,000,000	220,000,000	256,600,000	291,500,000	322,400,000
Operating expenses (before adjustment)		5,088,473,000	7,999,434,000	8,054,334,000	8,106,624,000	8,152,974,000
Coefficient to adjust for inflation	5.1	(1 + 4%) ¹	(1 + 4%) ²	(1 + 4%) ³	(1 + 4%) ⁴	(1 + 4%) ⁵
Operating expenses (after adjustment)		5,292,011,920	8,652,187,814	9,060,030,361	9,483,603,479	9,862,947,618

Table 29. Aggregation of operating expenses and adjustments for inflation

(Source: Authors)

5.12.1. Marketing expenses

Items	2022	2023	2024	2025	2026
Google ads, SEO, & SEM	1,000,000,000	1,000,000,000	1,000,000,000	1,000,000,000	1,000,000,000
Direct marketing	550,000,000	550,000,000	550,000,000	550,000,000	550,000,000
Press PR	300,000,000	300,000,000	300,000,000	300,000,000	300,000,000
Social media ads	150,000,000	150,000,000	150,000,000	150,000,000	150,000,000
1900 prefix	2,730,000	5,460,000	5,460,000	5,460,000	5,460,000
Total	2,002,730,000	2,005,460,000	2,005,460,000	2,005,460,000	2,005,460,000

Table 30. LOOP's marketing budget

(Source: Authors)

The budget for direct marketing activities will be allocated for co-marketing events with shipping lines or joining logistics exhibitions. This strategy fits more to LOOP since the company can raise just a small amount of funds from founders as well as expenses to organize events by self can consume up to billions. Though, when salesmen want to have face-to-face presentations about the service in customers' offices, LOOP will support through the base salary, sales commission, ad hoc items for traveling, etc. rather than spending this budget.

Since LOOP belongs to the group of B2b platforms, which approach customers who have the habit of using Zalo for work-related issues, the majority of the budget for social media ads will be dedicated to Zalo ads. In addition, the marketing department still has to go on with activities that call for no fee paid for social networks, such as seeding comments, creating Zalo OA and verified Facebook fanpage, building online groups for existing users, etc.

To ensure diligent after-sales service, LOOP will register for the 900 prefix service provided by Viettel with a monthly fee (before VAT) of 455,000 VND per month. Since this item is charged on the monthly basis, in 2022, LOOP just needs to make payments for the real consumption, which is the half year-end. Meanwhile, the company will maintain the full-year budget for other items, even within 2022, as it is critical for a brand new service to foster marketing activities in the first phase after launching.

5.12.2. Payroll expenses

Position	Quantity	Monly salary	Total
C-level executives			
CEO	1	30,000,000	360,000,000
CMO	1	25,000,000	300,000,000
CFO	1	25,000,000	300,000,000
CTO	1	25,000,000	300,000,000
CHRO	1	25,000,000	300,000,000
Marketing department			
Marketing executive	2	15,000,000	360,000,000
Sales executive	3	10,000,000	360,000,000
Customer sevice executive	2	10,000,000	240,000,000
Designer	1	15,000,000	180,000,000
Technology department			
IT developers	3	15,000,000	540,000,000

Finance department				
Accountant	1	12,000,000	144,000,000	
Treasurer	1	12,000,000	144,000,000	
Human resources department				
HR executive, receptionist, and C-level secretary concurrently	1	12,000,000	144,000,000	
Total	19		3,672,000,000	

Table 31. Base salary for each position at LOOP

(Source: Authors)

Items	Rate	Total	Note
13th month salary		306,000,000	Equal 1/12 of the total base salary
Insurance			
Social insurance	17.5%	642,600,000	Use base salary to compute
Medical insurance	3%	110,160,000	
Unemployment insurance	1%	36,720,000	
Ad hoc items			
For lunch	35,000/day	199,500,000	All employees work full-time 300 days per year
For traveling và parking	5,000/day	28,500,000	
		1,323,480,000	

Table 32. Welfare benefits at LOOP

(Source: PwC, 2020, and authors)

Items	2022	2023	2024	2025	2026	Note
Base salary	1,836,000,000	3,672,000,000	3,672,000,000	3,672,000,000	3,672,000,000	Can be halved for 2022 since they are computed on the monthly basis
Welfare benefits	661,740,000	1,323,480,000	1,323,480,000	1,323,480,000	1,323,480,000	
1% sales commission	47,000,000	110,000,000	128,300,000	145,750,000	161,200,000	SOM has been halved for 2022, then no more adjustment
Uniform	5,700,000					Incur one time for 19 people in 2022 Cost 300,000VND per capita
Total	2,550,440,000	5,105,480,000	5,123,780,000	5,141,230,000	5,156,680,000	

Table 33. Total payroll expenses

(Source: Authors)

5.12.3. Office expenses

The eight bolded items will be halved during the first year in consideration of the fact that LOOP expects to begin the operation in early July 2022. Such costs are already charged on the unit sold or on the monthly basis, thus, are simple to adjust. However, while sharing the monthly characteristic, the last four items are exemptions and will be charged for a full year, as they must be incurred in advance to accommodate transactions of initial investments.

Items	Note	2022	2023	2024	2025	2026
Cost to acquire business license	5.12.3.1	100,000				
Costs to acquire trademark	5.12.3.1	1,000,000				
Office rental	5.12.3.2	240,000,000	480,000,000	480,000,000	480,000,000	480,000,000
Cost to restructure and improve office	5.12.3.1	100,000,000				
Business license tax	5.12.3.3		2,000,000	2,000,000	2,000,000	2,000,000
Electric bill	5.12.3.4	42,571,000	85,142,000	85,142,000	85,142,000	85,142,000
Internet bill	5.12.3.5	2,470,000	4,440,000	4,440,000	4,440,000	4,440,000
Telephone bill	5.12.3.5	540,000	1,080,000	1,080,000	1,080,000	1,080,000
Water bill	5.12.3.6	4,370,000	8,740,000	8,740,000	8,740,000	8,740,000
Drinking water	5.12.3.6	1,440,000	2,880,000	2,880,000	2,880,000	2,880,000
Stationery	5.12.3.7	2,400,000	4,800,000	4,800,000	4,800,000	4,800,000
Office daily cleaning service	5.12.3.7	33,000,000	66,000,000	66,000,000	66,000,000	66,000,000
Bank account	5.12.3.8	720,000	720,000	720,000	720,000	720,000
Accounting software	5.12.3.8	5,950,000	5,950,000	5,950,000	5,950,000	5,950,000
Digital invoice	5.12.3.8	5,800,000	5,800,000	5,800,000	5,800,000	5,800,000
Digital signature	5.12.3.8	942,000	942,000	942,000	882,000	882,000
Total		441,303,000	668,494,000	668,494,000	668,434,000	668,434,000

Table 34. Estimation for office expenses in 5 years (before VAT & inflation adjustments)

(Source: Authors)

5.12.3.1. Expenses that are not allowed to be capitalized

Although costs to acquire a business license, costs to acquire trademark, and cost to improve office incur only once when LOOP is established, Circular 45/2013/TT-BTC does not allow any capitalization besides expensing them immediately. The fee for a business license is 100,000VND (Ministry of Finance, 2021). Similarly, the amount that a typical enterprise must give out to acquire a trademark is also quoted clearly as 1,000,000VND (Intellectual property office of Vietnam, 2021).

5.12.3.2. Office rental

LOOP will try to find a place to rent, which satisfies 4 following basic requirements:

- The office is in the suburbs of Hanoi
- The area is about 150m²
- The rental fee is not more than 40 million VND per month
- There are some minimum facilities like lighting, air conditioner, curtains, toilet, etc.

5.12.3.3. Business license tax

Decree 139/2016/NĐ-CP regulates those businesses with charter capitals of more than 10 billion VND to submit the yearly business license tax of 2 million VND. Meanwhile, Decree 22/2020/NĐ-CP provides an incentive for start-ups by the exemption of this tax in the first year.

5.12.3.4. Electric bill

EVN is currently charging service businesses based on three different rates depending on the daily time frames (EVN, 2021). Thus, it will be critical to look up the specific frames of time set by EVN and to estimate the electric consumption of LOOP.

