

UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**IMPROVING EMPLOYEE RETENTION IN THE FINANCIAL SECTOR WITH
PEOPLE ANALYTICS**

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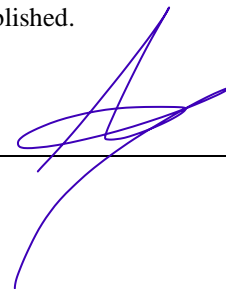


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LIST OF ABBREVIATIONS

AI – Artificial intelligence
FTE – Full-time equivalent
HR – Human Resources
HRM – Human Resources Management
KPI – Key performance indicator
PA – People Analytics

INTRODUCTION

To achieve its objective, every firm, regardless of its field of work, wants to become more successful and increase their business as well as the quality and contentment of their staff. The end of the 20th and the beginning of the 21st century are a period of intensive and extensive technological development (Ingram, 2015). This created the possibility to access massive volumes of data that could not be extracted before. This data collection may provide useful insights to different business or human resource problems a company may face.

Human resource (hereafter HR) managers are facing a variety of challenges due to increased globalization, latest production techniques, change in customers' demands and corporate restructuring (Zafar, 2017). Daily challenges include bad recruitment, unfortunate attrition, cost overruns, and low productivity. The challenges HR professionals face each day as they carry out their responsibilities give them a good insight into the broader business and human capital challenges their organizations face now and, in the future, (SHRM, 2015). As human behavior is much more complex and much less predictable, than that of machinery or other tangible assets (Fitz-enz & Mattox, 2014), the optimization of human capital allocation has, historically, been a difficult undertaking (King, 2016).

Every company collects data about its personnel and its industry. Human resource data, such as employee salary, attrition, and performance evaluations, is available in most firms. However, not all companies use this information to make business choices. With each new year, businesses are faced with a new set of issues as HR departments change to meet the needs of a fast-paced, digitally driven workplace. The banking industry confronts several human resource problems, in addition to the increasing difficulty associated with managing a large number of employees. The most important issues, that banks face today have to do with recruiting and retention of employees looking to stay long-term. With the seismic shift to become a more digital-friendly atmosphere and the encroachment of cryptocurrency, the banking industry is seeing a traditional human resources effort evolve rapidly (FGIB, 2018).

Everywhere, the continuously changing corporate environment necessitates improved personnel decisions. Simultaneously, the amount of worker data is increasing at an unprecedented rate, yet having this data isn't enough to succeed. In order to get decision-making insights, data gathering must be accompanied with data analysis. Data analysis represents all the process and tools required to process a set of data and interpret important insights from them (TechnologyHQ, 2021). Data analytics aids firms and sectors in making sense of massive amounts of data in order to expand and thrive. These analyses may involve evaluations of correlation, regression models, or structural equation modeling techniques (Fitz-enz & Mattox, 2014); however, more advanced data-driven decision making extend past these methods to experimental studies that identify how human capital inputs affect organizational performance (Angrave, Charlwood, Kirkpatrick, Lawrence & Stuart, 2016). Organizations may use people analytics to improve employee experience, establish the best possible organizational structure, and increase productivity.

Thus, in this master's thesis the question how to optimally use people analytics in order to improve employee retention in the banking sector is addressed and analyzed. Successful employee retention is essential to an organization's stability, growth, and revenue. (Cloutier, Felusiak, Hill & Pemberton-Jones, 2015). It is important for the financial institution to improve its ability to retain its employees, especially the most productive and scarce ones that are of a great profit to the bank. High employee turnover increases cost in resources, recruiting, and time when replacing open positions. Expense to the organization for recruiting a new employee costs half to 200% of the former employee's salary (Hebenstreit, 2008). The reasons for employee turnover vary, and identifying the key drivers of resignations allows HR to develop refined retention programs by targeting root causes (Visier Inc, 2021). The introduction of People Analytics is the key to get to the answers to these main turnover causes and all other relevant Talent Management dilemmas.

The purpose of this Master thesis is to contribute to the better understanding of the benefits of Peoples analytics in the banking sector.

The goal of this master's thesis is to examine how People Analytics may assist managers in a chosen bank making better managerial decisions in order to improve the retention rate of employees. More precisely:

- To understand the motives for the implementation of People Analytics (i.e., what human resource and/or business challenges the bank expects to solve).
- To assess the effectiveness of a bank's People Analytics adoption (organizational changes, personnel competencies).
- Analyze the bank's employee retention rate and retention initiatives.
- To assess the effectiveness aspects associated to People Analytics usage and based on them, to establish how successful the current use of People Analytics is; and to decide whether and how they might improve.
- Determine how Top Management may participate in People Analytics activities
- Make recommendations on how to better utilize People Analytics and other enhancements

The research question of the master thesis will be: How can a bank improve its employee retention using People analytics?

The master's thesis will be divided into three sections. First, an outline of important theory for my thesis subject will be presented, which I intend to employ as a theoretical foundation. Introducing the role of Human Resources, the main activities, and challenges HR faces. Then the importance of retention within talent management, the main reasons for turnover, as well as popular retention strategies. And finally, a literature overview will be conducted on People Analytics and its use in Human Resources. Presenting the concept of People analytics, as well as the types of analytics used in HR and its advantages and disadvantages.

Secondly, a presentation for a chosen bank will be made based on a case study in order to provide information on how People analytics are used in the banking sector. To do that, secondary data is gathered from the sources I will get in the bank. This data is primarily

consisting of databases and an overview on retention rate and employee turnover in this financial institution. Furthermore, in order to gather primary data, various interviews with several managers and the Human resource department of the bank will be conducted. Since I am working in the bank, where I am able to get inside information and learn much about the industry, I would be also relying on my own knowledge gained from the experience. Research results will be presented and identify the need for improvement in the bank, related to the use of HR analytics.

Based on the gathered insights and information, an analyze will be done on the utilization of the People Analytics in the given company by relying on the bank's needs as well as on known retention strategies. Following these analyses, suggestions for improvement will be proposed for optimal use of People Analytics in order to improving retention. Finally, a proposition of a new model for People Analytics in the bank and an implementation plan will be presented.

1 HUMAN RESOURCES IN THE BANKING SECTOR

Human resource management (hereinafter HRM) is as a term often used interchangeably with the shorter term human resources (HR). HRM can be defined, as a discipline of finding the right people, placing them in the right jobs, training and developing them for better performance, providing for and sustaining their motivation through the quality of work life (Putti, 2015). It creates the essential organizational atmosphere and leadership styles to enable successful collaboration and trust among all parties. Simultaneously, this process assists the company in fulfilling its legal and social responsibilities. In a nutshell, human resource management is concerned with coordinating and directing the collective activities of employees in order to produce successful results.

1.1 The role of HR

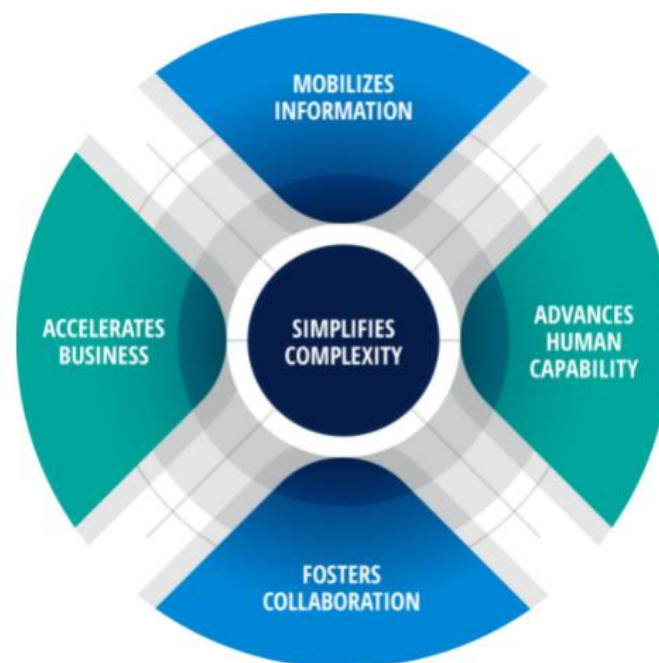
Human Resource Management is a field that has its roots in organizational psychology and has shown to be a useful tool for managing businesses. With time, this practice's role has evolved into one of strategic importance. HR has evolved into a crucial strategic partner in a business and managing it has become a difficult challenge for HR managers. Human resource management departments have become increasingly important in 21st-century business organizations (Nasir, 2017).

Business executives from a variety of functional areas and sectors can all together agree that attracting, maintaining, and managing high-quality personnel is critical to their company's success. Having competent and motivated employees who feel a sense of belonging to the company will ensure a positive image, better and faster fulfilment of tasks, and overall financial success. But although working on these human capital success factors is now an essential part of every business leader's role, for human resource management professionals it is their role (SHRM, 2015).

HRM methodology is continually evolving, and there is a divide between traditional and strategic HRM in terms of which is more applicable for businesses today. HRM has traditionally been characterized as the methods and procedures that businesses employ to manage people in terms of recruiting, development, benefits, and the general environment of the organization. The notion of strategic HRM, according to the Chartered Institute of Personnel and Development (CIPD), may be defined as a human resource management method that provides a strategic configuration to stimulate long-term corporate goals, as well as future demands and macro-concerns (Fan & Wang, 2015). According to a research made by SHRM (2015), a majority of HR and non-HR executives are currently planning to make changes to their organization's HR function to make it even more strategic and measurement-driven.

Every five years, the "Human Resource Competency Study" (HRCS), conducted by Ulrich and his colleagues at the University of Michigan's Ross School, has gathered data on HR professional abilities. Over the last 30 years, the Human Resources Competency Study (HRCS), has evolved and matured. The model evolved from three domains in the first iteration to nine by Round 7 and has been narrowed to five in Round 8. In the first model, there were three domains: Business Knowledge, HR Delivery, and Change. These three alone signified a significant transition from the days of the "Personnel Office," when the most basic transactional duties connected to record-keeping and payroll were all that was anticipated and provided. The most recent round of the research was concluded in 2021 which created the Round 8 of HRCS.

Figure 1: The new HR Competency Model (Round 8)



Source: Phillips, Wright, Ulrich & Burns (2021).

Accelerates business refers to a variety of components of an HR professional's job that are focused on ensuring the company's success. Individuals must first understand the company's external environment, how they compete in the marketplace, and how they provide value for consumers. It also requires applying that information to sway decisions and decision-makers in ways that aid in the development of effective tactics.

Advances Human Capability is concerned with determining the human capabilities required for a company to effectively satisfy the demands of its competitive environment. This requires ensuring that the organization develops all of its distinct talent pools. Second, that these experts understand which techniques, methods, and structures will best support the competencies that the company need to stand out in the market. And third, this skill requires the capacity to understand how to foster a culture that values diversity, equity, and inclusion.

Mobilizes Information is very actual in today's world of rapid technological and societal change. This skill highlights an individual's ability to foresee technology advancements and then gather, evaluate, and utilize knowledge to make better judgments. Second, with all of the current social difficulties present today this competency requires predicting these changes and offering recommendations on human capability interventions for how to respond most effectively. This is where the introduction and use People Analytics is important for companies in order to fulfil their HR role and responsibilities.

Fosters Collaboration is a term that outlines how an individual may form trusted connections with others in order to get things done more efficiently. On one hand, an individual's capacity to control their own self by being receptive to feedback. On the other hand, promoting collaboration includes establishing trust, successfully collaborating with, and appreciating individuals from various organizational levels, skill levels, functional backgrounds, and cultures.

Lastly, Simplifies Complexity refers to the capacity to filter through large volumes of data and change while remaining calm when dealing with critical concerns. Part of this ability emphasizes critical thinking rather than merely reacting to the next flashy thing or chasing the current HR trend. The other section is directly related to the events of 2020-21, and it shows how an individual might use obstacles to create constructive change in an organization during times of tremendous uncertainty or severe crises.

Human resources departments have been more conspicuous than ever since the Covid-19 epidemic began in 2020. Now, with the start of 2022, there are several goals that Forbes magazine (2021) estimates that HR leaders should focus on. Some of those are:

- Understanding their company's business strategy, to be able to handle hiring, retention, and all other HR tasks more effectively.
- Embracing Diversity, Equity, and Inclusion Throughout Your Company.
- Focusing on retention of employees.

- Embrace data. Using data to find insights you would not have recognized otherwise might help you figure out how to minimize attrition or identify how to better engage staff at work.
- Cultivating talent and identifying skills gaps.

The role of HRM is important in the financial sector, as well as in every sector of work, but especially in banking. Human Resource Management is important for banks because banking is a service industry (Chakrabarty, 2012). Banks have two major challenges: personnel management and risk management. Customer happiness is and will be vital for the survival of banks in the future. Those that fail to fulfill client expectations will struggle to stay afloat. To attract and maintain particular consumer demographics, banks must express and reinforce their fundamental standards. Values such as "safe," "reliable," "international," "personal," "socially responsible," and others must be emphasized via specific activities of the bank, which will be delivered through the bank's human resource management.

1.2 Main HR activities

Every organization, through its HR department wants to achieve its goals and ensure a fulfillment of the HR roles explained above. HR activities based on research, best practices, and continuous improvement of HR initiatives are how this is accomplished. According to Mathis and Jackson (2008) HR management activities can be divided into 7 categories: strategic HR management; equal employment opportunity; staffing; talent management; compensation and benefits; health, safety, and security; and employee and labor relations. All HR activities are presented in Figure 2 below.

The first and most important category is the strategic HR management. As mentioned before, Strategic HRM focuses on long-term company goals. HR effectiveness may be improved through the use of HR measurement and HR technology as part of sustaining organizational competitiveness. Managers predict future personnel supply and demand through HR planning. Employee retention is another important strategic HR priority.

All HR activities are influenced by compliance with equal employment opportunity (EEO) rules and regulations. The wide variety of a staff adds to the difficulty. To fulfill affirmative action criteria, for example, a corporation must have sufficient diversity.

The goal of staffing is to ensure that an organization has an adequate supply of skilled people to fill open positions. By determining what individuals perform in their professions, job analysis establishes the groundwork for staffing. When recruiting candidates for job opportunities, these analytics are employed. The purpose of the selection procedure is to find qualified people to fill such positions. By ensuring that the appropriate people with the right talents are in the right location at the right time. Retaining employees through strategic policies such as career path planning, pay, and benefits, as well as operational strategies such as re-training, re-deployment, or re-location, to ensure that employees move in the right direction by establishing standards, good reward systems, and employee-employer relationships.

Talent management and development begins with new employee onboarding and involves several sorts of training. Employee and management HR development is also required to prepare for future issues. Individual workers' trajectories and activities as they go through the organization are identified through career planning. Performance management is concerned with determining how successfully employees do their duties. Managing careers assists workers in achieving their professional goals as the company grows.

Figure 2: HR activities



Source: Mathis & Jackson (2008).

Employees are rewarded for accomplishing organizational tasks through salary, incentives, and bonuses. Employers must build and refine their fundamental incentive programs to remain competitive, and variable pay schemes such as gainsharing and productivity awards may be used. Employers must thus develop definite and acceptable compensation schemes, as well as incentive programs that reward success properly.

To maintain worker safety, employers must handle an expanding variety of workplace risks. Employers have had to satisfy regulatory obligations and be more attentive to workplace health

and safety issues for decades. Workplace security, as well as catastrophe and recovery plans, has become increasingly important.

Manager-employee relationships must be managed successfully. Employee privacy and rights must be addressed. HR rules and procedures must be developed, communicated, and updated so that both management and workers are aware of what is expected. Employees should not be denied their rights, thus developing methods and communicating with both managers and employees terms of reference is crucial.

