MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL AVIATION UNIVERSITY
Faculty of Transport, Management and Logistics
Logistics Department

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# QUALIFICATION PAPER

**(EXPLANATORY NOTES)**

OF GRADUATE OF ACADEMIC DEGREE

«BACHELOR»

THEME: **«Customer relationship management of a logistics company»**

Speciality 073 «Management»

Educational Professional Program « Logistics »

Done by Shvydkyi Artem
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*I certify that in this qualification paper there are no borrowings from the works of other authors without appropriate references* *Artem SHVYDKYI*
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Kyiv 2024

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАЦІОНАЛЬНИЙ АВІАЦІЙНИЙ УНІВЕРСИТЕТ
Факультет транспорту, менеджменту і логістики
Кафедра логістики

ЗАТВЕРДЖУЮ
В.о. завідувача кафедри логістики
Світлана СМЕРІЧЕВСЬКА
(підпис, власне ім'я та прізвище)
«01» червня 2024 р.

# КВАЛІФІКАЦІЙНА РОБОТА

**(ПОЯСНЮВАЛЬНА ЗАПИСКА)**

ЗДОБУВАЧА ОСВІТНЬОГО СТУПЕНЯ

«БАКАЛАВР»

ТЕМА: «**Управління взаємовідносинами з клієнтами логістичної компанії»**

зі спеціальності 073 «Менеджмент»
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*Засвідчую, що у цій кваліфікаційній роботі немає запозичень з праць інших авторів без відповідних посилань* *Артем ШВИДКИЙ*
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Київ 2024

NATIONAL AVIATION UNIVERSITY
Faculty of Transport, Management and Logistics
Logistics Department

Academic Degree Bachelor

Speciality 073 «Management»

Educational Professional Program « Logistics »

APPROVED
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«13» May 2024

# TASK

## FOR COMPLETION THE QUALIFICATION PAPER OF GRADUATE

*Shvydkyi Artem*
(name and surname)

1. Theme of the qualification paper: «Customer relationship management of a logistics company» was approved by the Rector Directive №624/ст. of April 24, 2024.

2. Term performance of the work: from May 13, 2024 to June 16, 2024.

3. Date of submission paper to graduation department: June 01, 2024.

4. Initial data required for writing the paper: general and statistical information about the DHL airline company, production and financial indicators of the DHL company, literary sources on the customer relationships management of the logistics company, and Internet sources.

5. Content of the explanatory notes: introduction, the concept of customer relationship management of a logistics company; information support for customer relationship management of a logistics company; analysis the activity of the company DHL; detailed analysis of DHL's CRM System; project proposals regarding the architecture of the CRM System; calculation of the economic effect of the proposed measures; conclusions.

6. List of obligatory graphic matters: tables, charts, graphs, diagrams illustrating the current state of problems and methods of their solution.

7. Calendar schedule:

| № | Assignment | Deadline for completion | Mark on completion |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 1. | Study and analysis of scientific articles, literary sources, normative legal documents, preparation of the first version of the introduction and the theoretical chapter | 13.05.24-16.05.24 | Done |
| 2. | Collection of statistical data, timing, detection of weaknesses, preparation of the first version of the analytical chapter | 17.05.24-20.05.24 | Done |
| 3. | Development of project proposals and their organizational and economic substantiation, preparation of the first version of the project chapter and conclusions | 21.05.24-26.05.24 | Done |
| 4. | Editing the first versions and preparing the final version of the qualification paper, checking by standards inspector | 27.05.24-29.05.24 | Done |
| 5. | Approval for a work with supervisor, getting of the report of the supervisor, getting internal and external reviews, transcript of academic record | 30.05.24-31.05.24 | Done |
| 6. | Submission paper to Logistics Department | 01.06.24 | Done |

Graduate_____
(signature)

Supervisor of the qualification paper _____
(signature)

8. Consultants of difference chapters of paper:

| Chapter | Consultant (position, surname and name) | Date, signature | |
|---|---|---|---|
| | | The task was given | The task was accepted |
| Chapter 1 | Associate Professor, Pozniak O.V. | 13.05.24 | 13.05.24 |
| Chapter 2 | Associate Professor, Pozniak O.V. | 17.05.24 | 17.05.24 |
| Chapter 3 | Associate Professor, Pozniak O.V. | 21.05.24 | 21.05.24 |

9. Given date of the task May 13, 2024.

Supervisor of the qualification paper: _____ Oksana POZNIAK
(signature of supervisor) (surname and name)

Task accepted for completion: _____ Artem SHVYDKYI
(signature of graduate) (surname and name)

# ABSTRACT

The explanatory notes to the qualification paper «Customer relationship management of a logistics company» comprises of 81 pages, 15 figures, 13 tables, 50 references

KEY WORDS: CRM SYSTEM, CUSTOMER, LOGISTICS COMPANY, RELATIONSHIP, DHL COMPANY

In the theoretical part of the qualification work the basics of the concept of managing relationships with clients of a logistics company and its information support are considered. In the analytical section of the work, an analysis of the activities of the DHL company was carried out. In the project part of the qualification work, the architecture of the CRM system for improving relations with clients, the reasonable economic feasibility of its implementation is proposed.

The purpose of the qualification work is to study theoretical approaches and develop practical recommendations for managing customer relationships based on the implementation of information technologies.

The subject of the qualification paper is the theoretical and practical aspects of the organization of the customer relationship management system based on information technologies.

The object of the qualification paper is the process of the information support of the relationship between the DHL company and its customers.

Methods of research are analysis, systematic approach, comparative analysis, modeling and generalization, and SWOT analysis.

Materials of qualification paper are recommended to be used during scientific research, in the educational process and in the practice of specialists of logistics departments.

# CONTENT

# NOTATION

| | |
|---|---|
| B2C | Business-to-customer |
| B2B | Business-to-business |
| CRM | Customer Relationship Management |
| ERP | Enterprise Resource Planning |
| KPIs | Key performance indicators |
| NPS | Net Promoter Scores |
| NPV | Net present value |
| SME | Small and medium enterprise |
| TMS | Transportation Management System |
| WMS | Warehouse Management System |

# INTRODUCTION

Relevance of the topic. Effective customer relationship management (CRM) is critical to maintaining competitive advantage and fostering customer loyalty in the rapidly evolving global logistics industry. Leading providers in the logistics sector recognize the importance of continuously improving their CRM strategies to meet the dynamic needs of their diverse customer base. CRM systems are needed to manage customer interactions and data at various touchpoints. Integration with other critical systems such as ERP (Enterprise Resource Planning), WMS (Warehouse Management System), and TMS (Transportation Management System) is crucial for the formation of end-to-end management information systems. For global companies operating in many regions and serving a wide range of industries, integrating advanced CRM solutions is particularly challenging. This complexity comes from the need to harmonize data from different sources, ensure real-time synchronization and comply with strict data protection regulations such as GDPR. A well-implemented CRM system can significantly improve customer satisfaction, operational efficiency, and overall business performance.

The purpose of the qualification work is to study theoretical approaches and develop practical recommendations for managing customer relationships based on the implementation of information technologies.

To achieve the set purpose, the following tasks are solved in the qualification paper:

1. Study the concept of customer relationship management.

2. Identify information systems that can be used for information support of customer relationship management.

3. Analyze the activities of the logistics company DHL and conduct a diagnosis of the company's financial and economic activity.

4. Develop practical recommendations for the improvement of information support for customer relationship management for the DHL company.

The object of the qualification paper is the process of the information support of the relationship between the DHL company and its customers.

The subject of the qualification paper is the theoretical and practical aspects of the organization of the customer relationship management system based on information technologies.

During the research, the following methods were used: analysis, systematic approach, comparative analysis, modeling and generalization, and SWOT analysis.

The theoretical basis of the work is the scientific works of domestic and foreign scientists in the field of information support for managing relations with clients in logistics.

Statistical data, annual reports, and internal information of the DHL company served as the information base of the study.

# CHAPTER 1
# THEORETICAL FUNDAMENTALS TO CUSTOMER RELATIONSHIP MANAGEMENT OF A LOGISTICS COMPANY

## 1.1 The concept of customer relationship management of a logistics company

In an ever-changing market, the importance of CRM in the 21st century has enormous potential and significance for companies of all levels. Next, all the information that will be provided in the thesis will be based on multi-level market analysis, based on my personal experience in various companies.

Customer Relationship Management (CRM) is a strategic approach that focuses on creating and maintaining profitable and long-term relationships with customers. For logistics companies, CRM is particularly crucial as it directly impacts the efficiency of supply chain operations and customer satisfaction. Below is a detailed discussion on the concept of CRM in a logistics company, including key components and practical examples.

Some people mistakenly associate CRM with loyalty programs, while others view CRM as an IT issue. Although CRM is typically linked with for-profit organizations, it is also utilized in the not-for-profit sector. Various industries such as automobile manufacturing, consumer goods firms, banks, and technology firms use CRM for different purposes. Several different groups have an interest in CRM, including CRM consultancies, CRM software companies, CRM hardware and infrastructure vendors, companies implementing CRM, and their customers. CRM is the fundamental business strategy that aims to create and maintain profitable relationships with customers by designing and delivering superior value propositions. It is based on high-quality customer-related data and facilitated by information technology. CRM encompasses a variety of processes and technologies

that help companies better understand their customers, interact with them more efficiently, and personally improve the quality of services provided.

For logistics companies such as DHL, CRM plays a critical role, as successful customer relationship management directly affects supply chain performance, customer satisfaction, and overall business success. With fierce competition and high customer expectations, CRM becomes an integral part of the strategy of any logistics company striving for market leadership.

This is a CRM scheme that can be used in many companies (Presented in Fig 1.1).

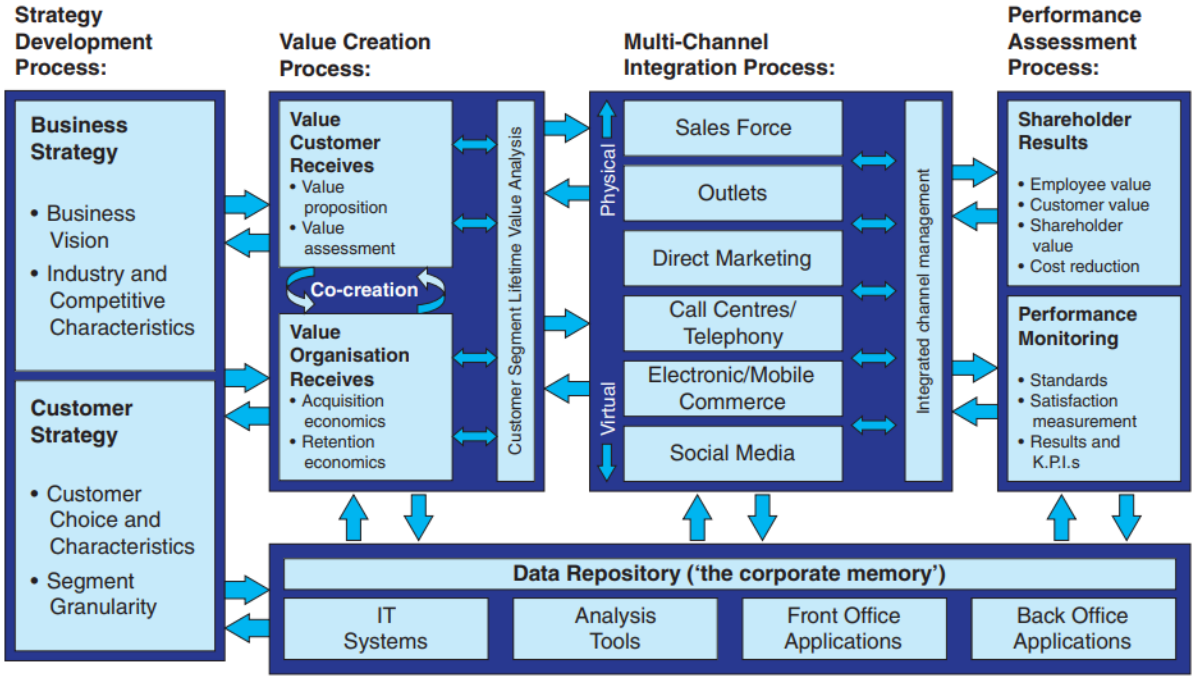


Figure 1.1 – Standart CRM–scheme for different business decisions [6]

This model (Figure 1.1) clearly identifies five core processes in CRM: the strategy development process, the value creation process, the multi-channel integration process, the performance assessment process, and the information management process. The first two represents strategic CRM; the multi-channel integration process represents operational CRM; and the information management process is analytical CRM. In a logistics company, CRM plays a critical role, as

interaction with customers directly affects supply chain performance, customer satisfaction and overall business success.

Table 1.1 shows three main forms of CRM systems used in the domestic market.

Table 1.1 – Characteristics of strategies in CRM systems [39]

| № | Strategy | Characteristic |
|---|---|---|
| 1 | Operational CRM | Includes automation and optimization of business processes related to sales, marketing, and customer service. Operational CRM allows logistics companies to effectively manage customer interaction, handle requests and complaints, and ensure smooth operations. |
| 2 | Analytical CRM | Uses data and analytical tools to understand client behaviour, anticipate client needs and improve communication strategies. Analytical CRM allows logistics companies to make informed decisions based on data analysis, which contributes to improving service quality and customer loyalty. |
| 3 | Strategic CRM | Aimed at the development of a customer-oriented culture in the company, which puts the needs and expectations of customers at the center of all business processes. Strategic CRM helps to improve the company's image, increase its competitiveness, and achieve long-term success. |

For example, the customer in the B2B context is different from the customer in the B2C context. In the B2C the customer is the end consumer - the individual or household. In B2B, the client is an organization, which can be a company (manufacturer or seller) or an institution (non-profit organization or state body). Customer relationship management (CRM) practices in B2B contexts differ significantly from those in B2C.

The B2B context differs from the B2C context in several ways. First, the B2B sector has fewer customers. For example, Australia, with a population of about 25

million, has just over 2 million active businesses. Second, business clients typically spend significantly more than individuals. Third, the relationship between business customers and their suppliers tends to be much closer than that between private clients and their suppliers.

Business relationships often involve mutual purchases, especially among small and medium-sized enterprises: Company A buys from Company B and Company B buys from Company A. Fourth, the demand for products and services in companies is determined by the demand of end consumers. For example, household demand for bread creates organizational demand for flour. Fifthly, unlike private buyers, company procurement specialists are often professionals with formal training. Procurement processes in organizations can be strictly formalized, especially for critical goods and services, where a decision-making group can be established to identify requirements, identify suppliers, evaluate proposals and make procurement decisions. Often the cost of one organizational purchase is huge - buying an airplane, bridge or power plant - these are large-scale purchases that can rarely be afford by private individuals.

The relationship with customers (presented in Fig 1.2) begins at the point when a potential customer is first identified and targeted. This initial stage involves gathering information, understanding their needs, and initiating contact. Once the potential customer shows interest, the relationship enters the development phase, where interactions become more frequent and personalized. During this period, the company works to build trust, demonstrate value, and address any specific requirements the customer may have. As the relationship matures, it reaches a stage of stability and mutual benefit, where both parties are satisfied with the arrangement and the customer becomes a regular client. This mature phase is characterized by ongoing communication, consistent service delivery, and continued efforts to strengthen the bond. However, all relationships eventually reach a point where they may come to an end, whether due to changing needs, market conditions, or other factors. At this final stage, the relationship is either concluded or possibly

transformed, with the company aiming to leave a positive impression for any future interactions.

