University of Life Sciences Prague

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Master's Thesis

Challenges of Artificial Intelligence with Management in Workplace (Shared Services)

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Challenges of Artificial Intelligence in Workplace (Shared Services) with Management

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Objectives of thesis

The aim of this thesis is to identify key factors that enable effective management through applying artificial intelligence in the workplace. studying the advantages and disadvantages of using artificial intelligence (AI) systems. Identify the necessary factors that are required to build a successful artificial intelligence system. Analyze the management style and define issues that the manager may face working with an artificial intelligence system.

Methodology

This thesis will be divided into two main parts, the theoretical part and the practical part.

The theoretical part will be a thorough review of this thesis topic through analysing and providing the final results of different sources such as books, journal articles, web sources and materials which are relevant to the topic. The theoretical part will also contain the main concept's definition such as artificial intelligence (AI), machine learning (ML), management also provide an overview of the current state of challenges of artificial intelligence in the workplace.

The second part of the thesis is research based on surveys provided to employees and interviews as well. The practical part will use both qualitative and quantitative methods. Based on an appropriate interpretation of the survey, the conclusions and implications both for theory and practice will be formulated.

The proposed extent of the thesis

approx 60-80 pages

Keywords

Artificial Intelligence, RPA, automation, Finance Shared Services, management, future management, Projectc management, Performance Expectancy, UTAUT.

Recommended information sources

Akerkar R., (2019), Artificial Intelligence for Business, Springer, Switzerland, (E-book), ISBN 978-3-319-97436-1

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Declaration

I declare that I have worked on my master's thesis titled "Challenges of Artificial Intelligence with Management in Workplace (Shared Services)" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 30.11.2022   Ahmed Farah

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I want to firstly thank my supervisor Ing. Richard Selby, Ph.D., for his guidance and feedback, which were crucial for completing this thesis. Secondly, I would like to thank my family for their continuous encouragement and faith in me throughout my studies. Finally, want to thank all the respondents who were kind enough to share their time and thoughts to contribute to this study.

Challenges of Artificial Intelligence in Workplace (Shared Services) with Management.

Abstract

The purpose of this study was to determine how AI/RPA influences employees & managers performance & expectations in financial shared services and the shape of management. AI and RPA collaborate to expand automation into new different areas and applications, enabling the automation of increasingly complicated processes. Because of the vast amount of typical activities that accountants conduct every day, finance shared services are one of the most impacted by automation. The theoretical part is focusing on management, artificial intelligence & robotic process automation. The practical part consists of quantitative and qualitative research . An attempt was made to apply the UTAUT model's structure, which aids in the identification of influencing elements for technology adoption. One element which is predicted performance was examined in this context. Also the author was trying to predict how this can affect the management. The study's findings revealed that predicted performance has a major impact on employees' willingness to work with AI / RPA technologies and that applying AI/RPA will affect the shape of management, specifically the low and middle level management. Concerning the subject of employment, employees' anxieties of losing their jobs were highlighted. This study revealed that AI/RPA is not yet replacing financial employees and low & middle management totally, but rather inviting them to connect with AI/RPA systems in order to perform more efficiently and to be ready for the change.

Challenges of Artificial Intelligence in Workplace (Shared Services) with Management.

Abstrakt

Účelem této diplomové práce bylo zjistit, jak umělá inteligence (AI) a automatizace robotických procesů (RPA) ovlivňuje výkon a očekávání zaměstnanců a manažerů ve finančních sdílených službách, a podobu managementu. AI a RPA spolupracují na rozšíření automatizace do různých nových oblastí a aplikací, což umožňuje automatizaci stále komplikovanějších procesů. Vzhledem k obrovskému množství typických rutinních činností, které účetní provádějí každý den, jsou finanční sdílené služby ovlivněny automatizací jako jedny z nejvíce. Teoretická část této práce je zaměřena na management, umělou inteligenci a automatizaci robotických procesů. Praktickou část tvoří kvantitativní a kvalitativní výzkum. Byl učiněn pokus aplikovat strukturu modelu UTAUT, který pomáhá při identifikaci ovlivňujících prvků pro přijetí technologie. V této souvislosti byl zkoumán jeden prvek: předpokládaný výkon. Autor studie se také snažil předpovědět, jak to může ovlivnit management. Závěry studie odhalily, že předpokládaný výkon má zásadní vliv na ochotu zaměstnanců pracovat s technologiemi AI/RPA a že zavedení AI/RPA ovlivní podobu managementu, konkrétně nižší a management střední úrovně. V oblasti zaměstnanosti byly zdůrazněny obavy zaměstnanců ze ztráty zaměstnání. Tato studie odhalila, že AI/RPA ještě úplně nenahrazuje zaměstnance a nižší a střední management ve finanční sféře, ale spíše je zve k propojení se systémy AI/RPA, aby fungovali efektivněji a byli připraveni na změnu.

Klíčová slova: umělá inteligence (AI), automatizace robotických procesů (RPA), finanční sdílené služby (Finance Shared Services), nižší management, střední management, budoucí management, účetní, předpokládaný výkon, UTAUT.

Table of Contents

1. Introduction

The workforce structure of post-industrial societies is being drastically transformed by automation, digitization, and, more recently, artificial intelligence (AI). The use of computers, robots, or the internet influences how employees carry out their duties, determines which skills are in demand, and gives rise to new job titles. This significant transformation is causing frequent worries about the ability of labor markets to generate enough work opportunities and about employees' capacity to gain the skills necessary to succeed in the future workplace. (Gallego, A. and Kurer, T., 2022).

According to the McKinsey global survey "The state of AI in 2020" 50% of respondents said that "their organizations had embraced AI in at least one business function." It is anticipated that these percentages will continue to rise in the upcoming years, doubling the revenues produced by AI. (McKinsey, 2020)

Companies are going to continue implementing AI in business. However, despite its huge potential, AI also creates development and implementation challenges. Varying from Determining the right data set, to The bias problem ,Data security and storage, AI integration, Explainability, Compatibility and giving proper trainings to the employees with either the needed skills or the new system.

Continuously, technological change causes both hope and anxiousness. Some people are concerned that the adoption of new technologies could result in massive worker displacement, a rise in inequality, and subsequently political upheavals. However, a lot of authors, including the majority of economist historians point out that over the past three centuries, technology has been the primary force behind economic growth. Since the 1970s, a number of computer-based technologies have developed and been adopted, lately robotics and artificial intelligence have reawakened this age-old argument. Revolutionary technologies according to modern theoretical economic models, can both complement and substitute workforce. The distributive implications of technological change are heavily

influenced by whether a specific technology mainly replacements or enhances labor, as well as which workers are affected by each effect. (Gallego, A. and Kurer, T., 2022).

The author is interested in presenting the advantages and challenges of AI and RPA and automation of the processes and its effect on the employees and managers inside the sgared service organization. Also, how this can affect the management and the skillset and expertise for employees and managers. The ongoing change can not be neglected due to the embracement of AI and automations.

Shared services have been the best example for examining this. It was created to provide the companies the best quality and efficiency with the lowest cost throughout standardizing the process and operations. AI and automations provide the best help with that. The technology role in shared service and the future of shared service will be discussed in this matter.

2. Objectives and Methodology

2.1 Objectives

The aim of this thesis is to identify key factors that enable effective management through applying artificial intelligence in the workplace. studying the advantages and disadvantages of using artificial intelligence (AI) systems and its effective on employees. Identify the necessary factors that are required to embrace a successful implementation and best use of artificial intelligence and automations systems. Analyze the management style and define issues that the manager may face working with an artificial intelligence system. To examine the impact of AI on entry-level and mid-level employees and the managers of finance shared services. To evaluate the proposed ideas, formulate recommendations and make conclusions.

2.2 Methodology

This thesis will be divided into two main parts, the theoretical part and the practical part. The theoretical part will be a thorough review of this thesis topic through analyzing and providing the final results of different sources such as books, journal articles, web sources and materials which are relevant to the topic. The theoretical part will also contain the main concept's definition such as artificial intelligence (AI), machine learning (ML), Robotic process automation (RPA), and Shared service centers (SSC). Also provide an overview of the current state of challenges of artificial intelligence in the workplace. The second part of the thesis is research based on surveys provided to employees and managers, and interviews as well. The practical part will use both qualitative and quantitative methods. Based on an interpretation of the survey through a selected theory the conclusions and implications both for theory and practice will be formulated.