	Day in week		Rate (before VAT)
	Monday - Saturday	Sunday	
Rush hour	9:30 a.m. – 11:30 a.m.	X	4,587 VND/kWh
	5 p.m. – 8 p.m.		
Normal hour	4 a.m. – 9:30 a.m.	4 a.m. – 10 p.m.	2,666 VND/kWh
	11:30 a.m. – 5 p.m.		
	8 p.m. – 10 p.m.		
Others	10 p.m. – 4 a.m.		1,622 VND/kWh

Table 35. The rate applied for service businesses

(Source: EVN, 2021)

There are assumptions about the time for LOOP's office to be opened, which is used to compute the electric consumption. By that, the office operates 5 days per week, from Monday to Saturday, 9 hours per day, from 8 a.m. to 5 p.m. (include 1 hour for lunch break). In the table of electric consumption below, air conditioners, stand-up fans, and laptops are items that will not be used full 300 working days as they are not always in need. Besides, the last item used to estimate for other immaterial devices is limited so that the amount is not over 1% of those above.

Items	Quantity	Capacity (W)	Hours per day		Days per year	Electric consumption (kWh)	
			Rush hours	Normal hours		Rush hours	Normal hours
Air conditioner	2	10,500	2	6	100	4,200	12,600
Stand-up fan	8	60	2	6	100	96	288
LED lightning	50	30	2	6	300	900	2,700
Photocopier	1	1,800	2	6	300	1,080	3,240
iMac	5	40	2	6	300	120	360
Laptop	14	70	-	1	300	-	294
Television for meeting room	1	50	1	1	100	5	5
Television for reception desk	1	50	2	6	300	30	90
Camera set	1	25	2	6	300	15	45
Internet router	1	10	2	6	300	6	18
Attendance machine	1	10	2	6	300	6	18
Hot-cold water dispenser	1	300	2	6	300	180	540
Others						67	202
Total						6,705	20,400

Table 36 Estimation about LOOP's yearly electric consumption

(Source: Authors)

	Consumption (kWh)	Unit price	Total
Rush hours	6,705	4,587	30,755,835
Normal hours	20,400	2,666	54,386,347
			85,142,182

Table 37. Estimation of electric bill

(Source: Authors)

5.12.3.5. Internet and telephone bill

In finding a reliable Internet service provider, LOOP decides to use the SUPERNET4 package of Viettel that requires a monthly fee of 370,000VND besides the one-time installation costs of 250,000VND. About the landline telephone, LOOP chooses the V99 package of VNPT and pays 90,000VND per month. This service, which fits for office, is different from the 1900 prefix service provided by Viettel, which is suitable for marketing and sales objectives.

Items		2022	2023	2024	2025	2026
Internet	Set-up and installation fee (before VAT)	250,000				
	Monthly fee (before VAT)	2,220,000	4,440,000	4,440,000	4,440,000	4,440,000
	Total internet fee	2,470,000	4,440,000	4,440,000	4,440,000	4,440,000
Telephone	Monthly fee (before VAT)	540,000	1,080,000	1,080,000	1,080,000	1,080,000

Table 38. Estimation of internet and telephone bill

(Source: Authors)

5.12.3.6. Water bill and drinking water

In terms of the water bill, Law number 13/2008/QH12 allows deducting the 5% input VAT, but not the 10% of the environmental fee. About drinking water, LOOP estimates that the enterprise of 19 people will consume about four 19L bottles per month.

Monthly water consumption (m ³) (1)	Unit price quoted by Hawacom (before 5% VAT % 10% environment fee) (2)	Price for LOOP (3) = (2) * 110%	Total per year (4) = (1) * (3) * 12 months
30	22,068	24,275	8,738,928

Table 39. Estimation of water bill

(Source: Authors)

Price per 19L bottle quoted by Lavie (1)	Price per 19L bottle (before VAT) (2) = (1) * 90%	Bottle per month (3)	Total per year (4) = (2) * (3) * 12 months
65,000	60,000	4	2,880,000

Table 40. Estimation of fee for drinking water

(Source: Authors)

5.12.3.7. Stationery and office daily cleaning service

As stationery contains lots of detailed stuff, instead of estimating for each one item of them, LOOP will just give out a budget of 400,000VND per month. For the office daily cleaning service, LOOP will sign contracts with Hoa My company who receives orders with a fair price (before VAT) of 5,500,00VND/month.

5.12.3.8. Bank account, accounting software, digital invoice and signature

To fulfill various needs such as collecting service fees from customers, submitting corporate income tax, etc., LOOP wants to open 3 accounts at Vietcombank. Luckily, this bank

permits the opening of new accounts for free and only charges the monthly expense. It is important to note that, the bank account service that LOOP trust in Vietcombank does not relate to service that the company will engage with payment intermediaries as NAPAS and e-wallets.

Monthly fee quoted by Vietcombank (1)	Number of bank account (2)	Total per year (3) = (1) * (2) * 12 months
20,000	3	720,000

Table 41. Estimation of fee for bank accounts

(Source: Authors)

Items	Package name	Supplier	Fee components	Unit price (before VAT)	Note
Accounting software	Professional Misa SME	Misa	Annual fee	5,950,000VND	
Digital invoice	HD20000	Viettel	Fee for 20,000 invoices	5,800,000VND	Viettel quotes price before VAT as 6,380,000VND

Table 42. Estimation of fee for accounting software and digital invoice

(Source: Authors)

With the digital signature service, to save as most as possible, LOOP may register the CA3 package provided by Viettel first, whose length is up to 3 years. Thereafter, the right to continue with the service will be extended as LOOP will can renew every 3 years by the CA3_GH package.

	2022	2023	2024	2025	2026
Cashflow quoted by Viettel (after VAT) (1)	2,826,364			2,644,545	
Cashflow (before VAT) (2) = (1) * 90%	3,109,000			2,909,000	
Expense (3) = (2) / 3	942,121	942,121	942,121	881,515	881,515

Table 43. Estimation of fee for digital signature

(Source: Authors)

5.12.4. Other costs

Other costs are budgeted to not get over more than 2% of LOOP's revenues and mainly include petty sales-based variable costs like:

- Fees paid for payment partners (NAPAS, e-wallet)
- Bonus for employees, including C-level executives, when accomplishing KPI
- Point of Sales Material (POSM) (envelope, paper, card visit, catalog, etc.)

5.13. Corporate income tax (CIT) expense

The current law applied for the corporate income tax stipulates that LOOP's business will be subject to the marginal tax rate of 20%. The marginal tax rate must be taken into account since the firm valuation only considers incremental cash flows and the marginal tax rate is the rate applied to additional profits.

The account of tax payables is computed at the end of each year while the tax is finalized and paid to tax authorities in the subsequent year. Thus, the tax payments calculated based on the revenue of a typical year, actually are the outflows in the following year. However, to concentrate on other important sides of the project appraisal, LOOP's tax payments are made in the same year when taxable incomes are generated.

There are two last notes. In cases of negative EBT, losses will not be carried forward for more than 5 years (PwC, 2020). Besides, only 80% of the written-off amount will be added back since on pro-forma PLs, depreciation and amortization expenses are senior to the CIT expense.

5.14. Capital expenditures

5.14.1. Initial investments

LOOP will rent the office under an operating lease and incur none of the acquisition for properties. The company operates the round-use service, thus, there will be also no need for plants as a manufacturer. Since the cloud computing server, the web domain, and hosting are outsourced instead of the self-deployment of computer hardware, for tangible assets, there will be only office equipment left. Besides investments spent on tangible assets, LOOP is also required to allocate cash to develop and acquire copyright for the platform. According to the IAS38, all essential expenses to make the platform ready-to-use will be capitalized to costs.

No.	Item	Quantity (1)	Price (after VAT) (2)	Price (before VAT) (3) = (2) * 90%	Total (4) = (1) * (3)
1	Module of working tables	4	14,520,000	13,200,000	52,800,000
2	Meeting table	1	10,330,000	9,390,909	9,390,909
3	Chair for employees	16	1,235,000	1,122,727	17,963,636
4	Table for CEO	1	8,970,000	8,154,545	8,154,545
5	Chair for CEO	1	5,680,000	5,163,636	5,163,636
6	Table for other C-level executives	4	4,020,000	3,654,545	14,618,182
7	Chair for other C-level executives	4	3,380,000	3,072,727	12,290,909
8	Sofa	2	24,000,000	21,818,182	43,636,364

9	Tea table	2	3,065,000	2,786,364	5,572,727
10	Front desk	1	3,330,000	3,027,273	3,027,273
11	Television	2	17,400,000	15,818,182	31,636,364
12	Tea set of pot, cups, etc.	2	3,870,000	3,518,182	7,036,364
13	Flower vase	2	1,160,000	1,054,545	2,109,091
14	Electric kettle	1	970,000	881,818	881,818
15	Hot-cold water dispenser	1	5,490,000	4,990,909	4,990,909
16	Photocopier	1	52,900,000	48,090,909	48,090,909
17	Safe	1	11,680,000	10,618,182	10,618,182
18	Filling cabinet	2	4,690,000	4,263,636	8,527,273
19	Stand-up fan	8	2,990,000	2,718,182	21,745,455
20	iMac for IT developers & designers	5	56,990,000	51,809,091	259,045,455
21	Casio calculator	4	345,000	313,636	1,254,545
22	Camera set	1	9,100,000	8,272,727	8,272,727
23	Landline telephone	3	1,990,000	1,809,091	5,427,273
24	Headphone for call center	3	1,390,000	1,263,636	3,790,909
25	Attendance machine	1	2,850,000	2,590,909	2,590,909
26	Set of signs	1	5,000,000	4,545,455	4,545,455
27	Trash bin	10	105,000	95,455	954,545
28	White riting board	2	740,000	672,727	<u>1,345,455</u>
					595,481,818