All HR activities described by Mathis and Jackson are still relevant today. However, nowadays, in this list we can point out the rising importance of HR data and analytics. HR has come a long way in the last half-decade in terms of becoming more data-driven. Human Resource Information Systems are primarily a data-entry system. These systems' data may be utilized to make more informed and better judgments. HR metrics, often known as HR KPIs, are a simple method to keep track of important data. These are precise metrics that show how well a firm is performing on a certain metric. HR reporting is the term for this. This reporting focuses on the organization's present and previous situation. HR analytics may also be used to create forecasts. Workforce requirements, employee turnover intentions, and the influence of the (recruitment) candidate experience on customer satisfaction are just a few examples. HR can make better data-driven decisions if they actively measure and analyze this data. These actions are usually more objective, making it simpler to gain management support for them.

1.3 The HR challenges

HR practitioners know they must lead their organizations in meeting the human capital challenges they now face and in preparing for the challenges they anticipate will have the biggest future impact (SHRM, 2015). HRM is one of the management functions that has seen significant transformations in the new century. As mentioned before, HRM managers' responsibilities have shifted from just resolving personal difficulties to establishing strategic integration of different company objectives.

Due to rising globalization, new manufacturing processes, changing client needs, and business reorganization, HRM needs to constantly adapt to new emerging challenges. HR managers are working hard to retain talent, fulfil the expectations of a multicultural workforce, and reduce employee costs. To meet the changing needs of the twenty-first century, it is necessary to establish a flexible workforce (Nasir, 2017). In her paper with the same title, Nasir underlined several emerging challenges of HRM in the twenty-first century.

First of all, human resource management in the 21st century is challenged in the process of recruiting and selection. Finding the suitable candidate for a job opening is not easy. The effectiveness of recruiting and selection procedures has a significant impact on the quality of individuals employed. It is critical managers to eliminate biasness based on the origin, culture, ethnicity, and background when assessing individuals to choose the finest of bright people from the whole pool (Rassool, 2021). During the process, challenges may include the cost of

publicizing job positions, as well as communication gaps between recruiters and hiring managers. Banks are always on the search for top talent, but in the continually evolving digital world of banking and finance, creative and inventive minds are needed collaborate to set the route for the future financial environment.

Another challenge for companies today is to be able to provide proper training that will ensure their employees a career development and exponential professional growth. These problems include a time-strapped and frequently scattered workforce, cost-cutting while enhancing engagement, and catering to a variety of learning styles (Andriotis, 2018). The training should not be done only for its own sake, the content of the training program must also be carefully considered. For example, the fact that some banks in the past were inflating numbers or even creating fake accounts for customers without their knowledge, nowadays banks should make a priority that their staff is aware and well educated of all compliance risks they incur simply by working for a corporation and a knowledge of what they can and cannot do in their role in the bank. Also, as financial markets and technology evolve rapidly, all services start to be already mostly done online. As more financial transactions are handled online, these businesses must invest in data visualization and cybersecurity training. At the same time, HR teams must encourage employees to move up the corporate ladder, lowering recruiting and onboarding costs.

Because the culture of any company is its foundation, HR managers must devote a significant amount of time and effort to building a strong organizational culture. To build a healthy culture and work environment that everyone wants to be a part of, HR procedures must be responsive, compassionate, and thoughtful (Thompson, 2021). For this, managers are challenged to promote organization culture and heterogeneous workforce, but also properly and successfully manage and resolve possible conflicts. Long working hours, high levels of competitiveness, pressure to meet targets, and other factors in the twenty-first century have been linked to stress and conflict among organizational personnel. HR managers must devise strategies for dealing with disagreement in a timely manner.

HRM manager's position requires them to pay close attention to the business ethics and values they want to have and develop in their organization. With recent changes in workplace culture, strategy, and organizational structure, related to technological advancement and after the covid-19 pandemic, it is more important than ever to have values and ethics in place that will determine an organization's long-term viability in the global market. Because the HR department engages directly with a company's employees, it is destined to face a variety of ethical dilemmas or obstacles that can jeopardize a company's reputation as well as its long-term financial viability. That is why HR managers need to work hard on installing proper ethics and company values and making sure they are accepted and respected by all employees.

When mentioning the covid 19 pandemic, we cannot ignore the rising trend of working from home, with a higher valuation from employees of flexible working hours and a work life balance. According to PwC's Remote Work Survey from 2020, just 29% of financial services organizations had at least 60% of their workers working from home once a week or more before

the coronavirus outbreak. The number of people working from home has increased, and the trend is expected to continue 69 percent of firms expect 60 percent or more of their employees to work from home at least once a week once the epidemic has passed. Employees can more easily pick their working hours according to their schedules when they can work from home. Because of the flexible work arrangements, HR professionals must keep track of the project accomplishments and obstacles on a frequent basis. People regularly leave jobs because they can't achieve a good balance between their personal and professional responsibilities. As a result, the manager must make every effort to avoid a scenario like this and support employees in achieving the proper work-life balance (Kossek,1998).

Another challenge for HRM is managing multi-generational team of employees (SHRM,2017). Employees in today's workplaces come from a variety of generations and are of varying age groups. From Baby boomers to Generation Y and even Z. People born in Generations X, Y and Z are believed to be more technologically savvy and to like experimenting with new methods of working. They tend to accept new ideologies and are thought to be inventive, but all older generations are content with their old methods, and they do not like to come out of their comfort zone. Also, only 10% of all millennials want to stay in their present employment for the long term, according to a PwC survey of millennials working in the financial services sector. Furthermore, 42% stated they would be open to new chances, while 48% said they were actively seeking for new opportunities. On the other side, older generation may also leave because of new methods and technology introduction. For these reasons, it is important for an organization to retain both sets of people, as both categories are equally essential to organizations success.

All people are unique, so companies must adopt a variety of strategies to motivate and retain their employees. Fortunately, or unfortunately, financial incentives are no longer seen as a means of keeping employees. Every firm must embrace fresh and cutting-edge methods for pleasing its employees, which will aid in lowering the rate of turnover (Nasir, 2017)

As a result of all previously stated HRM challenges, we can infer that managing the 5 R's is becoming increasingly important to any organization's success. Managers must now pay special attention to all the R's: resourcing, recruiting the right personnel, retaining the talent, retraining, and restructuring.

In this thesis, the focus is on the challenge of retention of employees in the financial sector.

2 RETENTION

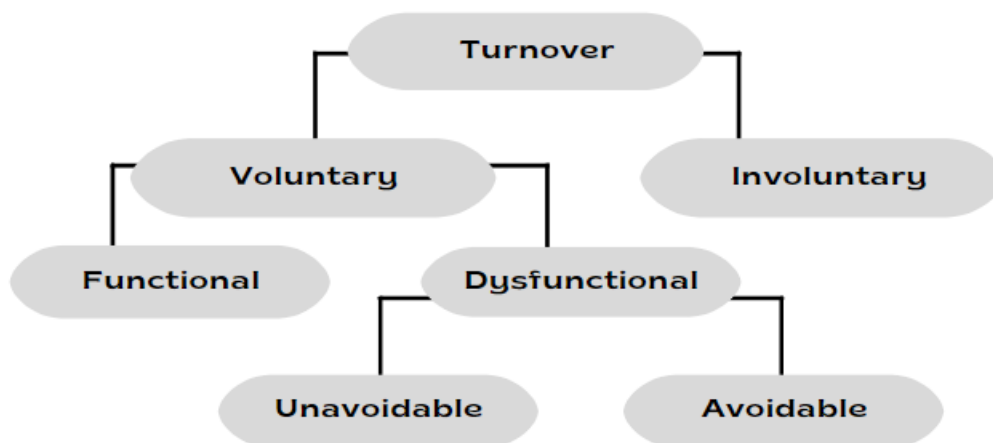
Employee turnover or termination of employment during a certain timeframe has attracted interest from employers and scholars for a century (Hom, Lee, Shaw & Hausknecht, 2017). When it comes to filling unfilled roles, high staff turnover raises the cost of resources, recruiting, and time. The cost of recruiting a new employee to a company ranges from half to 200 percent of the previous employee's compensation (Hebenstreit, 2008). That is why

companies tend to invest more in retaining existing talent and developing it. Individuals that work effectively and stay with a company are needed.

2.1 Retention within Talent Management

Enterprises must be able to foresee technology breakthroughs and compete with other companies across the world in today's rapidly changing environment. This requirement emphasizes the importance of a company's capacity to adapt via the learning and development of its personnel. Because workers' knowledge and abilities are vital to a company's capacity to be economically competitive, securing and maintaining talented personnel plays an important part in this process. Employee retention refers to the organization's capacity to keep its employees. Retention begins long before an employee's first day on the job, it starts when we describe the position we plan to fill (Dibble, 1999). On one hand, a simple statistic may be used to describe staff retention. For example, a retention rate of 60 percent usually indicates that an organization kept 60 percent of its employees in a given period. On the other hand, retention also refers to the businesses' dedication to keep employees in their workforce. In this way, retention becomes a strategy rather than an end result.

Figure 3: Turnover classification scheme



Source : own work; adapted from SHRM (2008).

We can distinct several types of employee turnover that when specifically recognized require different types of retention strategies. The Society for Human Resource Management (SHRM, 2008) in their publication Retaining Talent: Guide to Analyzing and Managing Employee Turnover presented the classification in figure 3 above. The first fundamental differential in turnover is between voluntary and involuntary turnover. Employees initiate voluntary turnover; for example, a worker quits to take another job. On the other hand, the organization causes involuntary turnover; for example, a firm may fire an employee owing to poor performance or organizational restructuring. Voluntary and involuntary turnover necessitate quite different

approaches to talent management. To effectively manage voluntary turnover, the company will need a thorough understanding of why people leave or remain with companies in general, as well as tactics for controlling turnover among your most valuable employees.

Another distinction to consider is the difference between functional and dysfunctional voluntary turnover. Dysfunctional turnover is detrimental to the company and can take a variety of forms, including the departure of top performers and employees with difficult-to-replace skills, departures of women or members of minority groups that adversely affect the diversity of the company's workforce, but also high turnover rates that result in increased replacement costs. Functional turnover, on the other end, does not harm an organization. Poor performance or personnel whose skills are easily replaced are examples of this sort of turnover. The difference between functional and dysfunctional turnover is a relative one. What makes an employee unique and expensive to replace varies depending on the position, company, sector, and other variables. For example, in a sector where talents are in short supply, a high employee turnover may be more problematic. Furthermore, depending on the organization's strategic goals and the existing labour market, the issue of whether the advantages of retaining a valuable employee are worth the cost may provide a different answer in certain firms than in others. In the banking sector, there is a variety of job positions. From banking clerk to an investment manager, there is a very small portion of the roles, if not any that rely on solely on administrative work that can be easily replaceable. Working in a bank requires a good economics knowledge, high analytical and mathematical knowledge as well as problem-solving skills.

In the real world, it is impossible for a company to keep all of its valuable employees, even if they would spend a lot of money to keep every critical person on board, some of them would still depart. That is why another crucial distinction in turnover is that some voluntary turnover may be avoided, while others are inescapable. In this case, turnover is caused by factors that the company may be able to control (Morrell, Loan-Clarke & Wilkinson, 2004). If employees are leaving because they are dissatisfied with their positions, for example, the corporation might address the issue by reorganizing tasks to provide greater challenge or opportunity for individuals to grow their talents. Unavoidable turnover occurs as a result of factors over which the company has little or no control. For example, if staff resign due to health issues or a desire to return to university, the firm may be unable to retain them. The distinction between preventable and unavoidable turnover is critical because it makes little sense for a company to spend significant resources decreasing turnover that is mostly unavoidable. Sometimes, the distinction between preventable and unavoidable turnover can be a little blurry. For example, a company has no say in whether or not an employee wants to start a family. But on the other hand, it has the option of providing paid maternity leave, on-site childcare, and other perks to encourage working parents to stay working with the company.

Identifying employee turnover, and retention actions matter to all companies since turnover has been proven to be costly. Employee turnover costs a business money, time, and other resources. According to research, direct replacement costs can range from 50% to 60% of an employee's yearly wage, with overall costs related with turnover ranging from 90 to 200

percent of annual income (Cascio, 2006). According to McKinsey study (2021), redeployment with efficient reskilling is 20% less expensive than "hiring and firing," since it minimizes the number of new recruits and layoffs required.

Turnover also affects a business's performance. High turnover rates have been linked to poor organizational effectiveness in an increasing body of studies. Similarly, lowering turnover rates has been demonstrated to boost revenue and increase employee satisfaction. Organizational systems built to be stable are disrupted by high turnover levels, and this interference "causes companies to expend potentially more energy in sustaining the input/throughput/output process than they take in from the environment" (Alexander, Bloom & Nuchols, 1994). The company may quickly relocate and assign unqualified employees on managerial positions or try to maintain the production and schedules, by directing attention away from business or safety risks for the company and employees. These actions can only lower the overall company performance. It is also interesting to note that for the company, the profile of the employees who are departing is important for the impact of their leave. According to a study, excessive turnover among employees with a lot of social capital may cause chaos on a company's success (Shaw, Duffy, Johnson & Lockhart, 2005). As a result, a skilled HR manager may make a compelling argument for customizing turnover management tactics to the sorts of people leaving the company.

Nowadays, we can conclude that a high turnover is also become increasingly difficult to manage. A talent crisis is developing, according to a growing number of analysts, and this deficit will make finding and maintaining the appropriate individuals with the right capabilities increasingly difficult for companies. The reasons can be demographical or social, like a wave of older workers retiring. Also, inadequate school systems, increase in mobile workforce, and even generational inequalities in understanding of the nature of work. According to a SHRM poll of HR experts, 62% of respondents said they're having trouble finding individuals with the skills needed for the 21st century workforce (Collison, 2005). HR professionals who take the time now to build strategies for coping with these changes will provide their companies a competitive edge.

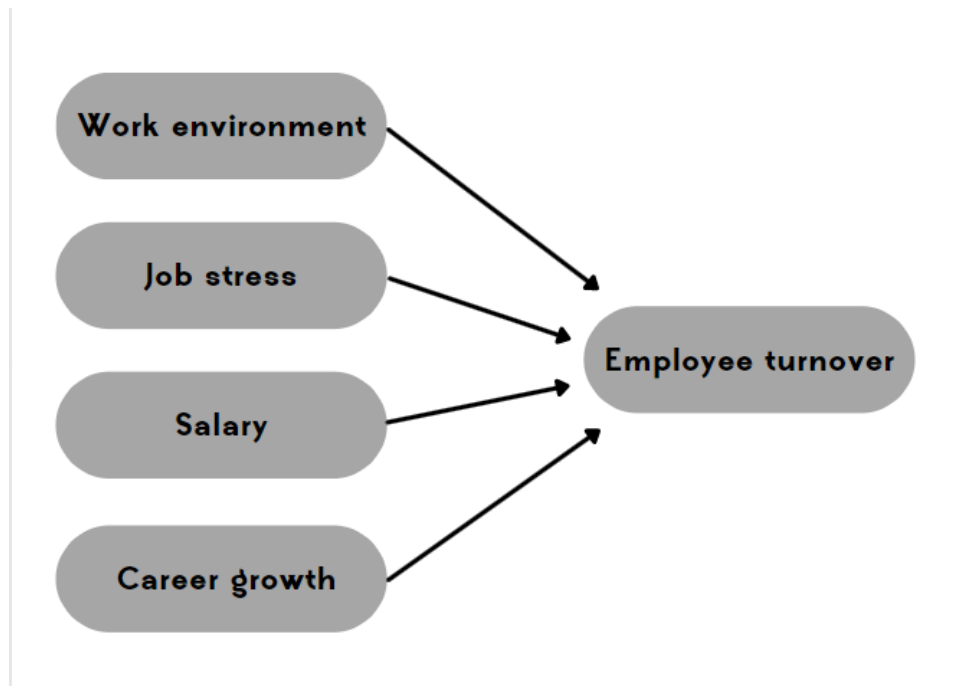
Employee retention, particularly of scarce and highly skilled personnel, is a major issue in today's businesses. On the one hand, in order to feel motivated to continue working for the organization, those highly competent employees demand greater effort from businesses to meet their high-level needs. On the other side, if the firm fails to address its most critical demands, they may lose their competitive advantage to competitors. When talented, skilled employees leave, they leave behind a wealth of information. Given the difficulty and cost of replacing talented employee's turnover, keeping them as long as possible is an important strategy. Skilled workers who are happy with their company, understand what is expected of them, and have low absenteeism and turnover are valuable assets to the company. Individuals may be a competitive asset for a company, but they can also be a liability. When individuals leave often, and when those who stay operate ineffectively, human resources are an issue that puts the company at a competitive disadvantage, because then very few workers know how to execute

their jobs. For companies to optimize the efficacy of human resources, individual performance, motivation, and employee retention are critical.

