

PLAN OF APPROACH

IDEXX B.V

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1. Preface

This is a Plan of Approach on research into IDEXX's transportation zone project and gain insight into the problem related to various company's processes. This Plan of Approach was written as a result of an internship for the minor Supply Chain Management of Saxion University of Applied Sciences. The aim of the project is to give IDEXX a clear picture of its issue and some suitable alternatives to resolve it based on the Lean Six Sigma knowledge teaching at school and real working experience in the company.

First of all, I would like to thank Martijn Vos and Debbie Simpson for the instructive assignment and the pleasant cooperation. I would also like to thank my tutors Gerhard Buning and Dirk Jan Wegman for the guidance and support during the time of the project.

I hope you enjoy the reading!

Trang Phan

Hoofddorp, October 30, 2023

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2. Introduction

IDEXX was founded in 1983 which is a global leader in pet healthcare innovation. The company's diagnostic and software products and services create clarity in a complex and evolving world (Idexx, 2023). The company develop, manufacture, and distribute products and provide services primarily for the companion animal veterinary, livestock and poultry, dairy and water testing industries. The company also provide human medical point-of-care. IDEXX's purpose is to be a great company that creates exceptional long-term value for the customers, employees, and stockholders by enhancing the health and well-being of pets, people, and livestock.

The company operates mainly through the three business segments: Companion Animal Group, Livestock, Poultry and Dairy, and Water quality products. Companion Animal Group ("CAG") is Diagnostic and information management-based products and services for the companion animal veterinary industry, including in-clinic diagnostic solutions, outside reference laboratory services, and veterinary software and services.

The products of the company mainly are consumables and instruments. Consumables are tests kits that support the equipment. Consumables are partly being produced by local suppliers and partly being shipped from the warehouse of IDEXX US. Instruments are the device or equipment that help veterinarians to run blood tests, urine tests and identify the illness of the pets. They are mainly manufactured and delivered from the warehouse in the US to IDEXX Europe.

For Asia and Africa regions, they have their main hubs in South Africa, China and Japan. The average number of packages is around 33,750 packages per month in 2018, with more than 99% being shipped in European region. The regions which IDEXX is mainly and partly responsible for, is European region.

Despite the fact that the company already has been using the advanced technology in order to assign the carriers of the transportation zone and proceed the tasks; it still has some issues related to preferred carriers of the customers which needs to be analyzed and improved during the process. The recommendations should be drawn from analysis in order to provide insights for the company's process improvement.

3. Problem

3.1 Introduction of the company

General company information

IDEXX Laboratories, Inc is an S&P 500 Index company, is a pioneer in pet healthcare innovation, providing diagnostic and information technology-based products and services to veterinarians worldwide. The company is headquartered in southern Maine and operates in over 70 sites worldwide, serving consumers in over 175 countries. The number of employees globally is more than 12,000. (Idexx, 2023)

The primary focus is on pet health, which is a booming sector globally. The products—in-clinic diagnostic tests and instrumentation, reference laboratory and telemedicine consultation services, and practice management software—improve veterinarians' ability to provide advanced medical care, increase staff efficiency, and build more financially successful practices. Company's innovations help ensure the safety of milk and water around the world. (Idexx, 2023). The worldwide locations of business activities are shown in the map below:

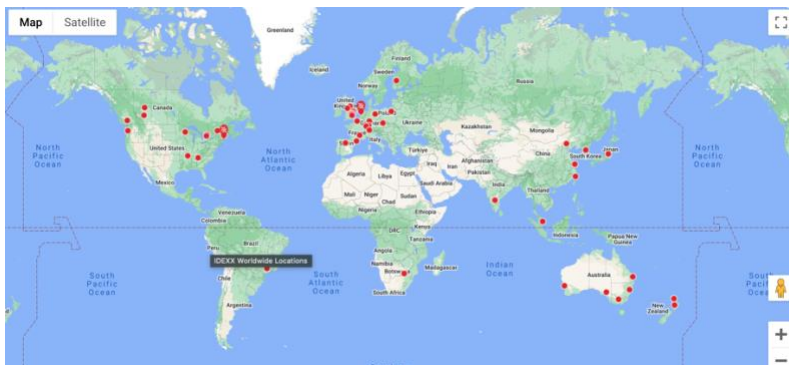


Figure 1: Worldwide locations

(IDEXX, 2023)

The primary products and services are:

- Point-of-care veterinary diagnostic products, comprised of instruments, consumables, and rapid assay test kits.
- Veterinary reference laboratory diagnostic and consulting services.