Table 44. Initial investments for office equipment

(Source: Various suppliers, 2021)

No.	Item	Quantity	Unit price (before VAT)
1	Outsourcing costs to developing/coding	1	1,000,000,000
2	Costs to acquire copyright	1	<u>600,000</u>
			1,000,600,000

Table 45. Estimation of initial investments for the platform

(Source: Authors)

Item	Invested amount (before adjustments) (1)	Invested amount (after adjustments) (2) = (1) * (1+4%) ^{0.5}
Office equipment	595,481,818	607,274,682
Intellectual property	1,000,600,000	1,020,415,785

Table 46. Aggregation of initial investments after adjustments for inflation

(Source: Authors)

5.14.2. Depreciation and amortization

As have stated in the “Time horizon” part, it will be unreasonable to limit the useful life of fixed assets and the lifespan of LOOP to the one of typical software, which equals 5 years. Instead, this horizon will be used to calculate the straight-line depreciation and amortization rate of both office equipment and the platform. As result, costs of fixed assets, whether tangible or intangible, will be reduced at the rate of 20% per year.

There is an exception within 2022. Since LOOP is being assumed to come into operation from 1st July next year, taking the depreciation and amortization in the first notional year equal to the full-year amount will be illogical. A reasonable adjustment is recording only a half amount in 2022, rather than a full of 20% as in a normal year.

5.14.3. Middle-way additional CapEx

The extra amount spent on the CapEx to maintain and upgrade fixed assets is necessary so that LOOP can continue with the business further in the future without worrying that the going-concern assumption is being violated. As a result, the net value of fixed assets will never reach the zero liquidation value.

The policy used to detect the proper time to incur the follow-up CapEx will base on the net value of assets and a function of sales, rather than the gross fixed assets. This policy not only assumes depreciation has an actual economic meaning but also allows LOOP to always maintain the base of fixed assets needed to accommodate the sales level. Specifically, there will be an additional CapEx when either of the following occurs:

- **The first scenario – Invest to cover depreciation and amortization:** When the net value of fixed assets equals 40% of the cost, LOOP will spend more CapEx with an amount that will make the net assets at the next EOY return to the gross cost of the current EOY (after being adjusted for inflation).
- **The second scenario - Invest to accommodate sales:** At the first upgrade of fixed assets for this purpose, the projected sales volume of the following year must be three times greater than the sales volume in 2022. For the next time, the forecasted sales volume for the next year will only need to be 1.5 times the number of the first period after the most recent adjustment for sales. The amount for such adjustments would have to be enough to make the net fixed assets at the following EOY after incurring the additional CapEx equal

to 110% of the gross number of the year in which the expenditure was made (after adjustments for inflation).

As an example for all the above policies about additional CapEx, LOOP plans to upgrade net fixed assets before EOY2024 as sales volume forecast for the financial year ended 2025 is more than 3 times the number estimated for the year 2022.

5.15. Change in non-cash net working capitals

Non-cash working capitals will be estimated for two reasons. First, only non-cash WC represents a pool of funds committed to the project in the same manner as fixed capital. Second, cash and cash equivalents are already the plug to balance the BS. For the best forecast, this item will be split into two components of non-cash current assets and non-debt current liabilities. And since LOOP is a start-up, there will be no data from historical periods to extrapolate and the sales-driven model, as well as the average of the peer group, will be in used instead.

5.15.1. Non-cash current assets

The only current assets of Alibaba that can be used as a benchmark for LOOP will be the prepayments, receivables, and other assets.

Items	As March 31 of,		Whether be included in non-cash CA	Reason
	2020	2021		
Cash and cash equivalents	330,503	321,262	No	Only take into account non-cash current assets
Short-term investments	28,478	152,376	No	LOOP focuses on the main business rather than investing in marketable securities.
Restricted cash and escrow receivables	15,479	35,207	No	Same reason as "Cash and cash equivalents"
Equity and other investments	4,234	9,807	No	Same reason as "Short-term investments"
Prepayments, receivables, and other assets	<u>84,229</u>	<u>124,708</u>	Yes	
Total current assets	462,923	643,360		

Table 47. Current assets of Alibaba (Unit: Millions RMB)

(Source: Alibaba Group Holding Limited, 2021)

When analyzing Alibaba's notes for prepayments, receivables, and other assets, LOOP realized that it was also impossible to retrieve the full value of this item.

Items	As March 31 of,		Whether be included in non-cash CA	Reason
	2020	2021		
Inventories	14,859	27,858	No	LOOP is not a merchandiser or a manufacturer
Accounts receivable, net of allowance	19,786	27,076	No	LOOP's customers must pay in advance
Prepaid cost of revenue, sales, marketing, & other expenses	7,547	18,532	Yes	
VAT receivables, net allowance	11,826	17,363	No	VAT is not taken into account
Amounts due from related companies	11,029	10,374	No	This item is between Alibaba & Ant Groups
Advances to/receivables from customers, merchants & others	8,231	7,163	No	Same reason as "Accounts receivable, net of allowance"
Deferred direct selling costs	2,000	3,303	No	This item relates to Alibaba's membership program. But LOOP allows to create accounts for free.
Interest receivables	984	2,110	No	LOOP won't invest in marketable securities
Others	<u>7,967</u>	<u>10,929</u>	No	
Total current prepayments, receivables, and other assets	84,229	124,708		

Table 48. Current prepayments, receivables, and other assets of Alibaba (Unit: Millions RMB)

(Source: Alibaba Group Holding Limited, 2021)

After filtering, LOOP's non-cash current asset will only have Prepaid expenses proportionate to sales with a rate equal to Alibaba's average of 2% over two years.

Items	As March 31 of,	
	2020	2021
Revenue	509,711	717,289
Prepaid cost of revenue, sales and marketing and other expenses	7,547	18,532
% to sales	1%	3%

Table 49. Alibaba's percentage to sales of non-cash current assets

(Source: Alibaba Group Holding Limited, 2021, and authors)

5.15.2. Non-debt current liabilities

Similar to what has been done with the non-cash current assets, the analysis of components for Alibaba's current liabilities will be conducted.

Items	As March 31 of,		Whether be included in non-debt CL	Reason
	2020	2021		
Current bank borrowings	5,154	3,606	No	Only take into account non-debt current liabilities
Current unsecured notes	0	9,831		Same reason as "Current bank borrowings"
Income tax payable	20,190	25,275	No	Tax payments are assumed to be made in the same year when taxable incomes are generated
Escrow money payable	3,014	211	No	The business model of LOOP won't have escrow transactions
Accrued expenses, accounts payable and other liabilities	161,536	260,929	Yes	
Merchant deposits	13,640	15,017	No	This item is between Alibaba & Ant Group
Deferred revenue and customer advances	<u>38,338</u>	<u>62,489</u>	Yes	
Total current liabilities	241,872	377,358		

Table 50. Current liabilities of Alibaba (Unit: Millions RMB)

(Source: Alibaba Group Holding Limited, 2021)

When analyzing Alibaba's notes for accrued expenses, accounts payable, and other liabilities, LOOP realized that it was also impossible to get the full value of this item.

Items	As March 31 of,		Whether be included in non-debt CL	Reason
	2020	2021		
Payables and accruals for cost of revenue, sales, & marketing	67,173	94,368	Yes	
Other deposits & advances	25,443	53,794	No	This is consumer protection fund deposits that Alibaba received from merchants
Accrued bonus and staff costs, including sales commission	16,860	24,871	Yes	
Payable to merchants and third party marketing affiliates	15,763	24,681	No	LOOP won't work with marketing affiliates
Fine imposed pursuant to the PRC Anti-monopoly Law	0	18,228	No	This is provision for Alibaba's event
Payables & accruals for purchases of property and equipment	7,613	11,836	No	LOOP will rent office rather than buy properties
Other taxes payable	5,479	7,922	No	Tax payments are assumed to be made in the same year when taxable incomes are generated

Amounts due to related companies	4,875	5,926	No	This item is between Alibaba ^ Ant Group
Contingent and deferred consideration in relation to investments and acquisitions	4,680	4,146	No	LOOP won't join any M&A deal in the near future
Operating lease liabilities	2,766	4,069	Yes	
Others	<u>10,884</u>	<u>11,088</u>	No	
Total accrued expenses, accounts payable and other liabilities	161,536	260,929		

Table 51. Accrued expenses, accounts payable and other liabilities of Alibaba (millions RMB)

(Source: Alibaba Group Holding Limited, 2021)

Once filtered, LOOP's non-debt liabilities are based on Alibaba's average in two years and adjusted for the difference in the companies' size. Accordingly, there will be two items, Unearned revenue, which is estimated as 8% sales, and Accrued expenses, which equal 15% of sales.