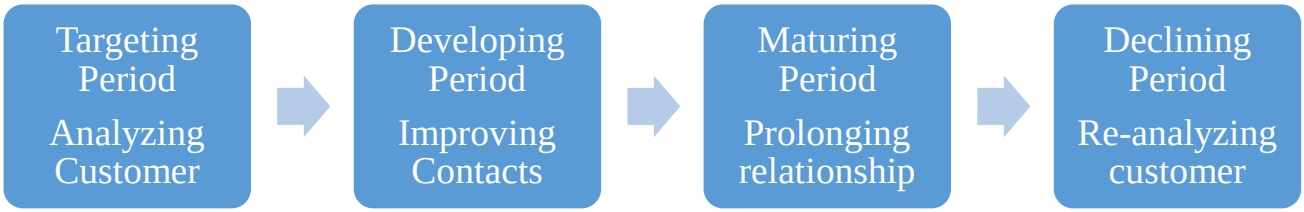


Figure 1.2 - Four periods of relationship management

The most common way of operationalizing satisfaction is to compare the customer's perception of an experience, or some part of it, with their expectations. Customer segmentation is a crucial strategy used in marketing and CRM (Customer Relationship Management) to divide a broad customer base into distinct groups of individuals that have similar needs, characteristics, or behaviors. This process enables companies to target these groups more effectively and tailor their marketing efforts to meet the specific needs of different segments.

Importance of Customer Segmentation:

– Improved Customer Understanding: Segmentation helps businesses understand the diverse needs and preferences of their customers.

– Targeted Marketing: Enables companies to create personalized marketing campaigns that are more relevant to each segment, thereby increasing the effectiveness of their marketing efforts.

– Resource Optimization: Helps allocate resources more efficiently by focusing efforts on the most profitable customer segments.

– Enhanced Customer Retention: By understanding and addressing the specific needs of different customer groups, companies can improve customer satisfaction and loyalty.

– Increased Profitability: Targeted marketing and better customer service can lead to increased sales and higher profit margins.

DHL, as a global logistics company, leverages customer segmentation to deliver customized services and enhance customer satisfaction by addressing the specific needs of different client groups (Presented in Figure 1.3). For instance, DHL segments its customers into several distinct categories. Corporate Clients, which include large multinational corporations, have high-volume shipping demands and require comprehensive logistics solutions encompassing warehousing, transportation, and supply chain management to streamline their global operations.

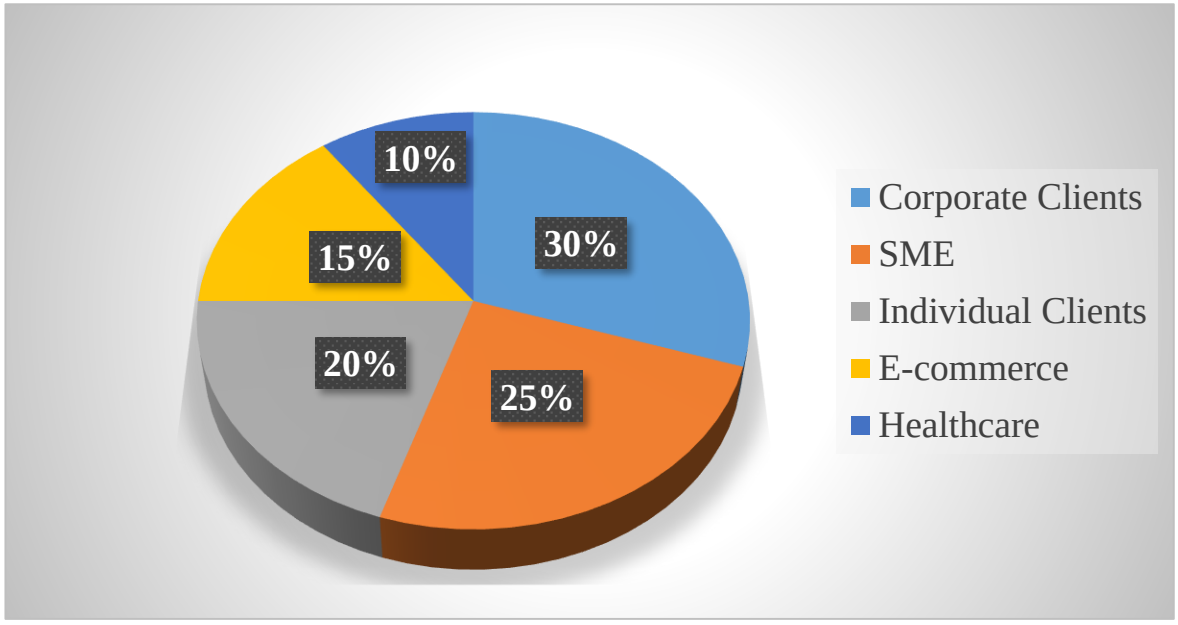


Figure 1.3 – Customer Segmentation of DHL company

Small and Medium Enterprises (SMEs), on the other hand, have moderate shipping needs and prioritize cost-effective and reliable delivery services to support their business operations without incurring excessive costs. Individual Customers, who occasionally ship packages, seek convenient and affordable shipping options that cater to their less frequent but essential shipping requirements. E-commerce Businesses, which are growing rapidly, demand fast and efficient shipping solutions to keep pace with their customer's expectations for quick delivery and to maintain their competitive edge in the market. Additionally, DHL tailors its services to Industry-Specific Segments, which include sectors like healthcare, technology, automotive, and retail, each with unique logistics needs. For example, the healthcare

industry may require temperature-controlled shipping for pharmaceuticals, while the technology sector might need secure and timely delivery of high-value electronics.

By understanding and segmenting its customer base in this manner, DHL can provide targeted logistics solutions that not only meet but exceed the varied expectations of its diverse clientele, thereby fostering loyalty and driving business growth.

## 1.2 Information support for customer relationship management of a logistics company

In the realm of logistics, Customer Relationship Management (CRM) systems are paramount for enhancing customer interactions, optimizing business processes, and ultimately driving customer satisfaction and loyalty. Information support forms the backbone of effective CRM systems, encompassing data collection, integration, analysis, and the technological infrastructure that supports these activities. For a global logistics giant like DHL, leveraging information support within their CRM system is crucial to maintaining competitive advantage and operational excellence.

The foundation of an effective CRM system is the ability to collect comprehensive and accurate data from various sources. In DHL's case, this involves capturing transactional data, customer interactions, and external market data. Transactional data includes detailed records of shipments, order histories, and billing information, which provide critical insights into customer behaviors and preferences. This data helps DHL track customer activity over time, identify purchasing patterns, and tailor services to meet specific customer needs.

Customer interactions, recorded through multiple channels such as call centers, emails, social media, and in-person meetings, offer valuable feedback and highlight areas for service improvement. These interactions can reveal common

customer complaints, frequently asked questions, and overall satisfaction levels, enabling DHL to address issues proactively and enhance the customer experience.

External data sources, including market research reports, industry databases, and social media analytics, supplement internal data with broader market and competitive insights. For instance, analyzing social media trends can help DHL identify emerging customer needs and preferences, while industry reports provide context on market dynamics and competitor strategies.

Advanced data capture tools and techniques are crucial for gathering this information accurately and efficiently. DHL employs automated data entry systems to reduce manual errors and increase efficiency. Internet of Things (IoT) devices, such as RFID tags and GPS trackers, enable real-time data collection on shipment status and location, providing timely updates to both DHL and its customers. This real-time data is essential for maintaining transparency and building trust with customers.

The integration of collected data is a complex but vital process. DHL's CRM system must seamlessly integrate data from various operational systems, including Enterprise Resource Planning (ERP), Warehouse Management System (WMS), and Transportation Management System (TMS). Middleware and Application Programming Interfaces (APIs) facilitate smooth data flow between these systems, ensuring that information is up-to-date and accessible across different departments. For example, when a customer places an order, the CRM system can instantly access inventory levels from the WMS, process the order through the ERP, and arrange shipping via the TMS, ensuring timely and accurate service delivery. This integrated approach not only improves operational efficiency but also enhances the customer experience by providing consistent and reliable service.

Once data is collected and integrated, the next critical step is analysis. Data analysis transforms raw data into actionable insights, enabling DHL to make informed decisions and optimize customer interactions. Analytical tools and data mining techniques are employed to identify patterns, trends, and correlations within the data. These insights help DHL understand customer behaviors, predict future

needs, and tailor services accordingly. For example, predictive analytics can forecast demand trends, allowing DHL to optimize inventory levels and improve delivery times, thereby reducing costs and enhancing service reliability.

The technological infrastructure supporting these analytical activities is crucial. DHL utilizes cloud-based CRM platforms that provide scalability, flexibility, and enhanced data security. Cloud platforms allow DHL to store and process large volumes of data efficiently, ensuring that analytical tools can handle complex queries and generate insights in real-time. Moreover, cloud-based systems facilitate remote access, enabling employees to access CRM data from anywhere, which is particularly beneficial for a global organization like DHL.

Machine learning algorithms and artificial intelligence (AI) are increasingly used to enhance data analysis capabilities. AI can process vast amounts of data quickly and identify patterns that may not be immediately apparent to human analysts. For instance, AI-driven customer segmentation can group customers based on their behaviors and preferences, allowing DHL to target specific segments with personalized marketing campaigns. This targeted approach not only improves marketing effectiveness but also enhances customer satisfaction by providing relevant and timely offers.

Data visualization tools play a vital role in CRM systems by transforming complex data sets into easy-to-understand visual formats. Dashboards, charts, and graphs allow DHL's management to monitor key performance indicators (KPIs) and track the effectiveness of CRM strategies. For example, customer satisfaction scores, Net Promoter Scores (NPS), and service delivery times can be visualized to identify trends and areas for improvement. Visualization tools enable managers to quickly grasp the current state of customer relationships and make data-driven decisions to enhance service quality and operational efficiency.

Effective visualization and reporting are critical components of a robust CRM system. Visualization tools transform complex data sets into intuitive graphical representations, enabling stakeholders to quickly understand and interpret key metrics. Dashboards, charts, and graphs provide real-time insights into customer

interactions, operational performance, and overall business health. For DHL, visualization tools play a crucial role in monitoring key performance indicators (KPIs) and tracking the effectiveness of CRM strategies.

For instance, dashboards can display real-time data on customer satisfaction scores, Net Promoter Scores (NPS), and service delivery times. By visualizing these metrics, DHL can quickly identify trends, detect potential issues, and make informed decisions to improve service quality. Graphs showing monthly or quarterly trends in customer feedback can help DHL pinpoint specific periods of increased complaints or decreased satisfaction, allowing for targeted interventions.

Reporting tools generate detailed reports that provide comprehensive insights into various aspects of customer relationships and operational performance. These reports can include summaries of customer feedback, analysis of customer behavior patterns, and assessments of service efficiency. For example, a report on order processing times can highlight bottlenecks in the supply chain, enabling DHL to implement process improvements and reduce delays (see Table 1.2).

Table 1.2 - Key Data Sources for CRM in DHL

| Data Source | Type of Data | Purpose |
|---|---|---|
| Transactional Data | Shipping records, order histories, billing info | Insights into customer behavior and preferences |
| Customer Interactions | Call center logs, emails, social media | Feedback, complaints, inquiries |
| External Data Sources | Market research reports, industry databases | Broader market and competitive insights |
| IoT Devices | RFID tags, GPS trackers | Real-time shipment status and location data |

Predictive analytics allows DHL to anticipate market trends and adjust strategies proactively. For example, by analyzing past shipping data, DHL can predict peak periods and prepare accordingly, ensuring that resources are allocated

efficiently to meet increased demand. This proactive approach helps DHL stay ahead of competitors and maintain high service standards.

Efficient data management also reduces operational costs by streamlining logistics processes and minimizing errors. For instance, real-time inventory management prevents stockouts and overstock situations, optimizing warehouse operations and reducing storage costs. The ability to quickly access and analyze data accelerates decision-making processes, making the company more agile and responsive to market changes.

Moreover, robust data security measures are essential to protect sensitive customer information and comply with global data protection regulations. Ensuring data security builds customer trust and prevents potential legal and financial repercussions from data breaches.

In conclusion, information support is a critical component of CRM systems in logistics companies like DHL. Through comprehensive data collection, integration, and analysis, supported by robust technological infrastructure, DHL can enhance customer interactions, streamline operations, and ultimately drive business success.

Visual tools and data analytics play a pivotal role in transforming raw data into actionable insights, enabling DHL to maintain its competitive edge in the global logistics market. By understanding and segmenting its customer base in this manner, DHL can provide targeted logistics solutions that meet the varied expectations of its diverse clientele, fostering loyalty and driving business growth.

## 1.3 Chapter 1 summary

In the theoretical part of the qualification work, the basics of customer relationship management (CRM) for a logistics company were considered, key aspects were identified that emphasize the importance of CRM in the modern business environment. First, CRM is a strategic approach necessary to build and

maintain long-term mutually beneficial relationships with customers. In a competitive market with high customer expectations, effective CRM implementation is critical for logistics companies striving for market leadership. For global logistics leaders like DHL, CRM is vital because it directly impacts supply chain performance and customer satisfaction. Recognizing this, DHL focuses on developing a robust CRM strategy using advanced technology to improve efficiency.

CRM strategies can be divided into operational, analytical, and strategic types, each uniquely contributing to a company's success. Operational CRM automates and optimizes processes related to sales, marketing and customer service, ensuring effective management of interactions with customers and prompt responses to inquiries. These include modern CRM systems that automate routine tasks, reduce order processing time, and increase customer service efficiency. Analytical CRM uses data and analytical tools to understand customer behavior, anticipate needs, and improve communication strategies. Through data mining, machine learning and artificial intelligence, logistics companies can extract valuable insights from huge data, helping to predict demand trends, optimize inventory, reduce delivery times and personalize services.

Strategic CRM aims to foster a customer-centric culture throughout the organization, ensuring that customer needs are central to all business processes. This strategy involves implementing CRM values at all levels, from top management to direct employees, improving the company's image and reputation, and fostering long-term customer relationships.

Effective CRM implementation requires robust information support, including data collection, integration and analysis, supported by an appropriate technology infrastructure. Logistics companies collect data from many sources, including transactional systems, customer interactions, market research and Internet of Things technologies. Automated data entry and IoT ensure accuracy and efficiency, enabling real-time tracking of shipments and increasing operational transparency.

# CHAPTER 2
# ANALYSIS OF THE LOGISTICS COMPANY`S ACTIVITY IN THE FIELD OF CUSTOMER RELATIONSHIP MANAGEMENT

## 2.1General characteristics of the DHL copmany

The company was founded in 1969 for document delivery between San Francisco and Honolulu, expanding globally by the late 1970s. FedEx, its main competitor, entered the international market in 1981. In 1998, Deutsche Post began acquiring shares of DHL, gaining control by 2001 and completing the acquisition by 2002. DHL was integrated into Deutsche Post's Express division, extending the brand to other subsidiaries. Today, DHL Express shares its brand with divisions like DHL Global Forwarding and DHL Supply Chain.

DHL's main competitors include FedEx, UPS, and national postal carriers such as the US Postal Service (USPS) and Royal Mail. Although DHL has a minor partnership with USPS, allowing it to deliver small packages to recipients via the USPS network, known as DHL Global Mail (now called DHL eCommerce), it is also the sole provider of mail forwarding services for USPS to Iraq and Afghanistan.

