by

Diana Starychenko , Karyna Vasylchenko

A thesis submitted in partial fulfillment of the requirements for the degree of

BA in Business Economics, Social Sciences Department

Kyiv School of Economics

2025

Thesis Supervisor: Mykhaylo Vidyakin, MA in International Economic Relations, lecturer at the Faculty of Social Sciences at KSE

#### TABLE OF CONTENTS

LIST OF ABBREVIATIONS	3
INTRODUCTION	4
CHAPTER 1: COMPANY OVERVIEW AND PROBLEM STATEMENT	5
1.1 COMPANY OVERVIEW	5
1.2 VISION, MISSION, AND GOALS	5
1.3 BUSINESS MODEL CANVAS	6
1.4 OVERVIEW OF THE POSITION OF A TRADE AUDITOR	7
1.5 PROBLEM STATEMENT	8
CHAPTER 2: EXTERNAL OPERATIONAL PROCESS	11
2.1 ANALYSIS OF THE OFFER FOR THE TRADE AUDITOR POSITION IN THE MA	RKET 11
2.2 ANALYSIS OF HOW THE INFORMATION IS COLLECTED IN OTHER COUNTR	IES'
CARLSBERG DEPARTMENTS AND HOW THE DIFFERENCE AFFECTS THE COM-	PANIES
12	
2.3 THE IMPACT OF EMPLOYEE TURNOVER ON BUSINESS PROCESSES,	
PRODUCTIVITY, CORPORATE CULTURE, AND HOW THE CORPORATE CULTUR	Е
AFFECTS EMPLOYEE TURNOVER	13
CHAPTER 3: INTERNAL OPERATIONAL PROCESS	15
3.1 INVESTIGATION OF THE WAGE SYSTEM AND HOW IT WORKS	15
3.2 INVESTIGATION OF THE OVERALL WORK PROCESS ON THE POSITION OF	TRADE
AUDITOR	15
3.3 TRAINING AND DEVELOPMENT PROCESS	17

3.4 INVESTIGATION OF THE SOCIAL ATMOSPHERE IN THE TRADE AUDITOR	
POSITION	18
CHAPTER 4: ANALYSIS OF THE MAIN REASONS FOR TURNOVER	19
4.1 ANALYSIS OF PERSONNEL TURNOVER STATISTICS FOR RECENT YEARS	19
4.2 INTERVIEWS WITH TRADE AUDITORS	20
4.3 ANALYSIS AND VISUALIZATION OF THE DATA COLLECTED FROM THE	
INTERVIEWS	21
CHAPTER 5: RECOMMENDATIONS	27
5.1 ISSUES AND RECOMMENDATIONS	27
5.2 ADVANTAGES AND DISADVANTAGES	32
CHAPTER 6: IMPLEMENTATION	37
6.1 IMPLEMENTATION ROADMAPS WITH THE FINANCIAL SIDE AND RISKS	37
CONCLUSION	43
WORKS CITED	45
APPENDIX A	46
APPENDIX B	47
APPENDIX C	49
APPENDIX D	52
APPENDIX E	55
APPENDIX F	56
APPENDIX G	57

#### LIST OF ABBREVIATIONS

VAT - Value Added Tax

POSM - Point Of Sale Materials

HoReCa - Hotel, Restaurant, Cafe

SKU - Stock Keeping Unit

#### INTRODUCTION

A prominent business cannot exist without failures, it is a natural phenomenon when something goes wrong within a corporation. Life constantly challenges large corporations, and the modern, diverse, and extensive labor market creates great competition for employers trying to select the best candidates. However, sometimes conditions arise within the company that contribute to constant personnel turnover, leading to significant financial losses and a negative impact on the company's work.

This work examines the problem of staff turnover in the position of Trade Auditor at Carlsberg Ukraine. The study of the problem consists of considering the reasons for staff turnover, studying working conditions within the company, and analyzing turnover statistics. At the end, practical suggestions are developed and provided to solve the problem, and a plan for their implementation is written.

Using operational and strategic management tools, the structure of the company is considered, how it functions, and what its vision, mission, and goals are. Using statistical analysis methods, the statistics of employee satisfaction with the position of Trade Auditor is assessed, and a general analysis of staff turnover and its causes is conducted. The research considers the Ukrainian department of Carlsberg and the Ukrainian market, but analyzes foreign departments and their functioning in the context of the position of Trade Auditor. At the end, valuable recommendations are provided, as well as the resources required for the implementation of changes, including financial, human, and organizational, are outlined. To facilitate the process of execution of the strategy, the plan includes an implementation roadmaps and an estimated implementation costs for the most effective solutions.

#### 1.1 COMPANY OVERVIEW

Carlsberg Group is a global producer of beer and soft drinks. Founded in 1847 by J. C. Jacobsen, who chose long-term qualitative development over short-term benefits, Carlsberg still passes on these values to the next generation and spreads them around the world. The company covers both types of cooperation, B2B and B2C, and also has about 40,000 employees worldwide. The market capitalization of Carlsberg Group is \$16 billion (Kozachenko).

In Ukraine, the company has three breweries - in Kyiv, Lviv, and Zaporizhia. Since the moment of the russian invasion in Ukraine, Carlsberg has invested about 2.5 billion hryvnias in the country. Carlsberg Ukraine actively promotes ESG values, it is important for them to monitor the damage they cause to the environment, the safety and well-being of employees, and, naturally, the quality of products for customers. The company is one of the leaders in the Ukrainian beer market, and therefore has well-established connections with Ukrainian entrepreneurs. Its sales channels, product and equipment purchases, communications with consumers, vision, mission, and goals are discussed below in the micro- and macro-analysis.

#### 1.2 VISION, MISSION, AND GOALS

Vision: Lead the beer market sustainably, with a strong commitment to growth, innovation, and environmental responsibility.

Mission: Create high-quality, responsible products every day, while enhancing customer engagement and supporting long-term value.

Carlsberg Ukraine defines its strategic priorities in the field of sustainable development through the concept of "Together Towards ZERO and Beyond", which includes the following goals:

- zero carbon footprint
- zero water loss
- zero irresponsible consumption
- zero accidents
- zero packaging waste
- zero traces of agricultural activity

The high turnover among Trade Auditors directly impacts Carlsberg Ukraine's ability to achieve its vision and mission, highlighting the need for improvements to sustain growth, innovation, and operational excellence.

#### 1.3 BUSINESS MODEL CANVAS

Because of the BMC model (see Figure 1), it is possible to assess the company's important relationships and understand how it operates on the market, its main production activities, and better understand what is important for the company.

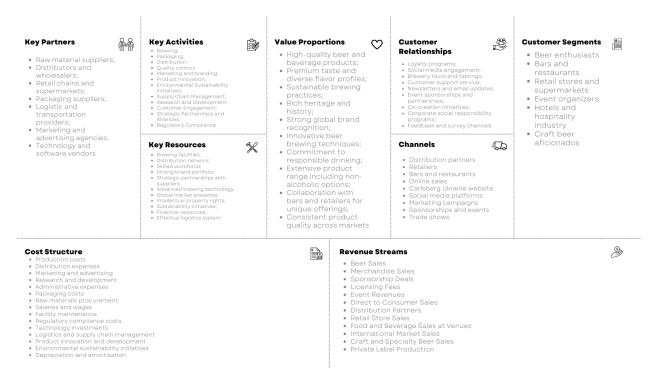


Figure 1. Business Model Canvas.

Source: Vizologi. "Carlsberg Group Business Model Canvas." *Vizologi* | *Rethinking Business Model Design*, <u>vizologi.com/business-strategy-canvas/carlsberg-group-business-model-canvas</u>.

#### 1.4 OVERVIEW OF THE POSITION OF A TRADE AUDITOR

To start with, one of the authors of this paper worked directly at Carlsberg Ukraine. During the work, a high turnover of personnel was noticed, as well as many errors in the work of trade auditors, which provided an incomplete picture for information analysis. For this reason, this study will focus on turnover in the position of trade auditor.