2.2 Reasons for Turnover

One of the major markets in the world is finance. According to latest reports, the global banking sector had a market capitalization of \$7.5 trillion in the third quarter of 2021. (Statista, 2022). In such a competitive environment, the costs, and challenges of attracting, engaging, and retaining essential workers can become exaggerated and impossible to ignore. In 2017, the financial services industry's turnover rate reached 27.5 percent, with 16.2 percent of it related to voluntary turnover (Piontek, n.d.). The average tenure continues to decrease as the turnover rate rises. Recruiting and training skilled staff also costs a lot of time, effort, and money. As a result, it is critical for a company to identify the causes of turnover in order to reduce the risks of increased and continued voluntary turnover.

Figure 4: Main reasons for employee turnover



Source: own work; adapted from Sattar (2014).

Everyone's reasons for quitting a firm are varied. After reviewing various research on the topic, I settled on the conceptual framework shown in Figure 4 above, which in most cases highlights the primary causes for turnover in financial or other institutions. Work environment, job stress, career growth and compensation present independent variables that can be controlled and manipulated to obtain a desirable change in the dependent variable, the employee turnover.

As a first variable we can define the work environment. The term "work environment" refers to the entire setting in which workers do their tasks. The working environment has a significant impact on employee productivity. If employees appreciate their work environment, they are more likely to stay with the company. The quality of the work environment can range up from satisfaction of health and safety standards to more social and well-being factors. Employees will not be able to work at that firm for a long time if the working environment is lacking, such as decent lighting, excellent furniture, untied restrooms, and other health and safety facilities (Khan, 2014). A good workplace is also one in which employees and management collaborate to continuously improve and promote well-being, resulting in widespread appreciation throughout the firm. Similarly, good social relationships in the workplace will boost employee job satisfaction and productivity. An employee's sentiments about their employment are referred to as job satisfaction. Reasons for job dissatisfaction can arise from the low motivation and support that the employee feels working on their current job position, or the design and job elements composing their current job position that maybe do not correspond well to the specific employee. People are more inclined to seek for other work if they don't enjoy their positions, hence the selection process has an impact on retention (Mathis & Jackson, 2008). High turnover rates in the initial few months of work have been attributed to insufficient selection screening attempts by a number of companies.

Employees who are dissatisfied with their jobs are more likely to leave the company. Furthermore, work unhappiness might lead to people looking for new opportunities (Al-Suraihi, Yusuf & Al-Suraihi, 2020). Bad work environment can also be caused by a lack of leadership management strength. Leader behaviors impact employee decisions to quit, whereas ineffective leadership can lower employee excitement and satisfaction (Reina, Rogers, Peterson, Byron & Hom, 2018). Keeping a good work environment for their employees is very important for a company that wants to keep their talent. In most cases, companies are not aware that their employees are dissatisfied with their positions and work environment and want to leave the company. That is why, communication and feedback from employees are essential in every company.

Another big factor for employee turnover is the job related stress. Workplace tension has an impact on a person's emotions, thoughts, and physical well-being. Employee turnover might thus be a result of burnout caused by stress-inducing lengthy working hours. Employees who work long hours are more likely to leave their employment (Mitchell, 2015). Stress, on the other hand, is not solely a result of work; it may also be generated by a work-life balance or a conflict between work and family life. As a result of the intense stress produced by overworking and the limited personal time they may spend outside of work, workers may decide to leave the company. Employees who experience job-related stress and are aware of series of factors that contribute to job-related stress (stressor), followed by a lack of commitment in the company, and job disappointments are more likely to seek employment elsewhere (Firth, Mellor, Moore & Loquet, 2007).

The third reason of Employee turnover presented in Figure 4 is the salary or compensation an employee receives for his/her work in the company. Salary is usually the first criteria that we

look at when we think about job satisfaction, even though it is a big reason for leave or even not accepting a job offer, it is not always the most determining reasons for turnover among all previously stated factors.

Pay has been essential in retaining and rewarding high-performing employees. To be more specific, low wage and profit packages are a common cause of high employee turnover rates. When a person is employed in a low-paying job with limited benefits, there is little incentive to stay when a comparable business offers a significantly greater income. While lower-paying jobs have a greater overall rate of employee turnover, they tend to cost businesses less per extra person than higher-paying jobs. They do, however, bear the expense more frequently. Workers who earn more but earn less than the going market rate may feel undervalued at their present employers and seek employment with a firm that will pay them what they're worth (Firth Mellor, Moore & Loquet, 2007). It is commonly stated that job dissatisfaction is the primary reason of inadequate pay scale procedures, which leads to employee turnover. An excellent example of this is when a new employee wonders why the person next to him is paid much more for a position that is supposed to be identical (Dobbs, 2001). According to popular belief, good pay is a key factor of job happiness, which leads to increased productivity in the workplace.

The last reason for turnover, in our conceptual framework in Figure 4 are the career growth possibilities. Employee retention demands more than motivation; it also necessitates a commitment to self-opportunity; today's employees have high goals and dreams for their own professional development (Latukha, 2011). The terms "career growth" and "career development" have been used interchangeably in the past. Career development, according to Brown and Brooks (1990), is a lifelong process in which people prepare to pick, choose, and continue to choose from a variety of occupations accessible throughout their lives. Weng and McElroy (2012), on the other hand, defined career progression as advancement inside an employee's present organization rather than advancement across their whole working life. Employees who feel the organization provides professional chances are more committed and less inclined to leave. Career growth puts a strain on an employee's perception of the worth of his or her job prospects. Obstacles in the employee's professional advancement might arise at any moment during their work, causing stress. These stresses might include a wide range of issues, such as being stuck in a job with little prospects for advancement or downsizing pressures.

Some, or all the previous stated reasons for employee turnover, are occurring daily in companies that need to find ways to minimize the negative effect of these variables on their employee performance and turnover.

2.3 Main retention strategies

Becker (1962) suggests that investing in human capital is the key to increasing employee profitability and productivity, as well as employee well-being, because this will lead to good performance in the company, according to human capital theory.

Successful employee retention is essential to an organization's stability, growth and revenue. Having in mind all factors and reasons leading to employee turnover mentioned above, we can mention three retention strategies that most organizations are primarily focusing on. First, recruiting the appropriate workforce from the beginning is very important. Second, focusing employee engagement should be encouraged. Third, giving recognition to the employees. And finally, giving the opportunity of development and training programs. All of these strategies lead to higher job satisfaction.

As mentioned in the section above, job discontent can stem from a lack of motivation and support that the person feels while working at their present job, or from the design and work elements that compose their current job that don't necessarily correlate to the specific employee. Hence, recruit the appropriate skilled people from the start, that are most likely to find their place and develop within the company is an important strategic step for every organization.

According to Hulin, Roznowski and Hachiya (1985), the purpose of hiring is to offer a pool of available human resources from which a corporate organization can select the best qualified individuals depending on work needs. As a result, firms must ensure that only competent individuals are considered for job recruitment and selection if they wish to minimize staff turnover. It becomes evident that effective methods are needed to draw attention to employees and motivate them to stay with the organization. Organizations in the hiring process, use the concept of "fit" to determine if a candidate is suitable for a certain position or not. This concept is based on education and credentials can aid in determining whether a candidate meets the requirements for an open position or not. If the candidate is a proper organizational fit and a proper job fit are two important factors to consider when hiring for a certain position. The person-organization fit matches the candidates' characteristics to the job and the company's culture, resulting in higher new hire retention rates. On the other hand, the person-job fit represents the way that an employee perceives comfort and compatibility with the organization's environment (Dawley, Houghton & Bucklew, 2010). When this type of match isn't found, the employee moves on to another position. These concepts describe the relationship between employees and organizations, taking into account the experience, skills, and abilities that each individual can bring to the workplace.

To find the best fit, the organization must first comprehend its own culture and how it connects to the culture of the new hire. Employees that are a good fit for their job and company are more dedicated and put in more effort. As a result of this exceptional job "match" or "fit," employee retention improves (Starks, 2007). Some of the strategies companies use to identify suitable candidates is the use of social media, especially LinkedIn to search for suitable talents and also during interviews making sure of being transparent and honest with the new employee about the job-related expectations. Concealing or sugar-coating aspects of the task to encourage someone to bite is not a good long-term strategy. Transparency is critical when it comes to recruiting the right personnel. We can take the example of the largest industrial manufacturing company in Europe, Siemens. They came up with a recruiting strategy in order to ensure a

future growth. They learned that in today's employment market, the conventional post-and-pray strategy of discovering candidates is no longer sufficient. They started searching for the passive talent with adaptive talents outside of the sector. They're doing it by employing a range of LinkedIn tools to aggressively engage passive prospects (LinkedIn, 2015). On the other hand, they also focused on bringing a new, young and motivated workforce that they can quickly adapt to the company's culture and together develop and grow in the future. All of these facts show that firms can face a setback or delayed growth unless they hire suitable people.

Another important retention strategy is to focus on job employee engagement within the company. As previously stated, increased engagement and job satisfaction might minimize the likelihood of employee turnover in the workplace. Employee engagement, to put it simply, is the process of establishing a happy working environment in which people feel willing and competent to do their best job. Employee engagement is defined as more than just a happy or content workforce. While happiness is a key aspect in employee engagement, other factors such as communication, teamwork, and well-being must all be addressed in order to achieve your goals. According to a Gallup study (2017), 56 percent of moderately disengaged employees are actively seeking for a new job, while 73 percent of highly disengaged employees are actively looking for a new job. Distraction is linked to a lack of motivation. As an employer, you must understand what inspires individuals to become totally involved in their work and what encourages them to simply punch the clock until something better comes along.

Organizations must allow workers to freely communicate their thoughts and opinions. It is vital to build trust among employees in order for them to disclose their feelings, emotions, and attitudes, as well as to engage them. Employee engagement may be boosted by establishing procedures that increase transparency and uphold the organization's ethics (Mukerjee, 2014). Employees must be given decision-making authority as well as autonomy in order to carry out a plan of action or solve an issue. In order to maintain their autonomy, employees' voices and decisions must be nurtured rather than criticized. Organizations must establish favorable settings for people to express themselves meaningfully in their job profiles. However, operational guidelines must be developed to manage this. Certain business rules and regulations, on the other hand, may be flexible within the context of one's function and obligations, as well as one's feeling of accountability. Employees must also build a sense of belonging to the company. When employees feel they can participate in decision-making, they may become more motivated and desire to do their best for the organization.

To make this possible, employees should also be aware of their results and how their job advances the company's vision. With this, instead of feeling like a gear in the wheel, each employee will feel more invested in the company's success. "Turnover studies have typically established that work satisfaction promotes employment retention without necessarily specifying specific supervisory techniques that bond employees to the business," according to Shahzad, Bashir & Ramay (2008).

A related retention strategy that positively impacts the employee's job satisfaction is when organizations give recognition to their employees. Recognition can be in a form of salary increase or bonuses, but not always. Salary and benefits are important and should be considered, especially if a company is paying below industry standards, comparing salaries for a similar position with other competitors, but there are other methods to retain staff without handing them large raises and incentives. Employee retention strategies might involve recognizing and rewarding employees with service awards for reaching milestones in their careers and other achievements in the business. Many organizations reward employees who pass industry exams or work for five, ten, or fifteen years with bonuses and other incentives. While service awards can help employees feel appreciated, they should be part of a larger recognition strategy that allows for more everyday moments of recognition so that you can truly cultivate a culture of continual appreciation.

While most businesses have core values, only a handful can claim to live by them. Creating an employee recognition program connected with the company's core values so that peers may applaud each other for living up to them if you want to be the exception. When starting a value-based recognition program, it is important to make sure that everyone in the team understands what the company's key values are and by pointing to concrete instances of actions that demonstrate them. Finding areas where workers thrive and then sharing those stories across the firm is at the core of recognition. It is important to note that when praise is given in public, it becomes much more meaningful. One of your main goals for employee satisfaction should be to develop a recognition strategy. Another benefit of recognition is that an inspiring story inspires people to come up with fresh ideas. Publicly acknowledging the value of the ideas put forward by allowing dialogue within the organization.

Lastly, in each organization, for the employees to grow and be motivated, it is important to offer development opportunities and trainings. As the world of finance evolves and grows, so must the knowledge and competence of those who work in it. It is critical for specialists in the area to understand and grasp the ever-changing climate as rules and regulations change. This is when continuing education comes in handy. Continuing education for employees can only help them progress and expand their knowledge, which will improve the customer experience and increase production. Training and learning opportunities also have a significant impact on employees' willingness to stay with the company. The staff is not being able to enhance their skills and talents if the organization does not give them with the opportunity to learn. As a result, employees may be tempted to leave the company (Liu, Z. Q., Liu, J. Q. & Li, 2006). Employee retention relies heavily on training and development. Increased performance, greater income, fair compensation, and benefits should all be linked to professional growth. "Expose people early and often to the training they will need to become successful leaders" says Andi Gray (2014).

The management as strategy is taking the initiative to establish an atmosphere in which essential information is readily shared. Employees in that way have the opportunity to be well-informed and perceptive in order to advance their careers, and a range of training programs will be prioritized by a business. As a consequence, staff will be retained, which will have a beneficial influence on organizational productivity (Singh, 2008).

Employee Development and Training and development encourages employees to stay loyal to the company and helps to form a cohesive workforce, but it's also important to develop leadership training programs and capabilities. The organization should establish a target plan to determine future requirements, which should include the identification of internal candidates for leadership training. Developing leadership and management rotational programs provides future management with a comprehensive picture of the organization, allowing employees to better appreciate their effect on the bottom line. "We need to start growing our future generation through leadership training, precisely identifying personal limitations, and seeking out remedies and consultants," writes Gray (2014). Many strategies can be used to encourage a company's employees to continue their education in order to increase motivation and productivity. From encouraging people to work for their ambitions and secure their futures inside your organization, by providing a clear route for advancement. Making sure there are lots of opportunities for training by having a training program in place to allow the team to work toward their objectives. To allowing employees to form mentorship ties within the company.

Having all previously stated retention strategies in mind, it is critical to keep in mind the industry in which a company operates in and what problems it faces while trying to enhance employee retention. Employees at bigger financial companies, such as a corporate bank, may not find the same approaches beneficial at a small credit union. Considering the specific company needs help design an organization's most effective retention plan.

3 PEOPLE ANALYTICS

Monitoring the talent management and development strategies, as well as opportunities to manage human capital more efficiently, is one of the most important duties of human resource (HR) experts. Human behavior is far more complicated and unpredictable than that of machines or other tangible assets (Fitz-enz & Mattox, 2014), making human capital allocation optimization a challenging task. Lately, the use of data analytics in the field of human resource development is becoming increasingly frequent as the usage of technology in every activity increases.