DHL provides services worldwide, including deliveries to countries like Iraq, Afghanistan, and Myanmar (formerly Burma). Since it is owned by Germany, DHL is not affected by American embargoes or sanctions and can deliver to Cuba and North Korea. However, there are strict guidelines regarding delivery to North Korea, as the country has tenuous relations with the West. Since DHL is no longer a US company, it is prohibited from operating domestic flights between American airports. DHL contracts these services to other providers.

DHL is a premier global logistics company that offers a wide range of sophisticated and tailored logistics solutions. Their services include express parcel delivery, freight transportation, supply chain management, and e-commerce

solutions. With an operational reach spanning over 220 countries and territories, DHL is a powerhouse in international logistics and has an unparalleled global network. One of DHL's most distinguishing features is its ability to combine a vast global reach with a pronounced local presence. This extensive network allows DHL to offer reliable, efficient, and prompt shipping services around the globe. Its global presence caters to the logistics needs of customers worldwide, while its local operations are finely tuned to meet the unique market conditions is a world-class logistics company that provides a wide range of sophisticated and tailored logistics solutions. Their services include express parcel delivery, freight transportation, supply chain management, and e-commerce solutions. With an operational reach that extends over 220 countries and territories, DHL is a powerhouse in global logistics and has an unparalleled global network.

One of DHL's most unique features is its ability to combine a vast global reach with a strong local presence. This extensive network allows DHL to offer reliable, efficient, and prompt shipping services around the world. Its global presence caters to the logistics needs of customers worldwide, while its local operations are finely tuned to meet the unique market conditions and consumer expectations in each region, providing personalized services.

DHL's service portfolio is diverse and segmented into specialized divisions including DHL Express, DHL Parcel, DHL eCommerce, DHL Global Forwarding, DHL Freight, and DHL Supply Chain. This segmentation enables DHL to address every conceivable logistics requirement, from the rapid delivery of express documents to managing complex freight logistics, optimizing supply chains, and facilitating the burgeoning demands of e-commerce logistics. DHL's versatility makes it a logistics partner for businesses ranging from startups to multinational corporations.

Key Elements of DHL's Management Structure:

– CEO (Chief Executive Officer): At the top of the management hierarchy is the CEO, responsible for the overall leadership and strategic development of the

company. The CEO coordinates the activities of all DHL divisions and makes key decisions that define the company's direction.

– Global Headquarters: The global headquarters, located in Germany, is the center for strategic decision-making. Here, the main policies and standards are developed and subsequently implemented locally. The central management also coordinates financial activities and risk management.

– Regional Offices: Regional headquarters ensure effective management of operations in different parts of the world. DHL has regional offices in Europe, the Americas, the Asia-Pacific region, and the Middle East and Africa. Each regional office is responsible for adapting global strategies to local conditions and needs.

– Local Operational Units: Each business division further breaks down into local operational units in different countries where DHL provides its services.

Control diagram is presented in ( Fig. 2.1) Organisational chart of DHL. DHL is a leading global brand in the logistics industry. DHL divisions provide a wide range of logistics services, including national and international parcel delivery, e-commerce shipping and fulfillment solutions, international express, road, air, and ocean transport, as well as industrial supply chain management.

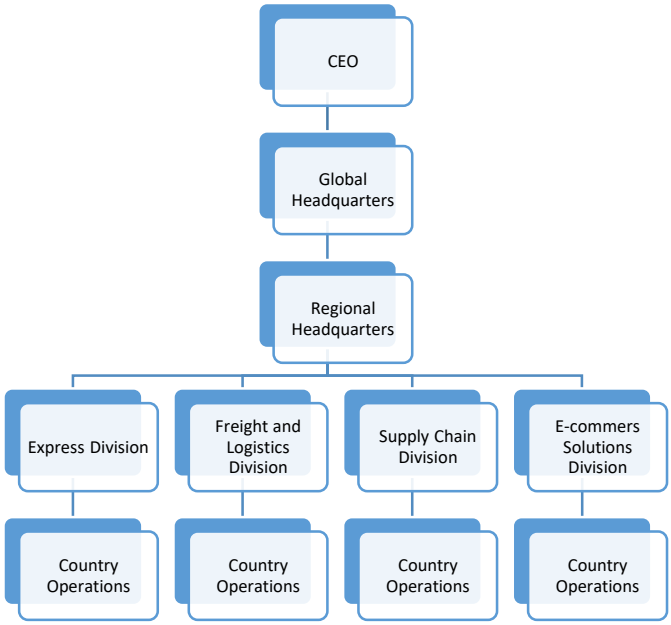


Figure 2.1 - Organisational chart of DHL [4]

With approximately 395,000 employees in over 220 countries and territories worldwide, DHL connects people and businesses securely and reliably, enabling global sustainable trade flows. DHL offers specialized solutions for growth markets and industries such as technology, life sciences and healthcare, engineering, manufacturing & energy, auto-mobility, and retail, positioning itself as "The logistics company for the world." DHL is part of the DHL Group, which generated revenues of more than 81.8 billion euros in 2023. With sustainable business practices and a commitment to society and the environment, the Group makes a positive contribution to the world. The DHL Group aims to achieve net-zero emissions in logistics by 2050.

Management Principles of DHL:

– Centralization of Strategic Management: Strategic decisions are made at the global headquarters level, ensuring consistency and coherence of actions across the company worldwide.

– Decentralization of Operational Management: Operational management is carried out at the regional and local levels, allowing for quick responses to market changes and specific customer needs.

– Innovation and Technology: DHL actively adopts new technologies, such as warehouse automation, delivery drones, big data, and artificial intelligence for supply chain optimization. This enhances operational efficiency and customer service quality.

– Customer Focus: All management levels are oriented towards meeting customer needs, which is a key element of DHL's strategy. The company constantly works on improving service quality and delivery speed.

DHL is composed of five main divisions DHL Express, DHL Global Forwarding, DHL Freight, DHL Supply Chain, and DHL eCommerce Solutions. All of these logistics solutions are available in Singapore aside from DHL Freight. The business divisions diagram is presented in (Fig. 2.2) Business divisions of DHL (taken from the official site).

DHL Global Forwarding features standardized transport in international air, ocean, and overland freight forwarding.

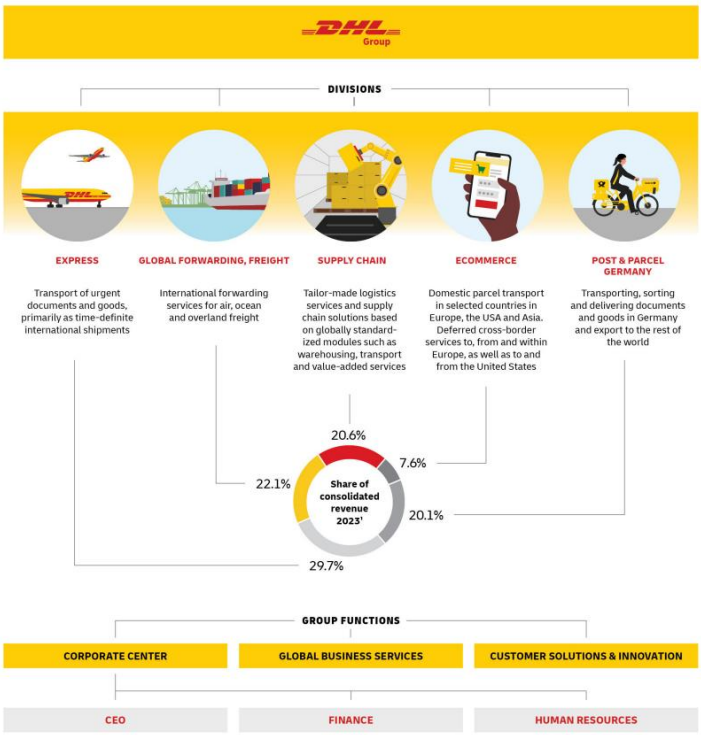


Figure 2.2 – Business divisions of DHL [1]

This includes multimodal, industry-specific solutions and industrial projects tailor-made for clients' needs. Operating alongside this division is DHL Freight which optimises international delivery for clients. It specializes in road freight, rail freight, customs, transport, and integrated solutions in Europe. In terms of practical transport services, DHL Freight can offer end-to-end tracking, customized solutions for oversized and heavy cargo, cargo insurance, and comprehensive quality management. For supply chain experts, look no further than the DHL Supply Chain division. Overseeing supply chains in more than 50 countries for over 1,400 customers, this DHL division spans warehousing and transport alongside value-added services such as fulfillment, Lead Logistics Partner (LLP), Real Estate Solutions, Service Logistics, and packaging solutions for key industrial sectors. This innovative department employs new technologies in the automation and digitalization of the supply chain to optimize warehouse storage and packing

Supply chain management is a key element of DHL's operations. The company offers comprehensive solutions for optimizing supply chains, including warehousing, inventory management, and distribution. By leveraging advanced technologies such as big data and artificial intelligence, DHL ensures high efficiency and transparency in its processes. This helps reduce costs, increase delivery speed, and adapt to changes in demand. With a global network and high level of expertise, DHL helps its clients optimize their supply chains, providing them with competitive advantages in the market.

Supply-chain diagram is presented in (Fig. 2.3) Supply Chain of DHL (taken from the official site). Navigating safely through a volatile, fast-changing environment The DHL Group’s strategy draws on the elements of Strategy 2015 and 2020, which established us as the world’s leading logistics company.


Figure 2.3 – Supply Chain of DHL [2]

Building on this foundation, Strategy 2025, which was presented to the public at the end of 2019, has helped us to cement and grow that leading position. defined strategic goals in a comprehensive process in which worked with relevant stakeholders including employees, customers, suppliers, and investors. The “Strategy House” graphic of DHL Group illustrates the most important elements of

their strategy and how they are connected. So far, Strategy 2025 has guided us safely through the volatile, fast-changing environment. As part of a yearly assessment, undertook a detailed review of corporate strategy and found it not only to be fundamentally sound but that it had also made DHL Group more resilient. Focusing on their core business has helped us to make necessary adjustments quickly, especially in the volatile environment of recent years. This approach has enabled us to not only keep promises to customers under challenging circumstances but also ensure the financial stability of the company, thereby doing justice to investors by sticking to financial strategy. This resilience is the result of the disciplined and consistent execution of Group strategy, with each element playing a key role. The logistical harmony amongst divisions is a valuable asset for their customers. (Fig. 2.4) Strategy of DHL for 2025 (taken from the official site) and targets of DHL by 2022 (taken from the official website of the DHL Group)

Their purpose of "Connecting people, and improving lives" has never been more important than it is today. Aligned with the vision of being the logistics company for the world, DHL Group strives to continue leading the industry in an increasingly digital and sustainability-oriented world. core values "Respect and Results" are just as much a part of strategy today as they have been in the past.

The triad of purpose, vision, and values underpins the three building blocks of Strategy 2025: sustained execution excellence along the three bottom lines; becoming an employer, provider, and investment of choice; and a focus on profitable. core business and digital transformation. have also embedded sustainability in the business strategy with purpose and own values. "Respect and Results" mean that are committed to each other and, together, make a positive social contribution. purpose "Connecting people, improving lives" guides efforts and a sense of responsibility.

Execution excellence along the three bottom lines mission of “Excellence. Simply delivered.” is defined by the three bottom lines of becoming the employer, provider, and investment of choice. believe having motivated and skilled employees is the key to providing excellent service quality and achieving profitable. growth. At

DHL Group, when speaking of Common DNA, means the set of behaviors, tools, and programs that are put into practice throughout the Group. Group-wide programs such as Certified, First Choice, and Safety First play an important part in building the Common DNA by influencing what do on a day-to-day basis. Irrespective of division, geographical region, or function, Common DNA is an expression of who are and how do things at DHL Group.

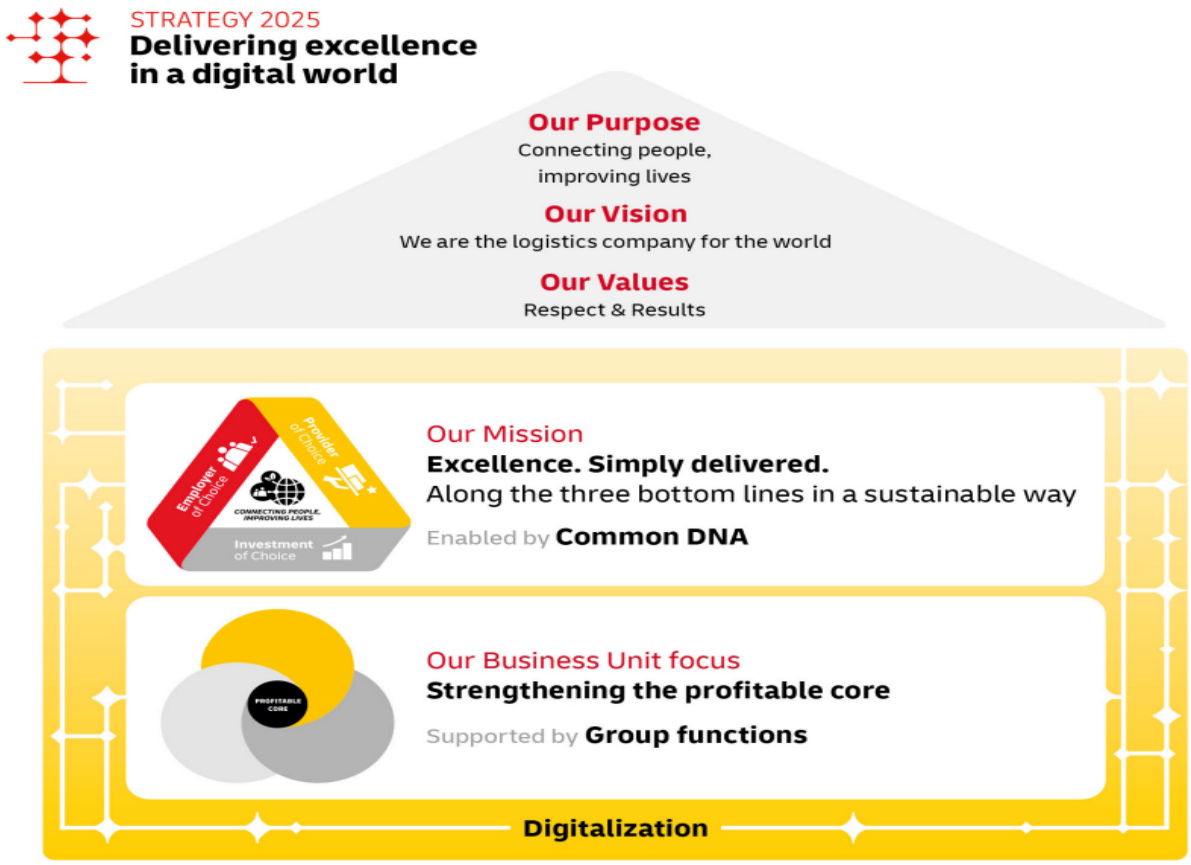


Figure 2.4 – Strategy of DHL [4]

As a key part of their strategy, sustainability is integrated across three bottom lines. New industry policies and regulations, evolving consumer buying habits, and increasing interest in sustainability have inspired us to become a sustainability role model in the industry. have set ambitious targets to make sustainability a cornerstone of Strategy 2025 and an essential element of their mission. ESG Roadmap builds on past achievements and provides guidance in the areas of environment, social

responsibility, and corporate governance, with clear objectives set for each. goals include environmentally friendly logistics, creating a great work environment, and being a trustworthy company and partner. have established transparent, time-bound targets and KPIs to integrate sustainability into yearly planning and strategic cycles. One of the key targets is to accelerate the company’s planned decarbonization efforts. divisions continue to focus on their profitability. core business to ensure reliable services and solutions, even in unusual circumstances. Digital transformation is a crucial lever for sustainable business growth, and are investing in initiatives to enhance customer and employee experiences, as well as to improve operational efficiency. Within divisions, have various initiatives and programs to upgrade the IT backbone, ensure future agility, and increase IT efficiency. Specifically, are building centralized expertise and scaling digital solutions in the areas of automation and robotics, data science, API, and the Internet of Things.

