

Bachelor's thesis

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Successful employee onboarding

– improving developers' onboarding process at a local IT company



Bachelor's Abstract

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The purpose of this thesis is to ascertain the perspectives of newly hired employees in regard to the existing onboarding process employed by the case company and to identify potential modifications that could be implemented to ensure a satisfactory and efficient onboarding experience. The case company is a software development business that was established in 2008 in Vilnius, Lithuania, and now employs more than fifty software development professionals.

The literature review revealed the importance of an effective onboarding process that can ensure cultural fit, engagement, and prompt new hires to reach productivity more quickly. This process is usually structured into four stages: pre-onboarding, orientation, training, and feedback. The researcher observed the case company's onboarding process and conducted semi-structured, face-to-face interviews with five employees who joined the company within the past year in order to gain a deeper understanding.

The findings of this thesis suggest that the onboarding process of the case company generally follows the four stages recommended in the literature, but certain modifications could be beneficial in order to make it more effective. For example: standardize the project onboarding process across all teams, create an onboarding checklist that specifies goals and expectations, and organize training sessions for team leaders.

Keywords:

Onboarding, orientation, human resources (HR).

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List of abbreviations (or) symbols

HR	Human Resources (Dessler, 2013)
EVP	Employee Value Proposition (Rosethorn, 2009)
eSPN	Employee Net Promoter Score (Workday, 2021)
IT	Information technology (Janauskaite, 2022)

1 Introduction

1.1 Background

The company of this study is an experienced and innovative software development company founded in 2008, in Vilnius, Lithuania. The company is one of the five technology branches of the Swedish e-commerce business. My role at the company is Office and Human Resources Manager for the Vilnius office. I started working there in 2018 when there were 20 employees working at the company and I was the only person responsible for the office and human resources (HR) field. Today my team consists of four specialists, and we are taking care of more than 50 software development professionals and are responsible for growing the teams by hiring new specialists in Vilnius.

The information technology (IT) sector in Lithuania is very competitive talent-wise because businesses are facing a severe shortage of IT specialists (Janauskaite, 2022) and when the company successfully hires a good specialist, it needs to make sure that the developer has the best onboarding experience. Micheal D. Watkins's (2013) research suggests that the first three months at the company are crucial for a new employee's success and determines how the employee is going to perform at the new job. Moreover, Green (2022, p.37), claims that: "It is important that any new staff members connect emotionally with the organization and are set up for success in their first 30 days.". There are more opinions on what time frame is the most crucial, however, all authors agree it starts with the first contact with a company, and the first few months will determine the employee's future in the new position.

During the year 2022 company started an Employer Value Proposition project and one of the steps was to ascertain and systemize the Employee lifecycle and its touchpoints. Touchpoints adjustments and ongoing development are the responsibility of the human resources (HR) department. During the employee lifecycle, one of the main touchpoints of a new staff member is the introduction and onboarding process (Rosethorn, 2009, p.51-52). This decision and the

importance of the first three months at the new company as discussed previously are the main reasons for this thesis.

Being a technology branch, the Vilnius office directly reports to the Chief Technology Officer of the company in Sweden. Each business field has its Director, for example, the Director of Web Development, Director of Logistics, Director of Innovation, Director of Data Systems, etc. Under the directors, there are Managers of smaller business units, for example, the Manager of Supply Chain, Manager of Logistics Applications, etc. And then there are the specialists' teams of 4-6 professionals who are led by a Team lead. The simple chart of hierarchy is listed in Figure 1. There were two Directors, two Managers, 10 Team leads, and 50 specialists in the Vilnius office in November 2022.



Figure 1 Hierarchy at the company, Geciene, 2022

The design of the onboarding process and training program is usually the responsibility of the HR department. The theory becomes a reality when the direct supervisor takes over, as the team leader is the one doing day-to-day onboarding and training. (Dessler, 2013, p.270)

It is the Team lead's and HR's responsibility of recruiting and onboarding new people to the team and to the company's culture at the case organization. The company at this moment does not have a specific framework for onboarding that all Team leads, and HR could use and make the onboarding experience as similar and the best as possible for every new employee. The company in Vilnius has 10 Team leads and each one of them come from a technical background. They received only minimum training on how to be a leader of a team and they might understand the importance and flow of onboarding differently.

The company runs a monthly anonymous engagement survey called Peakon by Workday. This survey helps the company indicate the “temperature” of the microclimate at the organization, find places to improve, and hear employees’ feedback. The Employee Net Promoter Score (eNPS) measures Employee Engagement at the company. Employee Net Promoter Score is calculated by subtracting the percentage of Detractors from the percentage of Promoters, so the final value can range anywhere from -100 to 100. The level scored while answering given survey questions will decide if the employee is a Promoter, Passive, or a Detractor. The score impact is explained in Figure 2.

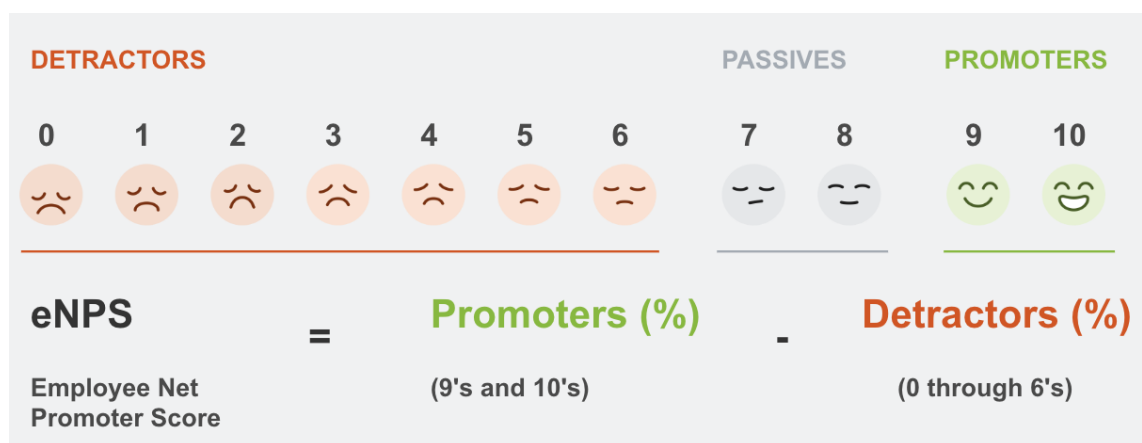


Figure 2 eNPS scoring, Workday, 2022

Peakon allows the company to access data from various angles and segments. One of those is a segment by starting date, for example, the company can see a segment of employees working at the company from 3 months to 1 year. Unfortunately, Peakon does not have a segment of 0-3 months because of a lack of responses to keep the survey anonymous. However, from the segment of 3 months – the 1-year company is able to draw some conclusions about how successful the onboarding process is. The company has the first data of this segment in Peakon from February 2022 and at that time eNPS was 50 points from eight people included in this segment. In May 2022, Peakon started including three main outcomes to the survey data that describes engagement: Loyalty, Belief, and Satisfaction, and on that month's survey company scored at 71 eNPS, 57 Loyalty, 50 Belief, and 57 Satisfaction points. During the summer