3.1 Defining people analytics

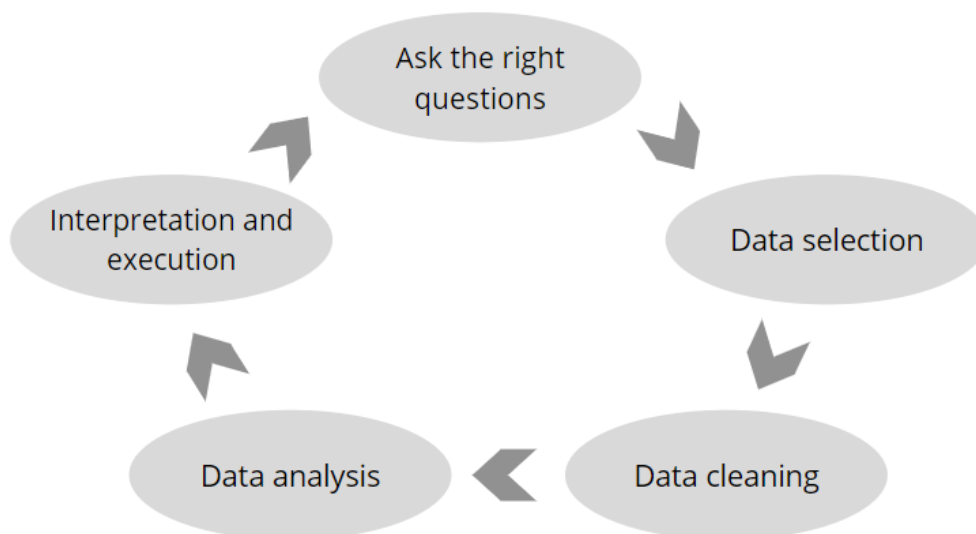
People Analytics, as defined by Marler and Boudreau (2017), is a Human Resources practice enabled by information technology that uses descriptive, visual, and statistical data analysis related to Human Resources processes, human capital, organizational performance, and external economic benchmarks to improve business impact and enable data-driven decision making. Smarter, more strategic, and data-driven talent choices are therefore closer at hand, and this applies across the employee lifecycle, from better hiring to more effective performance management to improved retention. When compared to decision-making based on intuition, feelings, hunches, personal experience, and even estimations, People Analytics may make it simpler for firms to articulate an issue connected to Talents before making a choice using an

approach based on data analysis they have (N'Cho, 2017). People Analytics is a critical tool to reinforce the position of strategic management in companies.

People analytics has come a long way since it was first utilized in businesses in the mid-1900s. There has been a clear shift from descriptive, to predictive and again to prescriptive analytics, allowing businesses to better plan for the dynamic of their operating environment and be proactive rather than reactive. These concepts will be explained more in detail in part 3.2 of this thesis. Advanced data science, interactive data visualization, and machine learning, all of which are now essential components of people analytics, were not included in the process until recently.

Erik van Vulpen in his book "The Basic Principles of People Analytics" defines the process of People Analytics. According to him, the process of people analytics may be broken down into five parts. He organized the stages into a cycle. The first step is to always ask the appropriate questions, second is the selection of data, next come cleansing the data and analyzing the data and finally the fifth step in the execution and interpretation of the results (Van Vulpen, 2016). This process is presented in Figure 5 below.

Figure 5: The process of People Analytics



Source: Own work; adapted from Erik Van Vulpen (2016).

Because people analytics, also known as HR analytics, is the act of evaluating data and drawing conclusions, first it is important to understand what data we are looking at. The very first step every analyst must do in order to arrive at a solution is to ask the right questions. The organization of the entire research effort might be guided by asking one or more questions or formulating hypotheses. A hypothesis has an impact on what data needs to be collect, how to interpret the data, and what steps to take to put the data's findings into action.

Once analysts know what questions they want to have answered, they can determine the data they need to conduct their analysis. When choosing the data, three crucial considerations should be kept in mind. (Van Vulpen, 2016) The first is about the level of analysis, meaning, to take into consideration if we are analyzing for example individual performance, group performance or another group level. The second about the influence of context, to take into consideration as many factors as possible that may influence the outcome of the data. And lastly about the complexity of the findings, which means that sometimes come outcomes may be more representative by using crossed metrics instead of simple ones. For example, to determine which team is the greatest at football, don't look at who wins the most games or who scores the most goals. But the most representative data would be, who has the highest SAG (shot-at-goal) score. Here it is also important to mention that choosing the correct data sources for your study cannot be underestimated.

After it is decided what analyses will be performed and identified the precise data that is required, we move on to the following step: data cleanup. "Garbage in, garbage out" is a frequent phrase or concept used in data analysis. You can put a lot of thought and effort into your data analysis and come up with a lot of findings, but if the input data is incorrect, your conclusions will be meaningless. In fact, the outcomes may be damaging to your employees since they are inaccurate. That is why cleaning up the data is a very important step. Checking of the data is up-to date, comparing various data sources, manually updating a missing record, editing duplicate information, and correcting a misspelled name are just a few instances. This data-cleaning process might take a long time depending on the quality of HR data, but it will increase the quality of the data. More accurate analysis will result from better data quality.

With clean data, it is time to proceed to data analysis. The importance of this step cannot be overstated. There are several data analysis methodologies and software programs available. This phase needs the assistance of a data scientist. The ensuing findings from the data analysis should pass the error and accuracy test. Finding correlations between variables is the goal of data analytics. Many individuals, for example, discuss the importance of employee engagement in terms of performance. Data analytics is used in this case to understand how engagement (variable 1) affects performance (variable 2). In this step methodologies as the correlation analysis are used, to shows how two variables are associated with each other, the regression analysis, to analyze an outcome using one or multiple predictive variables or the decision tree, which is a simple method mostly used for creating a predictive and even prescriptive models.

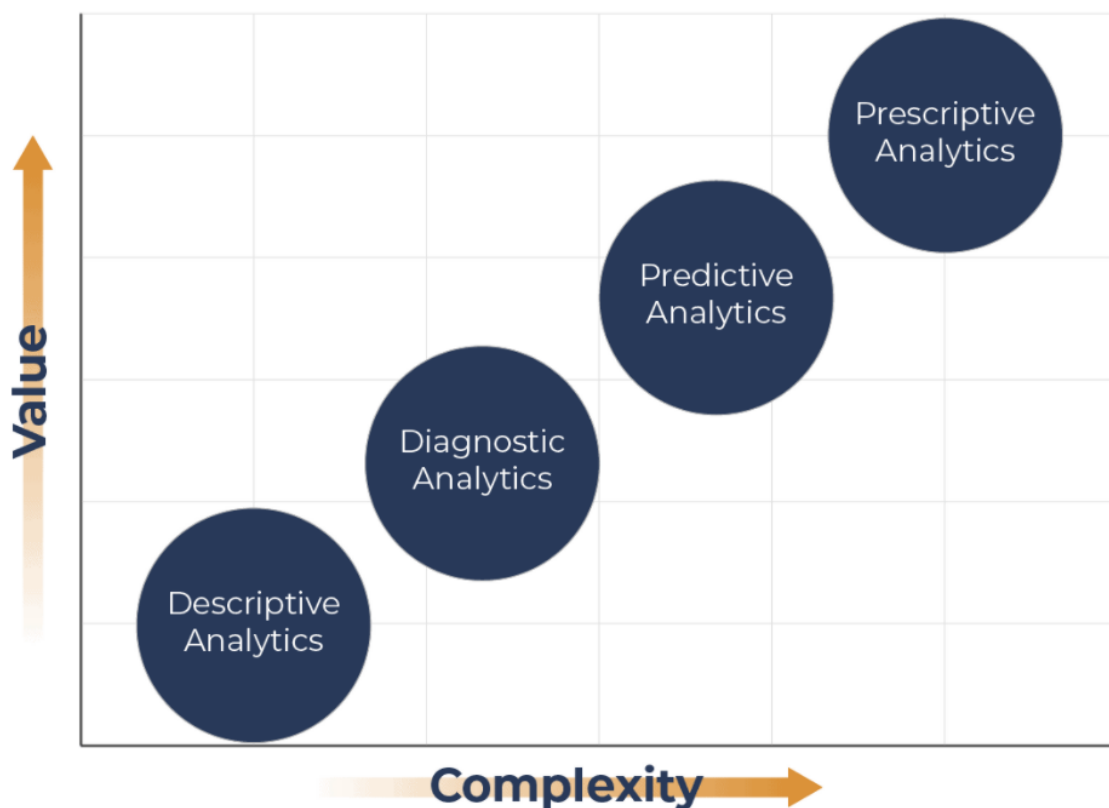
With all data results and correlations defined, the outcomes need to be interpreted and executed. At this stage, the results are first checked to see if they respond to the initial questions that the analysis was done for, or did it come up with a solution to a different problem. Furthermore, were important factors considered and should the analytics cycle be repeated and updated or not. After that, the results are interpreted. You should have a thorough understanding of what's going on in the firm to interpret the outcomes correctly. This is quite useful for understanding data trends and developing a strategy for acting on the results.

The presentation of your findings is the final phase. How will the finding be presented to the company, who will they be presented to and through what method are the questions every analyst should answer to before the presentation the outcomes. An important rule of thumb is to not publish findings until you have a solid follow-up plan of treatments that can assist you fix the problem, because ones the people analytics results are presented, it is the company’s management or HR personnel turn to make choices based on the analytics data and put the finding in practice. The presented data should be clear and understandable to all participants in the presentation for the correct actions to be taken in the future.

3.2 Types of people analytics

As seen in the previous section, organizations utilize analytics to investigate and analyze their data, then turn their discoveries into insights that enable executives, managers, and operational staff make better, more educated business choices. There are several types of analytics companies use. Descriptive analytics, which examines what has occurred in a business, predictive analytics, which considers what could occur, and prescriptive analytics, which considers what should occur. The types are presented in Figure 6 below.

Figure 6: Four types of Data Analytics based on value and complexity



Source: Zyabkina (n.d.).

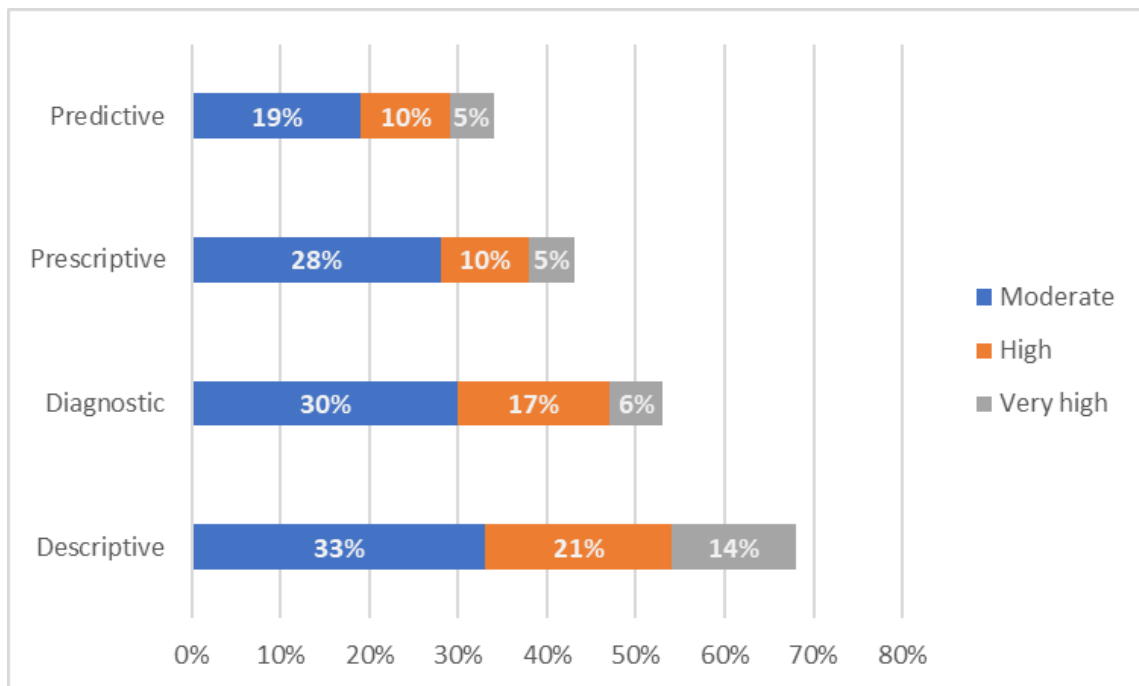
The most basic type of analytics is descriptive analytics, which provides insight into the data. Descriptive analytics, according to one definition, summaries and converts data into relevant

information for reporting and monitoring while also allowing for thorough research to answer questions like "what happened?" and "what is now happening?" (Mortenson, Doherty & Robinson, 2014). Descriptive statistics, for example, can show you how many employees departed the organization last month and how much that figure climbed over the previous month. Also, through this type of analysis, companies can analyse how much in the employee turnover an retention rate to see if there is a trend (gender, department, position, age, experience).

Most people are familiar with these analytics since they can be performed using typical reporting tools. Traditional dashboards, scorecards, and business reports are examples of this form of analytics that allow users to summarize what happens and understand how diverse data is interrelated. Descriptive analytics is also known as 'slice and dice,' since it allows users to manipulate data by determining population size, mean, median, minimum and maximum, frequency, and so on.

Descriptive analytical report are the most used by HR companies for their People Analytics reporting. According to a survey, called "The State of HR Analytics," which was ran from June to August of 2021 by The HR Research Institute, descriptive analytics is used at least moderately by around two-thirds of all companies (68 percent). This is presented in Figure 7 below.

Figure 7: Results to survey question; To what degree does your organization use the following types of HR/people analytics reports and/or dashboards?



Source: HR Research Institute (2021).

An additional step are diagnostic analytics. This type of analytic responds to the question "Why did it happen?" and can be defined as a technique of analyzing data to discover the origins of

trends and correlations between variables is known as diagnostic analytics (Kalsbeek, 2020). After utilizing descriptive analytics to find trends, it might be seen as a natural next step. Manually, using an algorithm, or with statistical software, diagnostic analysis can be performed (such as Microsoft Excel).

Diagnostic reports, as it can be seen in the HR Research institute survey presented in Figure 7, is the the second most popular type od analytycs used by organisation. 30% of the surveyed companies use diagnostic analytics moderately in their business, but a very small portion use it in high ans an ever smaller position, only 6% of the interviewes in very high intensity.

Predictive analytics, as a more sophisticated type of analytics, based in the decriptive analysis predict what will happen in the future taking into consideration all the factors. They can tell you how many individuals are projected to depart in the following month and how many more are expected to leave in the months after that. Data modeling is a need for creating authoritative predictions about the future of business forecasting and simulation in predictive analytics (Delen & Demirkan, 2013). "What will happen?" and "Why will it happen?" are addressed in predictive analytics.

These analytics provide the user a far better understanding of the data by allowing them to foresee or predict what is likely to happen. As expected, these tools are quite powerful and, when used effectively, may have a direct impact on decision-making. As previously stated, predictive analytics can be used in HR when the company wants to know which personnel are likely to depart the organization or how expenditures in learning and development will affect next year's performance. Regression analysis or more complex machine learning approaches such as decision trees, neural networks, and Nave Bayes are examples of this type of analytics. The phrase "machine learning" refers to a technology that allows computers to learn without having to be explicitly taught to do so. To put it another way, machine learning may be thought of as a type of artificial intelligence (AI) since it gives computers the tools they need to acquire and understand new knowledge. Machine learning is frequently used in more complex prediction studies. In Figure 7 we can see that according to the same survey, run by The HR Research Institute, in 2021 only 34 percent of companies have used predictive reports or dashboards for People Analytics purpose.

Prescriptive analytics is the most advanced type of analytics. Prescriptive analytics is defined as involving deriving optimal planning decisions given the predicted future and addressing questions such as "what shall we do?" and "why shall we do it?" (Evans, 2012). Where predictive analytics says, "There's an 80% probability one of your data scientists will depart in the next three months," prescriptive analytics says, "Put the job description online this week, and you'll have a new data scientist in three months." In this way, prescriptive analytics are also defined as "the combination of optimization, rules, and data that enhances analytics by suggesting the optimal way to handle a future situation and can be applied to strategic, tactical, and operational decisions" (Gartner, 2016). This type of analytics helps choose the people policies with the greatest impact on the workforce, depending on the specific situation a company is in. These prescriptive reports take into consideration what we know and what can

we change in the process to make it better as well as analyse the different factors (satisfaction survey, economic/social factors). However, these analytics are still relatively novel in the analytics space, but in 2021, already 43% of companies responded that they are at least moderately using prescriptive analytics.

With time, in developing companies, there a slow but clear shift that is seen from descriptive to prescriptive analytics, allowing businesses to better plan for the future and be more reactive. These analytics, going towards strategic analytics, give HR the potential to become a key business partner for companies. Using those reports for people analytics, gives companies opportunities to plan a strategy to remedy to the its problems that will be in accordance with the organisation´s strategy (lower budget, higher skills, etc.)