## 2.2. Analysis of the economic and financial state of the enterprise`s activity

To maintain as. trend in the development of financial and economic activities of the enterprise in the conditions of constant aggravation of competitive struggle, it is necessary to reliably assess the financial condition of the enterprise. The financial condition of the company characterizes the provision of its own working capital, the optimal ratio of inventory to production needs, as well as timely settlement operations and solvency. The subject of pre-diploma practice was the activities of the company's subsidiary in Ukraine, therefore, the financial and economic diagnostics of the company are based on the data of LLC "DHL Logistics (Ukraine)." We consider the main economic indicators of the company's activities from 2021 to 2023 (Table 2.1).

Table 2.1 - Company Performance Indicators for the Period 2021-2023

| No. | Indicators, thousand UAH | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| 1 | Net income from sales of products | 488304.0 | 300230,9 | 333991 |
| 2 | Gross profit | 62654 | 38878 | 46271 |
| 3 | Operating profit | -3791,1 | -33512,4 | 42175 |
| 4 | Assets | 87687,1 | 60461,3 | 91133 |
| 5 | Net profit (loss) | -766,6 | -25845,8 | -12906 |

Schematically, the dynamics of key indicators of the company's activity are shown in Fig. 2.5.

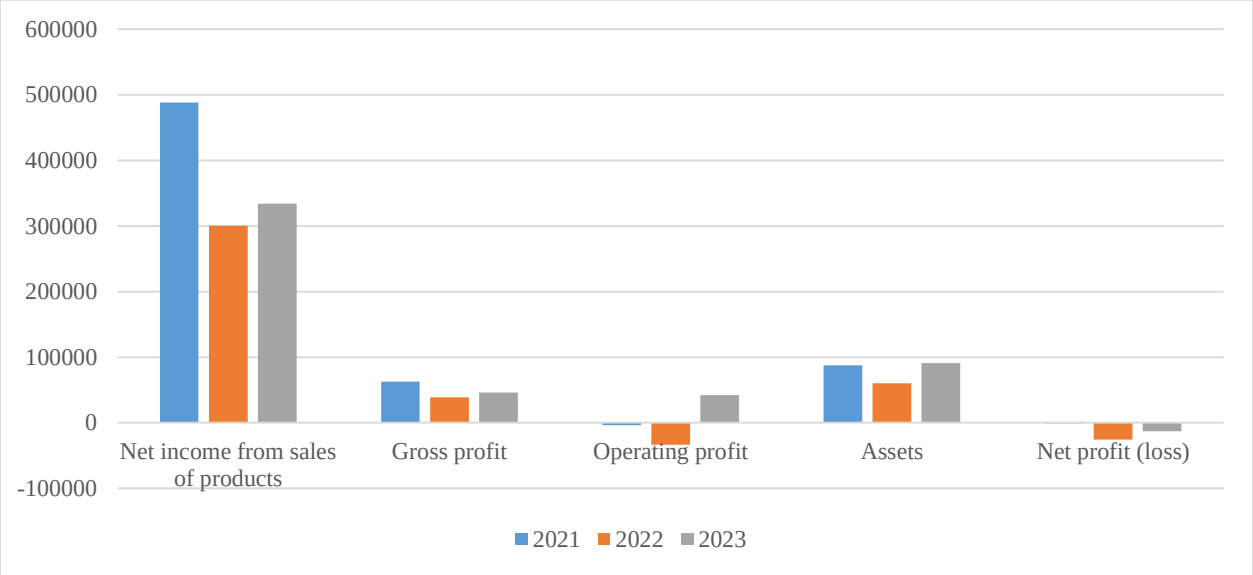


Figure 2.5 - Dynamics of key indicators of the company's activity

Accordingly, the results of the analysis provide an answer to the question of what are the most important ways to improve the financial condition of the enterprise in a particular period of its activity. order to study the methodological aspects of the analysis of the financial condition of the enterprise was conducted analysis of current and non-current assets for the 2019-2023 period that are presented in Table 2.2 (Presented in Tab. 2.2 and Tab. 2.3)

Table 2.2 – Analysis of Non-current assets

| | | | | | | Deviation 2020-2019 | | Deviation 2021-2020 | | Deviation 2022-2021 | | Deviation 2023-2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assets | 2019 | 2020 | 2021 | 2022 | 2023 | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) |
| **I. Non-current assets** | | | | | | | | | | | | | |
| Intangible assets | 320 | 566 | 619,5 | 447 | 266 | 79 | 16,22 | 53,5 | 9,45 | -172,5 | -27,85 | -181 | -40,49 |
| Initial value | 1018 | 1414 | 1666,7 | 1687 | 1326 | -1582 | -52,80 | 252,7 | 17,87 | 20,3 | 1,22 | -361 | -21,40 |
| Accumulated depreciation | 698 | 847 | 1047,2 | 1240 | 1060 | -1662 | -66,24 | 200,2 | 23,64 | 192,8 | 18,41 | -180 | -14,52 |
| Unfinished capital investments | 231 | 18 | 16,6 | 49 | | -25 | -58,14 | -1,4 | -7,78 | 32,4 | 195,18 | -49 | -100,00 |
| Fixed assets: | 6997 | 5515 | 8414,2 | 6148,8 | 5642 | -87180 | -94,05 | 2899,2 | 52,57 | -2265 | -26,92 | -506,8 | -8,24 |
| Initial value | 15804 | 16229 | 21595 | 21834,6 | 23909 | -166459 | -91,12 | 5366 | 33,06 | 239,6 | 1,11 | 2074,4 | 9,50 |
| Long-term financial investments | 8806 | 10714 | 13181 | 15685,8 | 18267 | -79279 | -88,09 | 2467 | 23,03 | 2504,8 | 19,00 | 2581,2 | 16,46 |
| Total Non-Curent assests | 7550 | 6100 | 9050,3 | 6644,6 | 5908 | -87125 | -93,46 | 2950,3 | 48,37 | -2406 | -26,58 | -736,6 | -11,09 |

The period from 2019 to 2023 witnessed significant fluctuations in the company's current assets, reflecting various strategic decisions, operational efficiencies, and market conditions. This analysis provides an in-depth look at the different components of current assets and their trends over this period.

The stock levels showed considerable variation throughout the years. Starting from 1068 thousand UAH in 2019, stocks increased significantly to 1646 thousand UAH in 2020, reflecting a possible accumulation of inventory in anticipation of higher demand or as a buffer against supply chain disruptions. However, this was followed by a sharp decline to 892 thousand UAH in 2021, indicating either successful sales or potential inventory write-downs. The partial recovery to 1188 thousand UAH in 2022 and then a decline to 744 thousand UAH in 2023 suggests fluctuating market conditions or changes in inventory management strategies.

The absolute and relative deviations highlight these trends clearly. The increase in 2020 by 229.63 thousand UAH (54.12%) contrasts sharply with the decline in 2021 by 754 thousand UAH (-45.81%), showcasing the volatility in stock levels. The following years also show minor fluctuations, indicating adjustments in stock management.

Accounts receivable demonstrated significant changes, with an initial increase from 24301 thousand UAH in 2019 to 52101 thousand UAH in 2020, suggesting higher sales on credit. However, a drastic reduction to 17908 thousand UAH in 2021 indicates efficient collection efforts or reduced sales on credit. The subsequent increase to 37682 thousand UAH in 2022 followed by a slight decrease to 3865 thousand UAH in 2023 showcases the company's efforts in managing credit policies and cash flows.

The deviations show dramatic changes: an increase of 27800 thousand UAH (114.40%) in 2020, followed by a significant reduction of 34193 thousand UAH (-65.63%) in 2021, indicating stringent credit collection or reduced sales. The trend reversed in 2022 with an increase of 19774 thousand UAH (110.42%), before a minor adjustment in 2023.

The cash reserves and equivalents show a relatively stable increase from 15392 thousand UAH in 2019 to 33635 thousand UAH in 2022, reflecting strong liquidity management. The drop to -441 thousand UAH in 2023 is significant, indicating a possible strategic investment or unexpected expenses.

The deviations reveal minor fluctuations, with an initial decrease of 441 thousand UAH (-2.79%) in 2020, followed by consistent increases in the subsequent years, highlighting strong liquidity management practices.

The total current assets followed a pattern of significant growth and subsequent adjustments. Starting at 47680 thousand UAH in 2019, there was a notable increase to 78636.8 thousand UAH in 2020, reflecting higher stocks and receivables. However, the reduction to 53816.7 thousand UAH in 2021 indicates a period of asset optimization or reduced sales. The subsequent years show a recovery to 85225 thousand UAH in 2022 and a decline to 3483 thousand UAH in 2023, indicating a dynamic asset management strategy.

The deviations in total current assets echo this volatility, with a notable increase of 30956.8 thousand UAH (64.93%) in 2020, followed by a reduction of 24820.1 thousand UAH (-31.56%) in 2021. The later years reflect a mix of growth and stabilization efforts.

The overall balance of current assets shows a fluctuating trend, with significant increases in some years followed by reductions in others. Starting at 53780.8 thousand UAH in 2019, the balance increased significantly to 87687.1 thousand UAH in 2020, reflecting higher asset accumulation. The increase to 91133 thousand UAH in 2022 followed by a decrease to 2033 thousand UAH in 2023 suggests dynamic financial management to align with market conditions.

The deviations indicate significant volatility, with an increase of 33907.1 thousand UAH (63.05%) in 2020, followed by a reduction of 27225.8 thousand UAH (-31.05%) in 2021. The subsequent years show a mixed trend, reflecting the company’s efforts to balance asset accumulation with strategic financial management.

Table 2.3 – Analysis of Current assets

| | | | | | | Deviation 2020-2019 | | Deviation 2021-2020 | | Deviation 2022-2021 | | Deviation 2023-2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assets | 2019 | 2020 | 2021 | 2022 | 2023 | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) |
| **II. Current assets** | | | | | | | | | | | | | |
| Stocks: | 324 | 1068 | 1646 | 892 | 1188 | 744 | 229,63 | 578 | 54,12 | -754 | -45,81 | 296 | 33,18 |
| Accounts receivable | 20436 | 24301 | 52101 | 17908 | 37682 | 3865 | 18,91 | 27800 | 114,40 | -34193 | -65,63 | 19774 | 110,42 |
| Money and its equivalents | 15833 | 15392 | 17114 | 27804 | 33635 | -441 | -2,79 | 1722 | 11,19 | 10690 | 62,46 | 5831 | 20,97 |
| Total Current Assets | 44197 | 47680 | 78636,8 | 53816,7 | 85225 | 3483 | 7,88 | 30956,8 | 64,93 | -24820,1 | -31,56 | 31408,3 | 58,36 |
| Balance | 51747 | 53780 | 87687,1 | 60461,3 | 91133 | 2033 | 3,93 | 33907,1 | 63,05 | -27225,8 | -31,05 | 30671,7 | 50,73 |

The period from 2019 to 2023 has shown significant changes in the liabilities section of the company's balance sheet, reflecting various financial and operational strategies, as well as market conditions (Presented in Tab. 2.4). This analysis provides a detailed look at the different components of liabilities and their trends over this period. The registered capital remained consistent at 25415 thousand UAH from 2019 to 2022, indicating stability in the company's equity base. However, in 2023, there was a substantial increase to 84076 thousand UAH. This significant rise suggests a major capital infusion or revaluation, potentially indicating strategic funding to support expansion or large-scale investments. Retained earnings show a fluctuating pattern. From 13665 thousand UAH in 2019, there was a sharp decrease to 9751.9 thousand UAH in 2020 and a further decline to 8984.9 thousand UAH in 2021. The trend worsened significantly in 2022 with a large uncovered loss of -16952 thousand UAH, followed by a further drop to -29858.3 thousand UAH in 2023. These figures indicate consistent financial stress, possibly due to operational inefficiencies, increased costs, or strategic investments that have not yet yielded returns.

The combined effect of registered capital and retained earnings resulted in a net worth of 39008 thousand UAH in 2019, which decreased to 35166.3 thousand UAH in 2020 and further to 34586.3 thousand UAH in 2021. The net worth experienced a significant drop to 8686.3 thousand UAH in 2022, reflecting substantial financial challenges, before improving slightly to 5427 thousand UAH in 2023 Accounts payable showed a dramatic increase from 10975 thousand UAH in 2019 to 16066.6 thousand UAH in 2020, indicating a possible extension of credit periods or delayed payments. This figure dropped sharply to 5086.1 thousand UAH in 2021, suggesting improved payment efficiency or reduced purchases on credit. However, it rose again to 4245 thousand UAH in 2022 and further to 26237 thousand UAH in 2023, reflecting fluctuating procurement strategies or varying market conditions.

Payments to the budget increased significantly from 74 thousand UAH in 2019 to 421 thousand UAH in 2020, then to 625.3 thousand UAH in 2021, and further to 662 thousand UAH in 2022. This upward trend indicates higher tax liabilities or settlements, possibly due to increased profitability or tax assessments. By 2023, this figure had risen to 917 thousand UAH, maintaining the increasing trend. This category appeared in 2021 with 133 thousand UAH, indicating the company's acceptance of advance payments for goods or services. .

Table 2.4 – Analysis of Liabilities and Current liabilities

| | | | | | | Deviation 2020-2019 | | Deviation 2021-2020 | | Deviation 2022-2021 | | Deviation 2023-2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Liabilities | 2019 | 2020 | 2021 | 2022 | 2023 | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) |
| **I. Own capital** | | | | | | | | | | | | | |
| Registered (share) capital | 25415 | 25415 | 25415 | 25415 | 84076 | 0 | 0,00 | 0 | 0,00 | 0 | 0,00 | 58661 | 0,00 |
| Retained earnings (uncovered loss) | 13665 | 9751 | 8984,9 | -16952 | -29858 | -3914 | -28,64 | -766,1 | -7,86 | -25936,9 | -288,67 | -12906 | 76,13 |
| All according to Section I | 39080 | 35166 | 34586,3 | 8686 | 54270 | -3914 | -10,02 | -579,7 | -1,65 | -25900,3 | -74,89 | 45584 | 524,80 |
| **II. Current liabilities** | | | | | | | | | | | | | |
| Current accounts payable for: | | | | | | | | | | | | | |
| Goods, works, services | 10975 | 160666 | 50861 | 42450 | 26237 | 149691 | 1363,93 | -109805 | -68,34 | -8411 | -16,54 | -16213 | -38,19 |
| Calculations with the budget | 74 | 421 | 625,3 | 662 | 917 | 347 | 468,92 | 204,3 | 48,53 | 36,7 | 5,87 | 255 | 38,52 |
| For advances received | 0 | 0 | 0 | 133 | 7564 | 0 | 0 | 0 | 0 | 133 | 0 | 7431 | 5587,22 |
| Current security | 0 | 0 | 0 | 2108 | 1895 | 0 | 0 | 0 | 0 | 2108 | 0 | -213 | -10,10 |
| All according to section II | 11668 | 17808 | 52144,2 | 49667,1 | 36863 | 6140 | 52,62 | 34336,2 | 192,81 | -2477,1 | -4,75 | -12804,1 | -25,78 |
| Balance | 51747 | 53780 | 87687,1 | 60461,3 | 91133 | 2033 | 3,93 | 33907,1 | 63,05 | -27225,8 | -31,05 | 30671,7 | 50,73 |

The figure increased significantly to 7564 thousand UAH in 2023, reflecting a strategy to secure working capital or guarantee future sales.