of 2022, all four numbers went down drastically because of some management decisions that were not supported by the employees. However, numbers came back up in autumn together with new hires – 14 employees were at the segment of 3 months – 1-year starting date in the October 2022 survey scoring 86 eNPS. See Figure 3 for the visual. “Benchmark” shown in the figure stands for a comparing number of similar companies in the industry by Workday data intelligence technology.

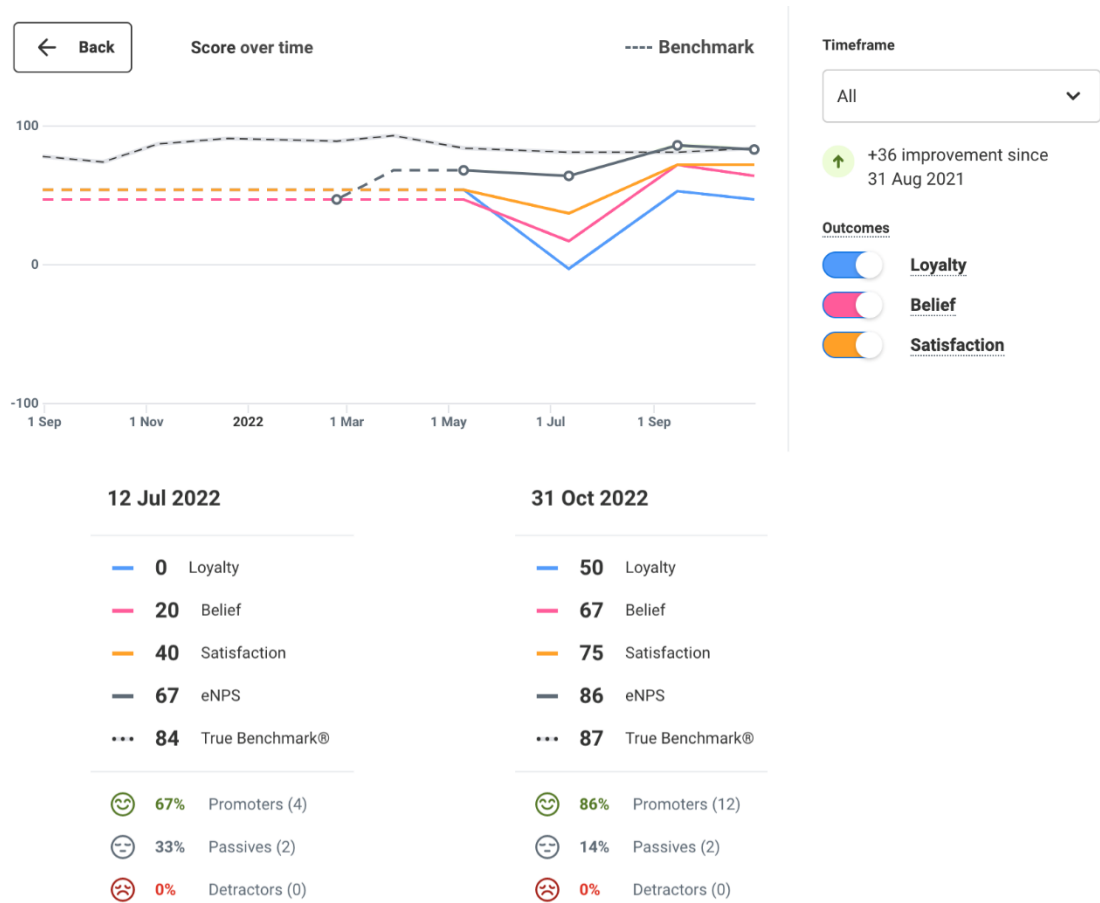


Figure 3 Peakon results. Workday, 2022, adapted by Geciene

1.2 Research Objectives and Research Questions

The aim of this study is to find out how the new employees experienced the current onboarding process and what could be improved to ensure a consistent and positive onboarding experience for each new employee.

Why onboarding is important for the company and the new employee?

What are the main steps for effective onboarding?

What best practices from the literature review and new employees' proposals could be implemented into the company's onboarding process?

The focus group of this thesis will be specialists who started working within a year in the Vilnius office.

1.3 Thesis structure

The first section of this thesis explains the background of a case company and lists research questions. Section 2 covers a literature review of the importance of onboarding, cultural fit, engagement, and time to productivity and explains the steps of onboarding in detail. Section 3 describes the methodology used and section 4 analyzes primary data from observation and interviews. Findings are concluded in section 5.

2 Literature review

2.1 The importance of onboarding

The importance of onboarding cannot be overstated. According to Stein and Christiansen (2010), effective onboarding is essential for ensuring that new employees become productive members of the team within a reasonable timeframe. Through proper onboarding, organizations can ensure that new hires have the necessary knowledge, skills, and confidence to perform their job effectively. Additionally, onboarding helps to foster a sense of belonging, which is critical for providing an engaging and meaningful work experience. Ultimately, onboarding is an investment in organizational success and should be considered a vital component of any business strategy.

The primary goal of onboarding is to provide new hires with all the information and the tools that they need to succeed in the organization and ensure their loyalty and productivity. As a definition, onboarding is a process of new hires management that consists of an introduction to the company's values, business goals, vision, and mission, as well as mentoring, training, and integrating into the organization's culture (Isson and Harriott, 2016, p.179-180).

To achieve this primary goal, Dessler (2013, p.270) specified four accomplishments that must be a part of onboarding:

1. Ensure that the new hires feel welcomed by the company and integrate well with the team.
2. Prepare all the necessary accesses and information such as email, programs, policies of the company, and benefits.
3. Present and inspire new hires with overall business vision, and strategy, and get them to feel the company's culture and where is it coming from.
4. Start new employees' integration into the culture and how things work at the organization.