The position of a trade auditor is important for the company. By virtue of this, it is possible to monitor the quality of work of outlets and ensure compliance with product display standards. The main role is to ensure the timely collection of information on brand representation in the networks, additional display locations, promotion launches, and the condition of retail equipment. The trade auditor helps to

raise the standards of brand representation and customer service. Their activities help to maintain brand competitiveness and create a positive image of the company among consumers.

#### Main responsibilities:

- Assessment of the availability of the company's product range at points of sale.
- Control of the location of the main and additional points of sale and POS materials.
- Checking the placement of products in the checkout area.
- Checking promotional products and the presence of price tags.
- Checking equipment, such as refrigerators and bottling taps.
- Filling out audit questionnaires according to the established standards, along with a photo report.
- Contact directly only with the management.

This position requires attention to detail and critical thinking. It is also important to know the company's products and be able to work with an information-gathering program, which is additionally taught at the beginning of the job.

The peculiarities of the position include constant visits to retail outlets, as well as independent route planning. In two or three months, a sales agent must visit all the outlets in the region where he or she works. It is important to clarify that large hypermarkets should be visited every month. The number of visits per day must be 15, and 300 unique points must be visited per month.

#### 1.5 PROBLEM STATEMENT

Moving on, Carlsberg Ukraine occupies a leading position in the Ukrainian beer and soft drinks market and is one of the country's leading employers. The position of trade auditor is important for

ensuring quality control of the company's trade points. However, high staff turnover creates significant problems.

According to our calculations (Appendix A), the turnover rate for the position is 118%, which is an extremely high figure compared to the averages for various industries (Lewis, Soroñgon). This frequent staff change leads to additional recruitment and training costs, disrupts workflow continuity, and burdens existing employees. For example, in 2024, 14 workers out of the required 17 were in the position. There were also only 5 people who had been working for longer than 4-5 years. Considering the average term of work, 70% of workers work for 9 months, and 30% stay longer.

Additional regional analysis highlights the problem of turnover. In several regions, such as Kyiv and Mukachevo, the position remained vacant for a year, with 2-3 rapid changes of workers. In Kharkiv and Chernivtsi, employees left their positions after working for 1-3 months, leaving the positions vacant. In other regions, constant changes and rotations of personnel were also observed. Such indicators indicate the instability of the position and a systemic problem.

In addition, according to the data provided by the company, the search for a specialist takes an average of 20-25 weeks. Placing one vacancy on such platforms as Work.ua and Robota.ua costs UAH 2000-2200, including VAT. Also, posting on social networks costs UAH 2800, excluding VAT. The costs also include other tools, such as the work of a recruiter, communication within the company for the search, and time spent. It is worth noting that the salary for the position is a fixed amount of 20,000 hryvnias without the possibility of receiving bonuses.

According to personal calculations, the total approximate amount of losses caused to the company due to high staff turnover was estimated. As noted earlier, posting one vacancy on various platforms and social networks costs 5,560 UAH, including VAT. The loss from training one sales auditor was considered an indirect cost estimated at 5,000 UAH. In addition, indirect costs are the

incomplete productivity of a new employee and the costs due to a long-term open vacancy, which were estimated at 4,000 and 6,000 UAH, respectively. In total, 11 new people were hired for the position of sales auditor in 2024, so the total approximate amount of Carlsberg's loss is 226,160 UAH (see Table 1). These numbers are approximate calculations and may be both higher and lower in reality.

Table 1. The total approximate amount of losses caused to the company due to high staff turnover

Losses classification	Туре	Amount, UAH
Job posting	Direct	5560
Employee training	Indirect	~5000
Incomplete productivity of a new employee	Indirect	4000+
Costs associated with a long-term vacancy	Indirect	6000
Total amount (to replace one person who left)		20 560

One of the steps taken by Carlsberg Ukraine to improve the processes was the introduction of the photo recognition system that helps automate the verification of compliance with trade standards. However, this system is currently not working efficiently enough and does not cover the work of trade auditors.

To solve the problem, Carlsberg Ukraine offered a comprehensive approach. To begin with, it is important to analyze in detail working conditions, workload, and feedback on employee satisfaction. This stage helps formulate a holistic picture and determine the best way to increase employee motivation for comfortable work and job stability. It is worth paying attention to the introduction of a system of bonuses and additional training. Another important step is to improve the photo recognition system to automate data collection and reduce the risk of human error. To improve the quality of information, additional checks should be implemented to ensure data accuracy and reduce the impact of technical flaws.

#### **CHAPTER 2: EXTERNAL OPERATIONAL PROCESS**

## 2.1 ANALYSIS OF THE OFFER FOR THE TRADE AUDITOR POSITION IN THE MARKET

The labor market analysis shows the presence of similar positions (see Appendixes B - D). Although there are not many of them, there are positions with responsibilities in a similar field, which allows specialists to choose between the desired places of work. The responsibilities of workers are almost everywhere similar, in some positions, the requirements "to have a car" or "readiness to frequent business trips" are added, which are quite specific.

Among the main responsibilities:

- daily visits to retail outlets, according to the route
- monitoring the condition of retail outlets
- analysis of the pricing model, checking the availability of company shares
- making reports

Meanwhile, the Carlsberg job posting is poorly written (see Appendix E), with little information on the website about the employee's job responsibilities and even less information about the requirements for the position. The job description states that the company offers office work, when in reality, employees in this position do not have access to the team and do not have a desk in the office.

The salary for similar positions varies in the region of 20 - 30 thousand hryvnias for the Kyiv region, which also gives a person looking for a job a choice.

Comparing these conditions, Carlsberg cannot sufficiently interest specialists, since the salary for this position in Kyiv city is 20 thousand hryvnias, and a checkup of one retail outlet is worth only 67 hryvnias. Also, no bonus programs or additional rewards are provided. Carlsberg does not offer reservations, as other companies do, which may influence the choice of a male representative. The

website indicates that this is a part-time position, but considering that the employee has to visit 15 outlets per day, which requires a lot of time and physical strength, it should be regarded as full-time.

## 2.2 ANALYSIS OF HOW THE INFORMATION IS COLLECTED IN OTHER COUNTRIES' CARLSBERG DEPARTMENTS AND HOW THE DIFFERENCE AFFECTS THE COMPANIES

Ukraine uses a dual data collection approach, using photo recognition technology and trade auditors. This combination allows for more accurate data collection, ensuring that the AI-based photo recognition system is working properly and that auditors check any potential errors. Ukraine is also one of the most advanced markets in terms of data accuracy, as its photo recognition technology works more efficiently compared to other countries in the Carlsberg global network.

In contrast, most other Carlsberg markets have eliminated the role of trade auditors and rely entirely on photo recognition technology for data collection. Carlsberg is present in 32 countries worldwide. It is present in Western, Central, and Eastern Europe, as well as Asia. Employees from Denmark confirmed that all countries where Carlsberg is present use this automated system, and they consider it sufficient for the needs of their market.

The Ukrainian data collection model, although more resource-intensive, provides more accurate and responsive information due to the presence of trade auditors. In contrast, Carlsberg's other markets benefit from a more cost-effective and faster system, but data inconsistencies can sometimes occur due to the lack of human verification.

2.3 THE IMPACT OF EMPLOYEE TURNOVER ON BUSINESS PROCESSES,
PRODUCTIVITY, CORPORATE CULTURE, AND HOW THE CORPORATE CULTURE AFFECTS
EMPLOYEE TURNOVER

Turnover among trade auditors affects various aspects of a company's operations, including business processes, productivity, and corporate culture. These effects can create problems that affect the organization's overall efficiency and effectiveness.

Auditors play an important role in the process of collecting data, which is important for analytics and subsequent informed decision-making. Each employee is assigned to a specific region of Ukraine and works exclusively in that area. This specialization provides for full coverage of the territory and the outlets located there. At the same time, it means that staff turnover cannot be reduced by redeploying auditors from other regions. High staff turnover disrupts the audit process, leading to delays in data collection and an incomplete picture. Frequent staff changes lead to gaps in the audit, which prevent timely analysis of important indicators, such as product shortages, equipment conditions, and promotional activities. These constant changes affect the quality of reports provided to territory and network managers, which are crucial for assessing performance indicators, including the 5Ps (promo, product, placement, price, presence).