3. Literature Review

3.1 Artificial Intelligence

Technological innovations have been the primary drivers of economic growth for more than 250 years. The most essential are what economists refer to as general-purpose technologies, which include steam engines, electricity, and internal combustion engines. Each one sparked a cascade of related inventions and possibilities. Cars, trucks, aircraft, chainsaws, and lawnmowers for example were all made possible by the internal combustion engine. Walmart, UPS, and Uber, for example, have all discovered ways to use technology to establish viable new business models. (Brynjolfsson E. and McAfee A. 2017)

Artificial intelligence, particularly machine learning (ML), is the most important general-purpose technology of our time. This is the machine's ability to continuously improve its performance without humans having to explain exactly how to complete all of the tasks assigned to it. Machine learning has become far more effective and widely available in the last few years. We can now create systems that can learn to perform tasks on their own. The term artificial intelligence was coined in 1955 by John McCarthy. (Brynjolfsson E. and McAfee A. 2017)

John McCarthy, a pioneering American computer scientist and inventor, earned the title "father of artificial intelligence" after making significant contributions to the definition of the discipline concerned with the creation of intelligent computers. The phrase was created by the cognitive scientist in his 1955 proposal for the 1956 Dartmouth Conference, the first gathering on artificial intelligence. The goal was to investigate how to create a machine that could think abstractly, solve problems, and grow intellectually just like a human. "Every facet of learning or any other feature of intelligence can, in principle, be so clearly characterized that a machine can be constructed to replicate it," he thought. (Childs M, 2011)

In the business world, AI is poised to have a transformational impact, it is already in use in thousands of businesses around the world, the majority of the big opportunities have yet to be realized. As manufacturing, retailing, transportation, finance, health care, law, advertising, insurance, entertainment, education, and virtually every other industry transform their core processes and business models to take advantage of machine learning, the effects of AI will be enhanced in the coming decade. Management, implementation, and business imagination are currently the bottlenecks. (Brynjolfsson E. and McAfee A. 2017)

Main AI Approaches:

As a broad field, AI encompasses a wide range of approaches, from top-down knowledge representation to bottom-up machine learning. AI, machine learning, and deep learning are three related concepts that have become popular in recent years. AI is the most general concept, machine learning is a subfield of AI, and deep learning is a subfield of machine learning. The following figure depicts the relationships between these three concepts. While there are many approaches to AI, its recent popularity is largely due to the outstanding performance of machine learning, particularly deep learning. (Hu, Y. et al., 2019)

Figure 1. Relations among AI, machine learning, and deep learning
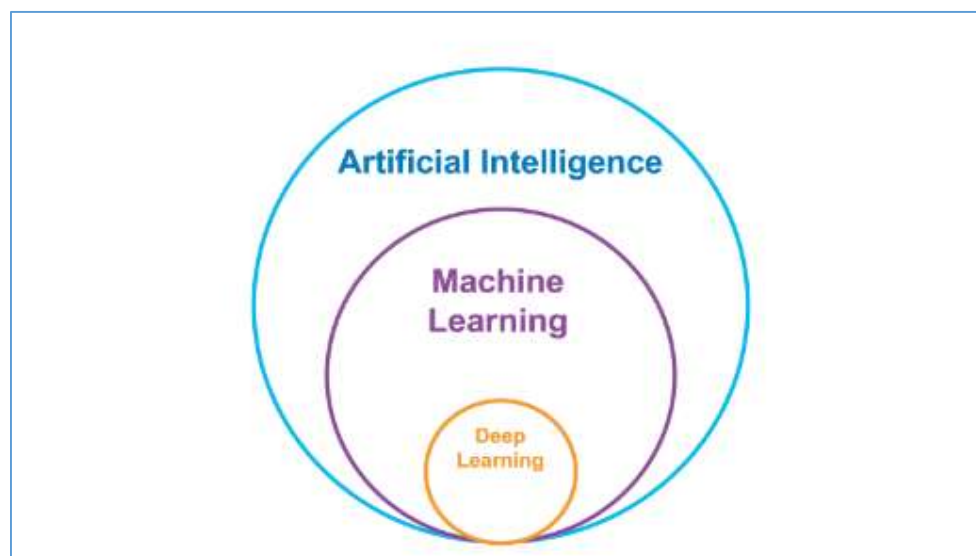
Source: (Hu, Y. et al., 2019).

Artificial Intelligence: The study and design of machines or computational methods that can performtasks that normally require human intelligence. , ML systems are often excellent learners. They can achieve superhuman performance in a wide range of activities, including detecting fraud and diagnosing disease. Excellent digital learners are being deployed across the economy, and their impact will be profound.
(Brynjolfsson E. and McAfee A. 2017)

Machine Learning: A sub field in AI that relies on statistical methods or numerical optimizationtechniques to derive models from data without explicitly programming every model parameter orcomputing step. Machine learning is classified into three types: supervised learning, unsupervised learning, and reinforcement learning. Unsupervised learning examines unlabeled data to discover patterns, whereas supervised learning requires labeled data to train a computational model. Reinforcement learning does not require labeled data, but it does require action-based feedback, such as rewards or punishments, to assist a computational model in learning. Machine learning tasks can be classified in a variety of ways. We can identify tasks such as classification, clustering, and prediction. (Hu, Y. et al., 2019)

Deep Learning: a specific field of machine learning that is concerned with creating and applying deep neural networks (DNN) for machine learning problems. A particular kind of artificial neural network known as a DNN contains numerous levels between the input and output layers. These layers are also known as hidden layers. The neurons that make up each layer accept the input from the layer below and provide a non-linear output for the one above it. These processing units are referred to as layers. Due to the availability of large labeled datasets, such as ImageNet and HPC, deep learning has attracted a great deal of interest in recent years due to its exceptional results. Deep learning can be used to accomplish tasks in classification, clustering, prediction, and so forth. , just like other machine learningmodels. (Hu, Y. et al., 2019)

Artificial Intelligence in workplace

Today, AI is pretty much a part of most organizations and market sectors' operations, regardless of how small or large they are. As a result, it is reasonable to ask whether artificial intelligence will eventually take over human jobs. (Zohuri B. and Rahmani F. M., 2020)

Most analysts in the AI industry and technology believe that these developments will continue growing quickly and apply not only to repetitive tasks but also to knowledge work. According to the McKinsey Global Institute's report "Harnessing automation for a future that works" automation could replace 49% of work activity by 2055. Recent advancements in robotics, artificial intelligence, and machine learning, combined with deep learning, have us on the edge of a new era of automation. Robots and computers can not only perform a wide range of routine physical work tasks better and more cheaply than humans, but they are also increasingly capable of performing cognitive tasks that were previously thought too difficult to automate successfully, such as making tacit judgments, sensing emotion, or even driving. Automation will change the daily work activities of everyone, from miners and landscapers to commercial bankers, fashion designers, welders, and CEOs.
(Zohuri B. and Rahmani F. M., 2020)

Table 1: Advantage of AI integration

Data expertise	• Identify and maintain high quality data sources, both internally and externally • Ensure appropriate access to data sources • Enforce enterprise security standards, controlling access to data, including encryption, monitoring, back-up and recovery. • Centralize data management processes
AI technology	• Establish a consistent set of AI, Automation and D&A tools • Design hardware infrastructure, whether on premises or cloud-based • Support the ingestion and analysis of Big Data • Intentionally build scalability of computing resources into the design to enable flexibility
Business Process	• Leverage AI, automation and D&A to improve productivity and build a competitive value chain • Automate decisions that include recurring processes • View analytics as a critical input in making operational decisions • Go beyond reactive reporting towards accurate forecasting and insights
Workforce	• Ensure the right capabilities to implement the technology, leverage data, and change business processes • Implement transformed organization model through a strategic change management plan • Define standardized performance metrics • Consider implications of job changes on workforce
Risk and reparation	• Involve all stakeholders in prioritization and scoping • Ensure comprehensive evaluation and compliance with regulations • Consider the impact of scope on external reputation and perception • Embed cyber compliance and safeguards

Source: (Zohuri B. and Rahmani F. M., 2020

According to the World Economic Forum (2018), AI will create over 50 million new jobs in the next five years. Job enhancement rather than job displacement appears to be the future of automation, with AI systems taking over routine and boring tasks that human employees preferred not to do in the first place, at least in the short to medium term. Urgent challenges include providing reskilling opportunities, enabling remote work and building safety nets to protect at-risk workers and communities (Cann O, 2019)

In an AI-powered world, proper human education will be critical. First and foremost, human workers will have to accept that machines will make up a portion of their colleagues in the future. As a result, everyone should have a basic understanding of programming and learn a programming language such as Python. The goal is not to be an expert in Python programming, but to understand their AI counterparts better. Just knowing the basics of programming will allow employees to better understand their AI counterparts. To find a healthy balance between machine and human tasks. (Kaplan A. and Haenlein M., 2020)

3.1.1 The AI Potential in Management Functions

It cannot be denied that there is and will be a huge impact of AI developments on senior management and managerial decision-making. Data clustering and estimation are two recent AI advancements in automation and cognitive insights. Agrawal et al. 2018 argued that the current wave of AI may not provide much general intelligence, but it will have a stronger ability for prediction. it is true that algorithms that can make business predictions are improving because the data that feeds them is more numerous and richer than ever before, and the processing capacity to analyse and categorize that data is also increasing. (Canals, J. and Heukamp, F., 2020)

Algorithms that employ vast amounts of data may aid in identifying hidden patterns in customer behaviour, pricing, and demand elasticity. They assist grasp certain complicated challenges in today's corporate environment and give greater data-based evidence to make judgments in other critical company areas, such as global supply chain or finance. Pearl a pioneer in the development of Bayesian networks and the use of a probabilistic approach to AI (Canals, J. and Heukamp, F., 2020). He is also considered as one of the parents both of Artificial Intelligence and of the "Causal Revolution" in statistics (Powell S., 2018). He said that "AI does not have all the answers, but it does have certain tools for collecting and analysing massive quantities of data on consumer behaviour or purchasing decisions, establishing some patterns of behaviour of some factors, and finally making conclusions or making suggestions." (Pearl, 2018)

Jordi Canals and Franz Heukamp the editors of book "The future of Management in AI world: Redefining Purpose and Strategy in the Fourth Industrial Revolution" argued that AI is making inroads in various corporate operations by assisting in the improvement of decision-making quality. Following are six business functions which have been covered them:

1. *Manufacturing and operations*: AI technologies can assist manufacturing organizations in planning and making better purchasing decisions based on historical pricing, demand, quality, reliability, inventory levels, and service. They contribute to the more efficient

allocation of production capacity in various plants around the world, as well as the smooth operation of manufacturing networks. Automobile manufacturers are making better use of robots and other intelligent machines. SEAT, a Volkswagen company, employs approximately 10,000 people and already has 4000 robots in its manufacturing facility and warehouses, many of which do difficult jobs with a positive impact on productivity and human health by replacing people in strenuous physical activities. New data sets identify trends of physical asset obsolescence and recommend proactive approaches to enhance their maintenance or, eventual, their replacement. The quality of any company's distribution system can be improved by sensors and satellites, which can track the delivery of merchandise more effectively. Although these classic business responsibilities still exist, the use of algorithms and massive volumes of data has changed how much human optimization and monitoring are required. (Canals, J. and Heukamp, F., 2020)

2. *Marketing and sales*: AI solutions are being used by companies such as Inditex, Ermenegildo Zegna, and Wal Mart to improve consumer experience. Amazon is enhancing its ability to provide meaningful suggestions to online shoppers by utilizing more precise data on their activity. Google and Facebook have become the largest advertising platforms because of their ability to personalize ads to specific consumers using big data and AI. Every year, fast-moving consumer goods corporations such as Henkel, Nestlé, P&G, and Unilever introduce hundreds of new products or product variations. With AI tools, companies can now better understand why so many new product launches fail, as well as the characteristics that contribute to successful product creation across a wider range of sectors, categories, and client profiles. (Canals, J. and Heukamp, F., 2020)

3. *Finance and investment decisions*: Because of the larger and more diversified data that are being used in assessing complicated choices, financial officers may go through investment decisions with considerably better estimations of their IRR (Internal Rate of Return) or NPV (Net Present Value). They can also produce more accurate forecasts of the firm's future profitability and financial structure by using better data and fine-tuning it based on various scenarios. Fund managers are utilizing AI techniques to make better portfolio management decisions based on more detailed information about past prices,

yields, company performance, interest rates, and the economic cycle. (Canals, J. and Heukamp, F., 2020)

4. *Human resources*: Once regarded one of the less technologically sophisticated business functions in many firms, it has become a hot sector in terms of AI tool applications. HR departments used to have several issues, which AI solutions may assist in resolving. We will just spotlight two of them. **The first is** CV screening and the recruiting process, which is especially important when organizations have hundreds or thousands of applications to pick from. AI technologies are assisting in the screening of candidates and matching their profiles with the desired skills and competencies of the company. They aid in the detection of fundamental and hidden attitudes in interviews. **The second is** to assist in the identification and selection of internal talent. Some businesses excel at this, others do not. AI technologies are assisting in tracking all of the firm's talent pool, organizing it according to particular factors, and suggesting horizontal transfers across an organization. (Canals, J. and Heukamp, F., 2020)

5. *Strategy and M&A:* AI tools are assisting investment banks and consulting firms in developing better scenarios for corporate strategies, considering various outcomes based on key external or internal factors. They can also develop faster and better company combinations through M&A, not only by analysing data faster with different scenarios, but also by including other data related to customer acquisition, synergies that can be achieved, or product portfolio enhancement. (Canals, J. and Heukamp, F., 2020)

6. *Management, data and the adoption of AI tools:* A critical management issue is how CEOs and senior executives should approach the use of AI tools to improve decision-making. Senior managers should know and understand AI tools, including their potential, limitations, and risks, before implementing them. (Canals, J. and Heukamp, F., 2020)

The examples provided above demonstrate how AI tools are introducing new decision-making capabilities in any organization based on algorithms and the more effective use of more abundant data. They aid in decision-making by providing more data, faster processing, higher accuracy, and the ability to draw more diverse scenarios. AI's capabilities in

managerial decision-making are not only expanding, but also encompassing a broader range of activities and business functions in organizations, from purchasing and manufacturing to marketing, sales, logistics, and distribution, as well as affecting corporate functions such as HR and finance.

3.1.2   The AI and Strategic Planning

AI will play an increasingly vital role in corporate operations, such as strategic planning, M&A (mergers and acquisitions), marketing, and product design. As artificial intelligence (AI) grows more powerful and widespread across businesses and economic sectors, its use in strategic planning will become more common (Canals, J. and Heukamp, F., 2020)

According to Orsini the President of many companies as Surefix Solutions, LLC - ESCP, Wharton MBA and Wharton who is also providing consultation services to C-level management for other companies, he said back in 1986 in his book Long Range planning that "The strategic planning function is in a crisis situation". He mentioned that the most serious charges raised against planning have been predicted by strategy scholars, who have proposed precautions against these obstacles. However, these approaches do not help to protect planning from these negative attitudes. When their conclusions have been reexamined from the perspective of Artificial Intelligence, they landed on practical recommendations that can be made or followed immediately, as they can be translated into hardware and software systems to support the strategic planning function, and following that the idea of a basic software program on Organizational Artificial Intelligence (OAI) has been provided. (Orsini, J. F., 1986)

Orsini described strategic planning as a function of organizational management that establishes priorities, concentrates resources, boosts operations, and evaluates and modifies paths as necessary. Strategic planning is defined as a process in which organizational leaders determine their vision for the future as well as identify their goals and objectives for the organization. The process also includes establishing the sequence in which those goals should fall so that the organization is enabled to reach its stated vision.

According to Hofer and Schende13, at business level, strategic planning deals with all four general components of strategy: scope, resource development, competitive advantage and synergy. These four elements pervade the line manager's day-to-day activities. The planning process thus provides them with an opportunity to reflect on the efficiency of their regular tasks and to modify them into new tasks which they can redesign. (Orsini, J. F., 1986)

The strategic planning function has an inherited logic that demanded the use of a specialized tool. This tool is Artificial Intelligence which is slowly coming of age. To see the potential applications of an organizational artificial intelligence (OAI) system, a better understanding of the logic of the planning function, as well as the capabilities and characteristics of the artificial intelligence tool is required. An OAI system can be used to support the thinking and activities of individual managers and employees, as well as to provide a useful representation of a corporate plan for ongoing evaluation and execution by the CEO. (Orsini, J. F., 1986).

A general framework for the development of an Artificial Intelligence support system to aid planning is already in the works. When each senior manager in the organization has developed his or her own value system using individual terminals connected to a network, the organization's overall value system is defined as an aggregate of the individual value systems. It is the CEO's responsibility to determine how much weight each individual system can contribute to the organizational value system, based on managerial responsibility, managerial function, or business unit type. (Orsini, J. F., 1986).

The anti-planning prejudice is successfully addressed by recognizing the psychological, behavioural, and ethical components of the planning function, . It is vital to incorporate a "human resources development" strategy into the process of strategic planning in order to address this reluctance to change. Individuals will be more likely to accept changes themselves, especially when they can see where the changes will lead them in the overall corporate environment and in the wider context of society. (Orsini, J. F., 1986).

Like any other crucial management task, planning involves both art and science. Both analysis and intuition are needed. Balance has never been simple. Statistical analysis and

management science are wonderful instruments for organizing activities. it's also one of the few and most crucial organizational functions in which management sociology and psychology can coexist. Its comprehensive approach has the best chance of offering practical solutions to persistent organizational issues. Strategic Planning needs artificial intelligence as a tool to meet its objectives. (Orsini, J. F., 1986).

3.2 Management

3.2.1 Types of organizational structures

An organization is a social unit of people that is used as a tool to combine diverse aspects of complicated activity into an efficient connection in order to acquire items that people desire or value in order to accomplish what they set out to do. An army, a police agency, or a bank are all examples of organizations. An organization is a reaction to and a way of providing fulfillment or pleasure in response to some human need (Jones, G. R., 2013).

Organizations exist to successfully complete what they plan to do with their resources by establishing a mission statement in which they identify the resources to generate distinctive goods or services for their consumers, distinguishing them in order to obtain a competitive edge. All companies, in order to fulfill their objective efficiently, must have a management structure that connects their numerous operations and personnel, as well as divides and assigns roles, duties, and authority in order to complete various tasks.The management process consists of five major activities: planning, organizing, leading, coordinating, and controlling. This is where all managers, regardless of aptitude or expertise, commit to interdependent functions in order to achieve business goals (McLean, J., 2011).