The onboarding program, cultural fit, and engagement are the pillars used to enhance new employees' first impressions and start creating value for the organization. From an analytical point of view, the value is calculated by the time to productivity measurement (Isson and Harriott, 2016, p.180, 187). This thesis will discuss deeper into cultural fit, engagement, and time to productivity in the following section.

2.1.1 Cultural fit

Looking back to the classics, in 1982, Deal and Kennedy provided a definition of culture as “the way we do things around here”. It is a very simplified definition; however, it represents the concept of shared values, beliefs, and attitudes within the organization. Organizations that have clear cultural guidelines can profit from it, as culture can bind the employees together through a sharing of patterns of meaning. (Smith et al., 2013, p.155)

Overall, the culture is the key values of the organization, what everyone should know and what are the general rules of behavior. However, people are different and biases and individual assumptions about what is important, right, or wrong most likely will differ (Schein and Schein, 2017, p.1, 19). While, as mentioned before, culture has a vital role in organizations, shaping not only personal relationships between employees but also with the external environment such as clients, partners, and stakeholders, it is also not that easy to explain (Smith et al., 2013, p.155). That is why the basic cultural fit should be screened during the recruitment process and hiring becomes a critical enabler to maintain the current culture. Moreover, a professional introduction to how the company works and what its culture is like is a must during the onboarding process to ensure new hires become productive and valued members of the team (Isson and Harriott, 2016, p.178).

2.1.2 Engagement

Recent research has indicated that onboarding has a positive impact on employee engagement. In a study conducted by Laumer et al. (2015), it was found that when organizations effectively implement onboarding programs, employees demonstrate higher levels of job satisfaction and commitment, which leads to increased engagement. Furthermore, Saks and Ashforth (2007) suggested that onboarding is an important factor in creating an effective employee-organization relationship and helps to establish a strong connection between employees and their organization. The authors also indicated that onboarding is an important factor in developing an effective connection between the employee and the organization, thus helping to create an environment that fosters commitment and engagement. This research suggests that organizations should prioritize onboarding to create a work environment that increases employee engagement.

Setting up new hires for success is one of the main outcomes of professional onboarding. Success at the new job would be impossible without employees' full engagement, motivation, and inspiration. Most new employees are coming to the new organization with an attitude that this company will be a great place to work. The challenge for onboarding programs is to keep enthusiasm high, help them to adapt quickly, and empower them to contribute. (Stein and Christiansen, 2010, p.13-14) A significant role is played in the mindset and attitude of how good employees perform. Cognitive abilities and energy levels are affected by employees' feelings about coming to work. Managers can use strategic influence during the onboarding process based on manifesting the organization's culture and positively improving this factor. (Green, 2017, p.9)

Engaged employees stay because they are satisfied with their work as individuals and then give their maximum contribution to the company. Together with motivation and commitment, employees can achieve great goals in the direction of the organization's business goals but to do that they must get acquainted with it during the first weeks at the company (Rice et. al., 2012, p.2–

4) The research discussed in a study “Happiness and Productivity” published by the economists of the University of Warwick suggests that employees’ happiness has a huge impact on productivity at work. The study claims that happiness spiked productivity by 12% while unhappy employees worked less productive by 10%. (Oswald et. al. 2015, p. 23–24)

2.1.3 Time to productivity

Recent literature on onboarding suggests that the time to productivity of new hires is a critical factor in the success of the onboarding process. Research on optimal onboarding practices has identified several key elements of successful onboarding, with a focus on early engagement and acceleration of learning. Specifically, a comprehensive onboarding program should include active engagement with the new hire's manager, meaningful and relevant onboarding activities, and a commitment to time-to-productivity goals that are realistic and achievable (Thomas, 2014, p.1-20); Smith et al., 2016, p.20-30). Additionally, research has shown that effective onboarding processes should provide an environment that is supportive and conducive to learning, with the goal of rapidly assimilating the new hire into the organization and its culture (Brown, 2018, p.12-17).

Time to productivity can be also named “the break-even point”. This point means that new hires start to contribute to the company more than they had consumed while learning during the onboarding process (Watkins, 2013, p.3-4). As presented in Figure 4, the goal is to accelerate the break-even point empowering the new joiners to produce value for the organization in a shorter period.

The break-even point

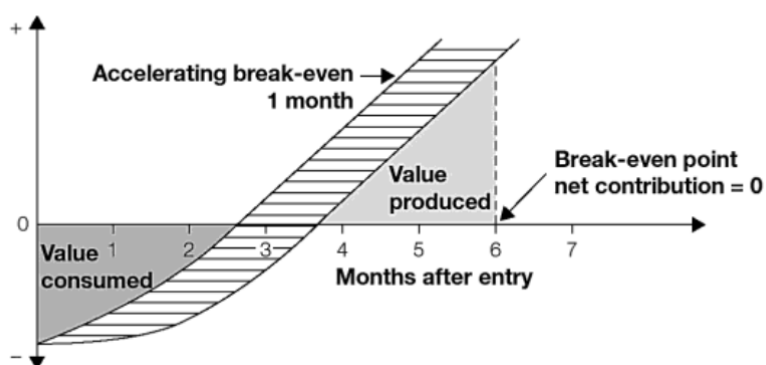


Figure 4 The break-even point. Watkins M. D., 2013. (p.4)

2.2 Specificity in onboarding software developers

Onboarding software developers can be a time-consuming and complex process, requiring careful consideration and planning. For successful onboarding, it is important to create an effective and comprehensive plan that considers the individual skills and experience of each developer. The specificity of onboarding plans is key for successful onboarding, as it allows for an individualized approach to be taken for each developer, considering their personal needs and preferences. This can include details such as the types of development tools and technologies they are familiar with, their relevant experience, and the style of learning that is most effective for them. Creating a plan that is tailored to each individual developer enables companies to support their development efforts and maximize their potential. (Britt et al., 2020)

Clear guidelines on the development process, technical resources, and specific tasks the developer will be expected to complete together with providing developers with clear expectations and objectives during the onboarding process can help to ensure that they understand the scope and purpose of their role. (Valadzko and Zaychenko, 2021)

Additionally, it is important to ensure that the software developers have a clear understanding of the organization's vision, goals, and objectives and how the

software development process fits into that vision and what purpose their code serves for the business. If new employees are knowledgeable of the company and its objectives, they will be more likely to experience a sense of inclusion in the team. It is essential to assist software developers to acquire a sense of purpose within the company and establish a connection with other colleagues. This will likely result in a higher level of motivation, loyalty, conscientiousness, and improved performance. (Eilers, 2022)