- Practice management and diagnostic imaging systems and services used by veterinarians.
 - Health monitoring, biological materials testing, laboratory diagnostic instruments, and services used by the biomedical research community.
 - Diagnostic, health-monitoring products for livestock, poultry, and dairy.
 - Products that test water for certain microbiological contaminants.
 - Point-of-care electrolytes and blood gas analyzers.
- (Idexx, 2023)

Primary Facility Locations

Location	Functions	Own/ Lease
Westbrook, Maine	Worldwide Headquarters, principal executive offices	Own
Hoofddorp, Netherlands	Distribution center, warehousing, International administrative offices	Lease
Memphis, Tennessee	Distribution Center and Reference Lab	Lease
Kornwestheim, Germany	Reference Lab	Own
Wetherby, United Kingdom	Reference Lab	Lease
Newmarket, United Kingdom	Water manufacturing	Lease
Bern, Switzerland	LPD manufacturing	Lease
Montpellier, France	LPD manufacturing	Lease
Roswell, Georgia	OPTI Medical manufacturing	Lease

Table 1: Primary Facility Locations

(2022 Annual Report , 2022)

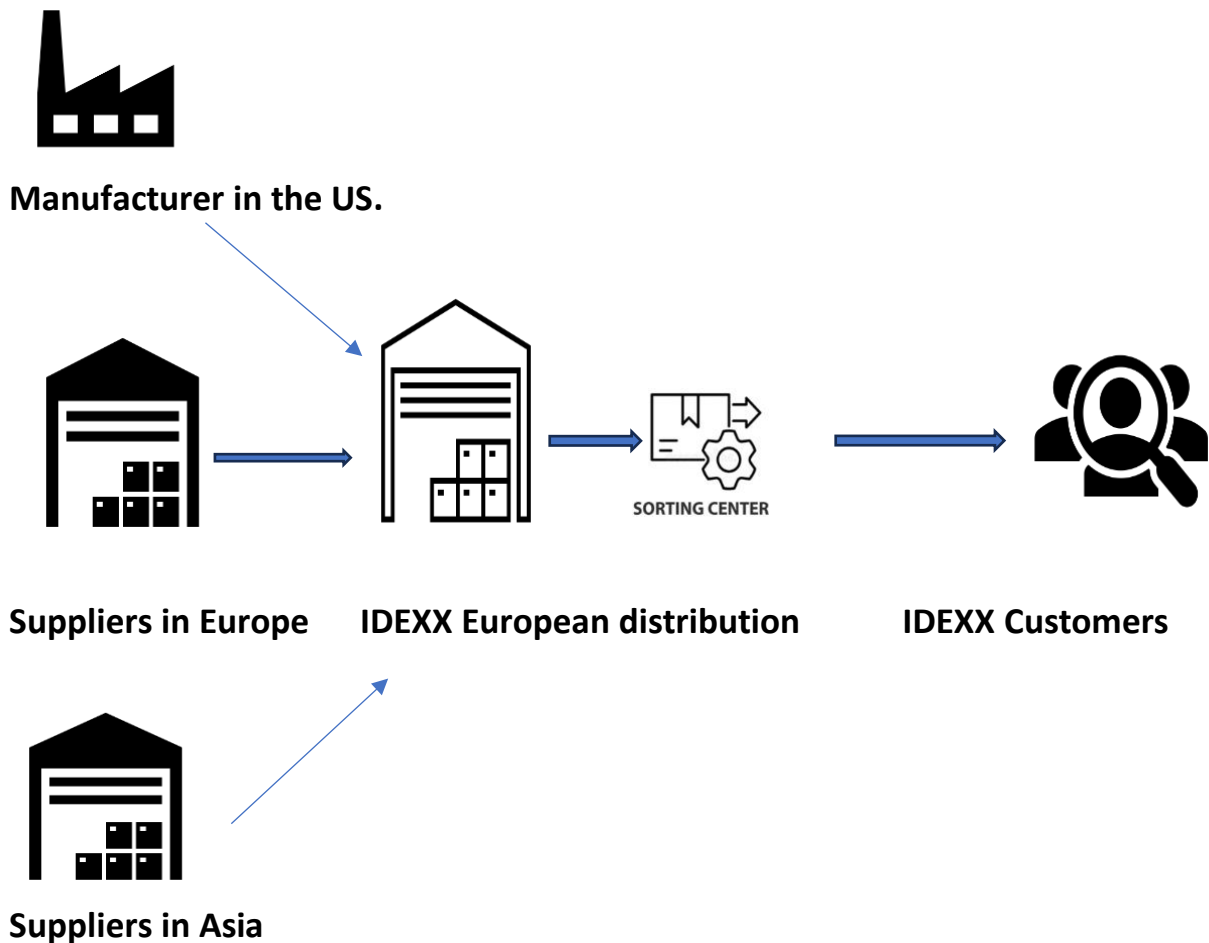


Figure 2: Overview of the flow of products at IDEXX Europe. Visualized by author (2023)