3.3 Advantages and disadvantages

People analytics, as mentioned before, enable companies to make data-driven decision and to address some of their challenges trough several types of analytics.

Because people analytics is based on data, it may aid in the development of a case to persuade management and increase HR's strategic effect. It can also help in succession planning execution. New insights can be developed in order to improve organizational and employee performance, as well as employee well-being. The use of analytics will result in a more accurate and predictable match between applicant and organization. Overall, it is making a substantial contribution to increasing the efficiency and profitability of the organization.

For example, HR analytics can help companies minimize their retention guesswork. As reduced turnover is one of the most prevalent and proven applications of people analytics, the effect is especially obvious when organizations specialize in a certain role or group of workers. Targeted retention based on people analytics may considerably reduce turnover. HR can tackle turnover with a razor-sharp focus on the issues at hand armed with employee data. A more data-driven strategy makes it simpler to quantify the effect of important initiatives, which helps HR in gaining the executive support needed for retention success. According to the 2019 Brandon Hall Group People Data and Analytics survey, companies that conduct strategic HR data analysis are 31% more likely than their counterparts to claim higher customer satisfaction and retention.

Organizations may utilize the HR analytics to identify traits that lead to high-performing individuals who stayed with them for a long time. It can assist businesses in determining where they obtain their finest prospects and whether they are losing valuable employees along the road. As a consequence, businesses can make the most of their recruiting expenses by knowing what profile fits the company best, but also what profile has highest satisfaction in the environment that it is offering. People analytics may be used by businesses to enhance the modalities and sources of preparation. Learning analytics, which relates the influence of coaching and growth on business outcomes, may help organizations ask the right questions and receive the right answers.

People analytics have a great number of advantages, but some disadvantages or obstacles that companies may face that have to be mentioned as well. Many HR experts are skeptical, believing that humans cannot be reduced to numbers. There is still an issue of practicality where these concepts have impacted HR thinking, and the answer is not generally recognized in HR circles. The Chartered Institute for Personnel and Development (CIPD, 2013) claims that the HR function lacks the skills, expertise, and insight to ask the correct questions of the HR data at their disposal. When this way of thinking is present, it can be challenging to persuade management of the advantages of people analytics. So, the question of which technologies should be used and which data should be obtained for people analytics if a company doesn't have enough time, skills, or knowledge is present. Similar worries coming with the increased use of people analytics are, if it is possible to compare several profiles in a single analysis or is the use of HR analytics and machine learning heading toward a "machine" future where computers make decisions?

A big obstacle can also present the question of what should be done if unexpected findings are discovered in the results, information that individuals would prefer not to hear or know, since data privacy is included in the equation. Obviously, HR departments must abide by the data privacy rules of their respective countries. Companies who fail to appropriately protect employee personal data or are found to be abusing personal data face fines of up to €20 million or 4% of annual global revenue, whichever is larger. In this more stringent regulatory environment, HR data must be securely secured and protected from threats (not to mention the repetitional fallout of high-profile data breaches). Any type of data may be beneficial provided it contains personally identifiable information.

When it comes to data use, HR departments must not only meet the law, but also the company's ethical principles. Most firms nowadays place a premium on having an open and honest community. If data-driven HR operations go against the culture – for example, by improperly implementing data programs or neglecting to convey how data is utilized – serious morale and confidence concerns might arise. As a consequence, being open is one of the most critical pieces of advice that can be given to any businesses. Transparency about what types of employee data are gathered, why they're collected, and how they'll be utilized. It's also crucial to deliver value to employees and emphasize the advantages of utilizing their data. People are considerably more ready to have their data utilized if they feel they will receive anything in return, such as better working conditions, more efficient management, a cleaner environment, or whatever else.

4 ANALYZING THE NEED OF PEOPLE ANALYTICS IN THE BANK

4.1 Research methodology for evaluating PA in the bank

The main purpose of this thesis is to investigate the factors that influence employee turnover in the banking sector and how the introduction and use of People analytics can be beneficial with the chosen Slovenian bank as case study. I performed two sets of interviews with the selected bank representatives. The first one with the selected bank's head of Human Resources

and employees from the human resource department, the second one with two managers from the bank that are users of the People analytics reports, for the aim of analyzing this Master thesis. Both interviews took place in March 2022 and lasted around 45 minutes each. During the interview, I followed a pre-prepared interview guide with open-ended questions and well as rating scale questions. Both interview guides can be found in Appendix 2 and 3. During the interviews, I was writing the responses and we had a lengthy conversation about People analytics use and opportunities in the banking sector. The selection and implementation processes, as well as future expectations and anticipated expansions, were reviewed. I decided to split the interviews into two segments in order to gain diverse perspectives from two stakeholders. On the one hand, there is the HR department, which creates the various PA reports, and on the other hand, there are the managers of other departments who use these reports and dashboards.

For the first interview with the HR department, I was interested to find out more about the introduction and current use People analytics. The programs that are used, the data that is gathered as well as the types of reports that are made. To be consistent with my thesis topic, I focused my interview questions to retention and turnover related data and reports. I divided my interview questions in two parts. The first part was more general, asking questions about the HR department activities, main challenges and PA introduction experience and thoughts. The second part of the interview was more technical and aim in discovering the different types of HR analytics covered currently in the chosen bank, what data related to turnover and retention is stored and what kind of reports are made to help in decision making.

At the beginning of the interview the HR manager presented the briefly the bank and its structure. She also presented the structure of the HR department and its main activities which was related to my first interview question. Further, I asked about the main HR challenges the bank was currently facing to get a feel if retention rate question was an issue to be able to later analyze it and be able give propositions for improvement. Their answer regarding the main HR challenges is covered in part 4.2.3 of my master thesis.

Later on, the main topic of the interview became the introduction and use of People Analytics in the HR department. The type of analytics and programs used for People Analytics are presented in part 4.2.2 of this thesis. To be able to evaluate the use of HR analytics I stated asking questions regarding the types of reports and dashboards created as well as what data is visible to other managers in the bank. An answer to these questions would enable me to determine if all necessary data is being gathered and processed, I order make relevant reports that would improve decision making in the retention improvement area. Furthermore, to also determine if enough relevant reports and currently being created and if they are presented in an effective manner to the PA reports users in the chosen bank.

The second interview was aimed to get insight into how the current PA in the bank is used and presented to its users, which are mainly the managers of the departments in the bank. This interview contained mainly rating scale questions of if and how often they are using HR

analytics dashboards and reports in their decision making as well as how satisfied are they of the current analytics done in the HR department.

The rating scale questions were in a scale from 5, meaning the manager is very satisfied, to 1, meaning the manager is very unsatisfied. One more option was given “I don’t want to answer”, but it was not used as an answer during the interview. After the managers have rated and commented the usage of current HR reports and dashboards, I asked about what HR reports are relevant for them to see on their dashboard to be able to make more informed decisions. It was also relevant to ask them to comment the current feedback mechanisms regarding People Analytics reports and suggestions for improvement. The managers answers were consistent between the two interviewees and are presented in the next part of this thesis.

Apart from the interviews, I requested access for their employee data to be able to extract useful quantifiable responses to my questions. I used several employee databases to calculate the employee turnover, but also extracted data from satisfaction surveys dating from 2018 to 2021 and exit interviews conducted in the same four-year period. Having access to the satisfaction surveys as well as the exit interviews to determine the most predominant reasons for employee satisfaction and reasons for leave.

Combining the responses from the conducted interviews with the selected bank and the secondary data collected through calculations, as well as the satisfaction surveys and exit interview from 2018 to 2021 I was able to come up with several connections and conclusions that are presented, together with the interview answers in the next parts of this thesis.

4.2 Presentation of the bank

For the purpose of this thesis, I chose to analyze the use of people analytics in a specific bank. The selected bank is a Slovenian bank, which is a subsidiary of a South European country based international banking group. It provides corporate and investment banking, commercial banking, as well as wealth management. Apart from Slovenia, the bank currently is present in 4 different continents with 71 companies and offices in Europe, 2 in North America, 8 in Asia, as well as 1 in Africa.

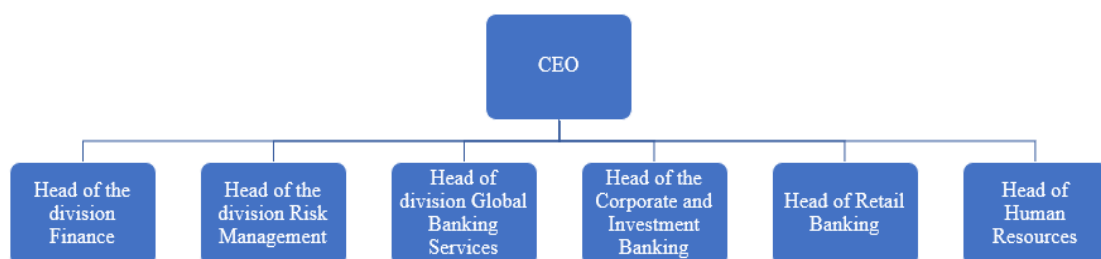
4.2.1 Organizational structure

The bank operates in Slovenia since 1991 and has capital share of around 20 million euros. The company’s headquarters is based in Ljubljana, whereas other business units such as branches and agencies are located across Slovenia and are present in all major cities such are: Maribor, Celje, Novo Mesto, Koper, Sežana, Ptuj, Kamnik, Murska Sobota, Trbovlje, Velenje, Radovljica, Šenčur, and Nova Gorica. The bank has around 600 employees and 18 branches currently in the country, employees in branches representing 23% of total employees.

As shown in Figure 8, the bank's organizational structure consists of six board members who are also the leaders of the bank's major divisions. This contains the following divisions:

- Finance; covering all financial and accounting activities. This division counts 8 organizational units,
- Risk management which counts 15 units and is analyzing and managing all sort of banking related risk,
- Global Banking services; including the 15 back-office organization units from Operations to IT development,
- Corporate and Investment Banking; with 16 units working with local and international clients,
- Retail; covering all 18 branches and agencies operating in the country and
- Human Resources; covering all aspects of Human resource management from recruiting, through compensation and trainings also covering all HR related data and analysis.

Figure 8: Organizational structure of board members in the chosen company



Source: Chosen bank (2022).

The Human Resources department/division in this selected Branch is counting 7 employees, including the head of the division. The employees are divided in two teams covering different areas of work: the People team and the Data team. The People team is responsible for the recruitment and onboarding of new employees as well as for the learning and development opportunities for existing employees. On the other hand, the data team is covering all data replated areas. From data entry and control to employees, to budget forecast and payroll.

One of the purposes of the bank, globally, but also locally is optimize its processes by reorganization but also mainly digitalization. That is why in the last few years the processes in the bank are being tracked and recorded digitally. This gives an opportunity to have more accessible data and easily make more complex reports and forecast. Many procedures and processes relating to the central administration and owners exist since the bank is part of an international group, but they are adjusted to local legislation, culture, and sociological factors.

4.2.2 Presentation of the bank's current People analytics

Having collected answers from the interviews, it is safe to say that the chosen bank is putting a big emphasis to the importance of People analytics. Employee data was from always collected for traceability reasons and since the bank is part of a Group that is not located in the country,

reports were always done to ensure that the management had some idea of what was happening in Slovenia. The data was mainly stored physically and excel reports were done by request. The real shift happened in 2010 when an analytic position opened, and a software program was installed as an HR database where employee data was collected, and automated reports were created. At that time one person cared exclusively for reporting and analytics purposes.

According to the bank HR official, the bank's analytical emphasis extends to the Human Resources department as well. "Descriptive analytics has long been a significant priority for us," she says, "and predictive analytics is one of our top goals for the foreseeable future." She points out that the HR department pays special attention to information on high-potential workers and the reasons why they could quit the bank. Managers' efforts in terms of employee feedback and talent development are also measured in depth throughout the bank. HR also use analytics to obtain a comprehensive picture of employee diversity.

To gather data on employees two different programs are used. On one side, a human resource management program is being used called eHRM which is customized to the company need and is constantly being improved with the help of the providers of the program. It supports basic human resources processes in the company, as well as for organizations that want to computerize strategic human resources processes. This program enables to store all data of current and new employees and the creation of custom reports from it. The procedures and stakeholders required to successfully introduce the employee to the work environment are included in the process (eg presentation of rules, taking over work equipment and protective equipment, creating a mentoring program, training, etc.). It facilitates a new employee's parallel or concurrent responsibilities with those of other workers (manager, mentor, human resources department, and so on), about which they are constantly informed and reminded according to the set dates for activity completion. The process of an employee leaving the company (off-boarding) or changing positions (career growth) is supported as well.

The eHRM program offers seven different modules:

- Human Resources records: Basic personnel processes are supported by the module (employment of an individual, recording of basic data, education, qualifications, data of family members, assignment to a job and placement in the organizational structure). You may also use the module to create employment contracts, generate forms and other documents, track employee information changes, and terminate employees. The module helps you to simplify and speed up administrative operations by storing data in one location,
- Staffing: A job vacancy call can be prepared using the module, based on the needed and preferred qualifications for the position. Save candidate information, including their linkages to calls and application history. Implement a multi-stage selection procedure, as well as a mechanism for approving individuals who have been chosen,

- Performance management: The module enables you to enhance employee knowledge of their role in the organization, as well as to reach shared goals and anticipated capabilities. Individual goals can be autonomous or aligned with the company's overall goals, as long as the individual's ambitions are clearly related to the company's strategic goals. We divide the objectives into categories, connect them in a cascade fashion, and define them using the SMART technique. Deviations from the expected goals can be noticed early on, allowing necessary decisions to be made,
- Rewarding: This enables its user to choose relevant criteria (such as attaining objectives, contemplating goals, years of work with the organization, income, and so on) and relate them to the logic of calculating the expected reward. The module gives diverse participants – managers, employees, and staff – a centralized view of award data. By informing your staff, you raise their understanding of the relationship between performance and rewards and encourage them to work hard,
- Onboarding: The steps and participants required for a successful introduction of a colleague into the workplace are included in the procedure (e.g. presentation of rules, acceptance of equipment needed for work and protective equipment, making a mentoring program, training, etc.). It facilitates the new employee's parallel or sequential activities, as well as those of other workers (head, mentor, HR, etc.) who are instantly alerted and reminded of the activity's deadlines,
- Education and Training: You may use the module to methodically improve people and the entire firm, and you'll have a good idea of how much time and money you've spent on training. At the same time, you can study data on how newly acquired knowledge is used in the workplace, allowing you to better assess the investment's impact. You will get an overview of the company's intellectual capital thanks to the many reports created by the module,
- Career and succession: The module include development goals for co-workers that may be retained separately or as part of regular employee interviews, as well as the ability to create career plans for employees. The module delivers 360-degree feedback on any topic or abilities of the employee in order to achieve internal staff development (career growth). This module covers as well offboarding, especially the part related to the job duties of the individual being transferred.

The chosen bank is using four out of these modules in their everyday activities: Human Resources records, Staffing, Performance management and Education and Training. Rewarding, Onboarding and Career and succession are mostly done on trough excel reports and databases. The bank uses eHRM to create dashboards. A template of the of the eHRM dashboard can be found in Appendix 4. These dashboards can be updated and personalised.

Currently, the chosen bank has 3 different dashboard structures. One for employees, one for managers and one for the HR employees. All dashboards contain the employee tasks, shortcuts, their profile picture and required and passed trainings. The difference is that the HR employees and managers have 2 additional graphs in their dashboard. The HR team has additional data on the employee structure in the bank. One graph is representing the percentage of people on permanent agreement and contract for an indefinite period as well as the percentage of employees by division. Managers on the other hand have on graph presenting the positions of their employees and another one stating the progress of their current activities.