The research by Buchan et al. (2019) identifies the onboarding goals of a software developer such as:

- Understanding team norms
- Becoming acquainted with company culture
- Acknowledging the duties, expertise, and authority of other team members
- Recognizing expectations of your own role's responsibilities
- Realizing what tasks to do and when
- Learn the project structure, aims, and the implications
- Learn how to code and test to the team's expectations
- Understand and meet the team's standards of project quality
- Understand what techniques that are part of the team's software development process
- Familiarize with the project domain knowledge, terminology, and documentation

When introducing a new programmer to the team, there is a considerable amount of information to communicate from the codebase to code standards, team workflows to team culture, and more. By implementing effective employee onboarding practices, one can facilitate the transition of the new programmer into a fully proficient, productive, and contented team member (Eilers, 2022). Moreover, studies have found that providing developers with detailed regular feedback on their progress and areas of improvement during the onboarding

process can lead to improved performance and better job satisfaction (Buchan et al., 2019).

2.3 Steps of onboarding

The process of onboarding is critical to the success of any organization and can be divided into four major steps: pre-onboarding, orientation, training, and feedback. Pre-onboarding involves activities such as the completion of paperwork and administering background checks prior to the employee's first day of work. Orientation is the process of introducing the new employees to the organization, its values, and culture, and its role and responsibilities (Davila and Pina-Ramirez, 2018, p14). Training is the process of equipping employees with the capabilities and information required to do their job effectively. Finally, feedback is the procedure of providing workers with an assessment of their performance, as well as offering instruction and advice to grow and enhance their abilities (Wolf, 2018). Together, these four steps of onboarding are essential to ensuring a positive and productive transition for new employees. The four stages will be discussed in this study with a focus on software developers' positions.

To ensure the quality of each onboarding stage, several studies recommend using a framework that includes checklists. Separate checklists could be for an HR department, a hiring manager, and the third one for new employees – a 30-60-90 days checklist of what must be achieved in order to successfully complete onboarding (Bauer, 2010, p4; Isson and Harriott, 2016, p183). During the Buchan and MacDonell (2019) research, interviewed software developers identified checklists as a useful technique to follow the onboarding process and a good memory aid. Moreover, Bauer (2010) claims that the implementation of a formally written onboarding plan, a comprehensive document that details the timeline, objectives, duties, and resources available to new employees, can aid in their successful integration as it delineates the actions they are to take and the support they are able to anticipate. For optimal effectiveness, the

onboarding plan should be composed and distributed to all staff within the organization, applied in a consistent manner, and evaluated periodically.

2.3.1 Pre-onboarding

The process of new employee adaptation starts from agreeing to a job offer. There is no need to postpone the process until their first day of employment as this period may take up to a few weeks. Optimize this time by initiating the pre-boarding steps. (Valadzko and Zaychenko, 2021)

At first, the company must make sure to have basic administrative tasks covered such as contracts signed, filling out all the paperwork, and legal responsibilities. Secondly, new employees should submit a request for equipment if it's provided by the company (Kow, 2021). Furthermore, it is essential to ensure that all necessary software accounts will be accessible on the first day of employment for the new employee, such as email, Slack, and GitHub, so most likely it must be pre-ordered in advance from the IT department or other responsible staff. (Crawford, 2015)

Pre-boarding entails resolving organizational matters and providing the new worker with basic information about the business. Send a welcoming letter to the new team member, confirming the commencement date, informing them of the upcoming events, and scheduling a meeting before starting work. If there is an adequate time prior to their first working day, send additional emails every 5-7 days. These emails can contain images of their future workspace and a greeting from their group leader. (Valadzko and Zaychenko, 2021) Ensure that all personnel are aware of the recent recruitment by having the new hire contribute to the creation of their introduction, including a photograph. Additionally, write a warm welcome message in the Slack channels for the new joiner. This message could be a simple statement of greeting, such as: "Welcome [Name], happy to be working together!" (Crawford, 2022)

Have a concrete understanding of the duties assigned to the new hire for their initial day. To prevent overloading the new hire with too many tasks, consider

what the most important goal to accomplish by the end of the day is. Lastly, decide who the mentor and buddy for the new hire during their first week will be. (Crawford, 2022)

All tasks mentioned above is recommended to go under the HR department's and managers' "Preparation checklist" for new employees. (Bauer, 2010)

2.3.2 Orientation

Organizations often implement orientation programs as a means of quickly immersing new employees into the organization's culture and values. These activities typically cover three main topics: contractual terms and conditions, health and safety regulations, and the organization's history, culture, and values. This process, often referred to as 'early socialization', generally occurs within the first month of an employee's tenure and continues further if needed. (Stol, 2019)

In order to facilitate the seamless integration of new personnel into the team, it is imperative that all technical and project records are kept up-to-date and readily available. This will obviate the need to spend time searching for outdated Slack messages or handbooks. An internal wiki, which can be updated easily when changes occur, is a suitable medium for disseminating job-relevant information and should contain elements such as user stories, common glitches, and their respective solutions, as well as established operating protocols both for the company and team-wide processes. It is also pertinent to provide information regarding the project or feature being developed to provide the context for the use of the ultimate output. (Kow, 2021)

In their research, Buchan's and MacDonell's (2019) findings are very similar. Most interviewees identified internal documentation as an essential element of onboarding in order to comprehend software development artifacts including code designs, tests, standards, database structures, and the setup and utilization of local development tools. This internal documentation onboarding category encompasses information stored in multiple locations including

workflow tools (e.g., Jira), physical work boards, code comments, code repositories, and electronic documentation/manuals. Additional local documentation useful for onboarding comprises knowledge databases, project plans, code bases, product knowledge, checklists, and a location map.