Five functions of management (Fayol)
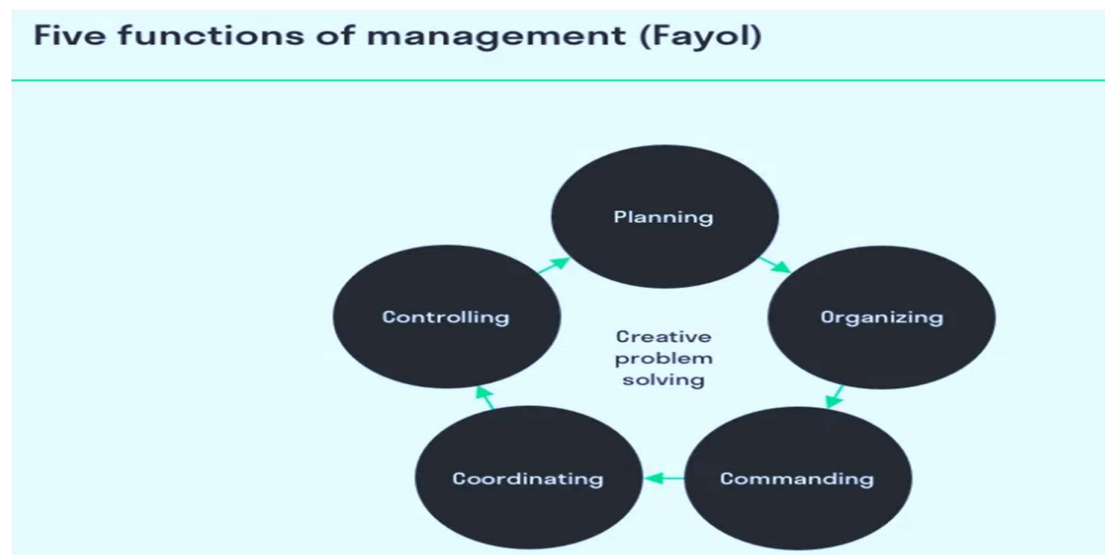
Furthermore, an organizational structure is required to outline how these operations are managed in order to achieve corporate objectives. It also illustrates how information and

authority transfer across tiers within a company. In a centralized structure, for example, all decisions are made by managers at the top of the hierarchy, but in a decentralized structure, decision-making authority is dispersed among managers at all levels of the hierarchy. Both centralized and decentralized power have advantages and disadvantages, and managers must achieve the correct balance between the two forms. When the phrase "hierarchy" is used, it refers to how employees are categorised within a cooperative based on their responsibilities and authority (Jones, G. R., 2013).

Typically, the hierarchy is shaped like a pyramid, with employees having the most authority at the top and those with the least authority at the bottom (Jones, G. R., 2013).

Classical types of organizational structures:

- ***Functional structure***: Places employees together in teams according to their skills and knowledge on a specific set of roles or tasks. A manager may monitor various divisions.

- ***Divisional structure***: Places all divisions function selfsufficiently, managing its own tasks and stream of revenue to make specific products. The structure has three forms, Product, Geographic- and Market structure

- ***Matrix structure***: Places employees and resources in groups (functions) by work, assignment or product. Allows for temporary project structure without disassembling the functional structure which results in employees having two

- ***Flatarchy structure***: Combination of a functional-, and flat structure that flattens out levels within the hierarchy (Jones, G. R., 2013).

3.2.2   Management and managers' role in organizations

However, in order to efficiently accomplish the five core activities of management as mentioned above according to Fayol, businesses split their managers into different levels

with varying degrees of power, abilities, and responsibility. (Jones, G. R., 2013). First, they are ranked by hierarchy, with each level having a distinct level of authority, with low-level managers reporting to middle-level managers and middle-level managers reporting to top-level managers. Then, based on their specialized abilities or expertise, individuals are assigned to roles or departments (Richardson, B. 2021).

A function simplifies a team of managers and workers that work together because they have equivalent abilities, knowledge, and competence to perform out their duties. Accounting, human resources, finance, sales, and manufacturing divisions are just a few examples. It is vital to notice that all three levels of management have a role in each department (Richardson, B. 2021).

Figure 2: Management hierarchy in organizations

Source: (Coursehero, 2022)

C-suite executives, also known as **top managers**, are members of the top management group, which includes CEOs and CFOs. (Kolbjørnsrud, V., Amico, R. and Thomas, R. J., 2015). They are in charge of maximizing an organization's profit by investing shareholder funds in appropriate resources. They set organizational goals, decide how functions should collaborate, and supervise the work of middle managers.
(Pratt, M. K. 2021).

Middle-level manager who work at the intermediate level of the hierarchy, such as project managers, store or office managers, shift supervisors, or departmental managers. Their role is to complete projects with the help of their assistants, coordinate projects among employees, plan for future projects, have influence outside and inside the organization, and alter team objectives to meet bigger corporate goals (Richardson, B. 2021).

Finally, **front-line** or **low-level managers** are those who are at the bottom of the organizational hierarchy and are sometimes referred to as supervisors. They collaborate in all aspects of an organization's operations by supervising non-managerial employees who undertake duties necessary for the production of goods and services. Managers of minor projects, store or office managers, shift supervisors, and departmental managers are examples of low-level managers (Richardson, B. 2021).

The impact of AI on Low & Middle managers:

The Accenture Institute for High Performance (AIHP) and Accenture Strategy conducted a survey on the impact of AI (specifically cognitive computing) on management, in which 1770 managers from the low-, middle-, and upper-levels from 14 different countries have participated, and they came to conclude that AI computer systems were most likely to take over manager tasks such as coordinating, controlling, collaborating, and problem-solving. Managers will instead devote more time on innovation, strategy development, and the human aspect inside the firm (Kolbjørnsrud, V., Amico, R. and Thomas, R. J., 2015).

What managers can do inside the organizations

First, managers must recognize that many employees will be fearful of being replaced by AI, regardless of whether this fear is justified or not. This demands strong skills in open dialogue, conflict resolution, and, in general, a human, ethical, open, and transparent leadership style. (Kaplan A. & Haenlein M., 2019)

Second, managers must identify their human employees' skills and find a place for them in an ecosystem where humans and machines will work side by side. This will include a greater emphasis on emotional or feeling tasks for humans, where they have a natural advantage over machines (Kaplan A. & Haenlein M., 2019).

Third, all of this must be done from the bottom up rather than the top down. Employee participation in the development and implementation of AI systems improves their success. In short, managers will need to be compassionate mentors as well as data-driven decision makers (Kaplan A. & Haenlein M., 2019).

3.2.3   AI in project Management

AI is more likely to possess a big impact on project management concepts within the future days. Project management refers to the processes established to arrange and manage resources required to finish a project within defined scope, quality, time, and price constraints. (Saviom, 2022).

There are five different steps in project management:
- Initiation.
- Planning.
- Execution.
- Monitoring and Control.
- Closing.

(Saviom, 2022).

Artificial intelligence's data-interpretation capacity can give real-time insights on project parameters. It can help project managers make data-driven decisions supported previous experience. Cap Gemini, for instance, leverages IBM Watson's cognitive computing technology to extend resource deployment in projects through effective resource planning.

(Steen, J. et al, 2019)

Project planning is a crucial aspect of project management. It outlines the scope of the project and defines the objectives for achieving it. A project plan specifies how the project are going to be administered, monitored, managed, and completed. Every project restriction, like prices, risks, resources, and deadlines, must be included within the plan. AI-powered technologies aid project managers with many duties throughout the project planning process. It also allows project managers to guage complicated project data and identify patterns which will impact project delivery. AI also automates the bulk of duplicate work, increasing employee engagement and productivity. (Steen, J. et al, 2019)

By incorporating applied intelligence into performance monitoring systems, project managers can rotate troubled projects. this way , you'll monitor progress and be alerted to any dangers which may jeopardize project completion. and there is more. you'll be ready to rule out ventures which will not end in a profit. (Steen, J. et al, 2019)

The areas where AI provides conflict-resolution are:

1. **Automated Risk Estimation**

Every undertaking has some level of risk. In project management, AI can reliably forecast the quantity of faults or quality in general. Using AI models at various phases of a project can assist detect and inform teams if a procedure is dangerous. (Saviom, 2022).

For example, AI may monitor real progress and compare it to the anticipated timeline. AI can:

- Alert possible delays based on this data.
- Highlight the underperformance based on KPIs.
- Suggestions for getting the project back on track
  (Saviom, 2022).

You may extract parametric information as needed using machine learning. For example, you may utilize historical data such as scheduled start and finish dates to forecast realistic deadlines for future projects. To accommodate for delays within reason, the system can add

an upper and lower bound to these dates. A successful delivery is guaranteed if the system expresses high confidence in a certain project. (Steen, J. et al, 2019)

2. Adaptive Resource Management

To keep your projects on schedule, make sure the correct people are working on them. AI digs into the history of previous projects to provide you with real-time information on resource engagement. The manager, for example, can form the project team and give roles and tasks to individual team members. AI technologies also guarantee that project managers handle the project efficiently and on time. (Saviom, 2022).

AI enables your employees to remotely access real-world training material, allowing them to swiftly improve their skills and knowledge. You'd know if your resources are ready to deploy based on this. If there is a discrepancy between the hours required and the predicted availability, you may add more help or remove people from the project. This shortens the time it takes to integrate them into new initiatives. As a consequence, project delivery is accelerated, and your clients have greater clarity on project deployments. (Steen, J. et al, 2019)

3. Predictive Analytics

Predictive analytics is a technique for forecasting future occurrences. Based on past data and analytics approaches such as statistical modelling and machine learning, it can offer future insights. Companies can anticipate trends and behaviours using historical and present data. (Saviom, 2022)

Project managers can more correctly estimate the work and resources required to accomplish a project. The exception handling function of predictive analytical tools alerts you to an excess or shortage of appropriate resources. The goal of predictive forecasting is to systematically identify and mitigate risks before they derail the project. It assists you in creating the best project schedule possible. (Steen, J. et al, 2019)

Here is a list of all the advantages that predictive analytics provide to project managers:

- Gain an understanding of the project's risks and fill any gaps that have been found.
- Prioritize essential steps to improve project outcomes.
- Get the most out of your projects as soon as possible.
- Reduce financial losses by enhancing project management.
- Increase efficiency by removing unneeded project attributes.