No data was recorded for 2019 and 2020. However, in 2021, current security stood at 2108 thousand UAH, decreased slightly to 1895 thousand UAH in 2022, and then to 1682 thousand UAH in 2023. These fluctuations suggest variations in short-term financial obligations or collateral requirements. Total current liabilities increased from 11668.8 thousand UAH in 2019 to 17808.7 thousand UAH in 2020, reflecting higher operational costs or delayed payments. The figure jumped dramatically to 52144.2 thousand UAH in 2021, possibly due to increased purchases or deferred payments. A slight decrease to 49667.1 thousand UAH in 2022 was followed by an increase to 36863 thousand UAH in 2023, indicating varying operational financing strategies. The overall balance of liabilities increased from 51747 thousand UAH in 2019 to 53780.3 thousand UAH in 2020, reflecting higher liabilities and equity adjustments. The significant jump to 87687.1 thousand UAH in 2021 highlights a period of increased financial obligations. The slight decrease to 60461.3 thousand UAH in 2022, followed by a significant rise to 91133 thousand UAH in 2023, suggests strategic financial maneuvers to stabilize operations and support growth.

Analyzing the financial and operational data of the company from 2019 to 2023 reveals significant insights into its strategic maneuvers and financial health. The company's net worth showed stability from 2019 to 2022, but a substantial increase in 2023 suggests a major capital infusion, possibly to support expansion or significant investments. Conversely, the retained earnings indicate operational challenges, with significant losses in 2022 and 2023, likely due to increased costs or inefficiencies.

Current liabilities fluctuated notably, reflecting dynamic procurement strategies and market conditions. The period from 2019 to 2023 was marked by significant financial adjustments, reflecting the company's efforts to navigate a complex market environment. Strategic maneuvers, including capital infusion and adaptive financial strategies, highlight a proactive approach to managing growth and stability. Moving forward, focusing on operational efficiency and strategic financial management will be crucial for leveraging these adjustments towards sustained growth and financial health.

The Return on Assets (ROA) ratio indicates how efficiently a company utilizes its assets to generate profit. From 2019 to 2023, the ROA experienced a noticeable decline. In 2019, the ROA was -0.13792, reflecting negative returns on the company's assets. This trend worsened in 2020, with ROA dropping to -0.07276. The most significant drop occurred in 2022, with an ROA of -0.42899, suggesting a severe decrease in asset efficiency. However, by 2023, the ROA showed signs of recovery, improving to -0.14162.

This recovery, while positive, still indicates inefficiencies in asset utilization that need to be addressed for better financial health.

The Return on Equity (ROE) ratio measures the profitability relative to shareholders' equity. In 2019, the ROE was -0.18531, indicating losses relative to equity. The ratio improved slightly in 2020 to -0.02653 but worsened again to -0.2997 in 2022. By 2023, ROE improved to -0.1025, signaling some recovery but still reflecting challenges in generating returns for shareholders. The fluctuations in ROE highlight the need for strategic initiatives to stabilize and improve profitability. The profitability ratio, which reflects overall profitability, also showed a declining trend. Starting at -0.03134 in 2019, it fell to -0.08639 in 2022 before slightly recovering to -0.03864 in 2023. This downward trend emphasizes ongoing challenges in maintaining profitability, necessitating focused efforts to enhance revenue generation and cost management. The depreciation ratio remained relatively stable from 2019 to 2023, indicating consistent depreciation policies and asset management practices. In 2019, the ratio was 0.557201, which increased to 0.718392 in 2022 and 0.764022 in 2023. This stability suggests that the company has maintained a consistent approach to asset depreciation. The asset turnover ratio, which measures the efficiency of asset utilization in generating revenue, experienced a dramatic decline from 4.464877 in 2019 to 1.101595 in 2023. This significant drop indicates decreased efficiency in using assets to drive revenue, pointing to the need for strategies to optimize asset utilization. The coefficient of financial stability, indicating the company’s ability to sustain operations without relying on long-term obligations, decreased from 0.755213 in 2019 to 0.595503 in 2023. This decline suggests increased financial vulnerability, highlighting the need for better financial management and stability.

The coating coefficient, which ideally should be more than 1, showed an improvement, moving from 1.083548 in 2022 to 2.311993 in 2023. This improvement indicates better coverage of short-term liabilities by current assets, suggesting improved short-term financial health. The solvency (autonomy) ratio, reflecting the company's financial independence, remained relatively stable, showing slight improvement from 0.755213 in 2019 to 0.595503 in 2023. This stability suggests a consistent capital structure and financial independence.

The funding ratio, which evaluates the proportion of long-term debt to equity, showed significant improvement. It increased from 0.298567 in 2019 to 5.718064 in 2022, before slightly decreasing to 0.679528 in 2023. This improvement indicates a strategic increase in leveraging for financial growth, suggesting the company's proactive approach to financing.

The analysis of operating activities from 2019 to 2023 highlights the company's dynamic operational landscape (Presented in Tab 2.5). Significant fluctuations in revenue, COGS, and gross profit suggest the need for robust strategies to stabilize operations and ensure sustainable growth. Effective cost management has been evident in certain years, but maintaining a balance between expenses and revenue growth remains crucial. Moving forward, the company should focus on enhancing operational efficiency, optimizing costs, and leveraging strategic initiatives to drive consistent and sustainable profitability.

Over these years, revenue figures have shown considerable variability, reflecting the company's response to market conditions and internal challenges. This variability underscores the importance of a strategic approach to revenue generation that goes beyond mere reactionary measures. To stabilize and potentially increase revenue, the company should explore diversification in its product and service offerings, and strengthen its market presence through targeted marketing campaigns and strategic partnerships.

In conclusion, the analysis from 2019 to 2023 reveals that while the company has navigated through various challenges, there is a need for a strategic and comprehensive approach to ensure long-term profitability and growth. By focusing on enhancing operational efficiency, optimizing costs, and implementing strategic growth initiatives, the company can achieve sustained profitability and maintain a competitive edge in the market.

Table. 2.5 – Analysis of Indicators of profitability, financial condition, and competitiveness in the market

| | | | | | | Deviation 2020-2019 | | Deviation 2021-2020 | | Deviation 2022-2021 | | Deviation 2023-2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2019 | 2020 | 2021 | 2022 | 2023 | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) | absolute Thsd UAH | relative (%) |
| Return on assets ratio | -0,138 | -0,073 | -0,009 | -0,429 | -0,142 | 0,065 | -47,25 | 0,0640 | -87,98 | -0,420 | 4806,92 | 0,287 | -66,99 |
| Return on equity ratio (financial return) | -0,185 | -0,026 | -0,005 | -0,300 | -0,103 | 0,159 | -85,78 | 0,0209 | -79,15 | -0,294 | 5353,80 | 0,197 | -65,80 |
| Profitability ratio | -0,031 | -0,019 | -0,002 | -0,086 | -0,039 | 0,012 | -39,30 | 0,0175 | -91,75 | -0,085 | 5402,82 | 0,048 | -55,27 |
| Depreciation ratio of fixed assets | 0,557 | 0,660 | 0,610 | 0,718 | 0,764 | 0,103 | 18,48 | -0,0498 | -7,54 | 0,108 | 17,70 | 0,046 | 6,35 |
| Asset turnover ratio | 4,465 | 0,974 | 1,726 | 1,013 | 1,102 | -3,490 | -78,17 | 0,7514 | 77,11 | -0,713 | -41,29 | 0,088 | 8,72 |
| The coefficient of financial stability of the enterprise | 0,755 | 0,654 | 0,394 | 0,144 | 0,596 | -0,101 | -13,42 | -0,2595 | -39,68 | -0,251 | -63,58 | 0,452 | 314,52 |
| Coverage ratio | 3,788 | 2,677 | 1,508 | 1,084 | 2,312 | -1,110 | -29,32 | -1,1694 | -43,68 | -0,425 | -28,15 | 1,228 | 113,37 |
| Absolute liquidity ratio | 1,357 | 0,864 | 0,328 | 0,560 | 0,912 | -0,493 | -36,30 | -0,5361 | -62,03 | 0,232 | 70,57 | 0,353 | 62,99 |
| Solvency (autonomy) ratio | 0,755 | 0,654 | 0,394 | 0,144 | 0,596 | -0,101 | -13,42 | -0,2595 | -39,68 | -0,251 | -63,58 | 0,452 | 314,52 |

## 2.3 Detailed analysis of DHL's CRM System

Customer Relationship Management (CRM) is a fundamental component of DHL's operational strategy, playing a crucial role in managing customer interactions and enhancing service delivery. This system is meticulously designed to handle large volumes of data, providing valuable insights into customer preferences, behavior, and feedback. DHL's CRM system encompasses several key features that collectively contribute to its efficiency and effectiveness.

At the core of DHL's CRM system is a centralized database that integrates all customer information (Presented in Fig. 2.6).

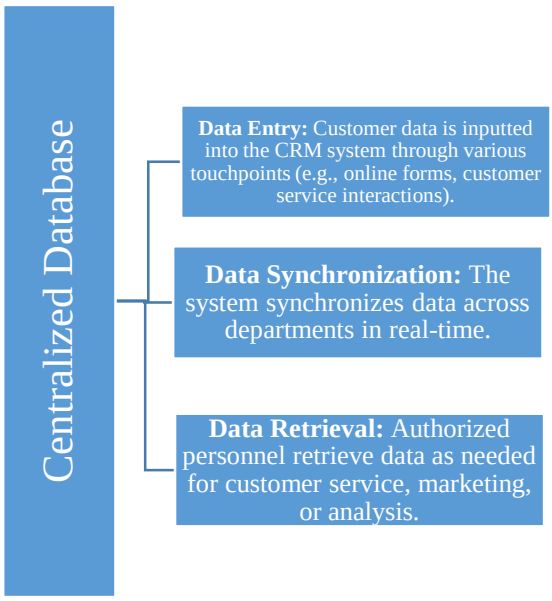


Figure. 2.6 – Database Processes [32]

This database ensures that data is easily accessible and manageable, allowing for real-time updates and consistent information across all departments. The centralized nature of the system means that any update made in one department is instantly reflected across the organization, ensuring that all teams have access to the latest customer data. This feature is critical for maintaining accurate records and providing seamless service to customers.

One of the standout features of DHL's CRM system is its ability to segment customers based on various criteria such as geography, purchase history, and service usage. This segmentation allows DHL to tailor its marketing strategies and service offerings to specific customer groups. For example, customers who frequently use international shipping services can be targeted with promotions relevant to their needs, while those who primarily use domestic services receive different offers. This targeted approach enhances customer satisfaction by ensuring that the services and communications they receive are relevant to their needs and preferences.

Automation is another significant aspect of DHL's CRM system. By automating routine tasks such as order processing, tracking, and customer support, DHL can streamline its workflows and reduce the likelihood of errors. Automated reminders and follow-ups ensure that customer inquiries and issues are addressed promptly, improving response times and overall customer satisfaction. This level of automation not only increases efficiency but also allows DHL's staff to focus on more complex tasks that require human intervention.

DHL's CRM system leverages advanced data analytics to generate detailed reports on customer behavior and market trends. These analytics provide valuable insights that support data-driven decision-making, helping DHL to refine its services and identify new opportunities for growth. For instance, by analyzing purchasing patterns, DHL can anticipate customer needs and adjust its inventory and logistics processes accordingly. This proactive approach helps DHL stay ahead of competitors and continuously improve its service delivery.

Collecting and analyzing customer feedback is another crucial function of DHL's CRM system. Feedback is gathered from various channels, including surveys, social media, and direct interactions, and is then analyzed to identify areas for improvement. This continuous feedback loop allows DHL to adapt its services to better meet customer expectations. By addressing concerns and implementing suggestions, DHL demonstrates its commitment to customer satisfaction and continuous improvement.

DHL’s CRM system is designed to integrate seamlessly with other enterprise systems such as ERP (Enterprise Resource Planning) and supply chain management. This integration ensures a smooth flow of data between different systems, enhancing operational efficiency and providing a holistic view of the company’s operations. For example, when a new order is placed, the CRM system can automatically update the ERP and supply chain systems, ensuring that inventory levels are adjusted, and logistics processes are initiated without any manual intervention.

The comprehensive features of DHL’s CRM system bring numerous benefits to the company:

1. Enhanced Customer Experience: By understanding customer needs and preferences through detailed data analysis, DHL can offer personalized services, leading to higher customer satisfaction and loyalty. Personalized emails, notifications, and updates keep customers well-informed and engaged.

2. Increased Efficiency: The automation of routine tasks and centralized data management reduces the need for manual intervention, minimizing errors and speeding up processes. This efficiency translates into faster response times and a more streamlined operation.

3. Better Decision-Making: Advanced analytics provide deep insights into customer behavior and market trends, supporting strategic planning and informed decision-making. These data-driven decisions help DHL optimize its services and stay ahead of industry trends.

4. Improved Communication: The CRM system facilitates better communication with customers by providing timely and relevant information. Whether through automated reminders or personalized updates, DHL ensures that customers are always informed about the status of their shipments and any changes that may affect them.

The operating system is designed to enhance the automation of the CRM processes (Fig 2.7) and improve efficiency in order to increase customer satisfaction. The system's automation capabilities encompass sales force automation, marketing

automation, and service automation. It involves capturing, interpreting, isolating, storing, modifying, processing, and reporting data.

The analysis system gathers and stores customer data, and then analyzes and processes this information to generate reports. It includes internal business scope data such as sales data (products, quantities, and purchase history), financial data (purchase history, credit score), and marketing data (response to activities, and customer loyalty programs).


Figure. 2.7 – CRM processes [54]

Once analyzed, customers can be classified based on different preferences, buying habits, location, and other characteristics. This allows for the creation of different sales plans tailored to various customer groups. The analysis system is essential as it continually tracks customers' various interactions and data changes, providing sales insights to help the company and consumers maintain and long-term relationships.

The collaboration system interacts with consumers through various channels such as emails and calls to facilitate transaction communication between the company and the customer, making it more convenient and seamless.

Outsourcing Customer Relationship Management (CRM) can offer several benefits, but it also comes with potential risks that companies need to consider:

1. Data Security and Privacy: Handling sensitive customer data through third-party providers can pose significant risks if not managed properly. Ensuring compliance with data protection regulations and securing data against breaches is crucial.

2. Quality Control: The quality of customer interactions may suffer if the outsourcing provider does not meet the company's standards. Maintaining consistent service quality can be challenging.

3. Loss of Control: Outsourcing CRM can lead to a loss of control over key customer relationship processes. This can impact the company's ability to respond quickly to customer needs and market changes.

4. Integration Issues: Integrating the outsourced CRM system with existing in-house systems can be complex and may result in compatibility issues, affecting the seamless flow of information.

5. Dependence on Vendor: Relying heavily on an external provider can create dependency risks. If the vendor experiences issues or decides to change terms, it can disrupt the company's operations.

## 2.4 Chapter 2 summary

The conducted analysis of the activities of the logistics company DHL, as a subject of the air transport supply chain, made it possible to determine that the company is the leader of the global market of logistics services, one of the main activities of which is the provision of aviation services, while it uses both its own fleet of aircraft and uses the services of partner companies. Thanks to this model of providing this business segment, DHL's share in the world express air delivery market today is 39%.