Team productivity also suffers from staff turnover. New auditors need time to adapt to the job, which initially reduces efficiency and can lead to inconsistencies and many errors in data collection. In addition, since auditors cannot cover other areas due to physical constraints, the company cannot control the condition of products at retail outlets, which affects competitiveness in the market.

Turnover also has a slight impact on corporate culture. This was confirmed and stated directly by Carlsberg workers during the visit. Carlsberg Ukraine promotes a performance-driven and inclusive

corporate culture built on transparency, accountability, and teamwork. The company values professional integrity, fair reward systems, and employee development, fostering an environment where trust and collaboration are key priorities.

Frequent changes in the audit team undermine the cohesion and trust between auditors, representatives, and directors. This is because heads invest a lot of resources and time in training new employees and checking for errors when filling out questionnaires. In addition, the performance of auditors determines the bonus share of sales representatives. In the absence of an auditor, representatives are not always honest and can improve the picture of success on which their bonuses depend. In addition, high turnover can indicate wider problems with job satisfaction, creating a negative perception of the role and potentially affecting the morale of the entire team.

Corporate culture, in turn, cannot have a direct impact on staff turnover. This is because commercial auditors are not full-time employees and do not participate in the life of the company.

In summary, turnover amongst trade auditors creates a ripple effect that impacts business processes, reduces productivity, and weakens corporate culture.

#### **CHAPTER 3: INTERNAL OPERATIONAL PROCESS**

#### 3.1 INVESTIGATION OF THE WAGE SYSTEM AND HOW IT WORKS

The salary for the position of sales auditor in Carlsberg Ukraine, according to market research, is lower by a percentage than for similar positions in other companies. The salary is 20 thousand hryvnias for Kyiv and 14 thousand hryvnias for Chernivtsi, indicating that it is lower than 20,000 hryvnias in other cities of Ukraine. Employees receive for each point passed - 67 hryvnias, the price for one institution. In comparison, other employers are ready to pay 20-30 thousand hryvnias for a similar position.

This position also does not have a bonus system. Additional payments are not provided, but the costs of using public transport between retail outlets are covered.

All this indicates a low orientation towards employees in this position. Therefore, low wages may be one of the factors affecting employee turnover. Improving the current salary system and introducing a bonus system will motivate employees to show better results, strengthen auditors' desire to stay with the company, and increase their loyalty.

## 3.2 INVESTIGATION OF THE OVERALL WORK PROCESS ON THE POSITION OF TRADE AUDITOR

The process of work of a trade auditor is quite uniform and requires concentration, attention, and relevant knowledge. The main task of an employee in this position is to check retail outlets for compliance with established standards of product display, availability, compliance with promotions, and other marketing activities.

Before starting the working day, the auditor independently plans a route, determining which points he will pass during the day. During a visit to each retail outlet, the employee opens a special application on the phone and sequentially fills out all the necessary questionnaire items. First, the auditor selects the store on the map in which he is directly located and then determines the sales channel: modern trade, traditional trade, or HoReCa. If the store has bottling equipment, this is also recorded in the questionnaire.

The next stage of the audit is the assessment of the condition of the products. The auditor must check the availability of goods on the shelf, identify each case of out-of-stock - this is the absence of goods on the shelf or in the refrigeration equipment in an amount of less than three units, and document it, supporting it with appropriate photographs. In addition, it is necessary to check the condition of the refrigeration equipment, in particular the presence and correctness of the barcode, its compliance with the company database, as well as the absence of third-party products in the refrigerators.

An important stage of the audit is to check compliance with product display standards. All goods must be located following established standards, in particular, returned with the label to the consumer. In addition, it is necessary to make sure that the refrigeration equipment is in good condition, connected to the power supply, has a backlight, and performs the function of cooling the company's products.

One of the key aspects of the audit is the control of price tags and marketing materials. The auditor must make sure that all goods at the point of sale have up-to-date price tags, as well as that the store has launched recommended promotions from the company, and POSM materials are present. Additionally, it records the number of additional display locations and the method of their presentation. At the final stage of the inspection, the auditor must clarify with the employees of the outlet whether there are expired products.

If the outlet has bottling equipment, additional questions are added to the questionnaire: whether the equipment is regularly washed, whether it works properly, whether there are appropriate labels on the equipment, and whether there are personalized glasses and coasters for each type of drink.

It is important to note that the retail auditor assesses the condition of the retail outlet at the time of the visit as it is. If, for example, store employees report that they did not have time to change the price tags or put the product on the shelves, this should still be recorded as a violation because it was not corrected in time.

#### 3.3 TRAINING AND DEVELOPMENT PROCESS

The training process for a trade auditor is fast and structured. After an interview, the candidate receives detailed information about his or her responsibilities and key aspects of the job. In the next stage, two online meetings are held, during which the new employee gets acquainted with the company's processes and standards.

During these training sessions, which last an average of 1.5 hours each, all the steps that the auditor must perform are examined in detail. For clarity, a demonstration of the work is carried out in the application used for the audit. The new employee has the opportunity to ask questions and clarify unclear points. Upon completion of the training, he or she is given access to training materials, including presentations describing the company's standards and recommendations for product display.

The auditor goes on his or her first working day the day after completing the training. If the employee starts work in Kyiv, he or she spends the first day accompanied by the person who conducted the training and helps him or her apply the knowledge gained in practice.

After the first working day, an additional meeting is held to analyze possible mistakes made during work and consolidate the material to avoid similar situations in the future.

The adaptation period of a new employee can last from 1 to 3 months, depending on their previous experience, level of training, and ability to quickly absorb new information. During this period, the employee has the opportunity to seek advice and receive feedback on the work performed.

## 3.4 INVESTIGATION OF THE SOCIAL ATMOSPHERE IN THE TRADE AUDITOR POSITION

The auditor employee does not cooperate with the entire Carlsberg team in any way. They are not provided with a place in the office, they work from home and at the place of the retail outlets. They communicate only directly with their boss through work chats or calls. A trade auditor can always be in touch with the manager, but their circle of communication is limited to her. Trade auditors also have their chat and they keep in touch that way.

The limitation in the circle of communication leads to the fact that such employees are not socially tied to the company. As a result, it is easier for them to leave, since nothing ties them to the place of work, they are not familiar with the concept of teamwork, and this can also affect work motivation. Improving this situation can provide an opportunity to feel one with the team and strengthen the auditor's connection to the company.

#### CHAPTER 4: ANALYSIS OF THE MAIN REASONS FOR TURNOVER

#### 4.1 ANALYSIS OF PERSONNEL TURNOVER STATISTICS FOR RECENT YEARS

For this section, an interview was conducted with one of the company's employees, as a result of which a table with data on staff turnover in the position of commercial auditor in the period from 2022 to 2025 was obtained. The main focus of the analysis is on the last year, namely 2024–2025, since it was this period that revealed the greatest changes.

To calculate the level of staff turnover, the standard formula for calculating the turnover coefficient was used. The number of people who left, divided by the average number of positions occupied, and multiplied by 100%. According to the calculations, for 2024–2025, this indicator was 118%, which indicates a significant level of instability and high staff turnover. Such a high indicator is due to the several waves of hires in one year, and because more people left the position throughout the year, than are working now. That is, 13 people left the company from 2024 through 2025.

An analysis of staff changes over three years showed that the problem of turnover existed before, but in 2024, it became more acute. The year 2022 turned out to be relatively stable. In most regions, no significant changes were observed: 12 out of 17 positions remained occupied, which indicates a relatively low level of layoffs. But already in 2023, a gradual increase in instability was noticeable. During it, 3-4 people changed positions. Nevertheless, 2024 became the worst year in terms of personnel stability. Only 7 out of 17 positions remained occupied without changes. In 10 regions, employees were constantly changing, which indicates a crisis in the personnel structure. The average duration of work of a new employee was 2-3 months, which is a critically low indicator. The most difficult situation was observed in Kyiv, Mukachevo, Vinnytsia, Chernivtsi, and Kharkiv, where

vacancies either remained open for a long time or were filled, but new employees were quickly dismissed.