These are many instances of how AI technologies are being used to solve specific business demands. Many more instances will emerge as more firms employ AI technology to deliver business value, and the business processes that benefit will continue to grow.
(Steen, J. et al, 2019)

3.3 Global Financial Shared Services Centers (GFSS)

It's hardly to say nowadays that there is a business does not make use of shared services in some kind. This is also due to the fact that the term "shared services" which was defined by Greg Hackett's is now being used to refer to everything from small amounts of centralized work to big multifunctional offshore service centers. A new method of organizing back-office functions is being implemented across the globe with the finance leading the way. This shared services finance revolution has taken over as the most discussed topic in finance in the last ten years, and it will be with us for some time to come. (Bangemann, 2016)

Early in the 1990s, large corporations tried to combine fundamental transactional processes like payroll, purchasing, and payable accounts and then sell these services back to other business units at a profit. As a result, shared services were introduced to the corporate sector. Maintaining the same accounting structure across all countries of operation is getting harder as businesses expand across borders. Many public sector organizations have also acknowledged the advantages of implementing a shared service approach.

(Sapry, H. et al. 2020)

Economic globalisation has fuelled firm development and diversification, resulting in a greater demand for financial operation models and operational efficiency. Financial shared service centres (FSSC) have been shown to be an excellent option for improving the standardization of financial accounting and operations, as well as promoting the integration of business and finance. **Today**, more than 90 percent of the most Fortune Global 500 businesses use financial shared service and outsourcing, and more than 500 FSSCs are operational in China. The breadth and depth of shared services and outsourcing are expanding. (Kong, et al., 2021)

There are multiple definitions for shared services. One of the popular definitions accrued from *Schulmann*. He believed that shared service was a concentration of company resources used to provide services to internal clients at a lower cost and with a high level of service. There are more shared service organization types, however they operate mostly in shared service centers, which are organizational units with the goal of re-managing specific services offered for a large number of organizational units in a particular service center. (Marciniak, 2013)

Globalisation, mergers, acquisitions, and consolidation characterize the market in which multinational corporations operate, necessitating standardisation of procedures for companies to remain competitive. Moving key tasks to a centralized location is an excellent strategy to save expenses and improve efficiency. Companies might solve this difficulty by establishing shared service centers. Another advantage of these organizational solutions is collaboration between service centers and customers which has a big impact on the entire company. It establishes a management framework that contributes to the better operation of the company by increasing organizational transparency, setting clear goals and objectives, and measuring performance. (Marciniak, 2013)

3.3.1   Factor influencing organization's readiness in implementing SSC

There are several factors that must be taken into consideration before starting implementing SSC which are significantly affecting the implementation process and assess its readiness. Sapry, H. et al. 2020 conducted research which aimed to analyze the readiness, risk, challenges and evaluate the influence factor of SMEs in implementing SSC in their organization. In his research Five SMEs have been selected and interviewed based on the saturated principle in the data collection process. The author of this thesis is interested in presenting the top 5 most important factors among the 8 factors mentioned in Sapry, H. research that can affect organization's readiness in implementing SSC which are also in a strong relation to the thesis topic. The Five factors are as follows:

1. ***Strong Change Management***. The implementation process must take specific structural changes into account. Many researchers had recommended that the organization planning to implement SSC should have started by handling the change management process. This aims to ensure that the SSC can establish a structured approach for transforming the organization into the desired future state from its current state, with change management planning being the most important component.

2. ***Senior Management Commitment.*** Given the enormous experience of senior managers, they must provide awareness, information, consultation, leadership, supervision, coaching, and support all of which are crucial for better implementation. Having more commitment from the organization's senior members is in fact a determinant of success in putting new ideas into practice. Leaders need to have both tact and credibility. Moreover, Senior support also guarantees the availability of resources, both financial and human, to support a project.

3. ***Staff Attitude.*** Other challenges include resistance as a result of ignoring non-critical resources affected by the organizational transition. This is most common in the public sector, where end-users are frequently overlooked because managers tend to prioritize those who contribute more to the organization over those who contribute less. Listening to voice customers appears to have become less important to them.

4. ***Organizational Culture.*** According to Shahidi, Abdolvand, and Harandi (2015), organizational culture is the key factor in determining whether a company is ready to implement new services or anything else related to them. A successful implementation is determined by organizational factors, including business culture.

5. ***Inadequate data acquisition systems.*** The majority of businesses use scanning systems to gather information, which takes a lot of time and staff resources to be performed as needed. Incoming invoices are the most often manually scanned, and it takes a long time for the scanner to learn the various providers' different models. The data can only be retrieved at the header level and not at the line level due to the time-consuming task. By doing this, the company is throwing away crucial data that could be used, for instance, in cost analysis, to more accurately evaluate and support decisions.
(Sapry, H. et al. 2020)

There are a lot of **drivers for the establishment of shared services** but the most important are the followings:
- improved services.
- reduced costs.
- standardized services and processes.
- diminished administration costs.
- supporting corporate strategy.
- grouping similar tasks and demolishing redundant processes.
- favouring progress.
- facilitating introduction of new technologies.
- improving working capital.
  (Marciniak, 2013)

3.3.2   The Financial Superhero

All of these developments, whatever their causes or consequences, have one thing in common which is the chief financial officer (CFO) or finance head of a company who must

consider them and find answers and tools to react and act. In addition to all of the external pressures, CFOs must deal with internal dissatisfaction with the finance function. Several studies have shown that both employees within the finance function and other partnering functions, as well as internal customers, have a low opinion of the average finance function in terms of availability of appropriate skills within the finance, optimal organization, standardization and integration of systems, Flexibility and accessibility of decision-making data, the appropriate balance of routine and value-added work and the availability of appropriate key performance indicators (KPIs). (Bangemann, 2016)

The most prevailing issue that CFOs and Finance directors have to come across are:

- How can excellent financial services be provided at a significantly lower cost?
- How do you become a valuable business partner to other company functions?
- How can a company become a desirable place to work while also attracting external finance talents?
- How shareholder value can be increased?

The sensible and simplest approach is to establish a finance organization that adds more value to the organization at a lower cost. Because of the limited resources available in any organization, the primary focus is on rebalancing the work. Increasing business planning and risk management demands must be met. The risk of failing to respond to such requirements is significant and cannot be ignored. The only area where resources can be freed up for this purpose is in transactional finance, which includes transaction processing and reporting. The time spent on transactional activities rather than strategic and more value-added activities must be reversed and returned to stable ground. (Bangemann, 2016)

Figure 3: Spent Time Reallocation - Financial Superhero
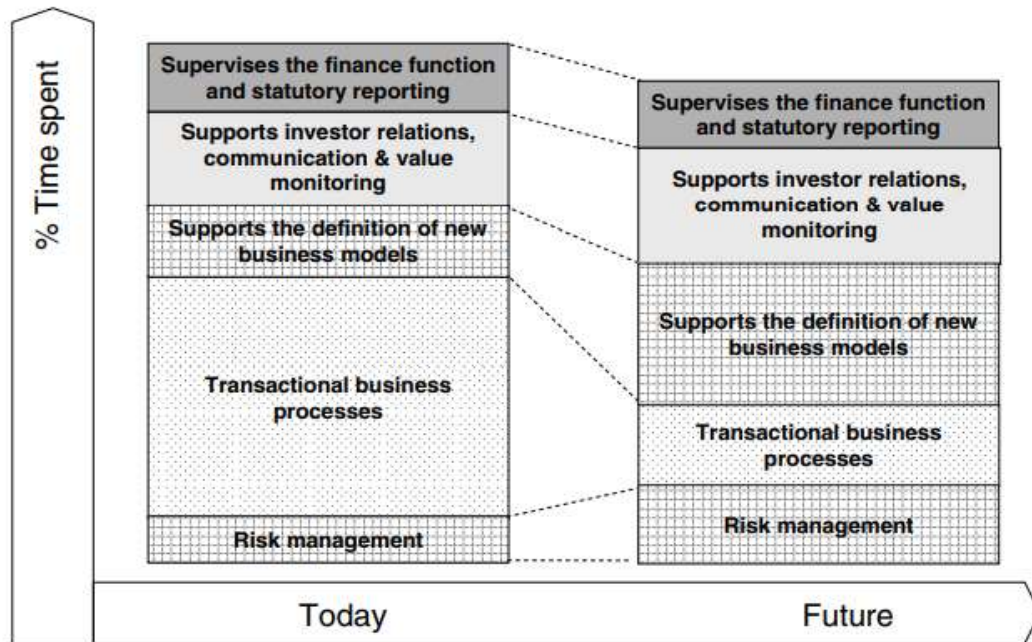
Source: (Bangemann, 2016)

The delivery of shared services is changing. In the recent year, there have been two drivers in this service market: a shift toward greater value-added services and vertical specification. Previously, the major goal of constructing a shared service center was cost-cutting, but its judgment has been drastically altered. They are regarded as a strategic business unit with the goal of achieving service and operational excellence. Simultaneously, the functioning area of service centers was expanded. They now incorporate more complicated and higher knowledge-demand procedures that are more closely related to the company's typical business operations. (Marciniak, 2013)

3.3.3   The Technology role in Shared Services

The focus of shared services over the past few decades has been on carrying out transactional tasks, promoting efficiency, and creating economies of scale. Advanced technologies like RPA and AI are major efficiency boosters in order to perform repetitive, rule-based tasks

with greater accuracy, compliance, and efficiency at a significantly lower cost level and without the risk of losing expertise in the event of personnel changes. (PWC, 2019)

The very next IT trend is automation, which is supported by IT software. It is extremely important in a shared service organization where many transactional services are managed. It serves a purpose. Companies cannot save money by outsourcing or re-centralizing services without having an automated platform that enhances services. Service automation systems have the potential to reduce service costs by up to 30%, which could affect approximately 10% of the company's profit. (Marciniak, 2013)

3.3.4   The future of Shared Services

Technological tools must replace transactional process expertise as the key competencies in shared service organizations. Due to the complete automation of administrative and rule-based processes, many roles will become unnecessary. For instance, accounts payable clerks will continue to become unnecessary as RPA developers program robots to take over the process. (PWC, 2019)

In general, future SSCs will need knowledge and experience in the following two key areas:

1. Advanced technical knowledge and experience like RPA, AI, and cloud-based solutions that enable fully automated and extremely effective tasks. The core for continuous improvement and efficiency is set by these technological advances.