Mission & Vision of the company

The company designs and manufactures diagnostic tests and information for the global production animal business, including poultry and livestock. The mission of the company is to enhance the health and well-being of pets, people and livestock. The vision of the company is to contribute to something bigger than itself and to make a positive impact on a global scale. (Idexx, 2023)

Mission of Global Finance Business Operations

Provide back-office processing for all the tasks covered by the scope that is user-friendly, effective, and properly controlled.

For company analysis and the order to cash cycle, providing trustworthy customer master data. Ensuring that all LOBs have proper pricing in SAP and Processing instrument orders, EMAs/ICPs, and other requests that fall under our purview precisely and promptly. The team supports North America, EMEA and

Asia and you can find more information about FBO activities in each of these regions. (Idexx, 2023)

Financial figures

The total company organic revenue growth is about 7.4% in 2022 which reflects higher realized prices and continued demand for companion animal diagnostics globally. It is backed by an increase in CAG Diagnostics' recurring revenue, especially in the US. Revenue for the diagnostic imaging services and subscription-based veterinary software increased as well. In term of water business, it was primarily due to the benefit of price increases and higher testing volumes. Currency fluctuations had around 3.4% negative impact on total revenue growth. (2022 Annual Report , 2022). The table below shows the financial figures of company in details:

Net Revenue (dollars in thousands)	For the Years Ended December 31,			Reported Revenue Growth ⁽¹⁾	Percentage Change from Currency	Percentage Change from Acquisitions	Organic Revenue Growth ⁽¹⁾
	2022	2021	Dollar Change				
CAG	\$ 3,058,793	\$ 2,889,960	\$ 168,833	5.8%	(3.3%)	0.7 %	8.4%
<i>United States</i>	2,073,222	1,881,887	191,335	10.2%	—	0.9 %	9.3%
<i>International</i>	985,571	1,008,073	(22,502)	(2.2%)	(9.2%)	0.3 %	6.7%
Water	\$ 155,720	\$ 146,505	\$ 9,215	6.3%	(4.0%)	0.5 %	9.7%
<i>United States</i>	76,875	70,654	6,221	8.8%	—	—	8.8%
<i>International</i>	78,845	75,851	2,994	3.9%	(7.8%)	1.1 %	10.6%
LPD	\$ 122,607	\$ 135,887	\$ (13,280)	(9.8%)	(5.8%)	—	(4.0%)
<i>United States</i>	16,633	15,626	1,007	6.4%	—	—	6.4%
<i>International</i>	105,974	120,261	(14,287)	(11.9%)	(6.4%)	—	(5.4%)
Other	\$ 30,204	\$ 43,008	\$ (12,804)	(29.8%)	0.2%	—	(30.0%)
Total Company	\$ 3,367,324	\$ 3,215,360	\$ 151,964	4.7%	(3.4%)	0.7 %	7.4%
<i>United States</i>	2,182,959	1,995,683	187,276	9.4%	—	0.8 %	8.5%
<i>International</i>	1,184,365	1,219,677	(35,312)	(2.9%)	(8.7%)	0.3 %	5.5%

(1) Reported revenue growth and organic revenue growth may not recalculate due to rounding.

(2022 Annual Report , 2022)

Customers

IDEXX operates in more than 175 countries, and its customer base can vary from region to region. The company is known for its innovative diagnostic solutions, and its customers rely on their products and services to ensure the well-being of animals. The company operates globally, providing diagnostic and software solutions for veterinarians, livestock producers, pet owners, and other professionals in the animal health industry. Its customers are located in North America, Europe, Asia, and various other regions.