Items		As March 31 of,	
		2020	2021
Revenue		509,711	717,289
Deferred revenue and customer advances	Absolute number	38,338	62,489
	% to sales	8%	9%
Selected accruals	Absolute number	86,799	123,308
	% to sales	17%	17%

Table 52. Alibaba's percentage to sales of non-debt current liabilities

(Source: Alibaba Group Holding Limited, 2021, and authors)

5.15.3. Aggregation of estimation for non-cash working capitals

Items	% to sales
Prepaid expenses	2%
Unearned revenue	8%
Accrued expenses	15%

Table 53. Percentage used to estimate non-cash working capitals

(Source: Authors)

With the percentage presented in the table above, LOOP's non-cash working capitals will always be negative as the non-cash current assets are smaller than the non-debt current liabilities. LOOP believes that negative non-cash WC will not cause default risks or worsen the relationship between the company and customers because it reflects the characteristics of the revenue model, which collects money in advance. In addition, LOOP is confident that the company attains enough

payment ability to the accumulated expenses because they just account for a small percentage compared to sales, while the prospects of LOOP to grow are large.

5.16. Weighted-average cost of capital

<p>LOOP's WACC</p> $= \frac{\text{Debt}}{\text{Debt} + \text{Equity}} * \text{Cost of debt} * (1 - \text{Marginal tax rate}) + \frac{\text{Equity}}{\text{Debt} + \text{Equity}} * \text{Cost of equity}$ $= \frac{0}{0 + \text{Equity}} * \text{Cost of debt} * (1 - \text{Marginal tax rate}) + \frac{\text{Equity}}{0 + \text{Equity}} * \text{Cost of equity}$ $= 0 * \text{Cost of debt} * (1 - \text{Marginal tax rate}) + 1 * \text{Cost of equity}$ $= \text{Cost of equity}$
--

Figure 32. LOOP's WACC equals its cost of equity

(Source: Authors)

The zero debt finance of LOOP makes its ratio Debt/(Debt+Equity) equal zero and WACC equal right to the firm's cost of equity computed by the capital asset pricing model (CAPM).

5.16.1. Risk-free rate: The build-up approach

The risk-free rate computed by subtracting the default spread for Vietnam's government from the yield to maturity on the Vietnam Treasury bond equals -1.04%. In 2021, Vietnam's sovereign ratings based on Moody's results is Ba3 and, thus, the country default spread is 2.97% (Aswath Damodaran, 2021). Meanwhile, the yield curve of the Vietnam government bond market shows that at a 10-year term, the yield to maturity is only 1.93% (Hanoi Stock Exchange, 2021). Since data is extracted for 16th December 2021, this bond rate is updated enough compared to the day that this report is handed in. The term for the Vietnam government bond being used is equal to 10 years and that horizon is long enough to ensure that the risk-free rate resulted is truly free of default and reinvestment risks. Although all requirements have been met, the figure of -1.04% is still too low for the risk-free rate and completely unsuitable for LOOP's valuation.

<p>Risk-free rate</p> $= \text{Yield to maturity on Vietnam's 10-year government bond} - \text{Vietnam's default spread}$ $= 1.93\% - 2.97\% = -1.04\%$
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Figure 33. Risk-free rate when not follow the build-up approach

(Source: Authors)

Instead of the above method, the risk-free rate will be recalculated through the build-up approach. In this way, the risk-free rate will now equal the sum of Vietnam's forecasted inflation and the expected long-term real growth rate. The component of the inflation rate has already been extrapolated by IMF's analysis since October 2021. Accordingly, the rate of inflation for Vietnam in the future will be equal to 4% (International Monetary Fund, 2021). On the other hand, for the real growth rate, interest on 10-year US Treasury inflation-protected security (TIPS) will be taken as a benchmark with the assumption that the real rate is the same globally. This interest is -0.48% on December 9th, 2021 (Federal Reserve System, 2021). That means the risk-free rate will be improved to 3.52%.

<p>Risk-free rate</p> <p>= Vietnam's forecasted inflation rate + Interest on 10-year US TIPS</p> <p>= 4% + (-0.48%) = 3.52%</p>
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Figure 34. Risk-free rate when follow the build-up approach

(Source: Authors)

5.16.2. Regression beta

The inability of LOOP to access loans will cause its eta equal to the mean of the unlevered beta across the industry, which is represented by the peer group. The companies, which are FPT, CMC, ELCOM, and ITD, have betas as results of the regression between the daily return of their stock traded on HOSE and the daily return on the VN-Index from 4th January 2021 to 30th December 2021. The four raw betas will continue to be adjusted according to ensure that the average beta across time is towards 1. This adjustment is necessary as the historical beta must reflect the mean-reverting tendency, which means betas move towards the market average of 1.

<p>Adjusted beta that will be unlevered = $\frac{2}{3}$ * Raw beta after regression + $\frac{1}{3}$</p>
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Figure 35. Adjustment for historical beta

Company	Raw beta	Adjusted beta
FPT	0.99	0.99
CMC	0.82	0.88
ELCOM	0.82	0.88
ITD	0.76	0.84

Table 54. Raw and adjusted beta of peer group

(Source: Authors)

After being adjusted, four levered betas will be justified for the financial leverage, which is computed by taking the total of debt reported on the latest audited balance sheets of four companies divide to their total equity. This step is critical as the greater the proportion of capital that a firm raised from debt, the higher its equity beta will be (Aswath Damodaran, 2012).

$$\text{Unlevered beta} = \frac{\text{Levered beta}}{1 + (1 - \text{Marginal tax rate}) * \frac{\text{Debt}}{\text{Equity}}}$$

Figure 36. From levered beta to unlevered beta

(Source: Aswath Damodaran, 2012)

Company	Total debt (1)	Total equity (2)	Debt/Equity (3) = (1) / (2)	Note
FPT	17,161,661,621,500	20,057,528,192,945	0.86	At 30/6/2021
CMC	1,310,490,420,979	2,470,393,628,984	0.53	At 31/9/2021
ELCOM	137,398,363,757	870,937,557,109	0.6	At 30/6/2021
ITD	79,040,102,901	338,826,752,683	0.23	At 31/3/2021

Table 55. Debt to equity ratio of peer group

(Source: Audited financial statements of FPT, CMC, ELCOM, ITD, 2021, and authors)

Company	Adjusted beta	Unlevered beta
FPT	0.99	0.59
CMC	0.88	0.62
ELCOM	0.88	0.78
ITD	0.84	0.71
Mean		0.67

Table 56. Levered and unlevered beta of peer group

(Source: Authors)

As the results show, the mean 0.67 of the industry's unlevered beta will be directly assigned to the LOOP's without being relevered, since LOOP has no debt.

5.16.3. Equity risk premium

For the last component of LOOP's cost of equity, instead of the implied premium, the used one will be the modified historical risk premium, which is equal to the sum of the base premium for a mature equity market and Vietnam's risk premium. America, a country with the Aaa ratings, will serve as the mature equity market. In this market, the base premium in 2021 is currently 4.38%

(Aswath Damodaran, 2021). Meanwhile, the country risk premium is a bit more complicated when it is not possible to get it directly from the country default spread, but must adjust for the volatility of Vietnam's equity market relative to the volatility of Vietnam's government bonds. Luckily, this stat was already calculated by Aswath Damodaran and LOOP just needs to refer from this source. Accordingly, Vietnam's Country risk premium is 3.02% (Aswath Damodaran, 2021). As a result, the equity risk premium of Vietnam in general and of LOOP in particular will be 7.4%.

$$\text{Country risk premium} = \text{Country default spread} \times \left(\frac{\sigma_{\text{equity}}}{\sigma_{\text{country bond}}} \right)$$

Figure 37. Formula of country risk premium

(Source: Aswath Damodaran, 2012)

$$\begin{aligned} &\text{LOOP's equity risk premium} \\ &= \text{Base premium for mature equity market} + \text{Vietnam's risk premium} \\ &= 4.38\% + 3.02\% = 7.4\% \end{aligned}$$

Figure 38. Equity risk premium of LOOP

(Source: Authors)

5.16.4. Cost of equity

Once all the components are in place, the calculation for LOOP's cost of equity becomes a piece of cake. And since the company's WACC is also equal to this rate, it will be used as the discount rate for all LOOP's CFs, from CapEx, changes in non-cash NWC, to operating CFs, and the terminal value.

$$\begin{aligned} &\text{LOOP's cost of equity} \\ &= \text{Risk-free rate} + \text{Beta relative to market portfolio} * \text{Equity risk premium} \\ &= 3.52\% + 0.67 * 7.4\% = 8.51\% \end{aligned}$$

Figure 39. The result when apply CAPM for LOOP

(Source: Authors)

5.17. Stable growth rate and Terminal value

As it is impossible to forecast CFs in a long time horizon, the sum of all CF incurs after the high-growth period will be calculated via the terminal value (Aswath Damodaran, 2012).