The second program, used for employee data tracking is called Špica. This system is a contemporary and user-friendly software solution for labour management that handles everything from time and attendance to tracking project time and expenditures. The chosen bank uses only the Time and Attendance module from this provider. With this module, it is tracked how often and how long employees work from the office or from home, but as well the number of sick leaves, business trips and other types of leaves. This data is useful to be aware of the presence of employees and enables the HR department to properly calculate payrolls at the end of each month regarding the presence and activities of each employee.

All other data and reports that are not done through these two platforms are collected physically or digitally (mostly be through e-mail) and reports are done and presented using Excel or PowerPoint.

4.2.3 Presentation of the bank's retention and talent management

As mentioned before, the Human Resources department of the chosen bank covers all aspects of talent management from recruiting, trough compensation and trainings and finally data analytics. The main challenges faced by HR are currently in two areas:

- selecting the right candidates with the appropriate skills and,
- retaining talent because of increased turnover in last years.

Selecting the right candidates has two aspects. The challenge is to identify a skilled person that would not only fit to the job description but also to the organization. Meaning, the right candidate is not only a skilled one, but the organization want to identify one that will well adapt to his/her new surrounding and will be willing to stay and develop within the organization. Identifying these talents in currently being judged by two skilled recruiters that have their previous experience and knowledge of the bank as key factors for their decisions. No analytical tool is currently being used for this purpose.

To calculate the employee turnover, I used employee database where new hires and new leaves monthly information were present. By dividing the total number of leavers in a month by the total number of employees in that month, I was able to calculate employee turnover. After that,

multiplying the total by 100 to get the monthly worker turnover as a percentage as equation (1) shown below:

$$\text{Monthly turnover rate} = \frac{\text{Number of employees who left (in the month)}}{\text{Total number of employees (in the month)}} \times 100 \quad (1)$$

For further analysis purposes I also calculated the annual turnover rate for each analysis year from 2018 on with the equation (2) below:

$$\text{Annual turnover rate} = \frac{\text{Total number of employees who left}}{(\text{Beginning} + \text{ending number of employees}) / 2} \times 100 \quad (2)$$

In table 1 we can see the turnover rates of the chosen bank over the years.

Table 1: Annual turnover rate in the chosen bank from 2018 to 2021

Annual turnover rate (in %)			
2018	2019	2020	2021
13,3	13,2	9,2	13,1

Source: Own calculation, from chosen bank's employee databases (2022).

The turnover rate in the bank, looking at the last 4 years has been the highest in 2018 with 13,3% of annualized employee turnover and the lowest in 2020 with 9,2%. A trend of turnover around 13% can be determined, except for the reduced employee turnover in 2020, which is partly predicted and can be explained by the increase of the covid-19 epidemic and the high job-related uneasiness that occurred, especially among employees in customer service-related businesses.

For the retention of their employees the bank has put in place a retention program. Identifying the best performers in the company is calculated only by their performance score throughout the year. At the beginning of the year, goal setting is done between each employee and their manager. For the goal setting, the future objectives of the employee and expectation of the manager are discussed, and goals are created. At the end of the year these goals are reviewed by both parties. If the objectives were reached and successfully accomplished then both parties give a high note, if not, a lower note is being assigned. Throughout the employee's work experience these goal assessments are being followed and the performance of the employee is being determined. The retention program consists of proposing a three-to-six-month salary compensation to the employees that will stay with the company for a longer period of time. The motivation is done via promised bonuses.

4.3 Research results related to PA for employee retention

As mentioned before, descriptive HR analytics are the most predominant type of PA used in the chosen bank. Followed by the less frequently used predictive analytics. HR reports are presented through several means: HR dashboards, Excel reports and PowerPoint presentations sent to managers, board members or the members of the international group.

Several types of reports monitoring retention and turnover data are being prepared in the bank:

- Monthly People risk indicators report,
- Monthly Exit interview report,
- Quarterly Satisfaction survey report and
- Yearly Performance management report

The people risk indicator report is done every month and contains several risk indicators that follow the risk of employee leave, burnout, satisfaction, and non-conforming with rules in the bank. Each monthly report contains the overtime percentage per organizational division and the turnover rate during the month. Once per year the holidays taken by the employees in the bank are also tracked. If the bank's turnover is high or rising, this might present concerns. The main issues are: finding a new appropriate replacement in a short period of time, and new workers not receiving adequate training since those who could provide trainings do not have enough time. Finally, because existing employees are overworked and new employees make mistakes, this might result in increased operational risk. On the other hand, if workers work excessive overtime for an extended length of time and this indicator rises, there is a risk of employee burnout and possibly sick leave, which might pose difficulties for the bank. This report is prepared in Excel and sent to the operational risk team within the bank and then to the international headquarters for review. The monthly turnover rate is also presented every month in a broader report presenting the employee database valid at the end of each month, presenting the actual bank FTE (Full-time equivalent) and headcount numbers. This report is sent to the HR department head when thresholds have been reached.

Exit interviews are performed with every person leaving the bank. Questionnaires are being answered by each employee about their experience as an employee and the reasons for their leave. These questionnaires are visible to the HR department and by request is also sent to division heads if for example the number of leavers in their division is higher in a certain period. Taking into account the exit interviews of the last four years the leavers were actually rather satisfied with their employment in the bank as it is visible from Table 2 below.

Table 2: Satisfaction of leavers of their employment in the chosen bank from 2018 to 2021

How satisfied were you during your entire employment in the bank?						
(in %)						
1 (I am not satisfied at all)	2	3	4	5	6	7 (I am very satisfied)
1	1	8	23	32	24	11

Source: Chosen bank (2022).

The main importance of the exit interviews is to find out why an employee decided to leave the bank. I divided the answers into four separate factors for employee turnover and calculated the percentage of answers corresponding to each factor. The data is presented on Table 3 below. It can be concluded that the main reasons for turnover in the chosen bank is the problem of salary. 55% of leavers answered that they found a new job with a slightly higher salary. It is also important to note that 70% of leavers had their new job offered to them, while 30% were actively searching for a new job. The second most prominent reason for turnover the stress on the working place, more exactly leavers answered that they sometimes felt like having a big workload and short deadlines during their employment. In third place comes the career growth opportunities. For this category, employees usually answered they did not find an appropriate opportunity for advancement in their organizational unit. And lastly, the work environment. In the exit interviews there were a lot of positive comments about the teamwork and the nature of the work, but bad comments were in a few cases commented about the lack of understanding from the managers and suggestion of improvement for the organization of work processes.

Table 3: Factor stated as reason for leave by leaving employees in the chosen bank

Main reasons for leaving the bank (in %)	
Salary	55
Job stress	22
Lack of career growth	12
Poor work environment	11

Source: Own work, data from chosen bank (2022).

The quarterly satisfaction survey report corresponds to a survey that is sent quarterly to all employees and is analyzed by looking at the answers of a representative group of employees. The representative group contains 10% all employees and is created in a way to contain an equal percentage of employees by gender, education, division and position as the percentage in whole bank. This survey results are visible to the HR head as well as to the international HR department through a report prepared and shared by the local HR employees. As shown in Table 4, again grouping the answers into factors of satisfaction, 54% of employees are satisfied with the work environment in the bank, 24% are satisfied with the career growth opportunities offered and accessible to them. While only 12% of employees answered in the satisfaction survey that they are satisfied with their workload and 10% with their wage and compensation in the bank. Each quarter, the survey confirms the main reasons for employee turnover by having lower percentage satisfaction in the wage and compensation area and the highest satisfaction in the work environment area.

Table 4: Satisfaction factors stated in the survey by employees in the chosen bank

Factors of job satisfaction in the bank (in %)	
Work environment	54
Career growth	24
Workload	12
Salary	10

Source: Own work, data from chosen bank (2022).

On a yearly basis, the performance management report is done. As explained in part 4.2.3, the performance of the employees is calculated through the goal setting and accessing process. This report, comparing to the previously stated reports is collected and shared on the eHRM platform. Each employee and their manager can access the goal own and then access the successful or unsuccessful completion of the preset expectations. Besides the HR department, each manager, at the end of the year has an overview of the performance scores of his/her employees.

From the interview conducted with the HR department, it can be mentioned that in their opinion, the current reports are helping with the decision making the bank. But the HR head stated that they are looking for improvement and other relevant reports are welcomed to be conducted as well as presented in a more efficient and constructive way to all relevant parties.

The interviewed managers, that are the users of the reports and available dashboards agreed with that statement and the responses were consistent between the two interviewers. Both rated their satisfaction with the current use of people analytics reports and dashboards as 3,8 on average. In fact, as seen on Table 5, they rated the ease of use of the portal with a four or somewhat satisfied, the accessibility of the available reports was rated also with a four. The relevance of information on the eHRM dashboard was rated with a 3, followed by an explanation that they do not consider that all data accessible on the dashboard helps them with relevant decision making, they would prefer more personalized approaches corresponding to their needs. Next, the clarity of information available was rated with a 5. And finally, the collaboration with the HR department was rated with a 3 or neutral.

Table 5: Satisfaction scores from the interview with managers

Category	Score
Ease of use	4
Accessibility	4
Relevance of information	3
Clarity of documentation	5
Collaboration with HR	3

Source: Own work (2022).

The managers commented that they are somewhat using the available reports and dashboards and that they would like to use them more if they are more personalized to their needs, so that they don't need to ask for additional report from the HR department to be prepared in case of need. Some of the reports that the managers would like to see on their dashboard to be able to make more informed decisions regarding satisfaction and retention of your employees are: the percent of leaves in their department in time, the tasks of their employees and their progress, satisfaction survey scores, previous exit interviews of their employees as well as establishing an employee feedback mechanism. Commenting on the current feedback mechanisms regarding People Analytics reports and suggestions for improvement, the managers had a feeling that changes in what will be visible in the dashboards and what different report will be established are communicated mostly between the HR department and the division heads. All sorts of managers, in their case organizational unit want to be more involved in the processes too.

4.4 Identifying the need for improvement

As seen, people analytics, if used properly is a great tool to make better business decisions and help the management have a bigger picture of what is going on in their organization and what options are available for improvement. To properly use HR analytics each company needs to adapt its reports to its needs. Choosing the right reports to present a situation, its factors and possible solutions is very important for improvement, but what is also crucial is for those reports to be presented in a proper way and to the proper audience to have impact.

Having analyzed the use of people analytics in the chosen bank, I have spotted several needs for improvement. On the one hand, that can help the HR head make better decisions about employee recruitment, retention, and overall satisfaction, and on the other hand, it can help other bank managers make better decisions within their teams by providing more relevant and clear reports, as well as better cooperation between the department and the bank's human resources department.

4.4.1 Improvements for HR decision making

Currently, the bank is mostly using descriptive analytics in the decision-making process regarding turnover. For example, reports that show you how many employees left the company last month and how much that number increased from the month before are made. But those reports do not answer the questions of "Why did it happen?" or "What will happen?", as even less "What shall we do?". For managers, receiving descriptive reports over time helps them get an overall picture of how the trend in the bank is moving, but does not help them figure out why and what is the best next move for them to do.

To make an appropriate decision, the managers usually have to spend time and resources on organizing meeting and visiting managers and their teams in order to find out the reason behind the change in numbers and even more time to find out and agree on what would be their best response will be. By including diagnostic and predictive analytics in the fist place, the bank's

managers and especially the HR head's decisions for the whole bank's workforce can be improved and more objective. Prescriptive analytics can be put in place once all three previous ones are introduced and functioning.

More data collection streams should be implemented and encouraged in order to provide effective and precise diagnostic reports in the chosen bank. Surveys, team meetings, group projects, and other sorts of channels, for example, may be formed to get information on the causes of difficulties such as greater turnover rates, poorer employee satisfaction in specific departments, and so on.

Once descriptive and diagnostic analytic are in place, predicting future behavior by offering several scenarios or hypotheses is easier. At first, predictive analytics can be done in excel or using tools such Power BI, but on long term some machine learning can be introduced to automate the process and for HR employees to be able to focus more on data gathering and control of results that the analytics itself.

An additional improvement can also be an improved use of eHRM modules and introduction of new ones. The chosen bank uses four out of the seven available modules by the eHRM program provider. Rewarding, Onboarding and Career and succession are mostly done on trough excel reports and databases.

The work in the HR department could be optimized by at first including the onboarding module in the used program. Currently, onboarding is a lengthy process where employees have a several hour introduction lecture on the bank rules and operations, as well as the signing of confidentiality and other mandatory agreements. After the onboarding meeting, employees go to their own organisational unit where they are introduced by their manager or mentor to their new job position and requirements. All informative documents and brochures are accessible to the bank's intranet portal, but they can be sometimes hard to find if the employee is not aware which department covers the subject he is researching. By having an onboarding module all onboarding documents can be in one place, on one portal that the employee will become familiar using. Also, it enables the new employee's parallel or sequential operations, which make the employees work more organised and enjoyable. Also, other employees (head, mentor, HR, etc.) can be immediately alerted and reminded of the activity's deadlines.

Next, the rewarding module the employees would be more aware of how much their performance can be rewarded. Having a centralized view of award data can encourage and motivate employees to be more productive. Currently, the employees do not have a precise overview of how their set objectives, their position and results make up to the amount of their potential rewards. Increasing that awareness would improve the transparency, the cooperation and stive for improvement amount employees.

Lastly, the module career and succession can be introduced. Right now, difficulties can occur when an experienced employee has left and is replaced by an external candidate. Most of the processes, contacts and rules of work should be well mapped and a transfer of knowledge

should be organised. Unfortunately, this is not always the case. Having a career and succession module would help because it gives the ability to compile a list of possible successors for important positions and evaluate them based on their performance and potential. Pools can also be created to compare the performance and potential of a group of individuals working in the same office. Each employee's talents, skills, and knowledge can be compared to the requirements of a possible position. Also, this module includes the option to build career plans for employees, as well as the ability to set growth objectives for co-workers that may be kept independently or as part of regular employee interviews. By being able to have the progress and possible job growth for each employee in mind, the HR department can help improve the satisfaction of their workforce and encourage growth.

I do not say that the chosen bank must include all the modules at once in order to improve its operation, have more satisfied employees and less leaves, but an integration of several models in short and medium term and all on long term is favourable.

Going through the existing eHRM modules of the bank, the human resource records module is used optimally, and the HR department is proud of it. It is used to create employment contracts, prepare forms and other papers, track changes to employee information, and terminate employee contracts. The performance management and education and training modules are currently being developed and are partly integrated with eHRM, the goal is to have all information, track and change them in one place. These modules will be fully integrated by the end of the year.

Regarding the staffing module, it is used only in an older version of the eHRM system, and it is planned that overtime it will transfer to the new eHRM version as well. The module is used to create a job vacancy call based on the required and desired credentials for the role and saves candidate information for some time for future opportunities. To improve the use of the model, the data made available with the module can be better used in reports in order to make better choices in the process of recruitment. The bank may use AI or analytics can create reports to spot trends in important metrics like average time to hire a candidate, average resumes received per job, proportion of candidates accepting or rejecting offers, labor market information like average wage offered or talent supply in a certain region, and so on. Such recruiting features can aid a business in fine-tuning its talent acquisition operations, reducing time-to-hire, cost-per-hire, and improving recruitment quality. These reports also help the recruiters to make more strategic decisions when employing and to choose candidate profiles that would be the best fit for the organization.

4.4.2 Improvements for other bank managers

Adding new modules and improving other would have no effect if the reports and dashboards presented do not have the wanted effect and if they are not presented to the right group of people. In the interview I have done with the bank managers, they rated the relevance of information present on their dashboards with a score of 3 out of 5 and admitted they do not frequently use those reports to plan for their department. The manager's decisions about their

personnel relies on the success of the work load they give to their employees and experience within their team.

Dashboards should be on that way focused on the manager's needs. Currently on their dashboard managers have a graph presenting the positions of their employees and another one stating the progress of their current activities. For other reports about their team, managers contact the HR department to be prepared in case of need. Reports that can be visually presented through graphs and tables and relevant for people decision making should be available in the dashboard.