Competitors

The competitors of the company can vary depending on the specific product or service segment, but some of its key competitors in the animal health and diagnostics industry include:

1. **Zoetis:** Zoetis is a major player in the animal health industry and provides a wide range of products and services for veterinarians, livestock producers, and pet owners, including vaccines, diagnostics, and pharmaceuticals.
2. **Heska Corporation:** Heska offers a range of veterinary diagnostic and specialty products, including in-house laboratory equipment, allergy testing, and blood analysis instruments.
3. **Abaxis (now part of Zoetis):** Abaxis, before its acquisition by Zoetis, was known for its veterinary diagnostic products, including blood analyzers and reagents.
(Emergen research, 2023)

3.2 Problem analysis

3.2.1 Problem definition

Current situation

The Customer Master Data team has been using the Transportation Zone Excel file (created by Logistics team) manually for importing the post code and countries code in order to find the transportation zone during the process of creating new customers' account or customers' information changing, however it causes some issues such as time wasting or involving many steps when it comes to the large updates as well as the cost of shipping the wrong orders. In addition, the number of requests of the Warehouse and Logistics team are increasing constantly related to the update or change the transportation code in a large number so the company refers to have an

ideal way to proceed the process neatly and can save time for everyone who involved in the process.

The problem owner is Mattijs Vos who is a manager of CMF team, and he would like to know some primary analysis and recommendations related to the current situation which involved many parties.

Desired situation

The desired situation is to clearly understand the root cause or bottlenecks of the process and to have the transportation zone update automatically without manual intervention or inputs from the Customer Master Data team but still keeps the complex rules requested by the Transportation Team.

3.3 Those involved in the research (Stakeholder analysis)

Stakeholders	Functions
Customer Master Data Team	The team has seven members (including me) and one supervisor (Debbie Simpson) & one manager (Martijn Vos). The Customer Master Data mainly take charge of creating and maintaining Customer Database in SAP and works with other systems such as Salesforce, Winshuttle, & Intradexx. The team belongs to Financial Operations Department which processes and maintains the master business data of more than 37 countries.
Process Improvement Team	<p>Andre Helder – Process Improvement Project Coordinator, Global Warehousing & Logistics CoE.</p> <p>Jose Goa - Project Management Lead – Global Warehousing & Logistics CoE.</p> <p>Chau Nguyen – Data Analyst, Global Warehousing & Logistics CoE</p>
SAP team	Robert de Kok – Application Analyst - Principal 2 – IT SAP CoE
Customer Operations Support	Domenico Giambrone – Operations Customer Support Liaison

4. Objective and questions

4.1 Objective

To understand the on-going issue and propose the recommendations related to process improvements. The goal is to provide the solution to the client (Martijn Vos) who is the manager of Customer Master Data team by the end of the internship. The final presentation will be used as an answer for this research.

4.2 Research question, processes of company and sub-questions

4.2.1 Research question

“How can the company improve the transportation zone assignment process to ensure the customers linked with the right carriers ?”

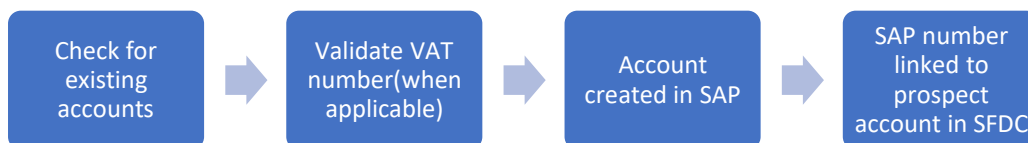
4.2.2 Processes of the company

Process in the CMF team (Customer Master Data) based on five main requests:

- Change basic accounts information.
- Change of fiscal data
- Change of Ownership data
- Customer Account Creation
- Mark for Deletion

1. Customer Account Creation

This type of request is related directly to the inputs of transportation zone code in SAP system. Therefore, it is explained in this part to clearly demonstrate the process by those steps:



2. Change basic accounts information.

The changes of general data include name, address, phone number, e-mail, e-communication.

The sale division changes include add/update partners, delivery priority, tax classification, incoterms, payment terms.

3. The process of using the transportation excel file in the CMF team.

When creating customer accounts, the customer master data team employees used the Excel file to import the postcode and a country code to identify the Transportation Zone in order to import into the SAP system.

4.2.3 Sub-questions

Define- Analyze-Measure

1. What is the current process for determining transportation zones and carrier assignments for customers?
2. Are there specific challenges or issues with the existing transportation zone data and carrier assignments?
3. What criteria are used to define transportation zones in the company's current system?
4. How are customers currently assigned to carriers, and what factors are considered in this process?
5. What feedback or complaints have been received from customers regarding carrier assignments and delivery experiences?
6. Are there any geographical or logistical considerations that need to be factored into transportation zone data?
7. What technologies or software tools are currently used to manage transportation zones and carrier assignments?
8. Are there data analytics or machine learning methods in place to optimize carrier assignments and improve accuracy?
9. How frequently is the transportation zone data updated, and is it done manually or automatically?
10. What strategies or improvements are competitors or industry leaders using to ensure accurate carrier assignments?
11. How many distribution centers in Europe?
12. What are the overviews of goods shipped to the customers?
13. What are the impacts of the transportation zone?
14. How are the customers with own preferred carrier handled?
15. How does the company plan to involve customers in the process to ensure their preferences are considered when assigning carriers?