<p>Terminal value = $\frac{FCF_n * (1 + g)}{WACC - g}$ where</p> <p style="text-align: center;"><i>FCF_n</i> = Free cash flow of the last year in the high-growth period</p> <p style="text-align: center;"><i>g</i> = Firm's stable long-term growth rate</p> <p style="text-align: center;"><i>WACC</i> = Firm's weighted-average cost of capital</p>

Figure 40. Formula of terminal value

(Source: Aswath Damodaran, 2012)

When applying the above formula, the value of the variable *g* must first not violate the boundary 8.51% set by LOOP's WACC. At the same time, this growth rate can not exceed the growth rate of Vietnam's economy as a whole to avoid the terminal value being manipulated and yield an unreasonably high number. According to the latest outlook issued in October, Vietnam's prospects are forecasted attractive as the growth of the real GDP from 2026 afterward equals 6.9% (International Monetary Fund, 2021). Considering both benchmarks, the long-term growth of LOOP at the rate of 5% would be a decent number.

6. Contingency plan

6.1. Risk analysis

Risk management plays a critical role since risks threaten LOOP's ability to fulfill the company's missions and vision. Risks can happen at any time and for a variety of reasons, from inside, outside, or both. For the project to achieve the goals set by the team, several risks need to be avoided and contingency plans established to minimize the effect on the project's goals.

6.1.1. Risk from the human factor

LOOP acknowledges that human resources are among the most important factors for any company's success, but this can also be a liability if not managed correctly. This is why LOOP will provide employees countless appealing policies such as:

- New recruits will be able to participate in skill courses organized by the company and will be offered assistance by colleagues within their department.
- Long-time and dedicated employees will have the opportunity to take management classes to gain more experience and degrees to advance in careers.

- Health is also a crucial issue that comes to LOOP's attention. So, the staff here will work according to office hours and have holidays and permission to take some days off.
- Along with the monthly based salary and benefits, there are annual team-building events is to shape the corporate culture so that the most dynamic, comfortable, and effective working environment can be integrated.

6.1.2. Risk from cyber attacks

Since LOOP operates a platform, one of the biggest obstacles is technical issues such as server crashes, encryption attacks to obstruct or steal data, etc. Therefore, having a professional IT team is extremely important to provide customers with the safest experience.

Basic measures to protect the platform include a firewall system and two-step authorizations. Each transaction will also be performed according to Secure Sockets Layer (SSL) criteria. Customers' confidential information will be protected in the system server which will be checked daily and updated, maintained periodically to avoid viruses and malicious software.

In addition, losing the website domain is a serious problem that can cause the loss of many customers. Thus, the domain address will be registered with a reliable partner to protect business copyright. Furthermore, LOOP will educate staff about IT security to protect both the project and the users. Some activities will also be recorded in hard copies to ensure the information security.

6.1.3. Financial risks

All financial risks must be considered carefully for a startup. For that reason, including in this business plan, several possible scenarios have already been anticipated. In addition, to prevent cases where those projections go wrong and more costs will incur and devastate, the founders have agreed to contribute personal capital to establish a reserve fund to protect the brainchild of the whole group in the event of bad situations.

There is also the risk of lacking capital. In case personal savings is not enough for initial investments, the group will borrow more from family members and close friends.

In case the first 6 months of revenue is too low, the team will meet to find out the reasons and cut unnecessary expenses. Worst case scenario that the project cannot generate revenue due to the model project is not suitable with the current market, LOOP will consider restructuring the business model, or temporarily delay the company's activities until the pandemic is over.

6.1.4. Risk from competitors

In any market, unfair competition or copying business models is inevitable as a newcomer. Fortunately, there are few competitors in the round-use containers field, and in addition, their market shares are not large, so the threat of competitors is not dangerous enough to threaten the company's development. This is the motivation for LOOP to take advantage of the available resources to innovate and become one of the leading Crowd logistics businesses.

6.1.5. Risk from the COVID-19 pandemic

Over the past two years, the economy had been negatively affected by the COVID-19 pandemic. Logistics activities have encountered a wide range of difficulties due to border restrictions. To adapt to this situation, LOOP will comply with all COVID prevention and control measures. In addition, all employees are required to wear protective masks during working hours if in need. And if the pandemic gets even worse, people will work from home through Google Meet or Skype.

However, for every cloud, there is a silver lining. The COVID pandemic is a wake-up call for the logistic industry to realize how serious the container shortage issue was. And from there, it creates business opportunities for LOOP to develop this container round-use container.

6.2. Future orientations

Vietnam's logistics and import-export industries are mainly operating manually, although technology is an emerging trend in the industrial revolution 4.0. In addition to that, due to the COVID-19, the tremendous shortage of containers is worsened and brings many disadvantages. As a result, to take advantage of potentials, rather than only providing the round-use service, LOOP plans to more logistics solutions in the future.

One that LOOP might consider developing in the future will allow the empty drop-off and pick-up locations to be changed rather than bringing containers back to original depots. Information between ports will be updated on the platform, and customers can search the available empty containers. Additionally, suitable shipping routes will also be recommended. Another potential service for LOOP to offer is a marketplace for container rental.

REFERENCE LIST

Book

1. Aswath Damodaran (2012). *Investment valuation: Tools and techniques for determining the value of any asset* (3rd edition). New Jersey: John Wiley & Sons, Inc.
2. Belay Seyoum (2021). *Export-Import theory, practices, and procedures* (4th edition). New York: Taylor & Francis Group
3. John D. Ashcroft & Janet E. Ashcroft (2011). *Law for Business* (17th edition). Ohio: South-Western Cengage Learning
4. N. Gregory Mankiw (2021). *Principles of Economics* (9th edition). Ohio: South-Western Cengage Learning
5. Robert Parrino, David S. Kidwell, Thomas W. Bates (2012). *Fundamentals of corporate finance* (2nd edition). New Jersey: John Wiley & Sons, Inc.

Journal article

Heleen Buldeo Rai, Sara Verlinde, Jan Merckx, Cathy Macharis (2017). *Crowd logistics: an opportunity for more sustainable urban freight transport?* DOI: 10.1007/s12544-017-0256-6\

Online document

1. Alibaba Group Holding Limited (2021). *Annual report for the fiscal year ended on 31 March 2021*. Available at <https://doc.irasia.com/listco/hk/alibabagroup/annual/2021/ar2021.pdf> [Accessed at 17 Dec. 2021]
2. Aswath Damodaran (2021). *Useful data sets*. Available at http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datacurrent.html [Accessed at 17 Dec. 2021]
3. Bitex JSC. (20221). *Price after VAT for Casio calculator*. Available at <https://bitex.com.vn/vn/san-pham/1134/may-tinh-kho-casio-mp12r.html> [Accessed at 17 Dec. 2021]
4. Boston Consulting Group (2015). *Think outside your boxes: Solving the global container-repositioning puzzle*. Available at <https://www.bcg.com/publications/2015/transportation-travel-logistics-think-outside-your-boxes-solving-global-container-repositioning-puzzle> [Accessed at 17 Dec. 2021]