Among the possible reasons for the increase in personnel turnover are military risks. Due to the war, men of draft age are at risk of mobilization, which directly affects the company's personnel. Employees can be called up to military registration and enlistment offices during the working day. Dangerous working conditions in certain regions also play a role. For example, in Kharkiv, Zaporizhia, Dnipro, or Kryvyi Rih, which are regularly under fire, candidates may avoid vacancies because the work involves regular visits to retail outlets and movement around the city.

#### 4.2 INTERVIEWS WITH TRADE AUDITORS

The interviews with workers in the Carlsberg trade auditor position were conducted. Surveys were held in a remote regime, by phone conversations. The sample consisted of 6 random employees in this position, working for different periods. The questions from the following list were simply asked, and in addition, it was asked to rate their level of compliance on a scale from 1 to 10, where it is able. In other questions, give the exact answer. The list of questions is as follows:

- 1. Are you satisfied with your job?
- 2. How difficult is this job for you?
- 3. If difficult, what exactly: filling out questionnaires, daily routine, going through points
- 4. Do you consider it a problem that you lack communication with company employees?
- 5. Do you manage to go through the necessary 300 retail outlets per month?
- 6. How convenient is it for you to independently plan your route?
- 7. Did you encounter difficulties in using the program for collecting information? If so, which exactly?

- 8. Do you think that the salary earned corresponds to the workload level in this position?
- 9. Which aspects could the company improve to make this position more comfortable?

Based on this list, the dataset with such variables was created: Job satisfaction - level of job satisfaction; Difficulty of work - level of difficulty of the work; Communication problem - how workers evaluate the absence of communication with the whole Carlsberg team; Retail outlets - do employees manage to go through 300 retail outlets per month; Route planning - how comfortable is independent route planning; Failures of the program - how often workers have problems with the program; Salary level - how satisfied with the salary level are workers, and how much does the workload correspond to the salary. A closer look at the dataset can be taken in Appendix F.

## 4.3 ANALYSIS AND VISUALIZATION OF THE DATA COLLECTED FROM THE INTERVIEWS

Based on this dataset, a correlational analysis was conducted using R Studio.

On the first dot plot graph (Figure 2), a clear correlation between job satisfaction and the salary level satisfaction is present. The higher the salary level satisfaction, the higher the job satisfaction trend remains.

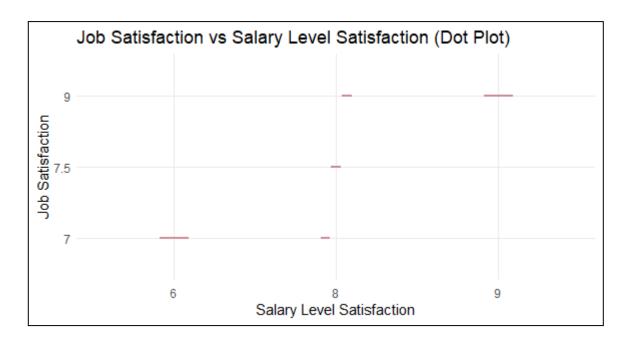


Figure 2. Box Plot Graph of Job Satisfaction and Salary Level Satisfaction cross-correlation

Since the main spread is around 8, 9 points of the salary level, it should reject the theory that workers are dissatisfied with the level of wages and therefore leave this position.

On the second graph (Figure 3), the correlation between communication problem and job satisfaction investigates. From the results, it can be seen that people for whom the lack of communication with the entire team is not a problem are more satisfied with their job than people who consider it a problem. According to this, it can be concluded that the lack of communication at work is not a problem that forces people to leave this position.

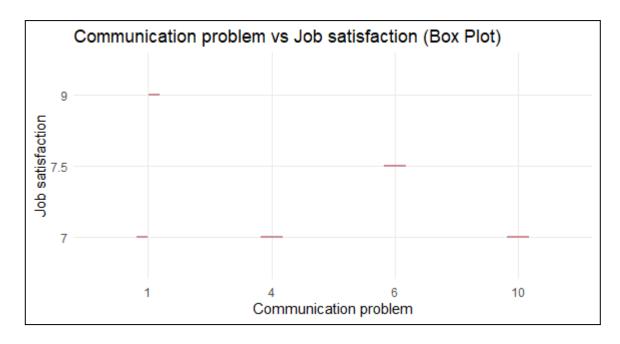


Figure 3. Box Plot Graph of Job Satisfaction and Communication Problem cross-correlation

The third graph (Figure 4) describes the correlation between the frequency of program failures and considered difficulty of the work. The dependence of the difficulty of work on the frequency of failures is legibly traced.

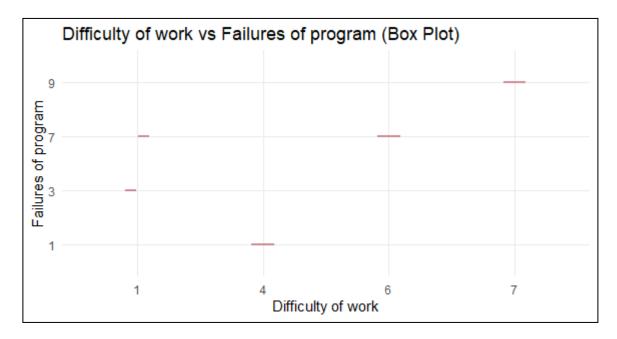


Figure 4. Box Plot Graph of Failures of Program and Difficulty of Work cross-correlation

From this, the assumption that the number of failures at work affects job satisfaction can be made. Moreover, this hypothesis is proved in the following Figure 5.

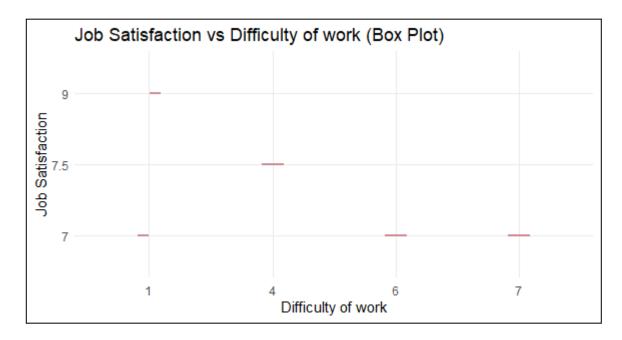


Figure 5. Box Plot Graph of Job Satisfaction and Difficulty of Work cross-correlation

The illustration shows that job satisfaction is neatly correlated with job difficulty, and therefore, job difficulty can still affect employee turnover. The root cause of this is program failures, which significantly complicate the workflow and prevent satisfaction.

The last, fifth graph (Figure 6) shows pretty similar results to the previous one. The illustration shows a clear inverse relationship between job difficulty and salary satisfaction, the higher the difficulty of work a person considers, the more money a person wants to receive.

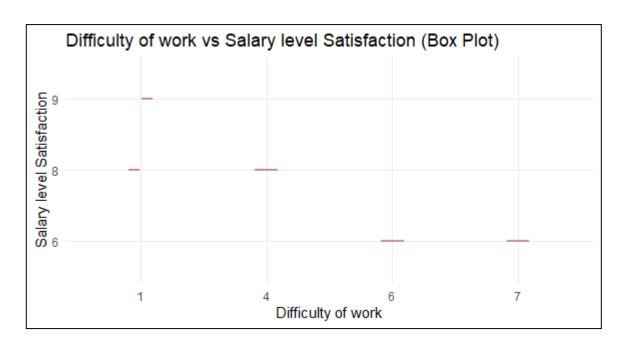


Figure 6. Box Plot Graph of Difficulty of Work and Salary Level Satisfaction cross-correlation

The next step is conducting a correlation analysis to identify dependencies and confirm certain hypotheses presented above. The correlation heat map (Figure 7) represents the correlation between three variables: difficulty of work, salary level, and job satisfaction.