Improve-Control

16. What are the potential costs and benefits associated with investing in better transportation zone data and carrier assignment systems?
17. What is the system and non-system solutions for the problem?
18. What actions must be taken to ensure improvements in the organization?
19. What training or education might be necessary for staff to implement and manage these improvements effectively?

5. Research methods

This chapter explains in a table how data or information is collected, how this information is analyzed and what the expected result is. In addition, it is described how this research is conducted about validity and reliability such as:

- Organize meetings between parties.
- Interviews/ Desk research/ Analyzing company's existing database.
- Warehouse tour
- Voice of the Customer.

5.1 Research design

Phase	Subquestion	Data collection method	Analysis method	Result
Define	<i>Sub-questions Oct</i>			
		Observation Interviews	Documentation	Causes
	<i>Sub-questions Oct</i>			
		Interviews Observation	Clustering	The overview of the processes
Measure	<i>Sub-questions Nov</i>			
		Data Analysis (Company's system)	To measure	Performance metrics (Time/Quality)
Analyse	<i>Sub-questions Dec</i>			
		Process analysis (Company's database)	To analyze	List of bottlenecks/time how long the process takes.
Improve	<i>Sub-questions Dec</i>	Desk research	To improve	Propose the solutions
Control	<i>Sub-questions Jan</i>	Imported into the WI	To control	A base for further research

6. Constraints

A research project is impossible to be perfect. There are often various constraints which will prevent the project from reaching perfection. In the following part, the main limitations that might influence the result negatively will be introduced and explained.

Data

Data is essential for having the right information to implement in the research project. However, not all information is available in CMF department. Due to the possibility of having the lack of information, data is most likely to be a constraint.

Time

The following constraint is time. Company employees will not always have time to respond immediately, which could possibly result in slowing down the progress of the project. The time of completing the research is also not unlimited and could prevent certain progress as the deadline is essential to be met, which is the 15th of January 2023.

Customers

After the covid pandemic, many people are working from home or working under certain rules. This could make it difficult to get in contact with relevant parties such as clients or even the company's employee itself. Online questionnaires/ interviews could be a solution, but this is not applicable or always reliable in every situation.

Choice making

An abundance of choices is made during a research project - choices regarding what sources are going to be used, which questions will be asked, and so forth. There is always a possibility that certain choices will be poorly executed, and that mistakes will be made. Therefore, certain choices in the early parts of the

research can hold back or affect the final steps of the research, such as having performed an insufficient internal analysis which therefore affected the formulated risks in the final phase.

In an effort to circumvent this, I intend on consulting with the company in a timely manner (one in two weeks), further reflected in the planning, to ensure that the research criteria within in each milestone, stage are relevant to the company, and that the right choices are being made.

Budget

Giving financial recommendations to IDEXX company might be challenging due to the mostly unknown budget. Thus, despite our efforts of calculating cost indications within the final phase, it might appear that these do not match the expected budget costs that the company had set internally in later phase of the project.

7. Planning

Those are the date for project's planning. It will continuously be updated based on the school's schedule.

Week	Deliverables	Company consultation	Unofficial deadline (For company's manager)	Official Deadline (For school)
	Define	24-10--2023	Tuesday	
Week 8	Define	7-11-1023	Tuesday	
Week 9	Measure	21-11-2023	Tuesday	
Week 10	Analyze	28-11-2023	Tuesday	
Week 2.1 (quarter 2)	Research Plan	30-10-2023		
Week 2.2 (quarter 2)	Maturity Scan- Presentation (Concise summary of my work)			30-11-2023

Bibliography

IDEXX (2022). *2022 Annual Report* . Washington : IDEXX Laboratories, INC.

Idexx. (2023). Retrieved from We're IDEXX. Nice to meet you:

<https://www.idexx.com/en/about-idexx/>

Emergen research. (2023). Retrieved from Leading the pack: the top 10 companies in veterinary diagnostics for 2023: <https://www.emergenresearch.com/blog/top-10-companies-in-veterinary-diagnostics-market-in-2023>

8. Appendix 1

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