A detailed diagnosis of the financial and economic activity of the company was carried out on the basis of the annual reports of LLC "DHL Logistics (Ukraine)" for 2021-2023. Despite some negative trends in financial indicators caused by the full-scale invasion of Russia, the conditions of martial law, the company quickly adapted to changes in the external environment and demonstrates persistent efforts to restore and strengthen its positions.

DHL’s financial performance and CRM system reflect its strategic investments in digital transformation, enhancing both operational efficiency and customer satisfaction. From 2021 to 2023, DHL experienced robust growth, driven by a surge in e-commerce and substantial investments in technology and infrastructure. These investments have improved the company’s operational capacity, ensuring timely and efficient service delivery while optimizing costs and enhancing profitability.

DHL's CRM system is integral to its competitive edge, unifying various customer touchpoints for real-time tracking, personalized communication, and efficient issue resolution. Advanced CRM tools, such as automated guided vehicles, chatbots, and shipment sensors, alongside AI and data analytics, enable DHL to predict customer needs, optimize delivery routes, and manage inventory effectively. DHL’s Strategy 2025 underscores its commitment to digital innovation, with over €2 billion invested in projects aimed at improving customer and employee experiences. This focus on customer-centric solutions and technological advancements will continue to drive DHL's growth and success in the evolving logistics landscape.

# CHAPTER 3
# DEVELOPMENT OF PROPOSALS FOR THE FORMATION OF AN IMPROVED CRM SYSTEM FOR THE LOGISTICS COMPANY DHL

## 3.1 Project proposals regarding the architecture of the CRM System

An effective Customer Relationship Management (CRM) system is critically important for the success of any company that aims to provide a high level of customer service and strengthen its competitive position in the market. DHL, as one of the leading logistics companies in the world, understands the significance of CRM for its operations. However, an analysis of the current CRM system in the previous section has revealed certain shortcomings and limitations that need to be addressed.

Taking into account the research conducted, it can be concluded that the development of a logistics company's strategy effectively involves the formation of a comprehensive system of functional strategies. Relationships with customers play a key role in the activities of a logistics company. This is evidenced by the fact that every logistics company has a department responsible for product sales. In large logistics companies, there may be several such departments, supplemented by units responsible for marketing research, after-sales service, and more. Customers are the main source of revenue for a logistics company, so the effectiveness of its operations largely depends on how well interactions with them are organized, how quickly the company responds to market changes, and how it adapts its internal business processes to meet external environmental requirements. Thus, organizing customer relationships is a crucial function of a logistics company and a key strategic task, allowing a customer-oriented strategy to be viewed as one of the functional strategies for the company's development.

Therefore, a customer-oriented strategy for a logistics company should be considered as a system of goals, tasks, and approaches aimed at improving the

company's efficiency in the area of customer relationships. However, forming a customer-oriented strategy requires more than just an intuitive understanding of its value; it is essential to clearly define its place within the system of the company's functional strategies. To achieve this, another important characteristic of a logistics company's strategy should be noted. Despite being aimed at solving long-term tasks, its successful implementation implies that the company's activities should remain effective both in the long term and the short term.

The strategy should include goals and tools for achieving them across all areas of the company's activities and for all time horizons. Dividing the overall strategy into functional strategies allows necessary attention to be given to each direction of activity. Each of the functional strategies can include goals, criteria, and tools for achieving them in its respective field. An important task in forming a system of functional strategies is to ensure their alignment with each other and with the overall strategy, so that the logistics company as a whole develops in a coherent and progressive manner.

For the development of a logistics company and enhancement of its efficiency, it is crucial to maintain a balance between long-term and short-term tools and objectives. Long-term goals are often associated with investments that do not yield immediate returns but pay off over time. Managing current operations usually requires significantly less investment but necessitates the company's quick response to changing market conditions. Engaging with customers allows companies to detect market changes and respond promptly. Logistics companies must continuously study their customers' needs to satisfy them as fully as possible. This focus on thoroughly meeting customer demands is commonly referred to as a customer-oriented approach. The customer-oriented approach, in turn, is implemented through the development of a customer-oriented strategy. This strategy is developed within the framework of the overall strategy of the logistics company and is an integral part of it, alongside financial, investment, production, and other types of functional strategies.

However, logistics companies must also gain benefits from their interactions with customers, so maximizing customer satisfaction is not an end but a means. Within the framework of a customer-oriented strategy, business processes are formed with the

sole purpose of providing the best customer service, as well as forming a customer portfolio that brings the organization the most revenue and, consequently, profit.

A modern CRM system is a comprehensive structure that integrates various components and modules to ensure effective customer relationship management. At DHL, the current CRM architecture includes several key elements (Presented In Figure 3.1) that work closely together to achieve maximum efficiency. Many B2B companies have implemented a market-focused customer management structure known by various names, including key account management, national account management, regional account management, or global account management.

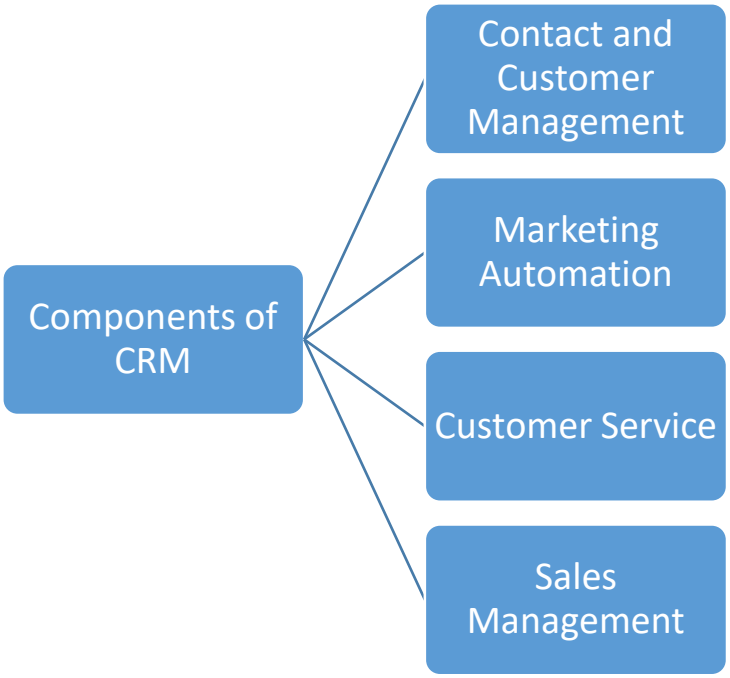


Figure 3.1 - CRM architecture key elements [12]

Usually companies use the term key account management (KAM) to encompass all these variations. KAM is a framework that facilitates the execution of CRM at the business unit level.

A key account is one that holds strategic significance for the company. This usually means that the account currently or potentially contributes substantially to the company's objectives, such as profitability. Additionally, it might be a high-volume account, a benchmark customer, an inspirational partner, or a gateway to new opportunities.

Companies implement Key Account Management in one of two ways: either a single dedicated individual manages the relationship, or a team is assigned to handle it. The decision to adopt a Key Account Management structure is driven by several business factors:

- Concentration of Buying Power: Increasingly, fewer entities control a larger share of corporate purchasing. Large companies are becoming even bigger, consolidating their purchasing power. Smaller companies are also joining forces to enhance their purchasing capabilities and achieve economies of scale. Even major competitors are collaborating to secure better procurement conditions.
- Globalization: As companies expand globally, they prefer to engage with global suppliers, especially for mission-critical purchases. Global companies aim to centralize procurement while ensuring local delivery of goods and services.
- Vendor Reduction Programs: Customers are reducing the number of suppliers they work with, recognizing the benefits of deeper, more effective relationships with fewer vendors.
- More Demanding Customers: Customers are increasingly expecting suppliers to streamline operations and eliminate non-value-adding activities. They demand precise fulfillment of their needs, which often translates to more reliable, responsive customer service and just-in-time delivery.

These factors highlight the importance of adopting a Key Account Management structure to stay competitive and meet the evolving demands of the market.

Customer Satisfaction (CSAT) is one of the key performance indicators (Presented in Fig 3.2) of a Customer Relationship Management (CRM) system. This metric reflects the level of customer satisfaction with the company's services or products and is a crucial indicator of the overall quality of customer interactions. For a logistics company like DHL, a

high level of customer satisfaction means that clients are pleased with the services provided, which in turn fosters their loyalty and encourages repeat business. CSAT is typically measured through surveys and questionnaires where customers rate their experience with the company across various aspects, such as service quality, delivery

speed, accuracy of information, and level of support. The ratings are usually on a scale, for example, from 1 to 5 or from 1 to 10, where higher scores indicate greater satisfaction. A high level of customer satisfaction brings several advantages to the company. Firstly, satisfied customers are more likely to become repeat customers and recommend the company's services to their acquaintances and colleagues, thereby attracting new customers through word-of-mouth. Secondly, satisfied customers are less inclined to switch to other service providers, reducing costs associated with customer retention and reacquisition.


Figure 3.2 – Scheme of customer satisfaction [8]

For DHL, it is essential not only to maintain a high CSAT level but also to continually work on improving it. This requires regular collection of feedback, analysis of the data obtained, and implementation of improvements in service processes. For instance, if customers point out long delivery times or inconvenient tracking processes, the company can optimize its logistics routes or upgrade its information systems. Ultimately, a high level of customer satisfaction is the result of a comprehensive approach to customer relationship management, which includes the use of modern technologies, continuous improvement of business processes, and a focus on customer

needs. This not only strengthens the company's market position but also contributes to its long-term success and sustainable growth. Net Promoter Score (NPS) is a critical metric used to gauge customer loyalty and predict business growth. It measures the likelihood that customers would recommend a company's products or services to others, providing a clear indicator of overall customer satisfaction and brand loyalty. For a logistics giant like DHL, a high NPS signifies strong customer advocacy, which is essential for maintaining a competitive edge in the market. A high NPS indicates that a significant proportion of customers are enthusiastic about the company and willing to recommend it to others, which can lead to increased referrals and organic growth. Conversely, a low NPS suggests that there may be issues with customer satisfaction that need to be addressed to prevent negative word-of-mouth and customer churn. For DHL, monitoring and improving NPS involves identifying the root causes of dissatisfaction among Detractors and implementing targeted strategies to enhance the customer experience. This might include improving delivery times, enhancing customer service, and leveraging technology to streamline operations.

By focusing on these areas, DHL can not only boost its NPS but also drive long-term customer loyalty and business success. Customer Lifetime Value (CLV) is a crucial metric that represents the total profitability a company can expect to earn from a customer over the entire period of their relationship. A high CLV indicates that customers are staying with the company for a long time and generating significant revenue. For DHL, a high CLV means that the company is successfully retaining its customers and providing services that keep them engaged and satisfied over the long term. By focusing on increasing CLV, DHL can ensure sustainable growth and higher profitability.

Customer Response Time measures the time it takes for a company to respond to a customer's query or issue. The faster the response, the higher the level of customer satisfaction. For a logistics company like DHL, quick response times are critical in resolving delivery issues, tracking shipments, and providing timely updates. Efficient CRM systems help streamline communication processes, enabling faster and more accurate responses to customer inquiries, thereby improving overall customer

experience. The Repeat Sales Rate indicates the percentage of customers who make repeat purchases from the company. A high repeat sales rate suggests that the CRM system is effectively maintaining customer loyalty and satisfaction. For DHL, a high repeat sales rate means that customers are consistently choosing their services over competitors, which signifies trust and satisfaction with DHL's logistics solutions. This metric is vital for assessing the long-term success of customer retention strategies. Lead Conversion Rate measures the effectiveness of converting potential customers (leads) into actual buyers. A high lead conversion rate indicates that the CRM system is successfully managing and nurturing leads through the sales funnel. For DHL, improving lead conversion rates can directly impact revenue growth by turning more prospects into loyal customers. Effective CRM practices, such as personalized communication and targeted marketing, are essential for enhancing lead conversion rates. Customer Service Cost refers to the expenses associated with supporting and servicing customers. An efficient CRM system helps optimize these costs by automating processes and improving the quality of service. For DHL, reducing customer service costs while maintaining high service standards is crucial for profitability. Automation tools, self-service options, and streamlined workflows can significantly reduce the resources required for customer support, allowing the company to allocate funds to other strategic areas. Data Utilization and Integration assess how effectively the CRM system integrates with other company systems (ERP, WMS, TMS) and uses data for informed decision-making. For DHL, seamless integration of CRM with other operational systems ensures consistent and accurate information flow, which is critical for optimizing logistics operations. Effective data utilization enables better forecasting, inventory management, and customer service, leading to enhanced operational efficiency and customer satisfaction. So, for better uderstending problems of CRM system we need to use SWOT analysis (Presented in Fig 3.3).

DHL’s CRM system boasts a number of significant strengths that bolster its position as a global logistics leader. One of the most prominent strengths is DHL's global reach and brand recognition.


Figure 3.3 - SWOT analysis of implementation CRM system in DLH

With a vast network spanning over 220 countries and territories, DHL has established a strong and trusted brand that resonates with customers worldwide. This extensive reach enhances the effectiveness of its CRM system by ensuring consistent customer experiences across diverse markets. Customers are more likely to trust and engage with a well-recognized brand, facilitating smoother CRM integration and utilization. Another key strength is DHL's investment in advanced technology and automation. The company has leveraged cutting-edge CRM technologies, including artificial intelligence (AI) and machine learning (ML), to automate processes, improve customer service, and optimize logistics operations. These technologies enable DHL to efficiently manage large volumes of customer data, predict customer needs, and deliver personalized services at scale. The comprehensive data integration capabilities

of DHL's CRM system further enhance its effectiveness. By seamlessly integrating CRM with other key systems such as ERP (Enterprise Resource Planning), WMS (Warehouse Management System), and TMS (Transportation Management System), DHL ensures a unified view of customer interactions and operational data. This integration facilitates better decision-making and enhances overall efficiency. DHL's customer-centric approach is also a notable strength. The company's focus on customer satisfaction and loyalty is embedded in its CRM practices, which are designed to deliver personalized services and build long-term relationships. By placing the customer at the center of its operations, DHL can tailor its services to meet specific customer needs, resulting in higher satisfaction and loyalty rates. Additionally, the robust analytics capabilities within DHL's CRM system allow for deep insights into customer behavior. These insights enable the company to predict trends, identify opportunities for improvement, and refine its service offerings. Powerful analytical tools help DHL stay ahead of market trends and maintain a competitive edge.

Despite its many strengths, DHL's CRM system also has some weaknesses that need to be addressed. One of the primary weaknesses is the high implementation cost associated with advanced CRM systems. The initial investment required for deploying and maintaining a sophisticated CRM system can be substantial. This includes costs related to software, hardware, integration, training, and ongoing maintenance. Such financial demands can be a burden, especially when continuous upgrades and integrations are necessary to keep the system current. The complexity of integrating CRM with multiple existing systems is another significant challenge. Ensuring seamless integration with systems like ERP, WMS, and TMS can be time-consuming and prone to operational disruptions during the transition phase. This complexity requires meticulous planning and execution to avoid negative impacts on day-to-day operations. Moreover, DHL's heavy reliance on technology introduces vulnerabilities related to cyber threats and technical failures. Any disruption in the CRM system due to cyber-attacks or technical issues can compromise data security and service continuity, potentially damaging customer trust and satisfaction. Inconsistent user adoption across different regions and departments within DHL also poses a challenge.

Ensuring that all employees consistently use the CRM system effectively is crucial for maximizing its benefits. Variations in user adoption can lead to inefficiencies and missed opportunities for optimizing customer interactions and improving service quality.