2. Strong analytical abilities to improve decision-making and the customer experience. By analysing vast amounts of data produced by cutting-edge technologies with an emphasis on customer-centric services and practical business insights, extra added value can be created. (PWC, 2019)

Figure 4: Emerging technologies & Future jobs
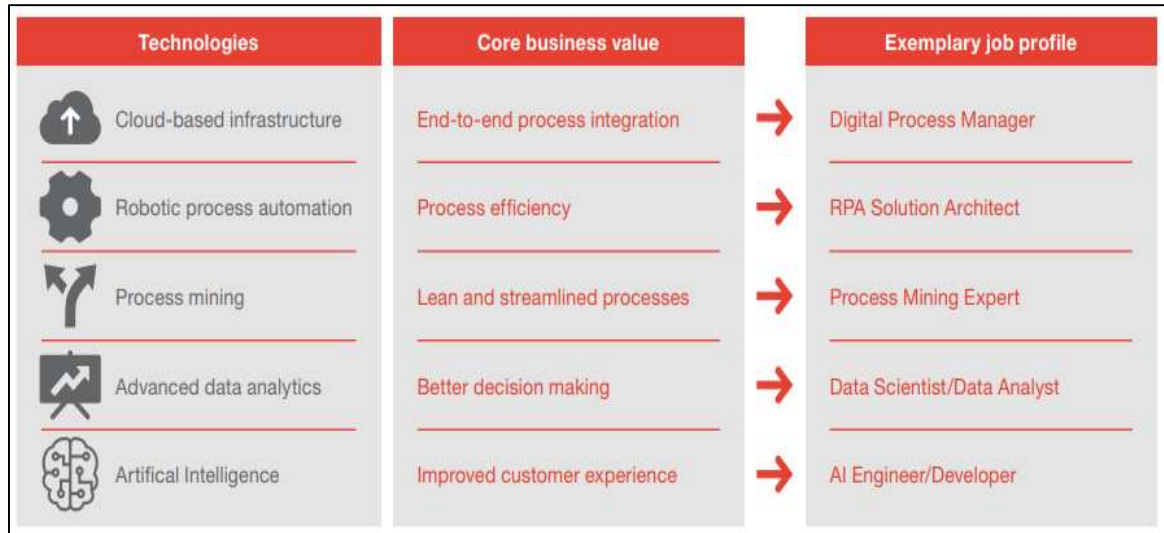
Source: (PWC, 2019)

3.4 Robotic Process Automation

The Institute of Electrical and Electronics Engineers- **IEEE** Standards Association defines RPA as ''*A preconfigured software instance that uses business rules and predefined activity choreography to complete the autonomous execution of a combination of processes, activities, transactions, and tasks in one or more unrelated software systems to deliver a result or service with human exception management*'' (Moron, J. P. and Salas, L. M., 2021)

RPA is a technological application that automates business processes through the use of constructed inputs and business logic. A business can set up software, or a robot to acquire and analyse applications for handling transactions, manipulating data, generating responses, and interacting with other digital systems using RPA tools. RPA scenarios differ from the straightforward creation of an automated email response to the deployment of hundreds and hundreds of bots, each of which is programmed to automate tasks in an Enterprise resource planning (ERP) system. (Itelligencesys, 2014).

Companies can build robots through RPA, which will eventually contribute to the automation of a wide range of back office and front office tasks, connecting the organization and shifting employees to high-value-added tasks. (Anagnoste, S., 2017)

Among the most common bot actions are:

- Monitoring an activity (for example, emails received, or documents saved in a specific folder).

- Reading and extracting data from files (for example, PDF files from email), performing checkpoints against a specified set of requirements (e.g., VAT, type of service, type of Purchase Order (PO), etc.)

- Secure way to log into one or more programs (e.g., Customer Relationship Management system (CRM), Enterprise Resource Planning Systems (ERP), etc.) (Anagnoste, S., 2017)

One of the major benefits that characterize RPA solution is that it can be educated by enterprise users in a matter of seconds or minutes without the need for the involvement of external consultants, which would incur significant costs. Because the RPA solution does not necessitate a technical background for those trying to construct the process, companies can distribute people from various departments when establishing a Center of Excellence (Coe). Once the CoE is established, the supervision of all robots and future projects or changes that existing robots required can be addressed using a Lean methodology, ensuring that the company's performance is not disrupted. The below figure illustrates the main characteristics of the technology of RPA:

Figure 5: Main characteristics of the technology of RPA

1. Trained by the users
2. Working with the client's user interface
3. Undertake structured, repeatable, computer based tasks
4. Works flawlessly with multiple systems
5. Works with different electronic formats (e.g. PFD, MS Excel etc)
6. Performs cheks and takes in consideration validations points according to a predefined set ot rules
7. Identifies easily exceptions (either against a database, either based on a specific condition inserted in the code)
8. Works 24/7 and during the holidays and weekends
9. Logs are stored inside the program, but can be configured to be sent by email at a specific point, date or frequency
10. Provides a case for introduction of analytics

Source: (Anagnoste, S., 2017)

The following were the primary categories of automation processes recognized:

1. Specific Processes: Simple and redundant processes which are part of a broader function within the company. e.g., Inventory management, receipt and processing of invoices within accounts payable (AP) and accounts receivable (AR), reports, and marketing campaigns, for example.

2. Multifunctional Processes: Processes carried out by different departments within the company. For example, bank reconciliations and payroll.

3. End-to-end processes: These are comprehensive processes that involve many different tasks. Payment to suppliers, purchase orders, import and export, and international cargo transportation. (Moron, J. P. and Salas, L. M., 2021)

3.4.1 Top Leading RPA system

There is currently no specific RPA vendor service provider who is an expert in every area. Each vendor has advantages and disadvantages. (Anagnoste, S., 2017) The table in below shows the key characteristics of the top leading providers of RPA service, along with strengths and weaknesses for each of them.

Figure 6: Comparison of top Leading RPA system

Vendor	Ui Path	Blue Prism	Power Automate	NICE	Automation Anywhere
Focus	RPA	RPA	RPA	RPA	RDA
Ease of Customization/ Integration	Moderate	Simple	Difficult	Difficult	Requires third-party for customization
Required IT Involvement	Some	Minimal	Some	Heavy	Heavy
Security	Average	Built-in	Average	Average	Recommended security add-ons
Productivity	Innovative productivity tools including task capture for documentation	Object-oriented. One server runs many bots	Desktop automations for Windows users and compatibility with Microsoft Azure apps; limited elsewhere	Effective automation tools for improving customer service and customer centers. Limited capabilities elsewhere.	Script oriented, desktop automation only. Reduced client productivity
Scalability	Moderate	Moderate	Limited	Robust	Limited
Minimum Entry Cost	$9,000	$14,950	Free with Windows. Price/per bot model for full version	Subscription-based, one-time-purchase, or use-case/transaction-based pricing models.	$995.00/one-time/user
Features					
Analytics	✓	✓	✓	✓	✓
Attended Automation	✓	✓	✓	✓	✓
Code Free Development	✓	✓	✓	✗	✗
Image Recognition	✓	✓	✗	✗	✗
Optical Character Recognition (OCR)	✓	✓	✗	✓	✗
Process Builder	✓	✓	✓	✓	✗
Unattended Automation	✓	✓	✓	✓	✗
Highly detailed immutable execution and change logs	✓	✓	N/A	✗	✗
Single SKU (one product to purchase)	✗	✓	✗	N/A	✗
Free comprehensive on-line training	✓	✓	✓	✗	✗

Source: (keymarkinc, 2022)

3.4.2 Challenges of Implementing Robotic Process Automation

Despite the fact that RPA helps eliminate human interference and offers a number of potential advantages. still there are some Challenges are being face after the implementation of RPA in the Global Business Service (GBS) organizations. There main challenges have been recognized which are the type of task that can be automated, system failure, and safety and data privacy. (Aman, A. and Fernandez, D., 2021)

1. The type of task that can be automated

Since robots simply follow algorithms, it should not necessitate any cognitive decisions that call for human interpretation. These simple and repetitive processes are the kinds of work that can be automated. Additionally, processes must be eliminated, simplified, and standardized before starting any kind of automation.