The successful onboarding of new hires can be facilitated by the provision of readily available support tools, such as a written onboarding plan. This formal document should detail the timeline, goals, responsibilities, and support that the new hires can expect, thus providing them with a clear roadmap for success. For maximum effectiveness, the onboarding plan should be written, communicated to all relevant parties within the company, and consistently implemented and monitored over time. The best practice is to introduce this plan on the first or second day of onboarding. (Bauer, 2010)

Several authors claim that it is essential to consider who will be responsible for orienting the new employee to the company and team and providing answers to questions that arise. To optimize the new hire's first day or week, the best practice is to appoint a mentor or a buddy. This buddy should be someone with a similar job role or with similar skills and aptitudes who can be a source of assistance for the new employee answering quickly and with confidence. Furthermore, mentoring can aid in creating new relationships and reinforce ties within the organization and be a good social icebreaker for the new employees. (Green, 2022; Isson and Harriott, 2016; Stol, 2019)

2.3.3 Training

It is important for new employees to possess confidence, clarity, and the necessary skills to fulfill the role for which they are employed. Training for new employees should cover the development of both hard and soft skills, as well as onboarding skills, as each of these skill sets is essential. If new employees lack self-efficacy at the onset of their tenure, training is especially vital to their ability to effectively manage the job they have been hired to do and their performance. Training can aid in the acclimation of new employees and encourage successful

onboarding by providing them with the tools to proactively contribute to the adjustment process. (Bauer, 2010)

Buchan's and MacDonell's (2019) study claims that pair programming is an advantageous approach for becoming familiar with the current codebase, learning how to program collaboratively, and fostering familiarity amongst team members. Also, several research participants valued the software development practice of daily stand-up (scrum) meetings as part of the onboarding process, as it created an opportunity to receive regular support from other team members. It was perceived to facilitate relationship building, as individuals discussed their plans and development issues. Additionally, it was a regular forum for the new employee to ask questions and improve their understanding of the team's thought process and workflow.

According to Kow (2021), it is valuable if new employees start by doing a small task for example a common bug fix or an update for an old feature. Introducing team members to a straightforward task that they are capable of completing can provide them with a sense of accomplishment for making a meaningful contribution to the team.

2.3.4 Feedback

During the onboarding process of software developers, two interactions that were found to be particularly important were the setting of expectations and the review of plans. This process provided assurance to new employees, thus reducing the amount of doubt and speculation surrounding their behavior during the onboarding process. It is beneficial to have written documentation of the plans available to refer to during onboarding, which should be reviewed regularly at the outset of onboarding yet become less frequent as onboarding progresses. (Buchan and MacDonell, 2019)

One of the best practices for onboarding according to Bauer (2010) is to implement milestone check-ins with employees by team lead at 30, 60, 90, and 120 days following their entry into the organization, as well as up to a year after

their entry, in order to evaluate their progress. Moreover, Kow (2021) discusses that the integration of new employees into the workplace is frequently neglected in terms of the transition from onboarding to sustained growth. Although the preliminary greeting with supervisors and co-workers typically takes place during the initial 30 days, recurring individual meetings can function as an efficient transition from onboarding to long-term development. During these meetings, especially after the first month has elapsed, managers can start to devise long-term objectives and goals, as well as establish ways to promote their growth over the next three to six months.

3 Methodology

3.1 Primary data

Primary data is collected using observation and interview methods. As the author of this study is currently employed at the company, participation observation was used and direct participation and observation took place as data-collecting techniques (Saunders et.al., 2019, p.378-400). The scope of observation was activities, existing documentation, forms, and available information from the current onboarding process at the company. In the observation chapter, when using the author's personal observations, her own family name Geciene is used for reference.

This observation method is closely related to the interviews of informants, in this case, recent new joiners. Ten new employees were hired at the company during the period from March 2022 to December 2022. The scope of this research is five interviews with company employees that started working during this period. Semi-structured one-on-one and face-to-face interviews were performed to gather the data and experience of the current onboarding process from interviewees. Also, some questions cover their suggestions for improvements to the process and their previous experience in other companies' onboarding that employees saw as valuable experience.

The data collected during primary research would be referred to as qualitative data. Most of the data from observation and interviews are textual and visual data. As there is a huge amount of data, this research coded and categorized received data to the groups according to the topics of onboarding steps to have the information structured and relevant to the research questions (Saunders et.al., 2019, p.646-678). The analytical approach with the analytical focus was used in this study as the plan was to analyze thematically the onboarding aspects and each step's importance during this process.

3.2 General information about interviewees

To maintain personal information about respondents anonymously, they will be referred to as Respondents A, B, C, D, and E. A brief introduction to their work experience related to this thesis is given in this chapter. All five respondents work in the Vilnius office and are from different teams with different team leaders, this allows to study answers from different perspectives.

Respondent A has five to ten years of experience working as a software developer. During that time respondent has worked and experienced onboarding processes in more than 3 different organizations.

Respondent B has more than ten years of experience working as a software developer. During that time respondent has worked and experienced onboarding processes in more than 3 different organizations.

Respondent C has more than ten years of experience working as a software developer. During that time respondent has worked and experienced onboarding processes in more than 2 different organizations.

Respondent D has three to five years of experience working as a software developer. During that time respondent has worked and experienced onboarding processes in more than 3 different organizations.

Respondent E has less than three years of experience working as a software developer. During that time respondent has worked and experienced onboarding processes in more than 2 different organizations.

All the respondents are experienced professionals that have worked in two or more different companies before the case company.

3.3 Interview questions

The interview was based on eleven open questions relevant to the research questions. Questions were formed to answer if the case company follows

literature recommendations and the four onboarding steps listed in chapter 2. All interviewees were given identical questions listed below.

1. What do you think about the information given during pre-onboarding
What would you like to have in addition?
2. How helpful was the information given at the first meeting with HR? How clear was the explanation about where to find the information you need regarding any work-related questions?
3. What do you think about your technical onboarding (equipment, accesses, tools used)?
4. What do you think about your project onboarding? How clear became what is the business goals and why this work is important for the company?
5. What do you think about documentation provided regarding technical requirements and project?
6. How did you feel about the introduction given to the team members and other colleagues?
7. How clear were the expectations and goals given by the team lead for your first weeks?
8. What do you think about the training given by the team leader and team members?
9. What do you think about the feedback that you were given daily and during one-on-ones with the team lead?
10. Have you ever used an onboarding checklist? What would you think of having one?
11. How can we improve our onboarding process and experience?

3.4 Limitations

One of the main limitations of this study was that some of the respondents had the onboarding process more than five months ago and could not recall everything very well because of the time that passed. During a face-to-face interview, a big factor plays the interviewer's and interviewee's personal

relationship that determines how open the person will be during the interview. Finally, interviewer bias while asking questions and respondents' personal biases and different previous experiences influence respondents on how good or bad, they evaluate the current onboarding process. (Saunders et.al., 2019, p.455-457).

4 Research analysis

This section reflects theoretical research from the literature review discussed previously, as well as five interviews and the author's observation regarding the onboarding process in the company. The section is divided into four topics that represent the onboarding process: pre-onboarding, orientation, training and feedback, and an additional topic of ideas on how the process can be improved.