5. CafeF of VCCorp (2020). *Exporters face difficulties due to the lack of empty containers*. Available at <https://cafef.vn/doanh-nghiep-xuat-khau-gap-kho-vi-thieu-container-rong-20201126082049598.chn> [Accessed at 17 Dec. 2021]
6. Camera HikVision (2021). *Price after VAT for Camera set*. Available at <https://camerahik.vn/tron-bo-camera/> [Accessed at 17 Dec. 2021]
7. Center for WTO and International trade (2021a). *Exports and imports of main goods to members of CPTPP in July 2021*. Available at <https://trungtamwto.vn/chuyen-de/18598-tinh-hinh-xnk-mot-so-mat-hang-chinh-sang-cac-nuoc-thanh-vien-cptpp-thang-072021> [Accessed at 17 Dec. 2021]
8. Center for WTO and International trade (2021b). *Exports and imports of main goods to the United Kingdom in July 2021*. Available at <https://trungtamwto.vn/chuyen-de/18597-tinh-hinh-xnk-mot-so-mat-hang-chinh-sang-vuong-quoc-anh-thang-72021> [Accessed at 17 Dec. 2021]
9. Center for WTO and International trade (2021c). *FTAs of Vietnam*. Available at <https://wtocenter.vn/thong-ke/13814-vietnams-ftas-summary-as-of-april-2019> [Accessed at 17 Dec. 2021]
10. CMA CGM (2020a). *Thailand – Container Reuse Fee*. Available at <http://www.cma-cgm.com/local/thailand/news/149/thailand-container-reuse-fee> [Accessed at 17 Dec. 2021]
11. CMA CGM (2021b). *Vietnam – Local charges*. Available at http://www.cma-cgm.com/static/VN/attachments/VIETNAM%20-%20LOCAL%20SCES_EXP%2026-10-21.pdf [Accessed at 17 Dec. 2021]
12. CMA CGM (2021c). *Philippines – Local charges*. Available at <http://www.cma-cgm.com/static/PH/attachments/PHILIPPINES%20-%20LOCAL%20SCES%2002-09-21.pdf> [Accessed at 17 Dec. 2021]
13. CMC Corporation (2021). *Audited consolidated financial statements for the six-month period ended 30 September 2021*. Available at <https://cdn.cmc.com.vn/img/posts/files/20211129%20-%20CMG%20-%20BCTC%20Hop%20nhat%20Ban%20nien%20soat%20xet%202021.signed.pdf> [Accessed at 17 Dec. 2021]
14. Constitution Research magazine (2020). *The prospects of Vietnam’s economy in 2020 and the upcoming period*. Available at

- <http://lapphap.vn/Pages/tintuc/tinchitiet.aspx?tintucid=210469> [Accessed at 17 Dec. 2021]
15. Container xChange (2021). *Want to avoid empty container transport? Leverage new partners*. Available at <https://www.container-xchange.com/blog/empty-container-transport/> [Accessed at 17 Dec. 2021]
 16. Drewry Shipping Consultants Limited (2021). *Who wants to be a (multi) billionaire?* Available at <https://www.drewry.co.uk/container-insight-weekly/weekly-feature-articles/who-wants-to-be-a-multi-billionaire> [Accessed at 17 Dec. 2021]
 17. Duy Tan Plastics (2021). *Price after VAT for Trash bin*. Available at <http://nhuaduytansale.com/thung-rac-eco-1-ngan-duy-tan> [Accessed at 17 Dec. 2021]
 18. ELCOM JSC. (2021). *Audited consolidated financial statements for the six-month period ended 30 June 2021*. Available at https://drive.google.com/drive/folders/1rJrAlsPb53U4VSqEhFv-Nh_We-owwJhv [Accessed at 17 Dec. 2021]
 19. EVN Hanoi (2021a). *Time frames of electric consumption*. Available at <https://evnhanoi.vn/assets/FileUpload/TaiLieuGiaBanDien/9.pdf> [Accessed at 17 Dec. 2021]
 20. EVN Hanoi (2021b). *Selling price of electric city in different time frames*. Available at <https://evnhanoi.vn/assets/FileUpload/TaiLieuGiaBanDien/3.pdf> [Accessed at 17 Dec. 2021]
 21. Federal Reserve System (2021). *The average interest rate of long-term inflation-indexed securities*. Available at <https://www.federalreserve.gov/releases/h15/> [Accessed at 17 Dec. 2021]
 22. Forbes Technology Council (2019). *Securing your supply chain: Where is the weakest link?* Available at <https://www.forbes.com/sites/forbestechcouncil/2019/01/30/securing-your-supply-chain-where-is-the-weakest-link/?sh=7df735c75403> [Accessed at 17 Dec. 2021]
 23. FPT Corporation (2021). *Audited consolidated financial statements for the six-month period ended 30 June 2021*. Available at https://fpt.com.vn/Images/files/cong-bo/2021/0819---FPT---BCTC-hop-nhat-soat-xet-ban-nien_TA.pdf [Accessed at 17 Dec. 2021]

24. General Statistics Office (2017). *Statistical handbook of Vietnam in 2016*. Available at <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/03/nien-giam-thong-ke-tom-tat-2016/> [Accessed at 17 Dec. 2021]
25. General Statistics Office (2018). *Statistical handbook of Vietnam in 2017*. Available at <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/10/nien-giam-thong-ke-2017-2/> [Accessed at 17 Dec. 2021]
26. General Statistics Office (2019). *Statistical handbook of Vietnam in 2018*. Available at <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2019/10/nien-giam-thong-ke-tom-tat-2018/> [Accessed at 17 Dec. 2021]
27. General Statistics Office (2020). *Statistical handbook of Vietnam in 2019*. Available at <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2020/09/nien-giam-thong-ke-tom-tat-2019/> [Accessed at 17 Dec. 2021]
28. General Statistics Office (2021a). *Statistical handbook of Vietnam in 2020*. Available at <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2021/07/nien-giam-thong-ke-tom-tat-2020/> [Accessed at 17 Dec. 2021]
29. General Statistics Office (2021b). *Press release of the economic and social situation during the third quarter and the first 9 months of 2021*. Available at <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2021/09/thong-cao-bao-chi-tinh-hinh-kinh-te-xa-hoi-quy-iii-va-9-thang-nam-2021/> [Accessed at 17 Dec. 2021]
30. Government portal (2008). *Law of Value-added tax*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id=70797 [Accessed at 17 Dec. 2021]
31. Government portal (2013). *Circular number 45/2013/TT-BTC signed by Ministry of Finance about “Guidance to manage, use, and depreciate fixed assets”*. Available at <http://congbao.chinhphu.vn/loi-dung-van-ban-so-45-2013-tt-btc-4118> [Accessed at 17 Dec. 2021]
32. Government portal (2015). *Law of Cyber information security*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id=183196 [Accessed at 17 Dec. 2021]
33. Government portal (2016a). *Decree number 139/2016/NĐ-CP signed by Vietnam’s Government about “Regulations of the business license tax”*. Available at <http://congbao.chinhphu.vn/loi-dung-van-ban-so-139-2016-nd-cp-21056> [Accessed at 17 Dec. 2021]

34. Government portal (2016b). *Circular number 211/2016/TT-BTC signed by Ministry of Finance about “Costs to acquire copyright”*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id=188434 [Accessed at 17 Dec. 2021]
35. Government portal (2017). *Decision number 677/QĐ-TTg signed by Prime Minister to approve the proposal of “Developing digital knowledge for Vietnamese”*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=2&_page=1&mode=detail&document_id=189859 [Accessed at 17 Dec. 2021]
36. Government portal (2020a). *Decision number 283/QĐ-TTG signed by Prime Minister to approve the proposal of “Plan to restructure service industries in 2020, with a vision to 2025”*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=2&_page=1&mode=detail&document_id=199216 [Accessed at 17 Dec. 2021]
37. Government portal (2020b). *Decree number 22/2020/NĐ-CP signed by Vietnam’s Government about “Adjustments for Decree number 139/2016/NĐ-CP about Regulations of the business license tax”*. Available at <http://congbao.chinhphu.vn/loi-dung-van-ban-so-22-2020-nd-cp-30787> [Accessed at 17 Dec. 2021]
38. Government portal (2020c). *Law of Enterprises*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id=200447 [Accessed at 17 Dec. 2021]
39. Government portal (2020d). *Resolution number 136/NQ-CP signed by Vietnam’s Government about “Sustainable development”*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=2&_page=1&mode=detail&document_id=201074 [Accessed at 17 Dec. 2021]
40. Government portal (2021a). *Decree number 85/2021/NĐ-CP signed by Vietnam’s Government about “Modifying the decree 52/2013/NĐ-CP about e-commerce”*. Available at http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id=204191 [Accessed at 17 Dec. 2021]
41. Government portal (2021b). *Decision number 677/QĐ-TTg signed by Prime Minister about “National strategy for a green development from 2021 to 2030, with the vision to 2050”*. Available at

http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=2&page=1&mode=detail&document_id=204226 [Accessed at 17 Dec. 2021]