2. System Failure

Failures in systems are common in any company adopting and implementing a new system. However, how management overcomes and responds to system failure has a significant impact on the system's success of implementation. System failures could happen due to failure in system testing, for example inability of managing large set of data. It can be driven also from the configuration stage. (Aman, A. and Fernandez, D., 2021)

3. Safety and Data Privacy

One the safety and data privacy risks that can be driven from RPA systems is the risk of data exposure in case of cyber attach. It is critical for the company to comprehend how to handle sensitive data be as it is critical and must be protected. The organization must consider what data each and every employee might or might not have access to. (Aman, A. and Fernandez, D., 2021)

Figure 7: Challenges map of Implementing Robotic Process Automation in Global Business Services
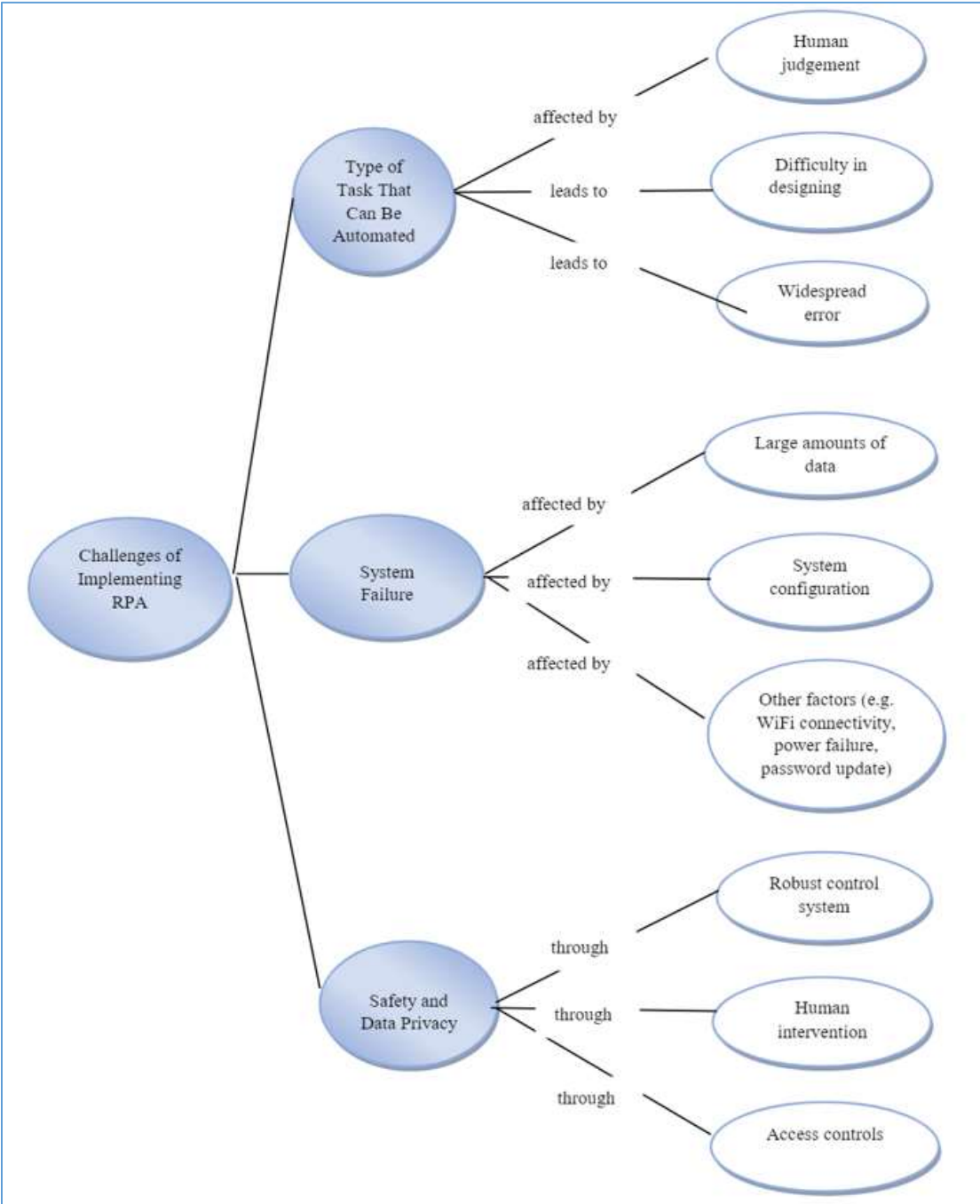
(Aman, A. and Fernandez, D., 2021)

4. Practical Part

We shall discover solutions to theoretical research issues in the practical section. We'll find out what Shared Service employees and managers think and feel when they work with artificial intelligence and RPA systems. After all, present employees in this industry may have a different understanding of what AI / RPA involves. Depending on their job experience and position within the organization, their perspectives may be similar or drastically different. This study specifically examines the link between various person attributes (such as academic degree, work experience, and job title) and their assessments of the influence of AI and RPA on their career prospects. The aim of the research was to discover answers to the following questions:

- *How do GFSS employees & managers perceive the use of AI/RPA in their workplace?*
- *What is impact of AI/RPA on the future jobs at GFSS?*

This will be done through formulating the below 4 hypotheses, and finding if they are accepted or not, a survey questionnaire as well as interview will used to collect the data. hypotheses are as follows:

• *H1: There are statistically significant differences in the level of agreement among employees regarding the impact of AI/RPA on their performance.*

• *H2: There are statistically significant differences in different groups of employees regarding fear of losing their jobs due to AI/RPA.*

•*H3: There are statistically significant differences in managers' responses regarding the change will happen in the management in future?*

•*H4: There are statistically significant differences in managers' responses regarding the skills needed in management in future?*

4.1 Mixed method approach

During the survey, main data were collected and analysed quantitatively. The deductive technique was used, with hypotheses derived from literature and tested using acquired data, either rejecting or accepting the hypotheses. Using a survey alone might result in contradictory results with contradictory replies, making the data difficult to analyze.

Accordingly, semi-structured interview is also used in the study. As a result, semi-structured interview with one participant is used in the study to give a more complete and objective presentation of the findings. As a result, a mixed methods strategy combining quantitative and qualitative research methodologies was used.

When interpreting the findings, the survey results are provided first, followed by the respondents' feedback.

4.2 Survey

4.2.1 Survey questions

The final questionnaire was divided into two sections. The first section consisted of a series of demographic questions designed to ascertain the degree, job title, and years of experience. The second half of the questionnaire had three sections aimed at determining the reliability of hypotheses and answering research questions.

The first section included the following set of questions in the form of three statements (Positive influence of AI / RPA) to find an answer to the first research question:" AI / RPA may be used to replace ordinary jobs as well as supplement non-routine tasks. "AI/RPA can produce reliable outcomes and remove inefficiencies in my performance.","" Using AI / RPA enables me to move my concentration to higher-value-added duties, increasing my job satisfaction."

The second section included the following set of questions in the form of two statements (Impact of AI / RPA on Managerial Skills) to find an answer to the second research question: " Managerial skills & requirements will change due to the influence of AI/RPA.","Managers must get ready for future and start to get familiar with AI/RPA tools and techniques."

The third section included the following set of questions in the form of two statements (Impact of AI / RPA on Management) to find an answer to the third research question: " Considering depending more on AI/RPA in future, The structure of management will change.","Many tasks performed by low & middle management will be taken over by AI/RPA in future."

The fourth section included the following set of questions in the form of two statements (Impact of AI / RPA on Employment) to find an answer to the third research question: "What will be the impact of AI/RPA on employment at GFSS in the next 5 years?","Are you afraid of losing your job due to AI / RPA?"

4.4.2 Data analysis

The information was gathered using Google Forms and then encoded and analyzed using the Statistical Package for Social Sciences (IBM SPSS). To analyze ordinal data, descriptive statistics such as the mean and median for central tendency and frequency of variability were first generated for each item. As it's known, mean and standard deviation are incorrect descriptive statistics parameters when data is presented on ordinal scales, as is any parametric analysis based on a normal distribution. As a result, the author concentrated on nonparametric processes, such as computations based on rank, median, or mode, which are more important.

Non-parametric The Kruskal-Wallis and Mann-Whitney tests were performed to determine if there were significant differences between the demographic factors. The Kruskal-Wallis test is a two-group Mann-Whitney U test extension. Kruskal-Wallis is thus a more extended variant of the Mann-Whitney U test as well as a non-parametric version of one-way ANOVA.

The Kruskal-Wallis test is appropriate for data having a typical distribution, such as ordinal in our instance. Kruskal-Wallis models can produce similar findings to analysis of variance, but they are based on the rankings rather than the means of the answers.

The statistical analysis employed Spearman's correlation coefficient, which generates a score ranging from -1 to +1, to answer the study questions and hypotheses. The data must be at least ordinal, and the estimates for one variable must be monotonically connected to another variable, according to Spearman's correlation assumptions.