4.1 Pre-onboarding

The pre-onboarding process currently begins with the communication between HR and incoming employees. The new hires are provided with their contract of employment, non-disclosure agreement, and any other relevant documents through an online platform which they sign electronically. As suggested by Valadzko and Zaychenko (2021), new hires also receive instructions via email regarding their journey to the office, parking details, and a plan for the first day. Additionally, they are asked to submit an introductory statement about themselves and include a photo, which is then featured in the company newsletter that all employees receive when a new person joins and is welcomed on the company's Slack channel, as proposed by Crawford (2022). Furthermore, HR requests that the IT department provide the necessary equipment and software accounts for the new hire in advance, so that everything is prepared at least two days before the start date. (Geciene, 2023; Kow, 2021; Crawford, 2015).

Respondent A reported the ease of signing documents online without the necessity of an in-person visit for just their signature. Furthermore, Respondent A had a positive reaction to HR's initiative in reaching out to them multiple times throughout the pre-onboarding process and the introductory email, which was a great way to introduce themselves to their future colleagues. Respondents A, B, C, and E were pleased with the amount and quality of the information they received and found it to be navigable and straightforward. Respondent A

referred to it as "minimalism that matters". However, Respondent D expressed confusion concerning the project which he had decided to join, feeling disheartened upon learning of its alteration. As a recommendation for future pre-onboardings, he suggested that projects should not be discussed in detail if there is a possibility of them being transformed, to prevent disappointment.

4.2 Orientation

4.2.1 First meeting with HR

Current orientation starts with an initial meeting with Human Resources (HR). During this meeting, new employees become familiarized with office policies, security guidelines, accounting system, benefits program, and fundamental payroll information. New employees are then guided through the company's intranet platform, which offers easy access to the information discussed in the meeting (as demonstrated in Figure 5). Furthermore, new employees are offered insight into the company's background, core values, and organizational chart, as well as a tour of the office. (Geciene, 2023). This introduction meeting basically covers what Stol (2019) refers to as "early socialization".

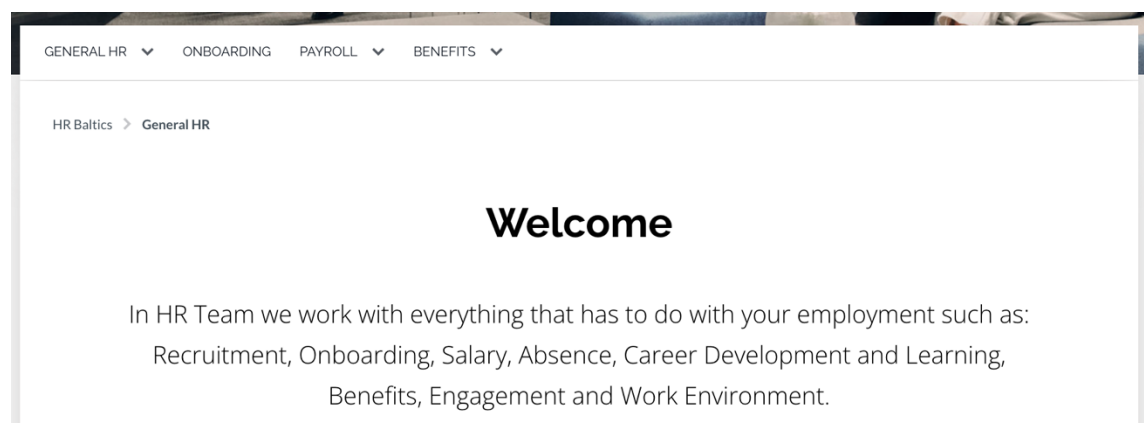


Figure 5 Intranet welcome page (Geciene, 2023)

The interviewees were asked how helpful was the information given at the first meeting with HR and how clear was the explanation about where to find the

information needed regarding any work-related questions. Respondent B could not recall the first meeting with HR topics, only remembered that it was a nice meeting. Respondents A, D, and E evaluated the first meeting as very positive, structured, and clear. Respondent's C first meeting was together with another colleague, and he was feeling more comfortable than having it alone. Respondent C found some things confusing and asked questions about organizational structure and how processes are handled within the organization that the HR person was not able to answer during the meeting. However, these questions were answered by the team leader later that day.

All five respondents expressed their positive opinion of the intranet page, citing its usefulness in providing relevant office information and its user-friendly design. Participant B even made a bookmark of the intranet page for easy reference.

4.2.2 Technical onboarding

As part of the pre-onboarding process, the HR department orders equipment and accesses in advance, so that new employees can find their work tools on their desks ready to use on their first day (Geciene, 2023). All five respondents reported that the prepared equipment was easy to use and quick to install. Respondent A noted the presence of high-quality monitors that could charge devices without requiring extra cables or docking stations. Furthermore, Respondents A and C requested additional equipment, which was delivered within a few days – a pleasant surprise compared to their experiences in previous companies. Respondent B shared that his project had a script that automatically set up all project information on the laptop, which he found to be both helpful and expedient.

4.2.3 Project onboarding and business goals

Eilers (2022) suggested that it is imperative to confirm that software developers comprehend the organization's vision, objectives, and aspirations, as well as how the procedure of software development fits into that vision, and what role their code plays in the business. Currently the project onboarding and explanation about business goals of that project is done by the team leader and there is no framework of how it should be done – team leaders decide themselves (Geciene, 2023). As all five respondents are from different teams, their experience varies.

Respondent A assessed the onboarding process of the project as being favorable, appreciating the lack of pressure of needing to understand everything. Moreover, Respondent A had the opportunity to familiarize him with the project at his own pace. The business objectives were also made transparent as a result of the monthly all-staff meeting held during the first week of Respondent A's employment, where the goals of the firm were presented on a corporate-wide level. Respondent D had a basic familiarity with the project from a team leader and reported that the team was friendly and willing to provide assistance on any inquiries pertaining to it. The objective of his daily responsibilities was transparent as the ultimate consumers could observe the results of his efforts and company directly benefits from his work.

Respondent B expressed that he was flooded with project information during his initial introduction to the project and failed to recall the majority of it the following day. The complexity of the project, including the introduction of new terminology, was identified as a contributory factor to this. It was suggested that the provision of a list of abbreviations and terminology of the specific field prior to onboarding would aid future employees in their preparation. A clear correlation between the project's functionality and the company's business objectives was understood by Respondent B, as the project's automation of processes was acknowledged as being of value to the business. Respondent C reported prior familiarity with the project area and thus found it simpler to

comprehend information relating to the project. However, Respondent C encountered a lot of questions during the initial months and did not feel confident in repeatedly approaching the team leader with these inquiries, suggesting having a designated buddy from their team would have been beneficial. Furthermore, Respondent C outlined that the business objectives had been clearly communicated.