42. Government Technology Agency of Singapore (2018). *ABCD: Not as easy as you might think*. Available at <https://www.tech.gov.sg/media/technews/stack-18-abcd-ot-as-easy-as-you-might-think> [Accessed at 17 Dec. 2021]
43. Hai Phong Port JSC. (2020). *Decision number 66/2021/QĐ-CHP about “Fees of seaport services for shippers and inland transport ship owners”*. Available at <https://haiphongport.com.vn/FileUpload/Documents/Cuoc%202021/66.pdf> [Accessed at 17 Dec. 2021]
44. Hanoi Stock Exchange (2021). *Yield curve on 16th December 2021*. Available at <https://hnx.vn/vi-vn/trai-phieu/duong-cong-loi-suat.html?site=in> [Accessed at 17 Dec. 2021]
45. Hawacom LLC. (2021). *Announcement of rates used to compute water bills*. Available at <http://hddt.nshn.com.vn/ThongTinGiaNuoc.aspx> [Accessed at 17 Dec. 2021]
46. HC LLC. (2021). *Price after VAT for Landline telephone*. Available at <https://www.hc.com.vn/ords/p--dt-keo-dai-panasonic-kx-tgf320cx> [Accessed at 17 Dec. 2021]
47. Hoa My – The cleaning service company (2021). *Price quoted for office daily cleaning service in 2021*. Available at <https://vesinhhoamy.com/bang-bao-gia-dich-vu-ve-sinh-van-phong-2021> [Accessed at 17 Dec. 2021]
48. Hoa Phat Interior (2021a). *Price after VAT for Module of working tables*. Available at <https://hoaphat.net/module-ban-lam-viec-hrmd02.html> [Accessed at 17 Dec. 2021]
49. Hoa Phat Interior (2021b). *Price after VAT for Meeting table*. Available at <https://hoaphat.net/ban-hop-hrh4016h2.html> [Accessed at 17 Dec. 2021]
50. Hoa Phat Interior (2021c). *Price after VAT for Meeting chair*. Available at <https://hoaphat.net/ghe-hop-gl423.html> [Accessed at 17 Dec. 2021]
51. Hoa Phat Interior (2021d). *Price after VAT for Director’s table*. Available at <https://hoaphat.net/ban-giam-doc-luxb2620v4.html> [Accessed at 17 Dec. 2021]
52. Hoa Phat Interior (2021e). *Price after VAT for Director’s chair*. Available at <https://hoaphat.net/ghe-giam-doc-tq11.html> [Accessed at 17 Dec. 2021]
53. Hoa Phat Interior (2021f). *Price after VAT for Manager’s table*. Available at <https://hoaphat.net/ban-lanh-dao-hr160c2.html> [Accessed at 17 Dec. 2021]

54. Hoa Phat Interior (2021g). *Price after VAT for Manager's chair*. Available at <https://hoaphat.net/ghe-xoay-sg929.html> [Accessed at 17 Dec. 2021]
55. Hoa Phat Interior (2021h). *Price after VAT for Sofa*. Available at <https://hoaphat.net/bo-ghe-sofa-sf12dp.html> [Accessed at 17 Dec. 2021]
56. Hoa Phat Interior (2021i). *Price after VAT for Tea table*. Available at <https://hoaphat.net/ban-sofa-bsf301.html> [Accessed at 17 Dec. 2021]
57. Hoa Phat Interior (2021j). *Price after VAT for Front desk*. Available at <https://hoaphat.net/ban-quay-le-tan-bq103-18.html> [Accessed at 17 Dec. 2021]
58. Hoa Phat Interior (2021k). *Price after VAT for Safe*. Available at <https://hoaphat.net/ket-sat-cao-cap-lg208k1c1.html> [Accessed at 17 Dec. 2021]
59. Hoa Phat Interior (2021l). *Price after VAT for Filling cabinet*. Available at <https://hoaphat.net/tu-ho-so-sat-tu09k7ck.html> [Accessed at 17 Dec. 2021]
60. Hoa Phat Interior (2021m). *Price after VAT for White writing board*. Available at <https://noithathoaphat.net/san-pham/bang-tu-trang-1-2x1-0m> [Accessed at 17 Dec. 2021]
61. HPG News of Hoa Phat Group (2021). *Hoa Phat will build a factory producing containers in June 2021 in Ba Ria Vung Tau*. Available at <https://www.hoaphat.com.vn/tin-tuc/hoa-phat-se-khoi-cong-nha-may-vo-container-ngay-trong-thang-6-2021-ta-i-ba-ria-vung-tau.html> [Accessed at 17 Dec. 2021]
62. IFRS Foundation (2021). *International accounting standard number 38 (IAS38) about "Intangible assets"*. Available at <https://www.ifrs.org/issued-standards/list-of-standards/ias-38-intangible-assets.html/content/dam/ifrs/publications/html-standards/english/2021/issued/ias38/> [Accessed at 17 Dec. 2021]
63. Intellectual property office of Vietnam (2021). *Fees to register trademarks*. Available at https://www.ipvietnam.gov.vn/vi_VN/web/guest/nhan-hieu [Accessed at 17 Dec. 2021]
64. International Monetary Fund (2021). *World economic outlook October 2021*. Available at <https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021#statistical> [Accessed at 17 Dec. 2021]
65. ITD group (2021). *Audited consolidated financial statements for the six-month period ended 31 March 2021*. Available at <https://www.itd.com.vn/wp-content/uploads/2021/11/20211129-%E2%80%93ITD-%E2%80%93Bao-cao-soat-xet-ban-nien-hop-nhat-nam-2021.pdf> [Accessed at 17 Dec. 2021]

66. La Vie LLC. (2021). *Price for a 19L bottle of drinking water*. Available at <https://www.laviewater.com/vi/san-pham/?location=bac> [Accessed at 17 Dec. 2021]
67. Labour News of VCCorp (2020). *Lack of containers for exporting*. Available at <https://nld.com.vn/kinh-te/thieu-container-dong-hang-xuat-khau-2020112521323596.htm> [Accessed at 17 Dec. 2021]
68. Matchbox Exchange Ltd. (2021). *The announcement of the partnership with Hapag-Lloyd in Vietnam*. Available at https://www.linkedin.com/posts/matchboxexchange_hapaglloyd-matchboxexchange-logisticssolutions-activity-684559276574239162368-4lEb [Accessed at 17 Dec. 2021]
69. Minh Long LLC. (2021a). *Price after VAT for Tea set*. Available at <https://minhlong.com/vi/san-pham/chi-tiet/511/bo-tra-08-l-hoang-cung-sen-vang.html> [Accessed at 17 Dec. 2021]
70. Minh Long LLC. (2021b). *Price after VAT for Flower vase*. Available at <https://minhlong.com/vi/san-pham/chi-tiet/32/gio-hoa-22-cm-sen-vang.html> [Accessed at 17 Dec. 2021]
71. Ministry of Industry and Trade (2019). *Report of Vietnam's logistics 2019*. Available at <https://gosmartlog.com/wp-content/uploads/2019/12/Bao-cao-logistics-viet-nam-2019.pdf> [Accessed at 17 Dec. 2021]
72. Ministry of Industry and Trade (2020). *Report of Vietnam's logistics 2020*. Available at <https://gosmartlog.com/wp-content/uploads/2020/12/Ba%CC%81o-ca%CC%81o-Logistics-Vie%CC%A3%CC%82t-Nam-2020.pdf> [Accessed at 17 Dec. 2021]
73. Ministry of Transport (2020). *Decision number 1041/QĐ-BGTVT about "List of ICDs in Vietnam"*. Available at <https://luatvietnam.vn/giao-thong/quyet-dinh-1041-qd-bgtvt-2020-danh-muc-cang-can-viet-nam-184023-d1.html> [Accessed at 17 Dec. 2021]
74. Misa JSC. (2021). *The accounting software Misa SME*. Available at <https://sme.misa.vn/> [Accessed at 17 Dec. 2021]
75. Nguyen Kim JSC. (2021a). *Price after VAT for Television*. Available at <https://www.nguyenkim.com/smart-tivi-samsung-crystal-uhd-4k-50-inch-ua50au7000kxxv.html> [Accessed at 17 Dec. 2021]
76. Nguyen Kim JSC. (2021b). *Price after VAT for Electric kettle*. Available at <https://www.nguyenkim.com/binh-dun-sieu-toc-philips-hd9316.html> [Accessed at 17 Dec. 2021]