DHL's CRM system presents several opportunities for growth and enhancement. One of the key opportunities lies in expanding into emerging markets. By leveraging CRM insights to identify and capitalize on opportunities in these markets, DHL can drive growth and increase its market share. Emerging markets often present untapped potential for logistics services, and an effective CRM system can help DHL tailor its strategies to meet the unique needs of these regions. Enhancing customer experience is another significant opportunity. Continuous improvements in CRM capabilities can further elevate customer satisfaction by providing more personalized and efficient services. By leveraging data analytics and customer feedback, DHL can refine its service offerings and address pain points, leading to a superior customer experience. Innovation in service offerings also holds great potential. Using CRM data to innovate and develop new logistics solutions tailored to specific customer needs can differentiate DHL from its competitors. For example, introducing customized shipping solutions or value-added services based on customer preferences can strengthen DHL's market position. Strategic partnerships and collaborations with technology providers and other logistics firms can enhance CRM functionality and expand DHL's service capabilities. Such partnerships can bring in new technologies, expertise, and market opportunities, driving further growth and innovation. Data-driven decision making, supported by CRM analytics, provides actionable insights for strategic planning.

Despite the opportunities, there are also several threats that DHL needs to navigate. Intense competition in the logistics industry is a major threat. Numerous competitors are investing in advanced CRM systems, which can erode DHL's competitive advantage. To stay ahead, DHL must continuously innovate and enhance its CRM capabilities. Regulatory challenges pose another significant threat. Compliance with varying data protection regulations across different regions can complicate CRM implementation and data management practices. Navigating these

regulatory landscapes requires careful planning and adherence to local laws to avoid legal and financial repercussions.

Economic instability is another threat that can impact DHL's CRM system. Economic downturns can reduce customer spending and demand for logistics services, affecting revenue and the return on investment in CRM systems. During such times, maintaining high levels of customer satisfaction and loyalty becomes even more critical. Technological disruptions also pose a threat.

Technological threats are also prominent, particularly in the areas of cybersecurity and data protection. As DHL relies heavily on digital systems and data integration for its CRM and overall operations, it becomes a target for cyberattacks. Data breaches or cyberattacks can lead to significant financial losses, damage to reputation, and legal liabilities. Ensuring robust cybersecurity measures and staying ahead of potential threats is crucial for maintaining customer trust and safeguarding sensitive information.

Environmental regulations and sustainability challenges are increasingly becoming a threat as well. With the growing emphasis on environmental responsibility, DHL faces pressure to reduce its carbon footprint and adopt sustainable practices. Compliance with environmental regulations can increase operational costs, and failure to meet these standards can result in penalties and damage to the company's reputation. Additionally, there is a rising demand from customers for greener logistics solutions, and DHL must invest in sustainable technologies and practices to meet these expectations.

The detailed block diagram for an enhanced CRM system (Presented in Fig 3.4) at DHL provides a comprehensive overview of the various components and interactions that make up the system. At the core of the diagram is the CRM platform, which serves as the central hub for all customer-related activities and data. This platform integrates various modules such as Customer Interactions, IoT Devices, Social Media, Market Research, and External Data Providers. Each of these modules plays a crucial role in collecting, processing, and analyzing customer data to provide a holistic view of customer behavior and preferences.


Figure 3.4 - Diagram for an enhanced CRM system at DHL

The Customer Interactions module captures all touchpoints with customers, including sales, support, and service interactions. External Data Providers supply additional data that can enhance the CRM system's analytics capabilities, such as demographic information and economic indicators.

Integration and Data Flow: The enhanced CRM system is designed to seamlessly integrate data from various sources. Data from Customer Interactions, IoT Devices, Social Media, Market Research, and External Data Providers flow into the central CRM platform. Advanced data integration tools ensure that data is harmonized, cleansed, and transformed to maintain consistency and accuracy. This integrated data is then used by analytics and reporting tools within the CRM platform to generate actionable insights. These insights help DHL to make informed decisions, improve customer satisfaction, and optimize operational efficiency.

In summary, the detailed block diagram highlights the interconnected nature of the CRM system's components and the importance of data integration in delivering a unified customer experience. By leveraging data from multiple sources, DHL can gain a deeper understanding of customer behavior, anticipate their needs, and enhance the overall customer experience.

## 3.2 Economic justification of CRM Implementation

Implementing a CRM system in a large logistics company like DHL involves numerous data integration challenges. These challenges (Presented in Table 3.1) are critical to address because seamless data integration ensures consistent, accurate, and timely information flow across various systems, which is essential for effective customer relationship management. Integrating a CRM system at DHL presents several technical challenges, primarily due to the heterogeneity of existing systems. DHL employs multiple systems, such as ERP, WMS, and TMS, each with distinct data formats, architectures, and communication protocols.

Table 3.1 – Challenges in CRM system

| **Challenges:** | **Integration with Existing Systems** | **Data Migration** | **System Performance and Scalability:** |
|---|---|---|---|
| **Technical Challenges** | – **Complexity**: Integrating a new CRM system with existing systems such as ERP, WMS, and TMS can be highly complex. These systems often have different architectures, data formats, and communication protocols, making seamless integration a significant technical hurdle.<br>– **Data Consistency**: Ensuring data consistency across multiple systems is crucial. Discrepancies between systems can lead to errors in customer data, inventory management, and order processing, undermining the reliability of the CRM system. | – **Data Quality**: Migrating existing data into the new CRM system can be challenging if the data is incomplete, outdated, or inconsistent. Data cleansing and validation processes are necessary to ensure high-quality data is imported.<br>– **Volume of Data**: For a global company like DHL, the sheer volume of data that needs to be migrated can be overwhelming. Effective data management strategies are needed to handle large datasets without losing critical information. | – **Performance Optimization**: The CRM system must be optimized for high performance to handle numerous transactions and queries simultaneously. Slow system performance can frustrate users and impact productivity.<br>– **Scalability**: As DHL continues to grow, the CRM system must be scalable to accommodate increasing volumes of data and users. Planning for scalability from the outset is essential to avoid future limitations. |
| **Organizational Challenges** | **Change Management** | **Process Reengineering** | **Cross-Departmental Collaboration** |
| | – **Resistance to Change**: Employees may resist adopting the new CRM system due to familiarity with existing processes or fear of change. Overcoming this resistance requires effective change management strategies, including clear communication and involvement of key stakeholders.<br>– **Training and Support**: Comprehensive training programs are necessary to ensure employees can use the new system effectively. | – **Business Process Alignment**: Implementing a CRM system often requires reengineering existing business processes to align with the new system's capabilities. This can be disruptive and requires careful planning to minimize operational impact.<br>– **Standardization vs. Customization**: Balancing the need for standardized processes with the requirement for customization to meet specific business needs can be challenging. Customizing the CRM system excessively can lead to increased complexity and maintenance costs. | – **Siloed Departments**: In large organizations like DHL, departments may operate in silos with limited collaboration. Implementing a CRM system requires breaking down these silos to ensure cross-departmental collaboration and data sharing.<br>– **Unified Customer View**: Achieving a unified view of the customer across all departments is critical for effective CRM. |

This diversity complicates data transformation and mapping, as structured relational databases in ERP systems need to align with semi-structured data formats in WMS or other systems. Ensuring that data from these diverse sources can be integrated into a unified CRM system without losing accuracy or consistency requires sophisticated data transformation techniques. Aligning different data models, where each system has its unique schema, entities, and relationships, adds another layer of complexity. Creating a unified view of the customer that correctly maps data from disparate systems is essential but challenging, requiring meticulous planning and execution to avoid data inconsistencies and inaccuracies that could undermine the CRM system's reliability.

Data quality issues also pose significant challenges in integrating CRM systems. Integrating data from various sources often reveals problems such as duplicates, missing values, and inconsistent data formats, which can compromise the integrity and reliability of the CRM system. For example, customer names, addresses, and contact information might be stored differently across systems, leading to redundancy and inconsistency. Ensuring high-quality data integration necessitates comprehensive data cleansing and validation processes, which involve identifying and correcting errors, standardizing data formats, and eliminating duplicates. This process can be resource-intensive and requires detailed attention to maintain data integrity. Effective data quality management ensures that the CRM system provides accurate and reliable information, crucial for making informed business decisions and maintaining customer trust.

Real-time data synchronization is another critical challenge. Ensuring timely data exchange between the CRM system and other operational systems, such as ERP and TMS, is essential for maintaining the accuracy and relevance of information. Delays or failures in data synchronization can lead to outdated or incorrect information, negatively impacting decision-making and customer service. Implementing robust middleware solutions to facilitate real-time data exchange is necessary, as middleware must handle data transformations, ensure data consistency, and efficiently manage data flow between systems. Selecting and configuring the appropriate middleware solution

that meets these requirements is crucial for maintaining the CRM system's performance and reliability.

Data security and compliance are also major concerns in CRM system integration. DHL must ensure that its CRM system complies with data protection regulations such as GDPR, adding complexity to data integration processes. Each system may have different security protocols, and aligning them to meet regulatory standards is necessary to protect customer data and maintain compliance. Implementing robust access controls to safeguard sensitive customer information is essential. Ensuring that only authorized personnel have access to specific data across integrated systems requires careful planning and execution, especially when dealing with multiple systems with varied access control mechanisms. This involves setting up strict authentication processes, regular audits, and continuous monitoring to detect and address any potential security breaches. Maintaining high standards of data security and compliance is crucial for protecting customer trust and avoiding legal repercussions. Failure to comply with regulations can result in significant fines and damage to the company's reputation.

Handling large data volumes and ensuring system performance are significant challenges in integrating CRM systems. DHL processes vast amounts of data daily, and the integrated CRM system must be scalable to handle increasing data volumes and user loads without compromising performance. Ensuring that the system can manage peak loads efficiently and provide quick response times is crucial for maintaining operational efficiency and customer satisfaction. This requires investing in high-performance servers, optimizing database configurations, and employing advanced data indexing techniques. Optimizing the performance of data integration processes involves fine-tuning database queries, ensuring efficient data processing, and minimizing latency in data synchronization. Proper planning and implementation are necessary to ensure that the CRM system remains robust and scalable as the company grows. This also involves regular performance testing and capacity planning to anticipate future growth and demand.

Integrating CRM systems with legacy systems poses substantial challenges. Legacy systems may not support modern integration technologies, making integration efforts more complex and time-consuming. These systems might have outdated interfaces, limited documentation, and lack support for APIs, complicating the integration process. Incrementally integrating legacy systems with the CRM system while ensuring business continuity requires careful planning and customized solutions. Creating custom integration solutions can be resource-intensive and demand specialized expertise, but it is essential for ensuring that legacy systems can interact effectively with the new CRM system. This might involve using middleware solutions to bridge the gap between old and new technologies or developing custom connectors to facilitate data exchange. Additionally, a thorough understanding of the legacy systems' architectures and data models is necessary to design effective integration strategies.

Successful data integration also requires effective coordination between different teams, including IT, operations, sales, and customer service. In large organizations like DHL, departments often operate in silos with limited collaboration, which can hinder data integration efforts. Breaking down these silos and ensuring cross-departmental collaboration and data sharing are essential for effective CRM implementation. Establishing a unified data governance framework is critical for managing data integration processes across the organization. This includes defining data ownership, setting data standards, and implementing data quality management practices.

Moreover, the challenges of real-time data synchronization cannot be understated. Providing up-to-date information to customers and employees is essential, yet it requires robust solutions to ensure timely data exchange between the CRM system and other operational systems like ERP and TMS. Delays or failures in data synchronization can lead to outdated or incorrect information, adversely affecting decision-making and customer service. Implementing middleware solutions that facilitate real-time data exchange is necessary. This middleware must handle data transformations, ensure data consistency, and efficiently manage data flow between

systems. Selecting and configuring the appropriate middleware solution that meets these requirements is crucial for maintaining the CRM system's performance and reliability.

In the realm of managing a logistics company, strategic goals need to be framed as measurable criteria that enable adequate assessment and the formation of substantiated conclusions regarding the extent to which these goals have been achieved. Thus, the task emerges of selecting an efficiency criterion for the logistics company, which will be associated with its strategic objectives. When evaluating the process of achieving strategic goals, it is important to consider not only the past and current states of the logistics company but also its future prospects. This means economic efficiency includes an element of expectation, reflecting the anticipated cash flow, discounted to present value. This evaluation process involves forecasting the future state of the logistics company and can only be discussed with a certain degree of probability.

Economic efficiency cannot be observed directly and must, therefore, be derived from measurable performance indicators through forecasts based on these indicators. While the accuracy of such forecasting can be very high, it always pertains to probabilities rather than exact values. Thus, an important conclusion emerges: ideal efficiency indicators, which can predict future cash flows with absolute certainty and determine long-term financial stability, fundamentally do not exist. Every indicator will have its shortcomings, and the task is not to seek an ideal but to find the best possible one.

The functioning of any enterprise involves two processes: the expenditure of funds and the investment of these funds into projects, along with receiving income from these investments. If a logistics company had only one process, evaluating its efficiency would be straightforward. However, in reality, the activities of a logistics company constitute a system of many interrelated elements. Investing resources in one area of this system does not necessarily mean that the resultant income will be generated from the same area.

Regardless of the size of the logistics company, efficiency indicators are designed to: forecast future outcomes; assess past performance; motivate employees; and facilitate the allocation of employee rewards. Hence, the criterion characterizing the strategic goal of a logistics company should ideally evaluate its economic efficiency and meet the aforementioned requirements. When considering an indicator for the functional strategy of a logistics company, another requirement must be added: it should be aligned with the indicators characterizing strategies at higher levels of the hierarchy. In practice, finding such a comprehensive indicator is unlikely, but this does not imply abandoning the idea of strategic management and performance evaluation entirely.

The forecast of costs for the implementation of the CRM system is given in table 3.2.

Table 3.2 - Costs for the implementation of the CRM system

| № | Components of costs | Years of the project | | |
|---|---|---|---|---|
| | | 2024 | 2025 | 2026 |
| 1 | CRM system costs, UAH | 113400 | 124740 | 137214 |
| 3 | SEO costs, UAH | 259200 | 285120 | 313632 |
| 2 | AI services costs, UAH | 226800 | 249480 | 274428 |
| 4 | Total expenses, UAH | 599400 | 659340 | 725274 |

In calculating the expenses, the following average market costs were considered:

- Usage of additional CRM features – $350 per month;
- SEO services – $800 per month;
- AI services – $700 per month.

It was also assumed that these expenses would increase by 10% annually.

The time series extrapolation method was used to calculate the potential increase in income from the use of our project proposal. Using this method, we can evaluate how changes in certain factors, such as the implementation of a new CRM system, will affect the company's financial performance.

By applying this method, we can identify potential growth points and set specific goals for improving the effectiveness of the CRM system.

Let's build a regression equation in order to forecast the logistics company's income for the next 3 years using the following formulas:

1. Slope of the regression line:

$$b_1 = \frac{\sum(x-\overline{x}) \times (y-\overline{y})}{\sum(x-\overline{x})^2} \quad (3.1)$$

2. *y*-intercept of the regression line:

$$b_0 = \bar{y} - b_1 \bar{x} \quad (3.2)$$

3. Sum of squares:

$$SS_{xy} = \sum(x - \bar{x})(y - \bar{y}) \quad (3.3)$$

$$SS_{xx} = \sum(x - \bar{x})^2 \quad (3.4)$$

The results of the forecast, which is based on the company's revenues, was built using the Excel software product, summarized in Table 3.3.