Having an overview of the percent of leaves in their department through time can be relevant to managers to have a feel if there are some major problems than usual. Also, having data of the top three and lowest three factors of satisfaction in the team can be useful to a manager, as well as the percentage of employees in their team that took part in the satisfaction survey to be aware of the involvement of their employees in the bank culture and feedback orientation. Having the highest and lowest scores of satisfaction and dissatisfaction will help managers to know their strengths, and on the other side, their weaknesses as team leaders. This can help them take action to improve the workload and work environment within their organizational unit.

Another useful information that can be given to the managers is to track how many applied to different trainings during their employment or what licenses they have. This will enable the head to compare the knowledge between team members and organize transfer of knowledge between colleagues or send all members to a relevant training, to learn about the areas they may be lacking knowledge of.

Tracking their employees' tasks and progress is also very important for the bank managers. In this process, good communication and feedback are very important. Tracking will help the manager understand the average time needed for a task and if the process can be improved in order to avoid his team additional working time and to improve processes. The feedback for his/her employees can help the manager in his/her decision making regarding the improvement of processes and increase the cohesion in the team with all ideas and recommendations being heard. Now, only some team activities are being tracked in eHRM and more tasks are given my email, through a phone call or in person.

Establishing a feedback mechanism for the employees to present their thoughts and ideas for improvement is very useful for the managers. But also having a feedback mechanism in place for managers to present issues and ideas to the HR department is something to be discussed about. The main users of people analytic reports, apart for the HR head are the managers of the bank and no created report is useful if not presented in a proper way to the proper public.

As presented in the part about the research results related to the PA use, managers in the chosen bank feel that changes in what will be visible in the dashboards and what different reports will be established are mostly communicated between the HR department and the division heads

when it comes to the current feedback mechanisms for People Analytics reports and suggestions for improvement. Managers of all types, including those in their organizational unit, want to be more involved in the processes.

The solution can be to include all report requests for managers that have been directly requested from the HR department available in the eHRM dashboard. The key is to enable the dashboard to be customizable and all different reports available to choose from so that each manager can create his optimal dashboard for his current decision-making process. The HR department will only have to take care of updating the data or including Queries or another integration process that would help to the collected data to periodically update itself based on the new data entries.

One last improvement that can be mentioned is the performance management improvement. Performance management is done on a yearly basis, following the results of how successfully the employee set goals were completed. Before this period, the manager does not have an available quantitative data about how the employee is progressing and is he/she improving or not. The employee progress is only done by the competition of tasks that the manager gives directly to the employee, other tasks completed are only taken in consideration if the employee has good communication with the manager of the team. This way can be subjective and not quantitative data is present to prove the real performance of the employee. By including a tracking mechanism of activities and a feedback space within the same interface, in this bank's case, the eHRM platform, a more realistic picture about each employee progress and motivation can be visible and better decisions made.

5 PROPOSING A MODEL FOR PEOPLE ANALYTICS IN THE BANK

Data analytics will inevitably be used in Human resource management as the profession attempts to become more evidence-based, moving away from biased and inaccurate conclusions. Having analyzed the People Analytics use in the chosen bank and identified the areas of improvement I came up with a model proposition for the chosen bank. The model is focused on the use of improving employee retention in the financial sector with people analytics. The model seeks to integrate most HR processes and information in one place to enable more efficient decision-making.

5.1 Characteristics of the model

The proposed model is based on improvements for optimization on the existing main PA platform, eHRM. Development of modules in use and integration of new modules is within the platform is proposed, as well as a change in the existing dashboard structures for each shareholder accordingly: HR department, Management of the bank and Employees. I would point out the importance of feedback and cooperation between departments to optimize reports and have relevant information on the presented dashboards that will be used and effective in management decision making on one side and better transparency, feedback opportunities and higher motivation for the employees of the bank.

5.1.1 Module optimization and increased collaboration

As uncovered in part 4.4.1, the chosen bank is currently focused on descriptive people analytics and striving towards including diagnostic and predictive analytics to improve their decision-making processes in order to increase employee satisfaction and minimize employee turnover. To be able to include those analysis, they need to include various data sources, cross existing relevant data into reports and keep in mind all relevant factors influencing the analyzed variable. Integrating new modules in the eHRM platform and developing the existing ones is a must for the bank in the close future in order to reach diagnostic and predictive decision making.

One useful module is the Onboarding module, offered by the platform that has been explained in this thesis. Integrating this module into the platform will enable on one hand for the employees to be better onboarded into their new position. The employees will have all relevant information in one place and better access to all bank rules and bank culture itself, which should insure better productivity. This would be an opportunity for them to befriend with the eHRM platform that stores all relevant information for their future development. This integration can only increase the communication and transfer of information since all relevant information will be published, followed and accessed through one platform from which each employee will know how to use and access from day one on the job. The scores of “ease of use” of the platform, “accessibility” and “collaboration with HR” that were scored by the bank’s managers in the conducted interview, can go up with this module integration.

Another module that should be integrated is the “career and succession” module that has also been presented in part 4.4.1 of this thesis. The capacity to develop, within the same platform, a list of potential successors for key jobs and assess them based on performance and potential enables the bank to better follow and manipulate retention, replacements and have a data backed choice between external and internal candidates for a certain position. Moreover, the chosen bank will have a clear overview of the transfer of knowledge process to ensure that the employee on the new position feels comfortable and well informed about his/her duties and available work resources.

Making a choice about an internal candidate to be employed on a new open position will be made easier with all data available in the existing “HR records” module, but this new “career and succession” module will additionally focus on the employee’s career growth and development taking into consideration not only his skills and knowledge, but also his performance over his employment in the bank.

The choice to employ an external candidate can be made easier with the development of the “staffing module” in eHRM. The module is used to make a job vacancy call based on the role's needed and desirable qualifications, as well as to preserve candidate information for future chances. To increase the model's usability, the data provided by the module may be better utilized in reports to help make better recruiting decisions. The bank may use AI or analytics to generate reports that highlight trends in key metrics such as average time to hire a candidate,

average resumes received per job, proportion of candidates accepting or rejecting offers, labor market data such as average wage offered or talent supply in a specific region, and so on.

The use of all these modules combined will help the chosen bank to provide better career growth opportunities, better access to data for employees and early employee introduction to the bank's rules and culture. On the other hand, it will ensure that new employees are better integrated and more "fit" for the chosen bank itself, which would ensure an improvement in employee retention (Starks, 2007).

5.1.2. Improvement of eHRM dashboard content

The eHRM dashboard, which is utilized as the major platform for PA reports, was noted in an interview with managers as not presenting high relevance of information and, as a result, is rarely used in the decision-making process. Dashboards should be tailored to the demands of the stakeholders. By the HR department and the bank management for improved decision-making, and for the employees for better employee satisfaction that should lead to an increased retention.

A strong HR dashboard should display clear key performance indicators in a concise and intuitive manner. For better HR decision making, the HR dashboard should be divided between the personal dashboard of the HR employee and the HR decision making. Each human resources department employee should have rapid access to data from his or her specific HR field. The value of the eHRM dashboard is the flexibility to tailor the visibility of each report on each individual dashboard. On one hand, each HR employee should have access on their personal interface to data regarding their tasks, required and passed trainings, as well as access to shortcuts to different part of their profile. On the other hand, having access to other crucial Talent metrics and graphs would be ideal for the personnel as well as the HRMD department manager to better understand the present Human resources situation in the bank and to make more considered decisions in their daily work that are backed up by metric facts.

This model proposed that the dashboard used by the human resources department for decision making should include the following reports as graphs and tables, that are presented in Figure 10 below:

- The number of active employees in the bank overtime, presented as an FTE (full-time equivalent) number. One FTE represent an eight-hour working equivalent. This graph may also be used to compare the bank's projected and realized FTE numbers in order to revise the forecast for the following quarter and produce a more exact projection,
- The percentage of promotions during the year. Keeping in mind this number not to be very high because of budget restrictions and not too low because of employee satisfaction and opportunities for career growth. This report will help the HR manager in his/her decision whether to approve a salary increase or bonus,

- The turnover ratio during the year. As stated previously, high employee turnover is connected to poor organizational performance and increases the bank's resource costs, recruiting costs, and time. The turnover ratio should be accessible to the HR manager,
- Related to the turnover ratio, a relevant information can also be the Turnover type. Having an information on the ratio of voluntary and involuntary leaves can have an impact on the future HR strategy,
- The absenteeism length, also known as long term absences of employees. Measuring employee absenteeism in the workplace is an excellent approach to assess Overall Labour Effectiveness (OLE), which is a key performance indicator (KPI) that measures the workforce's utilization, performance, and quality, as well as its influence on productivity,
- The overtime rate. When employees work excessive overtime for a lengthy period of time and this indicator grows, there is a danger of employee burnout and maybe sick leave, which might cause effectivity and satisfaction problems,
- Satisfaction of exit survey scores. These survey scores will help the HR manager to be aware of their strengths and weaknesses and know what area of employment needs to be improved. Following this data and the change in scores as a result of an initiative in the bank will help to quickly adapt the strategy towards better satisfaction scores in lower rates areas.
- Employee costs over Revenue. The labor-to-revenue ratio is a financial analysis tool that compares how much a business spends on its personnel to how much it produces in net sales. If the proportion is too high, that would mean that the bank is operating with an unsustainable personnel number. If it is low, the bank has room to develop its business by hiring more people.

Additional relevant reports can be put accessible under a drop-down menu for example as portrayed in Figure 10 on the left top corner of the template dashboard. Other relevant reports for HR decision making can be the Headcount number and structure of the bank, the average salary overtime, percentage of managers versus employees, the male/female ratio, and so on. The possibility to freely change what reports are visible on the main page can help HR managers and employees to make more informed more connected reports and decisions. Having an updated dashboard with all relevant Descriptive analytic reports will give an opportunity to the HR analysis to focus their attention on creating diagnostic and predictive reports by connecting all available data, accessible in one place.

Figure 9: Proposed dashboard template for HR department decision making



Source: Own work (2022).

Other bank managers should have similar reports to the HR department, but especially prepared and adapted for their department, in order to be better supported in their decision-making. As previously proposed for the Talent management employees, it would be more user-friendly for them to have one private and one manager or decision-making dashboard. On their private dashboards managers would be able to follow their ongoing tasks and projects, access their profile information through predefined shortcuts and follow their past and required trainings. On the decision making or manager dashboard several reports should be visible and other available in the drop-down menu, as in the HR proposed dashboard explained above. The proposed dashboard template is shown in Figure 11 below.

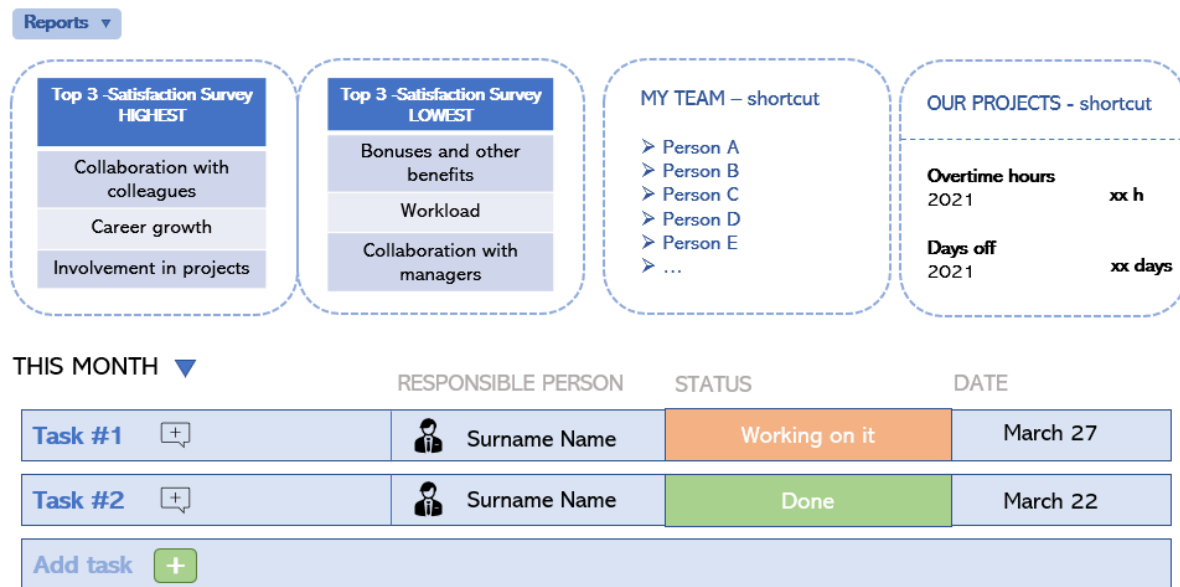
Each manager requires a good PA report dashboard in order to make better decisions for his or her team, boost employee happiness, and recognize employees' potential and need for a promotion or job move. With the right data and collaboration with HR, each manager could more easily pinpoint the source of employee turnover and improve employee satisfaction, resulting in higher retention within his or her department.

The proposed dashboard template to help managers in their decision making includes information on:

- Top 3 and Bottom 3 factors by scores of satisfaction in the department. Having the greatest and lowest satisfaction and discontent numbers can assist managers in understanding their strengths and shortcomings as team leaders. This will enable them to take steps to enhance their organization's burden and working environment,
- “My team” shortcut. Where the manager can access the personal profile of each of his/her employees to have data on their education, past projects and trainings. This shortcut helps to have direct access to each employee’s skills and performance that help the manager identify a need for career growth opportunity,
- Overtime hours taken in the department. This data presents the average overtime that was taken in the department though out the year. It is important for the manager to follow this number to avoid staff fatigue and maybe sick leave, which might affect productivity and satisfaction,
- Days off taken in the department. This number should be followed because on one hand, it is important to encourage employees to take time off since they will be happier and have more favourable attitudes about their employer. On the other hand, a higher number would mean that there has been a poor utilization of the personnel, resulting in reduced performance and productivity at the bank.
- Monthly department tasks. This section of the dashboard can be periodically updated by the managers or can be automatically updated when an employee or the responsible person for a task changed the status of the task from in “working on it” to “Done”. This enables to follow the ongoing tasks within the department and the effectiveness of the employees that are set as responsible persons for each task. In this part, a feedback mechanism should be included. By clicking on the black plus sign next to the Task name (see Figure 11) the manager and employees are able to comment, and initiate discussions related to a task or the project involving this task. In this way, a better transparency and collaboration withing the team is created.
- “Our projects” shortcut. This shortcut enables the managers to quickly assess more information on all the ongoing projects in his/her department and the tasks related to them.

Having all People related information in one place, helps the manager make more informed and fair decisions. One example can be, if the manager is looking at the next step requirements for a project. In this case, the manager can quickly determine to whom he can allocate the next task having access to the following information: what employees have still ongoing tasks, what employees are qualified for the task and what employees have already a lot of work determined for the overtime hours. In this way, the manager will have a better organized project and quicker delivery of results and on the other hand less burnout employees that can be more productive and satisfied with their job workload, which can lead also to lower days off needed.

Figure 10: Proposed dashboard template for bank managers decision making



Source: Own work (2022).

In the proposed model, managers would also be able to customize their dashboard with other available reports. Other available reports for the managers would be aligned with them in feedback sessions with the HR team. Managers will have access to more relevant data, which will help them enhance their jobs, while teamwork and bank culture will improve as it will be simpler to follow and adjust choices to the bank strategy.

Each employee has its own personal dashboards. Bank personnel, as managers and HR professionals, have access to data about their responsibilities, required and completed trainings, and shortcuts to other parts of their profile via their personal interface. The proposed new model adds the ability for each employee to follow his/her tasks, give and receive feedback as well as follow and be aware of his/her goal setting and the performance and reward management within the bank.

The monthly department tasks would appear on the bank workers' dashboard in the same way they appear on the managers' dashboard, so that every employee knows who is accountable for what assignment, and who to approach if they have a question about that job. Having a task assigned, employees would be able to connect and comment with their managers and other colleagues about the assignment and as they finish the task change the status to “Done”. This addition to the dashboard allows employees to better connect with one another and gain a better understanding of their roles and responsibilities, while also allowing managers and HR departments to gain a better understanding of the effectiveness and satisfaction of their employees through an established feedback mechanism.