77. Nguyen Kim JSC. (2021c). *Price after VAT for Hot-cold water dispenser*. Available at <https://www.nguyenkim.com/may-nuoc-nong-lanh-toshiba-rwf-w1830bv-k.html> [Accessed at 17 Dec. 2021]
78. Nguyen Kim JSC. (2021d). *Price after VAT for Stand-up fan*. Available at <https://www.nguyenkim.com/quat-dung-kdk-m40k-vang-sam-panh.html> [Accessed at 17 Dec. 2021]
79. Organization for Economic Cooperation and Development OECD (2021). *Container transport*. Available at <https://data.oecd.org/transport/container-transport.htm> [Accessed at 17 Dec. 2021]
80. Phuc Anh LLC. (2021a). *Price after VAT for Photocopier*. Available at <https://www.phucanh.vn/may-photocopy-fuji-xerox-2060-cps-copy-print-scan-dadf-duplex.html> [Accessed at 17 Dec. 2021]
81. Phuc Anh LLC. (2021b). *Price after VAT for iMac*. Available at <https://www.phucanh.vn/may-tinh-all-in-one-apple-imac-mxwv2-sa/a-27.0inch-core-i7/8gb/512gb-ssd/radeon-pro/mac-os-x.html> [Accessed at 17 Dec. 2021]
82. Phuc Anh LLC. (2021c). *Price after VAT for Call center headphone*. Available at <https://www.phucanh.vn/tai-nghe-logitech-h570e.html> [Accessed at 17 Dec. 2021]
83. Phuc Anh LLC. (2021d). *Price after VAT for Attendance machine*. Available at <https://www.phucanh.vn/may-cham-cong-van-tay-the-tu-ronald-jack-x628t-id.html> [Accessed at 17 Dec. 2021]
84. PwC Inc. (2016). *Shifting patterns: The future of the logistics industry*. Available at <https://www.pwc.com/sg/en/publications/assets/future-of-the-logistics-industry.pdf> [Accessed at 17 Dec. 2021]
85. PwC Inc. (2020a). *Analysis of the potential impacts of COVID-19 on Vietnamese economy*. Available at <https://www.pwc.com/vn/en/publications/2020/pwc-vietnam-covid-19-vietnam-economy-and-export.pdf> [Accessed at 17 Dec. 2021]
86. PwC Inc. (2020b). *Vietnam pocket tax book 2021*. Available at <https://www.pwc.com/vn/vn/publications/2021/pwc-vietnam-ptb-2021-vn.pdf> [Accessed at 17 Dec. 2021]
87. Smartlog Supply chain Solutions joint-stock company (2021a). *Development history of Smartlog*. Available at <https://gosmartlog.com/lich-su-hinh-thanh> [Accessed at 17 Dec. 2021]

88. Smartlog Supply chain Solutions joint-stock company (2021b). *The board of management at Smartlog*. Available at <https://gosmartlog.com/gioi-thieu/> [Accessed at 17 Dec. 2021]
89. Smartlog Supply chain Solutions joint-stock company (2021c). *The official website of Container Optimization Solutions*. Available at <https://cos.gosmartlog.com/> [Accessed at 17 Dec. 2021]
90. Tien Phong News (2021). *Lacking empty containers, ocean freights for export-import surged*. Available at <https://tienphong.vn/thieu-vo-container-cuoc-van-tai-xuat-nhap-khau-tang-vot-post1317028.tpo> [Accessed at 17 Dec. 2021]
91. United Nations Conference on Trade and Development UNCTAD (2005). *Negotiation on transport and logistics services: Issues to consider*. Available at https://unctad.org/system/files/official-document/sdtetlb20053_en.pdf [Accessed at 17 Dec. 2021]
92. Vietcombank - Bank for Foreign Trade of Vietnam (2021). *Bank account service fees*. Available at <https://portal.vietcombank.com.vn/content/Corporate/BieuPhi/Kh%C3%A1ch%20h%C3%A0ng%20Doanh%20nghi%E1%BB%87p/Bi%E1%BB%83u%20ph%C3%AD%20t%C3%A0i%20kho%E1%BA%A3n%20doanh%20nghi%E1%BB%87p/Bieu%20phi%20dich%20vu%20tai%20khoan.pdf> [Accessed at 17 Dec. 2021]
93. Vietnam Logistics Association (2018). *VLA Whitebook 2018*. Available at <https://drive.google.com/file/d/1N2J-oyzyx6YZG7datze3Ty2kVAVhDiy5/view> [Accessed at 17 Dec. 2021]
94. Vietnam Logistics Review magazine (2020). *The current situation of the shortage of empty containers and solutions*. Available at <https://vlr.vn/trong-nuoc/thuc-trang-thieu-hut-container-rong-va-cac-giai-phap-khac-phuc-6735.vlr> [Accessed at 17 Dec. 2021]
95. Vietnam Maritime Administration (2016). *The statistics of 2015*. Available at <https://vinamarine.gov.vn/f/1385.CHHVN-VTDVHH.signed.pdf> [Accessed at 17 Dec. 2021]
96. Vietnam Maritime Administration (2017). *Amount of goods fulfilled customs clearance in 2016*. Available at <https://vinamarine.gov.vn/vi/loi-dung/khoi-luong-hang-hoa-thong-qua-cang-bien-t-122016-0> [Accessed at 17 Dec. 2021]

97. Vietnam Maritime Administration (2019). *Amount of goods fulfilled customs clearance in 2018*. Available at <https://vinamarine.gov.vn/vi/loi-dung/khoi-luong-hang-hoa-thong-qua-cang-bien-nam-2018> [Accessed at 17 Dec. 2021]
98. Vietnam Maritime Administration (2021). *The statistics of March 2021 and the whole of 2020*. Available at <https://vinamarine.gov.vn/f/984.CHHVN-VTDVHH001.signed.pdf> [Accessed at 17 Dec. 2021]
99. Viettel IDC (2021a). *Viettel Dedicated Private Cloud (vDPC)*. Available at <https://www.viettelidc.com.vn/dedicated-private-cloud> [Accessed at 17 Dec. 2021]
100. Viettel IDC (2021b). *Viettel domain*. Available at <https://www.viettelidc.com.vn/ten-mien-domain> [Accessed at 17 Dec. 2021]
101. Viettel IDC (2021c). *Viettel web hosting*. Available at <https://www.viettelidc.com.vn/web-hosting> [Accessed at 17 Dec. 2021]
102. Viettel Solutions (2021). *1900 Prefix Service*. Available at <https://solutions.viettel.vn/en/telecommunication/1900-prefix-service.html> [Accessed at 17 Dec. 2021]
103. Viettel Telecom (2021a). *The Internet package SUPERNET4*. Available at <https://vietteltelecom.vn/internet-truyenhinh/goi-cuoc/supernet4-2> [Accessed at 17 Dec. 2021]
104. Viettel Telecom (2021b). *The digital invoice package HD20000*. Available at <https://viettel.vn/s-invoice> [Accessed at 17 Dec. 2021]
105. Viettel Telecom (2021c). *The digital signature service CA3 and CA3_GH*. Available at <https://viettel.vn/viettel-ca> [Accessed at 17 Dec. 2021]
106. VnExpress (2021). *Enterprises want to free thousands of derelict containers at seaports*. Available at <https://vnexpress.net/doanh-nghiep-muon-giai-toa-hang-nghin-container-vo-chu-o-cang-4220343.html> [Accessed at 17 Dec. 2021]
107. VNPT Vinaphone (2021). *The landline telephone service V99*. Available at <https://vnpt.com.vn/bang-rong-co-dinh/v99/> [Accessed at 17 Dec. 2021]
108. VOV - Voice of Vietnam (2021a). *Can't expect to take 3,000 derelict containers as a source of empty containers for export*. Available at <https://vov.vn/kinh-te/khong-the-trong-vao-3000-container-vo-chu-de-lay-nguon-container-rong-cho-xuat-khau-831717.vov> [Accessed at 17 Dec. 2021]
109. VOV - Voice of Vietnam (2021b). *Ocean freight of containers have surged with impunity: Speculation from monopoly firms?* Available at

van-chuyen-container-tang-vo-toi-va-cay-the-doc-quyen-de-truc-loi-881958.vov

[Accessed at 17 Dec. 2021]

110. World Bank (2021). *Global recovery strong but uneven as many developing countries struggle with the pandemic's lasting effects*. Available at <https://www.worldbank.org/en/news/press-release/2021/06/08/world-bank-global-economic-prospects-2021> [Accessed at 17 Dec. 2021]
111. World Bank Indicator (2021). *International LPI*. Available at <https://lpi.worldbank.org/international/global> [Accessed at 17 Dec. 2021]
112. World Trade Organization WTO (2021). *Global trade rebound beats expectations but marked by regional divergences*. Available at https://www.wto.org/english/news_e/pres21_e/pr889_e.htm [Accessed at 17 Dec. 2021]
113. Vietnam national public service (2021). *The cost to get business license for a joint-stock company*. Available at https://dichvucong.gov.vn/p/home/dvc-chi-tiet-thu-tuc-nganh-doc.html?ma_thu_tuc=2.002034 [Accessed at 17 Dec. 2021]