Figure 7. Correlation Heat Map of Job Satisfaction, Salary Level, and Difficulty of Work

Therefore, the results presented illustrate a strong relationship between the salary level satisfaction and job satisfaction, which can be interpreted as "the more workers are satisfied with the salary, the more they will be satisfied with their job overall, and have less desire to leave the position". Moreover, this picture shows the result of -0.84 points of correlation between the salary level satisfaction and the difficulty of work; this strong negative correlation can be interpreted as "the more difficult workers consider their work to be, the less they are satisfied with the salary level". Such results lead us to the conclusion that to cope with the constant inflow of workers, the solution is just to raise the salary.

#### **CHAPTER 5: RECOMMENDATIONS**

#### **5.1 ISSUES AND RECOMMENDATIONS**

Based on a preliminary, extensive analysis of the problem of staff turnover, the search for causes, and the imperfections in the system, the following 6 recommendations were developed for the issues identified during the analysis:

- Below-market salary;
- Difficulties in working with the questionnaire;
- Absence of a full understanding of the job duties by a person who applies for the position;
- No opportunity for growth;
- Potential position replacement with technologies;
- Photo recognition does not cover all information.

Recommendations are presented in the form of a table, which also describes the possible positive consequences of their implementation (see Table 2).

Table 2. Issues and Recommendations Table

Issue	Recommendation	Positive impact
Below-	1. Review of remuneration and bonus	Raising salaries would
market	policies, or increase salary.	significantly reduce employee
salary	Dissatisfaction with a salary may be the	turnover, as most auditors that
	first main reason for leaving this position.	were surveyed, believe their
	As the salary for this position is not	salaries are too low for this level
	competitive and is a percentage lower	of workload.

opportunity should be reviewed. As an alternative implementation of the bonus system can be suggested. For example, a bonus in the size of 5,000 hryvnias in case of exceeding the plan for passing all 300 retail points will allow to increase the amount of received money by worker to the sufficient level.

Introducing a bonus system may encourage auditors to do their job better, which could have a positive impact on the company's overall profit.

# Difficultie s in working with the questionn aire

## 2. Improve the main technical tool (inventory questionnaire).

It was reported that almost all workers experience problems while working with the main questionnaire, and our analysis led us to the conclusion that it affects job satisfaction. Developing a new, more convenient questionnaire will make the work of employees much easier and more enjoyable. This way, Carlsberg can retain employees who left their positions due to the difficulty of the work.

Changing the questionnaire will make work less stressful and more enjoyable, as specialists will not have to look for an urgent solution, or write to support and waste time while their main tool for work is fixed. This option can be combined with other improvements, for example, a salary increase.

Absence
of a full
understan
ding of the
job duties
by a
person
who
applies for
the
position

## 3. Improve job description transparency.

As was mentioned in Chapter 2, in the analysis of the market part, the job posting of this position on the site is poorly written with a significant lack of information, some key moments of the work are absent. This leads to people applying for the position who are not skilled for the job, working for a short period of time, and then quit. This process causes increased staff turnover and takes away the opportunity to work from employees who could work in this position for a long time. Improving the job description may include a more extensive list of responsibilities, listing the specifics of the job, such as the fact that it is a job that requires constant movement, and indicating specific skills that the person must possess.

A better-described vacancy will attract only specialists who are ready to work in this position and have the appropriate skills. This way, the staff turnover can be reduced, reduced the time spent by the manager on training new auditors, and reduced the costs of posting new vacancies.

### No opportunit

## y for growth

## 4. Implement career development opportunities

Employees of Carlsberg Ukraine have growth opportunities, as well as various training courses for development. Trade auditors, since they are external employees, do not have this. Therefore, this may also be the reason for dismissals. By introducing programs and additional courses for them, it can retain people in their positions, which may play an important role in the future.

This recommendation will have a positive impact and reduce turnover, as employees will have additional motivation. Understanding that there is a development perspective in the job and the possibility of better earnings will retain people. It will also increase job satisfaction because, thanks to development programs, people will understand that they are valued. In addition, by developing skills and improving qualifications, data accuracy will increase, and the number of errors will decrease.

# that can be eliminated

**Position** 

## 5. Remove the position of trade auditor and buy the information from the auditor companies

Relinquishing the position and purchasing information from an audit company may be a better and more financially beneficial option, especially in the long term. As

Resigning from a position can relieve the company. Purchasing materials from specialized firms can reduce costs in the long run, as well as optimize the time spent on training new employees. This will also improve the accuracy of

this can solve the liquidity problem and close the need for the necessary information. In addition, external audit companies have specialized experience and trained personnel, which can increase the accuracy and reliability of the data.

the data because it is an external independent company that specializes in this.

Photo
recognition does
not cover
all
information

#### **6. Improve photo recognition system:**

Photo recognition is currently a tool that does not cover all important parameters. However, this system is constantly improving, and so is the future. Other countries have already abandoned trade auditors and rely on information only from photo recognition. By developing this technology, it is possible to facilitate the work of trade auditors or to abandon this position altogether.

An improved version of photo recognition can relieve trade auditors or even replace them. This will bring big changes, because thanks to this, the company's costs will be reduced. The accuracy of the data will also improve because there will be no errors that occur due to the human factor. This recommendation will also save time because the program will analyze the data faster than it will be filled in manually by trade auditors.

The following table lists the advantages and disadvantages of implementing each recommendation.

#### 5.2 ADVANTAGES AND DISADVANTAGES

Table 3. Advantages and Disadvantages Table

Recommendation	Advantages	Disadvantages
1. Review of remuneration and bonus policies, or increase the salary	<ul> <li>Structured bonus system can motivate workers and increase productivity</li> <li>Increase employee loyalty</li> <li>Increase job satisfaction</li> <li>Bonus system can initiate better performance</li> </ul>	<ul> <li>Requires increased         financial investments         from the company</li> <li>Can provoke         dissatisfaction if done         unclearly</li> <li>Should be implemented         clearly and fairly</li> </ul>
2. Improve the main technical tool (inventory questionnaire)	<ul> <li>Reduce the level of stress among workers</li> <li>Reduce the level of discomfort while working</li> <li>Increase the productivity of completing tasks</li> <li>Increase satisfaction and retention</li> <li>Decrease problems with support and delays</li> </ul>	<ul> <li>Need time and resources for developing a new system</li> <li>Needed time for workers to adapt and learning the new system</li> </ul>

Recommendation	Advantages	Disadvantages
3. Improve job description transparency	<ul> <li>Attracts well-suited candidates</li> <li>Attracts qualified candidates</li> <li>Reduce early resignations</li> <li>Lowers the spending of the company on recruitment in the long run</li> <li>Low-cost and high-impact realisation</li> </ul>	<ul> <li>Can reduce the number of applicants</li> <li>Requires time for revision and rewriting the job description</li> </ul>
4. Implement career development opportunities	<ul> <li>Increase workers' engagement and loyalty</li> <li>Increase skill levels</li> <li>Reduce errors while working</li> <li>Improving data quality</li> <li>Motivates the trade auditor to stay in the company and develop here</li> </ul>	<ul> <li>Additional cost for development programs</li> <li>Not all trade auditors are interested in it</li> </ul>

Recommendation	Advantages	Disadvantages
5. Remove the position of trade auditor and buy the information from the auditor companies	<ul> <li>Reduces costs on worker         management</li> <li>Higher data accuracy from         specialized firms</li> <li>Solves liquidity and hiring         problems</li> <li>Optimize the time and         resources needed for         teaching auditors</li> </ul>	<ul> <li>Loss of internal control         over the audit process</li> <li>The inability to find         companies in Ukraine that         would provide such         services</li> <li>Can increase dependence         on external providers</li> </ul>
6. Improve photo recognition system	<ul> <li>Increase efficiency and reduce manual work</li> <li>Reduce human-related errors, improving data reliability</li> <li>Long-run costs economy</li> <li>Speeds up the data collection process</li> </ul>	<ul> <li>Requires a high initial investment to switch the system</li> <li>Requires time for adaptation</li> <li>Some parameters may still need manual typing</li> <li>Potential technical issues</li> </ul>

Based on all the advantages and disadvantages (see Table 3), the following 3 most effective recommendations were selected:

- Review of remuneration and bonus policies, or increase the salary;

- Remove the position of trade auditor and buy the information from the auditor companies;
- Improve the photo recognition system.