Another addition in the dashboard would be information on the bank's performance and rewarding system and the employee's goals. This would allow the user to link relevant parameters (such as achieving targets, pondering goals, years of service with the company, income, and so on) to the logic of computing the expected reward. By informing the employees, it enhances their comprehension of the link between performance and incentives and encourages them to work harder to achieve their wanted goals. For this purpose, a shortcut with all important bank information should be put in place. That is also where all onboarding documents will be stored.

All of the new or upgraded projected data on the HR department's, management's, and bank employee's dashboards is meant to increase the bank retention rate by achieving a greater level of organization, good "fit" employees, collaboration across teams and departments, and therefore a higher level of employee satisfaction in the chosen bank.

5.2 Implementation plan

Depending on the workload of the HR department and the number of HR employees responsible for the new PA platform module and dashboard preparation and integration, the proposed module can be implemented in a shorter or longer period of time. I divided the timeline into short and medium term activities and long term goals.

The first steps in the short and medium term activities range from creating new data and reports to integrating modules and reports into the eHRM platform. The long-term objectives reflect the upkeep of all previously integrated data, which will pave the way for new and more complex people analytics research.

5.2.1 Short and medium term activities

Strengthening bank collaboration, particularly between HR and bank management, is the first step in adopting the proposed module. The eHRM dashboard, according to the proposed module, should provide vital data to assist managers in making better decisions. Because the human resources department cannot predict all of the expectations of managers, the first step should be to have a feedback session with them to get their comments on previous reports and requests for future ones.

In this way, the HR department will be better informed about what information to provide to managers, will have the opportunity to educate them on team HR management, and will be able to recommend other employee reports that may be useful in making decisions about their team's employment and career advancement. As a result, the manager decision-making dashboard will be optimized, and managers will have a better understanding of their team's skills, training, and performance, as well as a better understanding of their career growth needs and employee satisfaction, allowing them to make appropriate employee decisions.

After having acquired knowledge of all needed reports and data from bank managers, the next step is to prepare all relevant report that will be later integrated within the eHRM platform and visible to all relevant stakeholders. All existing reports should be integrated and linked in a way that every report update over time would be automatically updated in the eHRM graph/table report so that the stakeholders have access to the latest relevant data on their employees. All new reports are to be in short term created, and later on also integrated with the platform's dashboard.

Report should be also created with information from the staffing module. The Staffing module is used to make a job vacancy call based on the role's needed and preferred qualifications, as well as to preserve candidate information for future possibilities. To increase the model's usability, the data provided by the module may be better utilized in reports to help make better recruiting decisions.

The next step would be to implement the career and succession module. The module includes the option to construct career plans for employees as well as development objectives for co-workers that may be kept separately or as part of regular employee interviews. A career and succession module would be beneficial since it allows to construct a list of prospective successors for key roles and assess them based on their performance and potential. This will be very useful for the HR manager, as well as for the department manager.

Once the staffing and career and succession modules are in place and integrated, bank recruiters will be able to use the modules together to make decisions about finding more appropriate or "fit" employees, with the staffing module used for external candidates and the career and succession modules used for internal candidates.

Moreover, all relevant employee and bank information for employees should be gathered and presented in one place and assessed through the eHRM platform. Once all relevant documents are prepared and gathered by the HR department, a shortcut on the employees' dashboard will be put in place to give them access to all "onboarding" information. This will be especially relevant for all new employees, that will have all information available on one platform that is and will be used during their whole employment period.

Having all relevant reports on the assigned HR, manager and employee dashboards and keeping them automatically updated will open more time to the HR department to transform their descriptive analytics into diagnostic analytics. Having all different descriptive reports in one place and having a strong collaboration and feedback mechanism between the HR department and the managers, as well as between the managers and their employees assures more data streams and relevant data. Not only quantitative, but also qualitative. All of that, gives the opportunity to HR employees to create diagnostic reports, connecting all data and information available in order to give answers to "Why did it happen?".

The cost of implementing the suggested model with all modules included should be between 2150 and 3000 euros for the chosen bank. After receiving estimates for the integration and various modules, I determined that the implementation and integration of the various dashboards would cost between 1500 and 2000 euros, the integration of new modules would cost between 200 and 300 euros, and the development and addition of new features to existing modules would cost between 50 and 100 euros.

5.2.2 Long term goals

The suggested model's long-term aims include keeping all PA information up to date and changing it in response to bank, management, or employee demands. As new challenges arise, the reports and stakeholder's dashboard should be customized and updated to meet the new requirements. Maintaining quarterly or yearly feedback meetings with management on data relevance and stakeholder dashboard use will ensure that the decision-making boards continue to be useful for more informed and data-supported employee related decisions.

Having automated the descriptive analytical reports and integrated the diagnostic analytical report will over time as a next step open the door for predictive analytics in the chosen bank. Predictive analytics is a more advanced sort of analytics that uses descriptive and diagnostic analysis to anticipate what will happen in the future while taking all aspects into account. The bank will be able to answer to the questions "What will happen?" and "Why will it happen?" in a close or distant futures regarding their employees. With time, the gradual transition from descriptive to predictive analytics will help the chosen bank to better prepare for the future and be more prepared. Expecting certain scenarios and knowing the impact they can have on the bank will shift the bank decision making from a problem solver to a more strategic role. When the predictive analytics are implemented and well-functioning for a certain period, relevant predictive reports can be also integrated on the stakeholder's dashboards.

Predictive analytics can be done in Excel or using tools like Power BI at initially, but in the long run, machine learning can be used to automate the process and let HR personnel to focus more on data collection and outcomes management rather than the analytics itself. For this, the HR skills would have to be adjusted or some external providers might be engaged to program the reports and lead the project to be more automated and user friendly.

The logical way of the bank's analytical PA maturity would be to start integrating prescriptive analytics and creating prescriptive reports. When that level is reached, the chosen bank will not only be prepared for all expected scenario, but it will also know how to react when an expected scenario occurs. These prescriptive studies assess what we know and what we can alter to improve the process, as well as analyse the many factors that may affect the analysed variable.

Because prescriptive analytics must analyse all potential internal and external elements that can impact the result of a dependent variable that is being studied in order to be successful and helpful, it is better for the organization to utilize machine learning to save human time and

resources. As previously stated, the implementation of machine learning will necessitate an extra investment in a programmer or external supplier who will create a set of algorithms capable of detecting patterns in data and learning from them in order to produce their own predictions as well a team to lead and plan and implement the project. It takes time to put it into effect, which is why more advanced analytics are long-term goals for the bank. Achieving a full inclusion of machine learning can be costly, the selected bank estimated a cost of over 20.000 euros overall.

Achieving these long-term objectives will result in a bank-wide advanced people analytics culture, in which personnel choices are made based on accurate and unbiased reports, resulting in improved bank organization, employee happiness, and retention.

CONCLUSION

The purpose of this Master thesis is to contribute to the better understanding of the benefits of Peoples analytics in the banking sector. And to answer to the question of how a bank can improve its employee retention using People analytics. We have seen that data analytics aids firms and sectors in making sense of massive amounts of data in order to expand and thrive. People analytics also helps businesses enhance employee experience, build the optimum organizational structure, and boost productivity.

First of all, the HR role, activities and main challenges have been presented in this thesis, as well as their importance in the banking sector. As customer happiness is being vital for the survival of banks in the future, the significance of having satisfied, skilled and effective employees was pointed out. Proper HR tracking, planning, and decision-making can only lead to happier employees and improved productivity, since all employees' requirements, from knowledge and new skills to support and rewards, will be known and addressed.

With a focus on employee retention, it was observed that needing to fill unfilled roles due to staff turnover increases the cost of resources, recruitment, and time. That is why corporations place a greater emphasis on maintaining and growing existing employees. The most important part is to identify the type of turnover in the organization and its reasons to be able to act upon it and improve the organization's retention rate. Job contentment, employee engagement and satisfaction as well as good collaboration and company culture are what the main strategies for employee retention focus on.

Keeping the main retention strategies in mind, the People Analytics term was presented, as well as its types and pros and cons. We have seen that including analytics in people management has been seen as a revolution in the HR word as one of the most significant responsibilities of human resource (HR) professionals is to monitor talent management and development initiatives, as well as chances to manage human capital more efficiently. PA opens the door not only to explain what is happening regarding the retention and talent management, but also to answer to why it happened, what is expected and why, as well as what

is the best decision to take in a certain expected scenario. With People Analytics, organizations can become more strategically oriented and make more informed and unbiased decisions.

With a goal to examine how People Analytics may assist managers in a chosen bank making better managerial decisions in order to improve the retention rate of employees, research results were presented from primary and secondary data collected for the case study. It was concluded that the chosen bank's aim was to put a bigger emphasis on People Analytics in the future. It was commented that since descriptive analytics have been a significant priority for the bank for long time, predictive analytics is one of our top goals for their foreseeable future.

Analysing their current People Analytics programs and reports as well as their current turnover rates, main employee leave and satisfaction factors, the bank's two main challenges were identified; recruitment of "fit" personnel that will turn to a long-time employee and retaining the existing employees due to periods of increased turnover.

Areas for improvements in their existing PA model were identified. On the one hand, improvements in PA can assist the HR director in making better decisions about employee recruitment, retention, and overall satisfaction; on the other hand, they can assist other bank managers in making better decisions within their teams by providing more relevant and clear reports, as well as improved collaboration between the department and the bank's human resources department.

The areas indicated for improvement in HR decision making include having only a descriptive style of analysis, not utilizing all modules available on the PA platform, and not improving or customizing the previously implemented one. For other bank managers, on the other hand, identified areas for development include improving PA dashboards and increased feedback and communication mechanisms.

Taking into consideration the needs for improvement, a new PA model was proposed with as main goal, supporting managers at the selected bank in making better managerial decisions in order to increase staff retention. The characteristics of the model and its implementation actions and goals were presented. To facilitate more effective decision-making, the model aims to bring together most HR procedures and information in one location. In a way that all stakeholders; the HR, managers and employees would be able to get all data and communicate in one place what would be easily accessible, user friendly and with only relevant information and reports for each party.

It can be concluded that having all available information regarding the employees in the bank is not enough and limits the management to connect all right data to be able to have a clear picture and make informed decisions. Introducing a clear dashboard with customizable reports and increasing collaboration between the HR department and other managers through feedback session and between the management and employees through a feedback/commenting possibility on the dashboard will create a possibility for better organization and happier

managers and employees. With that, it will be also easier to identify to whom and in what way PA reports should be presented.

In the banking sector, employees and managers are busy with their own every day activities, having only one platform where all relevant data presented in graphs and tables is stored and automatically updated will minimize the time and effort to access data on your own progress as an employee and on the progress and satisfaction of your team for the managers to be able to act accordingly and improve the motivation and happiness, and with that increase retention in the department and in consequence the bank as a whole.

Because people analytics is data-driven, it may help build a case to persuade management and boost HR's strategic impact. Also, because of the use of analytics in people management, new insights might be produced in order to increase organizational and employee performance, as well as employee well-being. But it should not be forgotten that on the other hand, there is still scepticism that decisions regarding people management cannot be done only looking at numbers. Since humans are complex beings, it can be wise to say that all PA information should be taken with a slight reserve. Employee knowledge and experience should be still relevant in the first stages of People Analytics introductions, since there is a chance that all reports are not fully connected or integrated.

People Analytics should evolve and improve with time, after several strategies being put in place using PA, their results will help adjust the system, whether other reports should be put in place, modules changed, or stakeholders divided in different categories.

Companies experience with People analytics is still in the early stages of development but grows exponentially since more and more companies are interested in technology introduction and digitalisation. I believe the future of People Management is People Analytics.

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APPENDICES

Appendix 1: Povzetek (Summary in Slovene language)

Namen magistrskega dela je prispevati k boljšemu razumevanju koristi analitike človeških virov v bančnem sektorju in odgovoriti na vprašanje, kako lahko banka najde boljši način, da zadrži svoje zaposlene z uporabo analitike človeških virov. Videli smo, da podatkovna analitika pomaga podjetjem in sektorjem pri razumevanju ogromnih količin podatkov. Analitika človeških virov prav tako pomaga podjetjem izboljšati izkušnje zaposlenih, zgraditi optimalno organizacijsko strukturo in povečati produktivnost.

V magistrskem delu je najprej predstavljena vloga, dejavnosti in glavni izzivi kadrovske službe ter njihov pomen v bančnem sektorju. S poudarkom na zadrževanju zaposlenih je bilo ugotovljeno, da potreba po zapolnitvi nezasedenih pozicij zaradi menjave osebja poveča stroške virov, zaposlovanja in časa. Ob upoštevanju glavnih strategij zadrževanja je bil predstavljen izraz analitika človeških virov, njegove prednosti in slabosti. Z namenom, da bi preučili, kako lahko analitika človeških virov pomaga menedžerjem v izbrani banki pri sprejemanju boljših vodstvenih odločitev za izboljšanje stopnje zadrževanja zaposlenih, so bili predstavljeni rezultati raziskave iz primarnih in sekundarnih podatkov, zbranih za študijo primera. Prav tako so bila v magistrski nalogi predstavljena tako področja za izboljšave obstoječega modela analitika človeških virov, kot tudi novi model in njegove karakteristike.

Appendix 2: Interview guide (first interview with the HR department)

General questions:

1. What activities is the HR department covering?
2. What are the main HR challenges you bank is currently facing?
3. When and why have you decided to introduce Peoples Analytics in the bank?
4. What changes did it lead to? Organisational? Competences of employee?
5. In what ways can HR Analytics help your organisation?
 - To help take decisions which are unbiased
 - To reduce the cost by providing data-driven decision making
 - To increase accuracy
 - To help predict the workforce
 - To reduce the filtration process duration
 - HR analytics cannot help much in HR functions advance
 - Other_____
6. Do you have a feedback mechanism for the PA users to be updated on possible requests and need for improvement?

About People Analytics in the Bank:

7. What kind of HR analysis are done in HR?
 - Descriptive analytics
 - Diagnostic analytics
 - Predictive analytics
 - Prescriptive analytics
8. What programs are used for People analytics and how many people work on it?
9. What data, related to turnover and retention in the bank is being currently stored and processed through PA?
10. What kind of People Analytics reports are being made?
11. How are the reports presented and where and how can they be accessed?
12. What data is visible on your dashboards to managers?
13. In your opinion, do you consider all relevant reports are currently produced and presented to the necessary parties?

Appendix 3: Interview guide (second interview with bank managers)

1. Please rate your level of satisfaction with the following aspects of People Analytics reports and dashboard use in your bank:
 - a) Ease of use of eHRM:
 - Very Satisfied (5)
 - Somewhat Satisfied (4)
 - Neutral (3)
 - Somewhat Unsatisfied (2)
 - Very Unsatisfied (1)
 - I don't want to answer
 - b) Accessibility of reports:
 - Very Satisfied (5)
 - Somewhat Satisfied (4)
 - Neutral (3)
 - Somewhat Unsatisfied (2)
 - Very Unsatisfied (1)
 - I don't want to answer
 - c) Relevance of information
 - Very Satisfied (5)
 - Somewhat Satisfied (4)
 - Neutral (3)
 - Somewhat Unsatisfied (2)
 - Very Unsatisfied (1)
 - I don't want to answer
 - d) Clarity of documentation
 - Very Satisfied (5)
 - Somewhat Satisfied (4)
 - Neutral (3)
 - Somewhat Unsatisfied (2)
 - Very Unsatisfied (1)
 - I don't want to answer
 - e) Collaboration with the HR department
 - Very Satisfied (5)
 - Somewhat Satisfied (4)
 - Neutral (3)
 - Somewhat Unsatisfied (2)
 - Very Unsatisfied (1)
 - I don't want to answer
2. What HR reports are relevant for you to see on your dashboard to be able to make more informed decisions regarding satisfaction and retention of your employees?

3. Can you comment the current feedback mechanisms regarding People Analytics reports and suggestions for improvement?

Appendix 4: eHRM dashboard template



Source: Agitavit Solutions (n.d).