Table 3.3 – Revenue forecast for period 2024-2026 of DHL, thd.UAH

| Year (x) | Revenue (y) | $x^2$ | xy | Revenue (forecast) | Residual |
|---|---|---|---|---|---|
| 2019 | 231044,000 | 4076361 | 466477836 | 251755,00 | -20711,000 |
| 2020 | 205665,000 | 4080400 | 415443300 | 281800,99 | -76135,990 |
| 2021 | 488304,000 | 4084441 | 986862384 | 311846,98 | 176457,020 |
| 2022 | 300230,900 | 4088484 | 607066879,8 | 341892,97 | -41662,070 |
| 2023 | 333991,000 | 4092529 | 675663793 | 371938,96 | -37947,960 |
| 2024 | | 4096576 | | 401984,95 | |
| 2025 | | 4100625 | | 432030,94 | |
| 2026 | | 4104676 | | 462076,93 | |
| SSxy | 300460 | | | | |
| SSxx | 10 | | | | |
| b1 | 30045,99 | | | | |
| b0 | 221709 | | | | |

Source: developed by author

Accordingly, the regression equation has the following form and presented in fig. 3.5:

y = 30046x + 221709.

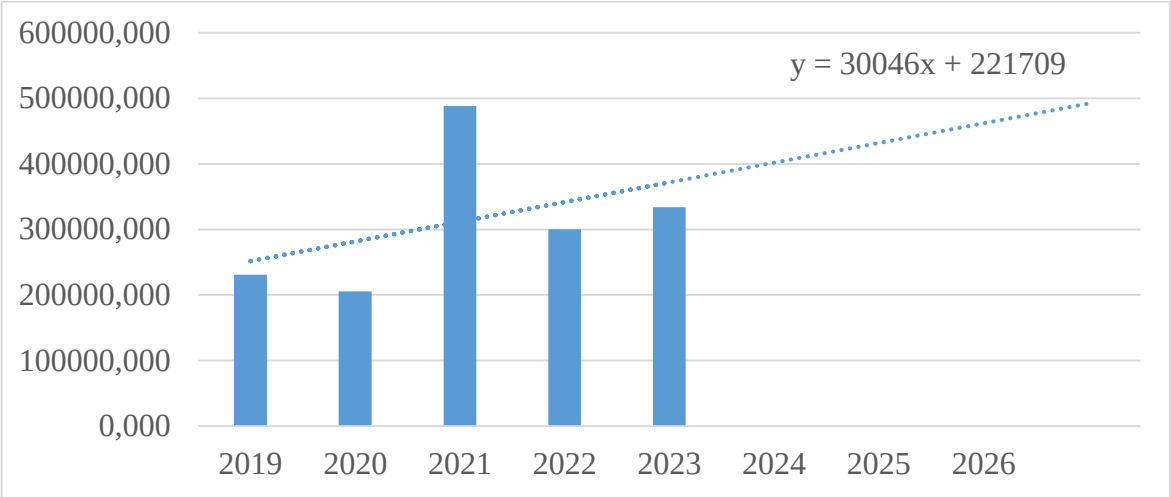


Figure 3.5 – Revenue forecast based on the regression equation

In the subsequent calculations, we can make the following assumptions:

1. Under the pessimistic forecast, our project proposal will help increase the revenue of "DHL" by 7% of the projected amount.

2. Under the realistic forecast, our project proposal will help increase the revenue of "DHL" by 10% of the projected amount.

3. Under the optimistic forecast, our project proposal will help increase the revenue of "DHL" by 12% of the projected amount.

The results of the revenue forecast, in accordance with the above assumptions, are shown in table 3.4.

Table 3.4 – Revenue forecast for period 2024-2026 of DHL according to the type of forecast, thd.UAH

| № | Years | Revenue | Forecast | | |
|---|---|---|---|---|---|
| | | | Pessimistic forecast +7% | Realistic forecast +10% | Optimistic forecast +12% |
| 1 | 2024 | 401984,95 | 430124 | 442183 | 450223 |
| 2 | 2025 | 432030,94 | 462273 | 475234 | 483875 |
| 3 | 2026 | 462076,93 | 494422 | 508285 | 517526 |

Source: developed by author

In order to carry out correct calculations, we consider it advisable to take not the entire amount of projected income, according to each scenario, but only the difference between the growth of the amount of income that describe the effect from implementation CRM system, which is calculated according to each scenario, and the amount of projected revenue, which is calculated on the basis of the regression equation (see Table 3.5).

Table 3.5 – Revenue data for calculating NPV

| № | Years | Δ 7% | Δ 10% | Δ 12% |
|---|---|---|---|---|
| 1 | 2024 | 28138,95 | 40198,50 | 48238,19 |
| 2 | 2025 | 30242,17 | 43203,09 | 51843,71 |
| 3 | 2026 | 32345,39 | 46207,69 | 55449,23 |
| | Total | 90726,50 | 129609,28 | 155531,14 |

To calculate the NPV of the project, two values of the project discount rate of 7% and 10% were used (see Table 3.6). This range of the value of the discount rate is due to the calculation of the weighted average cost of capital, the value of which is 7.5% and taking into account the degree of risk of the project, which increases the value of the discount rate to 10%. As you know, if the NPV is positive for the considered period, the project is profitable and can be recommended for implementation by the company. If the NPV is less than zero, the project should not be implemented.

Based on the calculations, several important conclusions can be drawn regarding the financial feasibility of the CRM implementation project at DHL. Consider pessimistic, realistic and optimistic forecasts for the period from 2024 to 2026 and calculate the NPV of the project at discount rates of 7% and 10%.

According to a pessimistic forecast, our project proposal will help increase the company's revenue by 7% of the planned amount. As can be seen from the table, the NPV of the project at a discount rate of 7% is thd.UAH 80450,670, and at a discount rate of 10% it is UAH 74362,219. This shows that even under the worst scenario, the project remains economically viable and can be recommended for implementation.

According to a realistic forecast, our project proposal will help increase the company's revenue by 10% of the planned amount.

Table 3.6 – Calculate of CRM improvement project

| № | Years | № of year | Discount rate of 7% | Discount rate of 10% | Projected expense, thd.UAH | Projected expenses of 7%, thd.UAH | Projected expenses of 10%, thd.UAH | Projected revenues, thd.UAH | Projected revenues at a 7% discount rate, thd.UAH | Projected revenues at a 10% discount rate, thd.UAH | Profit, thd.UAH | Profit at a 7% discount rate, thd.UAH | Profit at a 10% discount rate, thd.UAH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1 | **Pessimistic forecast** | | | | | | | | | | | | |
| 2 | 2024 | 1 | 0,935 | 0,909 | 113,4 | 106,029 | 103,081 | 28138,950 | 124740 | 137214 | 28025,55 | 26203,889 | 25475,225 |
| 3 | 2025 | 2 | 0,873 | 0,826 | 259,2 | 226,282 | 214,099 | 30242,170 | 285120 | 313632 | 29982,97 | 26175,133 | 24765,933 |
| 4 | 2026 | 3 | 0,874 | 0,751 | 226,8 | 198,223 | 170,327 | 32345,390 | 249480 | 274428 | 32118,59 | 28071,648 | 24121,061 |
| 5 | | | - | - | 599,4 | 530,534 | 487,507 | 90726,510 | 659340 | 725274 | 90127,11 | 80450,670 | 74362,219 |
| 6 | | | | | | | | | | | NPV | 80450,670 | 74362,219 |
| 7 | **Realistic forecast** | | | | | | | | | | | | |
| 8 | 2024 | 1 | 0,935 | 0,909 | 113,4 | 106,029 | 103,081 | 40198,5 | 37585,6 | 36540,437 | 40085,1 | 37479,569 | 36437,356 |
| 9 | 2025 | 2 | 0,873 | 0,826 | 259,2 | 226,282 | 214,099 | 43209,09 | 37721,54 | 35690,708 | 42949,89 | 37495,254 | 35476,609 |
| 10 | 2026 | 3 | 0,874 | 0,751 | 226,8 | 198,223 | 170,327 | 46206,09 | 40384,12 | 34700,774 | 45979,29 | 40185,899 | 34530,447 |
| 11 | | | - | - | 599,4 | 530,534 | 487,507 | 129613,7 | 115691,3 | 106931,92 | 129014,3 | 115160,722 | 106444,412 |
| 12 | | | | | | | | | | | NPV | 115160,722 | 106444,412 |
| 13 | **Optimistic forecast** | | | | | | | | | | | | |
| 14 | 2024 | 1 | 0,935 | 0,909 | 113,4 | 106,029 | 103,0806 | 48238,19 | 45102,71 | 43848,515 | 48124,79 | 44996,679 | 43745,434 |
| 15 | 2025 | 2 | 0,873 | 0,826 | 259,2 | 226,2816 | 214,0992 | 51843,71 | 45259,56 | 42822,904 | 51584,51 | 45033,277 | 42608,805 |
| 16 | 2026 | 3 | 0,874 | 0,751 | 226,8 | 198,2232 | 170,3268 | 55449,23 | 48462,63 | 41642,372 | 55222,43 | 48264,404 | 41472,045 |
| 17 | | | | | 599,4 | 530,5338 | 487,5066 | 155531,1 | 138824,9 | 128313,79 | 154931,7 | 138294,360 | 127826,284 |
| 18 | | | | | | | | | | | NPV | 138294,360 | 127826,284 |

The NPV of the project at a discount rate of 7% is UAH 115160,722 thousand, and at a discount rate of 10% it is UAH 106444,412 thousand. The realistic scenario also confirms the economic feasibility of the project, as both discount rates yield a positive NPV.

Under the optimistic forecast, our project proposal will help increase the company's revenue by 12% from the projected amount. The NPV of the project at a discount rate of 7% is UAH 138294,360 thousand, and at a discount rate of 10% – UAH 127826,284 thousand. The optimistic scenario shows the highest economic benefit from the project's implementation, further supporting its feasibility for DHL.

Thus, the analysis shows that the project is economically viable in all considered scenarios and for both discount rates. This indicates its reliability and feasibility for implementation in the logistics activities of DHL.

Next, let's calculate the payback period of the company's investments. To do this, we need to sum the net benefits from the project over the entire considered period for different discount rates.

Therefore, the CRM implementation project in DHL is economically viable and can be recommended for implementation, as it ensures a quick payback of investments and a significant increase in the company's revenues.

As part of our research, it is also important to note the role of the wider use of the Internet in the future as an important component of multi-channel strategies for companies. The key success factor will be Customer Databases, which contain accurate and consistent data obtained from different systems. This information will then be supplemented by advanced analysis tools. Analytical results will be available in the Web for all divisions of the company interacting with customers and will become the basis of positive actions, both for employees and for customers.

A fundamentally new reserve of management development in line with CRM is the involvement of customers in the creation and improvement of goods and services, their promotion and sale, and in general management, including investment of client funds, expansion of the client base. With the rapid transition of logistics companies to

a new "client" economy, the task of forming a client-oriented strategy based on CRM systems will become vital for their success.

### 3.3 Chapter 3 summary

In the project section of the qualification work, the architecture of the CRM system for the DHL company was substantiated. The conducted SWOT analysis provides a holistic view of the strengths and weaknesses, opportunities and threats of the CRM system. This comprehensive approach ensures that the proposed solutions are not only technically sound, but also strategically aligned with the company's long-term goals.

The proposed project plan outlines a clear path to implementing these CRM improvements, detailing the steps required, the costs of implementing the information system, and the potential benefits of implementing it. For calculations, a forecast of the company's income was made based on the regression equation, and a trend line was constructed. In order to take into account possible options for the development of the situation in Ukraine, three scenarios of project implementation were distinguished: ressimistic, realistic and optimistic. According to all defined scenarios, the NPV value is positive, which determines the economic feasibility of project implementation.

In summary, improving DHL's CRM system is a strategically sound investment that promises significant benefits. By addressing current system constraints, leveraging advanced technology and ensuring sound data management practices, DHL can improve customer satisfaction, operational efficiency and overall business performance. The proposed CRM enhancements not only meet DHL's strategic goals, but also provide the company with sustainable growth and competitive advantage in the dynamic logistics industry. Comprehensive analysis and a detailed project plan provide a solid foundation for realizing these goals, ensuring that DHL continues to lead in customer-centric innovation and service excellence.

# CONCLUSIONS AND RECOMMENDATIONS

The study of Customer Relationship Management (CRM) for the logistics company DHL has revealed several important aspects that impact the company's efficiency in the modern market environment. In the theoretical part of the work, it was substantiated that CRM is a strategically important approach that ensures the creation and maintenance of long-term, mutually beneficial relationships with customers. This is especially crucial for global logistics companies like DHL, where the quality of customer interactions directly affects supply chain performance and customer satisfaction.

CRM strategies were divided into three main categories: operational, analytical, and strategic. Each of these categories contributes to the overall success of the company's CRM initiatives. Operational CRM focuses on automating and optimizing business processes related to sales, marketing, and customer service. Analytical CRM utilizes data and analytical tools to gain a deep understanding of customer behavior, forecast their needs, and refine communication strategies. Strategic CRM aims to develop a customer-oriented culture within the organization, where customer needs and expectations are central to all business processes.

The financial analysis of DHL for 2021-2023 demonstrated steady growth in revenue and profits, indicating successful CRM strategy implementation. Key factors of success include scaling operations to meet increasing demand, strategic investments in technology and infrastructure, and effective use of data and analytics for informed decision-making. DHL's financial performance in 2023 demonstrates robust profitability and operational efficiency, albeit with a relatively tight liquidity position. The operating margin of approximately 7.76% and a net profit margin of around 4.50% reflect a strong ability to convert revenue into profit despite the intense competition and cost pressures inherent in the logistics industry. These margins underscore DHL’s adept management of operational costs and strategic pricing models. However, the liquidity ratios, with a current ratio slightly over 1.04 and a quick ratio just below 1, suggest a cautious approach to cash management is

necessary. These ratios indicate that while DHL is capable of covering its short-term liabilities, its financial flexibility may be limited, emphasizing the need for strategic financial planning to enhance liquidity.

Based on the conducted research, specific recommendations were developed to improve DHL's CRM system:

1. Operational CRM**:**

- Automate routine tasks such as order processing and contact management.
- Implement chatbots and automated guided vehicles to enhance customer service.

2. Analytical CRM**:**

- Use machine learning and artificial intelligence to predict customer needs.
- Optimize delivery routes and inventory management based on analytical data.

3. Strategic CRM**:**

- Develop a customer-oriented culture where all employees, from management to frontline workers, share CRM values.
- Implement a quality monitoring system that uses artificial intelligence to track shipment movements and identify issues in real time.

The calculation of Net Present Value (NPV) and the payback period of the investments showed that the project is economically viable for all considered forecasts and discount rates. This indicates the feasibility of implementing the enhanced CRM system in DHL's operations. The research results were presented at conferences and published in scientific journals, confirming their relevance and significance. Practical validation of the recommendations at the enterprise showed positive results, proving the effectiveness of the proposed measures. Implementing an improved CRM system will enable DHL to enhance customer interactions, optimize business processes, and ensure sustainable growth in the modern market environment. Through strategic investments in technology and the development of a customer-oriented culture, DHL can maintain high levels of customer satisfaction and strengthen its position in the logistics services market.

In summary, DHL exhibits a well-rounded strategic approach across its financial management, customer service, technological innovation, and market positioning. While its

financial analysis suggests areas for improvement in liquidity management, the overall health of the company is strong. DHL's commitment to customer service excellence and technological advancement continues to drive its success in the logistics industry. The company's ability to adapt to market changes and its strategic investments in global operations ensure it remains at the forefront of the logistics sector, poised for future growth and continued market leadership.

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