Although the selected options have fewer advantages and more disadvantages, these advantages are more effective in achieving the company's goals of reducing employee turnover, and the disadvantages are not as critical. The selected options will bring more benefits in the long run, although they may require more initial investment.

Review of remuneration and bonus policies, or increase the salary was considered the most effective and productive variant because this directly affects the motivation of employees to stay in this company. At the same time, it leads to a permanent increase in costs assigned to salary payments.

Remove the position of trade auditor and buy the information from the auditor companies can introduce a fully new and innovative solution to this problem. The only major drawback of this solution is the difficulty in finding such an audit company on the Ukrainian market.

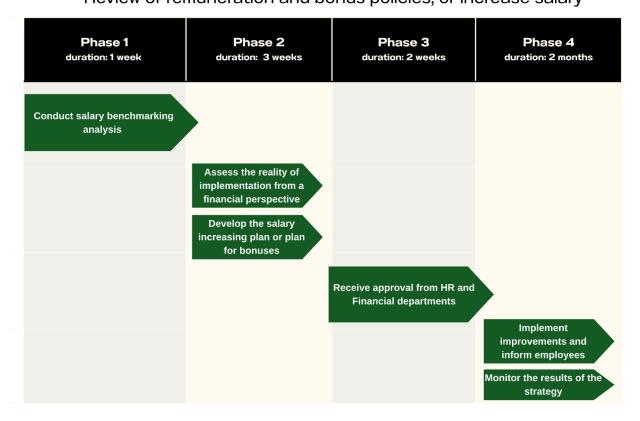
Improving the photo recognition system can eliminate the overall discomfort of working with the automated questionnaire, make the process faster, and increase auditors' satisfaction while working.

#### **CHAPTER 6: IMPLEMENTATION**

#### 6.1 IMPLEMENTATION ROADMAPS WITH THE FINANCIAL SIDE AND RISKS

Figure 8. Implementation Roadmap №1

Review of remuneration and bonus policies, or increase salary



The first roadmap (Figure 8) is for the recommendation of increasing the salary or the bonus system implementation.

First, analysts need to conduct a market analysis to find out what the average salary is in the market for a similar vacancy. The study, which was written previously in text, indicated an amount of 25-30 thousand hryvnias. To raise the salary to this level, it is necessary to increase the payment by 25-50% from the current one. Since there are 17 positions in total, it means that the maximum amount that Carlsberg allocates for the salary of trade auditors is 340,000, increasing it by 25-50% will be 425,000-510,000 hryvnias. Therefore, the cost of implementing this strategy is an additional 85,000 -

170,000 hryvnias per month. If Carlsberg decides to introduce a bonus system, for example, for the absence of errors when filling out the questionnaire, +3000 hryvnias to the salary, and for passing additional points, another +3000, this will not only be able to keep workers in their positions but also stimulate their work. In this case, the price of implementing this strategy is 442,000 hryvnias per month, which is 102,000 more than the current amount.

During the next phase of implementation, employees need to assess the possibility of a salary increase, whether the company has the funds and resources for this at the moment. After such a check, it can be developed a salary increase plan or introduced a bonus system, choosing the optimal amount of the rate increase, recommended 5-10 thousand hryvnias, or a bonus strategy depending on the company's goals (e.g., increase the number of points passed, improve the quality of information collection). Once the system is developed, it is necessary to obtain approval from the Finance Department and the Head Office. The final steps are to implement the strategy and monitor the results over the next 2-3 months and adjust depending on improvements or deterioration.

Among the risks of such a system may be poor-quality work; employees will quickly pass points in order to have time to pass more than the norm. Also, the introduction of a bonus system will lead to an increase in the amount of work for the Accounting department, as the volume of reporting obligations will increase.

version

# Phase 1 Phase 2 Phase 3 Phase 4 duration: 1 month duration: 2 weeks duration: 2 months duration: 2 weeks Assess current system capabilities and identify gaps Research and select advanced photo recognition solutions Implement a pilot version Monitor system performance, error rates, and data accuracy. Implement the final

# Improve photo recognition system

Figure 9. Implementation Roadmap №2

The implementation of the photo recognition system (Figure 9) will take place as follows. Firstly, need to evaluate the current system of how everything works and determine the parameters that need to be added and improved. For a detailed analysis can talk directly with trade auditors or representatives to hear additional limitations that the system has. The next step will be market research. It is necessary to analyze which technologies currently exist, which ones will be better suited for the company, and most importantly, which ones can be implemented. Next, a test version of the system should be launched to check whether everything is working properly and whether the photo recognition system provides accurate data. At this stage, it should be checked on a small sample of retail outlets and also carefully check whether the data matches. The last step is the implementation of the final

version across outlets in Ukraine. It is worth noting that technologies are improving every day, and it is worth updating and improving existing systems from time to time.

Continuing with the financial part of implementing photo recognition, namely, the cost of artificial intelligence for photo analysis. Trade auditors have to visit 300 retail outlets per month and 17 active positions; from this receive 5,100 retail outlets throughout Ukraine per month. Let's assume that for one point, it is necessary to take 5 photos, where the equipment, prices, goods, and refrigerators will be visible. Therefore, based on the prices provided by Google Cloud Vision API (see Appendix G), we calculated the approximate cost. It was taken into account that the company needs 4 functions: Label Detection, Text Detection, Logo Detection, and Object Localization. Therefore, the final amount is 681.75 USD per month for processing 25,500 photos.

However, there are also certain risks. First, these are technical difficulties. The new system may encounter problems in correctly recognizing goods due to lighting conditions, packaging variations, or incomplete shelves. Therefore, it is very important to analyze all possible options during the test mode of the system. Secondly, employee resistance is also possible. Retail auditors and other employees may resist changes due to concerns about job security or adaptation to new technologies.

# Remove the position of trade auditor and buy the information from the auditor companies

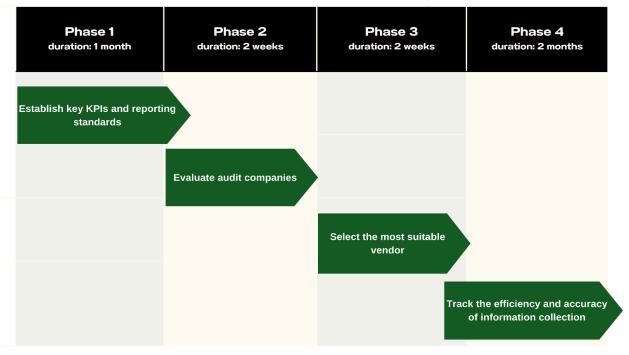


Figure 10. Implementation Roadmap №3

This roadmap is for a recommendation to eliminate the position of a commercial auditor instead of purchasing information from an external firm (Figure 10). For implementation, firstly need to assess all current issues and shortcomings. Also, it is necessary to establish KPIs and reporting standards against which is needs to conduct an audit. This stage is needed so that the external company understands what information it should provide. The next step is analysis and a search for a suitable firm. The best way to choose a well-fitted company is to research and compare external audit firms based on their experience, prices, accuracy, and reputation. Next comes decision-making. Nonetheless, it is usually followed by a stage where it is needed to track the efficiency and accuracy of information collection. Whether everything meets the company's requirements and standards. Regular checks of performance and accuracy will remain important.