However, the experience of Respondent E diverged from the other interviewees. Respondent E reported that their project onboarding was very rapid and provided inadequate information for gaining an understanding of the project.

4.2.4 Technical and project documentation

According to Buchan and MacDonell (2019), internal documentation is an essential component of the onboarding process. Kow (2021) asserts that it is necessary to ensure that all technical and project records are maintained up-to-date and easily accessible in order to promote the smooth integration of new personnel into the team. At present, the company implements Confluence and Jira for documentation and task management, although the implementation of these varies depending on the team and project (Geciene, 2023).

The project of Respondent A features adequate documentation, and Respondent A has asserted that his colleagues are highly engaged in the process of keeping the information up to date. Nevertheless, the business requirements for the project are not fully clarified, and it would be advisable for those responsible for it to make greater efforts to write descriptions.

The responses from B, C, D and E regarding the lack of documentation for their respective projects demonstrated a variety of perspectives. D highlighted the potential risks associated with the absence of documentation, emphasizing that if any critical personnel leave the company, key information about the project would be lost. Respondent C argued that the project's current dynamism would make it impossible to keep the information up to date, thus rendering

documentation useless. Respondent B acknowledged the worth of documentation, but only if it is kept updated. Finally, Respondent E, having never experienced normal project documentation, was unable to assess its potential benefits.

With regard to technical requirements documentation, all participants reported that the fundamental code-writing regulations are detailed in Confluence. Additionally, Respondent B explained that a portion of technical requirements is covered by Git Lab regulations, thus making it impossible to not abide by primary protocols. Respondent D asserted that the programming language they use has inbuilt solutions that illustrate the purpose of the code, thus obviating the necessity for additional documentation to identify each line.

4.2.5 Introduction to the team

According to Dessler (2013), one of the four main components of onboarding is making sure that new hires feel welcomed by the company and are able to effectively integrate into the team. Isson and Harriott (2016) point out that getting to know colleagues is an essential element of becoming acquainted with the company's culture and ascertaining whether the advertised values are actually in practice within the organization. At present, new employees become acquainted with their team leader during the recruitment process and are then introduced to other colleagues via email on their first day. Additionally, they are taken to the team's workspace and given a tour of the office, during which they meet other teams and greet them. Furthermore, there is a company policy of taking new employees out for lunch with their team on the first day, which is paid for by the company (Geciene, 2023).

All interviewees reported similar experiences when interacting with the team. Initially, they were introduced to one another by name and then proceeded to naturally develop relationships with one another over time. Respondent A, however, received an additional introduction, as his team was asked to partake in an around-the-table introduction in which each team member shared

something of relevance about themselves, such as hobbies or interests. Notwithstanding, the introduction to other colleagues was not especially successful. All respondents noted that it is difficult to become familiar with members of other teams unless they share a common interest, such as a love of playing foosball. Respondents B and E both indicated that it would be beneficial to be aware of the projects which other teams are working on, as well as to have an effective way of getting to know those individuals.

4.2.6 Goals and expectations

In order to ensure successful onboarding, it is imperative to devise a complete and effective plan that accounts for the individual skillset and prior experience of each developer (Britt et al., 2020). Also, according to Buchan (2019), one of the main goals of software developer onboarding is recognizing expectations of new employees' role's responsibilities. Currently, there is no formal procedure in place outlining the objectives and expectations of newly hired personnel in the case study company during their initial months of employment. Team leaders are responsible for determining the appropriate approach to applying these principles and measuring the efficacy of the new employees in their team (Geciene, 2023).

During the interview, respondents were asked how clear were the expectations and goals given by the team leader for their first weeks. Respondents A and B reported that the expectations were made clear to them. Respondent A experienced a weekly one-on-one meeting with his team leader where progress was discussed, while B was expected to set up the systems and then work at his own pace. Respondent C stated that his team lead provided him with a basic plan of his goals, and he followed it step by step. Respondents D and E, however, had different experiences. Respondent D had set goals for himself, and Respondent E reported that he did not have a clear vision or any set goals, merely doing daily tasks until his probation period of three months was complete.

4.3 Training

Buchan and MacDonell (2019) declare that effective approaches to software developer training include pair-programming, daily stand-up meetings, and regular forums for knowledge sharing. Kow (2021) emphasizes the value of tasks such as bug fixes to introduce new employees to the code base and practices, arguing that such activities can create meaningful contributions to the team while also providing training. Brown (2018) suggests that a supportive environment focused on learning would make the onboarding process more effective, thus quickening the time to productivity. There is a companywide practice to do daily stand-up meetings for each team and new employees join those meetings from the first day. Other training activities are for the team leader to decide (Geciene, 2023).

The five interviewees were asked for their opinions on the training provided by the team leader and team members. Respondents B and C articulated the belief that code reviews are the most beneficial and effective method of understanding business logic and obtaining new ideas and potential solutions. The initial few months can be tricky as new staff members receive a large number of comments to be addressed during code reviews; however, the respondents observed advantages in this approach and gleaned knowledge from it. Respondent A stated that he spent the initial four months fixing bugs, and in doing so he gained an understanding of the product and code. Respondent A additionally received instructions on how to operate the Jira platform, as well as some suggested readings on development practices. Respondent D reported that the team leader was the primary source of guidance in the processes, while Respondent E learned from the tasks assigned. All five respondents agreed that they could always approach the team members for assistance with any work-related queries.

4.4 Feedback

According to Bauer (2010), the implementation of milestone check-ins with the team leader at 30, 60, 90, and 120 days is considered to be one of the most effective practices for onboarding. This is further supported by the findings of Buchan and MacDonell (2019), which suggest that a constant feedback process can help to alleviate the self-doubts of new employees and lead to improved performance. The company's particular emphasis is placed on feedback during the first 90 days as it is the probation period for new employees in Lithuania. Team leaders are provided with a detailed 90-day review plan, which includes one-on-one meetings with the new employee after the first week and at the 30, 60, and 90-day marks. The recommended agenda points for these meetings include cultural fit, collaboration, daily tasks, workload, possible improvements, recognition, and more. (Geciene, 2023).