Regarding the financial part, there is a company in Ukraine called UMP - "Ukrainian Marketing Project". Among its services it has a Retail Audit, which covers all the information collected by Trade Auditors at Carlsberg. After interviewing the company manager, the following information was obtained: the price of an audit of one point is on average 1600-1700 UAH. This price includes an analysis of approximately 20 SKUs, rewriting the required company's prices, competitors' prices, and identifying out-of-stocks. Since auditors need to visit 300 retail outlets monthly, this results in 480,000 UAH per region. This amount is minimal, since it must be taken into account that there are more than 20 SKUs in each store.

Moving on to risks, the first is data inconsistency. Different audit firms may use different methodologies, which leads to potential data inconsistencies. The second possible problem is that the company may become heavily dependent on the external firm, making it vulnerable to price increases, service disruptions, or other changes. Another risk is information confidentiality, as it is impossible to predict information leaks. In addition, an external audit firm cannot always adapt quickly to the company's changing needs, unlike an internal team that can adjust priorities in real time.

Comparing the cost of implementing each solution, it was found that improving the photo recognition function is the cheapest option, since the amount per month is only an additional 28,357 hryvnias, and as a bonus, there is an increase in employee satisfaction, which was considered one of the main factors why auditors leave their positions. Increasing the salary level also provides many benefits, but the cost of implementing this solution carries an increase in costs in the amount of 85,000-170,000 hryvnias, monthly. Unfortunately, the option with a complete rejection of the position of trade auditor turned out to be the most expensive and has many imperfections and risks. Carlsberg Ukraine employees are encouraged to pay attention to the first two options described above in this paragraph.

#### CONCLUSION

This study examines the issue of staff turnover in the position of Trade Auditor at Carlsberg Ukraine. At the beginning of the work, it was determined that the annual staff turnover rate for this position is 118%, which is very high for this area. The study shows the problems associated with staff turnover, and also highlights the importance of this position in the company. High staff turnover disrupts business processes within the company, requires constant material investments, and leads to delays in collecting information, which has an impact on other departments.

Market analysis showed that Carlsberg Ukraine faces strong competition in the market, since in other companies, employees in a similar position receive higher salaries and have bonuses. Also, advertisements on the job search website were found to be not clearly formulated and may not attract potential employees.

Interviews with employees - Trade Auditors - helped to find the main reasons why employees leave the position, and also highlighted sore spots and areas for improvement. Among them, the lowest level of wages and problems with technological equipment have the greatest negative impact. Using R Studio analysis, a direct correlation was found between the level of wages and job satisfaction, as well as a negative correlation between the difficulty of work and satisfaction with wages.

Based on the previous analysis, 6 recommendations were developed:

- 1. Review of remuneration and bonus policies, or increase the salary;
- 2. Improve the main technical tool (inventory questionnaire);
- 3. Improve job description transparency;
- 4. Implement career development opportunities;
- 5. Remove the position of trade auditor and buy the information from the auditor companies;

6. Improve the photo recognition system.

After comparing the advantages and disadvantages, the 3 most effective recommendations were identified:

- 1. Review of remuneration and bonus policies, or increase the salary;
- 2. Remove the position of trade auditor and buy the information from the auditor companies;
- 3. Improve the photo recognition system;

and their implementation was described.

Potential risks were described to them, and the financial part of the implementation was also calculated.

In the end, it turned out that there are two optimal solutions to this problem that the Carlsberg Ukraine team should pay attention to: Review of remuneration and bonus policies, or increase the salary, and Improve the photo recognition system, as they are the most effective and the best to implement in practice.

#### WORKS CITED

"Аудит Роздрібної Торгівлі." Ukraine Marketing Project, 16 July 2021, ump.ua/ua/retail-audit-ua. "Carlsberg Ukraine." Carlsberg Ukraine, carlsbergukraine.com. Козаченко, Олексій. "Поставки нашого пива до деяких країн Європи виросли вп'ятеро, — Олег Ukraine." Хайдакін, Carlsberg Delo.ua, 16 Oct. 2024, delo.ua/business/postavki-nasogo-piva-do-deyakix-krayin-jevropi-virosli-vpyatero-oleg-xaidaki n-carlsberg-ukraine-437226. Lewis, Greg, and Joseph Soroñgon. "Industries With the Highest (and Lowest) Turnover Rates." LinkedIn Talent Blog, 11 2022, Aug. www.linkedin.com/business/talent/blog/talent-strategy/industries-with-the-highest-turnover-rate <u>S</u>.

<u>cloud.google.com/vision/pricing#prices</u>.

Vizologi. "Carlsberg Group Business Model Canvas." *Vizologi | Rethinking Business Model Design*,

Google

Cloud."

Google

Cloud,

API

"Pricing

Cloud

Vision

Vizologi. "Carlsberg Group Business Model Canvas." Vizologi | Rethinking Business Model Design, vizologi.com/business-strategy-canvas/carlsberg-group-business-model-canvas.

## APPENDIX A

Turnover Rate Table (based on the interview with the analyst from Carlsberg)

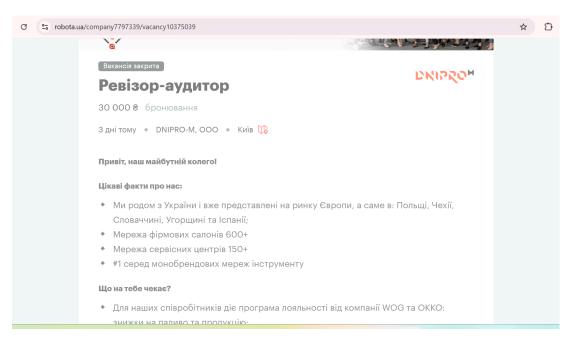
Region	Number of employees 2024	Number of employees 2025	Number of people released (2024-2025)	
OTA1 (Kyiv, right bank)	0	1	3	
OTA17 (Ivano-Frankivsk)	1	1	0	
OTA2 (Kyiv, left bank)	0	1	2	
OTA21 (Mukachevo-Uzhgorod)	0	1	2	
OTA22 (Vinnytsia-Zhytomyr)	0	1	0	
OTA4 (Poltava)	0	1	0	
OTA5 (Odessa)	1	1	0	
OTA6 (Lviv)	1	1	0	
OTA7 (Zaporozhye)	1	1	0	
OTA8 (Dnipropetrovsk)	1	1	0	
OTA12 (Kirovohrad-Cherkasy)	1	1	0	
OTA13 (Rivne-Lutsk)	0	1	2	
OTA14 (Khmelnitsky-Vinnytsia)	1	1	0	
OTA25 (Kryvyi Rih)	0	1	0	
OTA26 (Chernivtsi)	0	0	2	
OTA23 (Cherkasy)	0	1	1	
OTA27 (Kharkiv)	0	0	1	
Total	7	15	13	

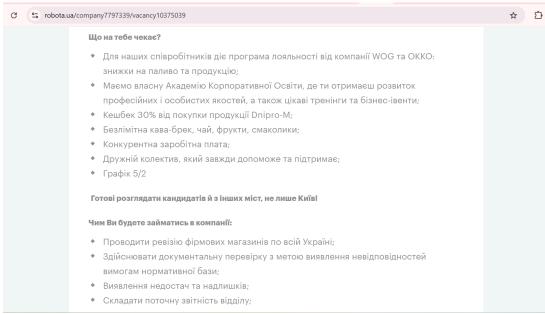
Turnover rate = (Number of people released/Average number of employees)\*100

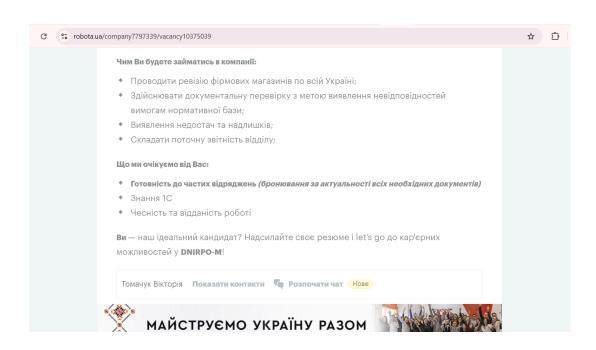
Turnover rate = (13/((7+15)/2)\*100 = 118%