The respondents were asked to provide their opinion regarding the feedback they receive from their team leader on a daily basis and during one-on-one meetings. Respondent A commented that, although he may not always agree with the feedback, he attempts to remain open-minded and consider it. Furthermore, he found it beneficial to have one-on-one meetings outside of the office space during the company's more difficult times in June, as it allowed him to have discussions about his concerns and provided motivation. Respondents B and C both expressed that they receive good feedback during daily stand-up meetings. Respondent C mentioned that his one-on-one meetings were satisfactory, yet he felt that recognition was lacking when he executed tasks well. Respondent D held a positive opinion with regards to the feedback they received during one-on-one meetings, while Respondent E found them to be superficial. Nevertheless, they both voiced that they had great support from the team members.

4.5 Improving the process

Multiple authors have suggested that the implementation of a comprehensive, personalized onboarding plan, used as a checklist to track the process and progress, is likely to promote superior onboarding quality and facilitate the successful incorporation of new employees (Britt et al., 2020; Isson and Harriott, 2016; Bauer, 2010; Eilers, 2022). Currently, the company does not use checklists for new employees (Geciene, 2023), therefore respondents were asked if they ever used an onboarding checklist, as well as their attitudes toward having one. Respondents D and A both reported having encountered an onboarding checklist in their previous companies and claimed that it was beneficial since it enabled the organization to appear more organized and gave new employees a concrete plan of action from the beginning. However, Respondent A expressed concern that some individuals might feel threatened by the checklist and perceive it as a sign that if the tasks listed were not accomplished, they could be subject to dismissal. The other three respondents had not encountered a checklist during their onboarding processes, yet all of them agreed that it could be a valuable asset.

At the conclusion of the interview, respondents were asked to provide their insight on ways in which the company could improve the current onboarding process and the experience for new employees. Respondent E expressed that the company's onboarding process was the most positive experience he had had compared to his previous experiences. Respondent A suggested the company consider consulting with new hires to determine which approach to learning is more suitable for them - reading or learning by doing. Respondent B proposed that the company should invest more in introducing staff from the other teams and creating opportunities for team members to get to know one another in informal settings, such as going to a bar together. Respondent D suggested limiting new employees to only one project during the first three months of employment, as having two or more can be overwhelming. Both Respondents D and C indicated that a buddy program would be beneficial during the first weeks, wherein they could be paired with someone in the same

team who could assist them with daily questions, thus avoiding the need to bother the team leader.

5 Conclusion

Onboarding is an approach to managing new personnel that incorporates introducing them to the company's values, objectives, aspirations, and mission, alongside providing guidance, instruction, and assimilating them into the organization's culture. The fundamental objective of onboarding a new employee into an organization is to equip them with the required data and resources to succeed in their role, as well as guarantee their cultural fit, and engagement and shorten the time to productivity. Given the highly competitive IT talent market in Lithuania, the significance of effective onboarding for the case company is amplified, since there is an ongoing battle to attract and retain the most talented software developers.

The successful integration of new employees into an organization is contingent upon a well-structured onboarding process. This process involves four distinct steps: pre-onboarding, orientation, training, and feedback. Pre-onboarding encompasses activities such as the fulfillment of paperwork and background checks before an employee's first day. Orientation entails familiarizing new employees with the organization, its values, culture, role, and responsibilities. Training equips employees with the necessary skills and knowledge to perform their job effectively. Lastly, feedback involves evaluating the performance of the employee, while offering guidance and advice to further develop their capabilities. Collectively, these four steps are essential to ensure positive and productive transitions for new employees.

Primary data was collected using direct participation and observation, as well as semi-structured one-on-one and face-to-face interview methods. The scope of this research was five interviews with Vilnius office employees that started working during period from March 2022 to December 2022. The respondents were asked about current onboarding process at the company and shared their experience in different topics based on onboarding process structure discussed in the literature review. Four out of five respondents agreed that pre-onboarding was well managed and there was enough information give before the first day of

work. Only Respondent D faced some confusion regarding his project and recommended to not discuss project in detail if there is possibility for it to change.

The interviews revealed that respondents were satisfied with the orientation and fundamental details about the organization provided by the HR department and their technical onboarding process went without any major issues. However, project onboarding experiences varied as it was conducted by different team leaders, with the quality ranging from comprehensive and enlightening to overloaded or insufficient. It is suggested that the company should standardize the project onboarding process across all teams, as even though the projects may differ, having consistent protocols on how to outline the project workflow and its specifics will aid new employees in understanding it better.

The technical documentation was deemed adequate by all interviewees, however, the project documentation varied across each team. All participants agreed that documentation is beneficial when it is regularly updated; however, some projects are too dynamic to dedicate substantial time to documentation. There is a risk associated with the lack of documentation, notably that if any key personnel leave the organization, critical information about the project would be lost. It is thus suggested that the company should create a list of essential documentation that needs to be maintained and kept up to date, rather than attempting to document everything.

The respondents provided positive feedback regarding the introduction of new team members and the willingness of team members to offer assistance and support during the onboarding process. However, there was a noted disconnect among different teams in the company, as all interviewees indicated that the company could invest more effort into introducing new employees to the work of other departments and create an informal atmosphere to facilitate getting to know colleagues from different teams. Such changes would be advantageous in integrating new employees into the company's culture and making them feel welcomed.

The primary objective of onboarding software developers is to identify the anticipated duties of new employees. The organization's lack of a formal process for outlining the goals and expectations of recently hired personnel was evident in the responses of survey participants. It was proposed that an onboarding checklist be used to specify these expectations and the respondents received the idea favorably, expressing that it would be advantageous so long as it was not overly rigid.

The interview results indicated that, overall, respondents viewed the training positively due to the regular stand-up meetings and code reviews, which allowed for feedback and progress. However, some respondents expressed unease in approaching team leaders and members with questions in the early stages, which led to the suggestion of a buddy program to facilitate the onboarding process. It is suggested that the company take this into consideration.

Finally, it is recommended that the company take measures to review the 90-day feedback plan, outlined in Chapter 4.4, in order to address the differences reported by respondents in terms of feedback. To further enhance the feedback giving and receiving capabilities of their team leaders, the company should consider providing training sessions.

In conclusion, the company's onboarding process follows the four stages as recommended by the literature review. Nevertheless, some modifications could be beneficial in order to structure it more effectively. Examples of these include standardizing the process across groups, creating documents for essential projects, planning introductions across departments and teams, creating onboarding checklists for clear expectations, considering a buddy program, and holding training for team leaders in providing feedback. All of these improvements could lead to an onboarding process framework that is both satisfactory and effective. These findings were presented to the management of the company and were taken into consideration to further investigate and improve the onboarding process.

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