#### APPENDIX B

#### Example of a vacancy №1 on the labor market

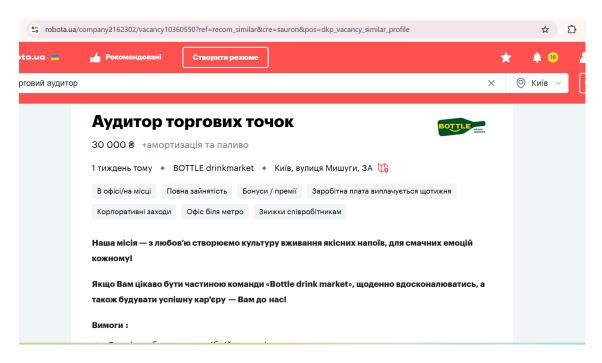


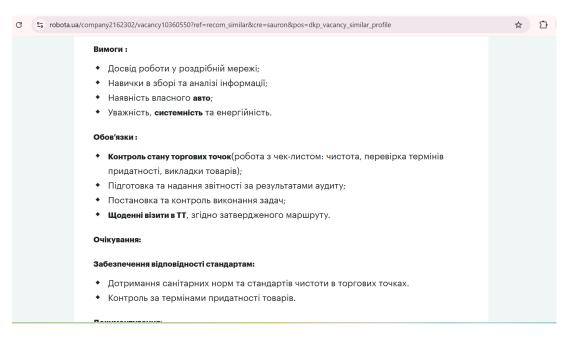


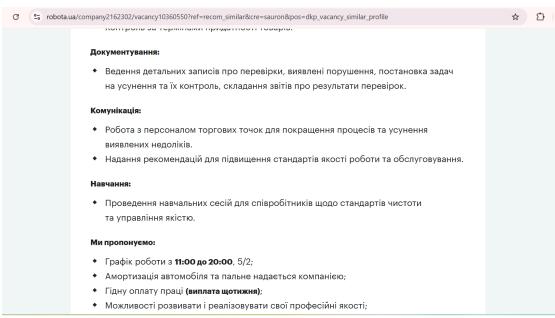


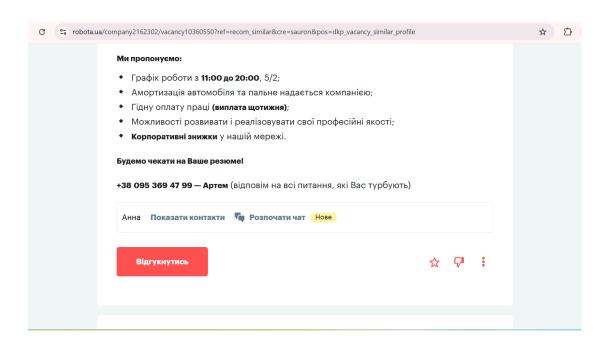
#### APPENDIX C

### Example of the vacancy №2 on the labor market



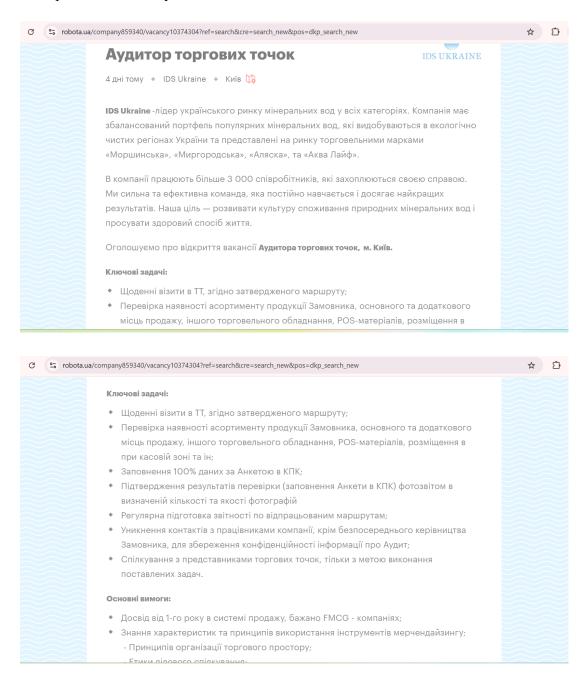


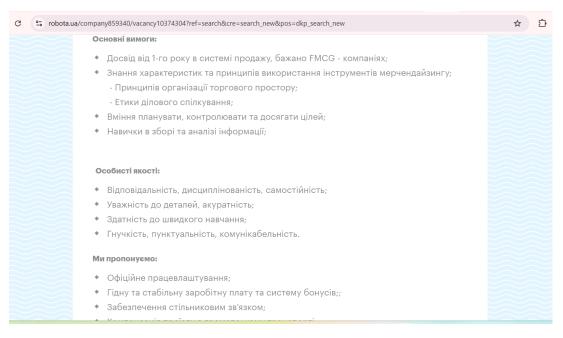


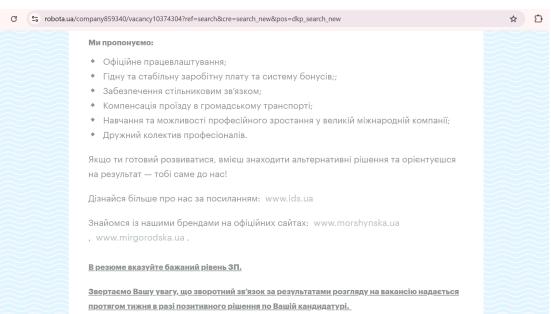


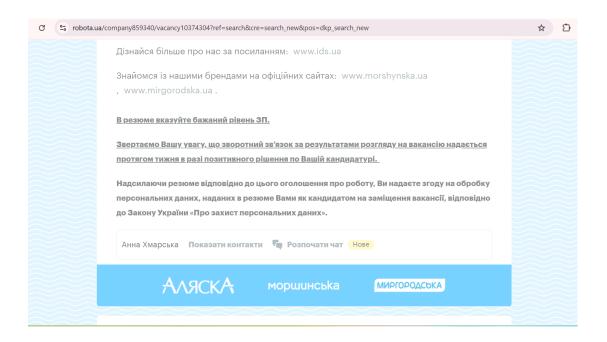
#### APPENDIX D

#### Example of the vacancy №3 on the labor market









#### APPENDIX E

## Example of the Carlsberg's vacancy on the labor market



# APPENDIX F

## Interviews with trade auditors Dataset

	Job satisfactio n	Difficulty of work	Communication problem	Retail outlets	Route planning	Failures of the program	Salary level
Zaporizhia	9	1	1	10	1	7	8
Ivano-Fran kivsk	7	1	1	10	1	3	8
Kyiv left	7	7	4	5	10	9	6
Kyiv right	7	6	10	8	8	7	6
Vinnytsia	7,5	4	6	10	1	1	8
Cherkasy	9	1	1	10	1	7	9

# APPENDIX G

# Prices provided by Google Cloud Vision API

	Price per 1000 units				
Feature	First 1000 Units 1001 - 5,000,000 / month		Units 5,000,001 and higher / month		
Label Detection	Free	\$1.50	\$1.00		
Text Detection	Free	\$1.50	\$0.60		
Document Text Detection	Free	\$1.50	\$0.60		
Safe Search (explicit content) Detection	Free	Free with Label Detection, or \$1.50	Free with Label Detection, or \$0.60		
Facial Detection	Free	\$1.50	\$0.60		
Facial Detection - Celebrity Recognition	Free	\$1.50	\$0.60		
Landmark Detection	Free	\$1.50	\$0.60		
Logo Detection	Free	\$1.50	\$0.60		
Image Properties	Free	\$1.50	\$0.60		
Crop Hints	Free	Free with Image Properties, or \$1.50	Free with Image Properties, or \$0.60		
Web Detection	Free	\$3.50	Contact Google for more information		
Object Localization	Free	\$2.25	\$1.50		