4.4.3 Survey respondents

Table 2: Frequency distribution of employees according to education, job title and years of experience

Job Title	Job Title/Years of Experience	Degree of education									
		Bachelor		Master		Other		PhD		Grand Total	
		Total	Persentage	Total	Persentage	Total	Persentage	Total	Persentage	Total	Persentage
Juniour	Juniour	49	32.24%	23	15.13%	7	4.61%		0.00%	79	51.97%
	from 15 and over	4	2.63%		0.00%		0.00%		0.00%	4	2.63%
	from 5 to less than 10	6	3.95%	8	5.26%	1	0.66%		0.00%	15	9.87%
	less than 5	39	25.66%	15	9.87%	6	3.95%		0.00%	60	39.47%
Senior	Senior	25	16.45%	26	17.11%	1	0.66%		0.00%	52	34.21%
	from 10 to less than 15	6	3.95%	9	5.92%	1	0.66%		0.00%	16	10.53%
	from 15 and over	1	0.66%		0.00%		0.00%		0.00%	1	0.66%
	from 5 to less than 10	14	9.21%	17	11.18%		0.00%		0.00%	31	20.39%
	less than 5	4	2.63%		0.00%		0.00%		0.00%	4	2.63%
Team Lead/ Supervisor	Team Lead / Supervisor	4	2.63%	4	2.63%	1	0.66%	1	0.66%	10	6.58%
	from 10 to less than 15	2	1.32%	3	1.97%	1	0.66%		0.00%	6	3.95%
	from 15 and over	1	0.66%		0.00%		0.00%		0.00%	1	0.66%
	from 5 to less than 10	1	0.66%	1	0.66%		0.00%	1	0.66%	3	1.97%
Manager	Manager	3	1.97%	4	2.63%		0.00%	4	2.63%	11	7.24%
	from 10 to less than 15	1	0.66%		0.00%		0.00%	2	1.32%	3	1.97%
	from 15 and over	2	1.32%	4	2.63%		0.00%	2	1.32%	8	5.26%
	from 5 to less than 10		0.00%		0.00%		0.00%		0.00%	0	0.00%
	Grand Total	81	53.29%	57	37.50%	9	5.92%	5	3.29%	152	100.00%

The first three questions in the survey were designed to learn more about the participants, such as how many years of experience they have in a finance-related sector, what type of education they have, and what position they hold within GFSS.

The participants were asked to categorize their education as bachelor, master, PhD, and other, as well as their work title as Junior, Senior, Team Lead/Supervisor, and Manager, and

their year of experience as less than 5, less than 10, less than 15, and more than 15. This information was necessary for data analysis and comparisons of mean rankings between groups.

From the above surveyed sample, we can see that the percentage of Juniors is 51.97% (79 out of total 152 respondents) while seniors are 34.21% (52 out of 152), and Team Lead / Supervisors are 6.58% (10 out of 152) and managers are 7.24% (11 out of 152). This indicates that most of the survey respondents are GFSS employees Juniors & Seniors directly responsible for administrative and transactional tasks. The rest are Team Lead / Supervisors and managers with extensive knowledge and experience, who are responsible for the entire process of financial transactions.

Proportion of participants with a bachelor's degree is 53.29% (81 out of 152), with a master's degree is 37.50% (57 out of 152), with PhD degree is 3.29% (5 out of 152), and the other degree levels are 5.92% (9 out of 152) Subsequently, The survey sample consists of educated individuals with high and medium academic background who answered to the questionnaire.

Regarding the years of experience, 64 out of 152 respondents (42.11%) are relatively new to shared services with less than 5 years of work experience, 49 out of 152 participants (32.24%) are people with work experience from 5 to 10 years, 25 out of 152 participants (16.45%) are people with work experience from 5 to 10 years, the remaining of participants who has work experience of 15 years and over are 14 out of 152 (9.21%). It is important to note that this question does not reflect the respondent's age in any way, as the participant may have had another job before starting a career in global finance shared service field.

4.4.4 Hypothesis

In this section, we will examine the first three statements that participants were given to estimate their degree of agreement in order to see if the AI/RPA has a good impact on their work performance.

4.4.4.1 Hypothesis 1

The participants were required to indicate how much they agreed with the phrases " AI / RPA may be used to replace ordinary jobs as well as supplement non-routine tasks. "and"

AI/RPA can produce reliable outcomes and remove inefficiencies in my performance. "and" Using AI / RPA enables me to move my concentration to higher-value-added duties, increasing my job satisfaction."

The level of agreement for each of the three statements was close to each other. Most of the participants have been rated the statements in the direction of the agreement side. (Averagely (70%) out of 152 participants), the minority of participants have been rated the statements in the direction of the disagreement side. (Averagely 19% out of 152 participants), and the rest chose to stay neutral (on average 12% out of total 208).

Table 3: Hypothesis (1) - 1st Statement Responses

1st Statement AI / RPA may be used to replace ordinary jobs as well as supplement non-routine tasks.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	9 (11%)	6 (7%)	10 (12%)	36 (44%)	20 (25%)	81	53%	76.05		
	Master	6 (11%)	5 (9%)	7 (12%)	25 (44%)	14 (25%)	57	38%	75.48	4	0.621
	PhD	0 (0%)	0 (0%)	0 (0%)	3 (60%)	2 (40%)	5	3%	98.05		
	Other	1 (11%)	1 (11%)	1 (11%)	4 (44%)	2 (22%)	9	6%	74.36		
Total							152	100%			
Job title	Juniour	10 (13%)	4 (5%)	10 (13%)	34 (43%)	21 (27%)	79	52%	76.30		
	Senior	5 (10%)	6 (12%)	3 (6%)	24 (46%)	14 (27%)	52	34%	75.90	4	0.853
	Team Lead / Supervisor	0 (0%)	1 (10%)	3 (30%)	4 (40%)	2 (20%)	10	7%	86.16		
	Manager	1 (9%)	1 (9%)	2 (18%)	6 (55%)	1 (9%)	11	7%	72.50		
Total							152	100%			
Years of Experience	less than 5	7 (11%)	3 (5%)	9 (14%)	27 (42%)	18 (28%)	64	42%	76.99		
	from 5 to less than 10	5 (10%)	4 (8%)	4 (8%)	24 (49%)	12 (24%)	49	32%	77.89	4	0.937
	from 10 to less than 15	4 (16%)	2 (8%)	1 (4%)	13 (52%)	5 (20%)	25	16%	74.56		
	from 15 and over	0 (0%)	3 (21%)	4 (29%)	4 (29%)	3 (21%)	14	9%	73.06		
Total		16 (11%)	12 (8%)	18 (12%)	68 (45%)	38 (25%)	152	100%			

The difference in acceptance for each level of the variable "degree," "job title," and "years of experience" was investigated in depth by the author of this study for significance. The Kruskal-Wallis test compares mean rankings and assesses whether there are statistically significant variations in employee views of the following statement or not. "AI / RPA may be used to replace ordinary jobs as well as supplement non-routine tasks." The Kruskal-Wallis test's null hypothesis is that the mean rankings of the groups (i.e., Associate, Specialist, Manager, Expert) are the same. First, it may appear that employees with a PhD

have a higher mean rank than employees with a bachelor's or master's degree. Even though the mean ranks are not comparable, the discrepancies are not statistically significant.

At the 5% significance level, there is insufficient evidence to reject the null hypothesis that the mean rankings of the mentioned groups (i.e., Associate, Specialist, Manager, Expert) are the same (p-values are 0.621, 0.853, and 0.937, hence, p-value >0,05). As a result, it is possible to conclude that the distribution of the general level of agreement is consistent among groups of individuals with varying degrees, job titles, and years of experience.

The same conclusion is applicable to the other two statements, the tables for each statement as well as brief comments are shown below each table. Employee responses differed just little, for example, those who strongly agreed with the first statement agreed with the second statement or stayed neutral, but these variations were minor.

Table 4: Hypothesis (1) - 2nd Statement Responses

2nd Statement: AI/RPA can produce reliable outcomes and remove inefficiencies in my performance.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	4 (5%)	10 (12%)	9 (11%)	36 (44%)	22 (27%)	81	53%	77.01		
	Master	5 (9%)	4 (7%)	6 (11%)	28 (49%)	14 (25%)	57	38%	75.12	4	0.614
	PhD	0 (0%)	0 (0%)	1 (20%)	3 (60%)	1 (20%)	5	3%	95.73		
	Other	2 (22%)	2 (22%)	0 (0%)	2 (22%)	3 (33%)	9	6%	69.27		
Total							152	100%			
Job title	Juniour	7 (9%)	10 (13%)	8 (10%)	33 (42%)	21 (27%)	79	52%	74.22		
	Senior	3 (6%)	4 (8%)	6 (12%)	25 (48%)	14 (27%)	52	34%	79.31	4	0.845
	Team Lead / Supervisor	0 (0%)	1 (10%)	1 (10%)	5 (50%)	3 (30%)	10	7%	79.62		
	Manager	1 (9%)	1 (9%)	1 (9%)	6 (55%)	2 (18%)	11	7%	73.89		
Total							152	100%			
Years of Experience	less than 5	4 (6%)	8 (13%)	9 (14%)	26 (41%)	17 (27%)	64	42%	74.69		
	from 5 to less than 10	4 (8%)	4 (8%)	3 (53%)	26 (53%)	12 (24%)	49	32%	79.21		
	from 10 to less than 15	2 (8%)	3 (12%)	1 (44%)	11 (44%)	8 (32%)	25	16%	77.72	4	0.871
	from 15 and over	1 (7%)	1 (7%)	3 (43%)	6 (43%)	3 (21%)	14	9%	72.39		
Total		11 (7%)	16 (11%)	15 (10%)	69 (46%)	40 (26%)	152	100%			

The mean rank of all three groups in terms of agreement with the following statement that "AI/RPA can produce reliable outcomes and remove inefficiencies in my performance." are

very close to each other. The Kruskal-Wallis test findings indicate the following p-values (0.614, 0.845, 0.871, hence

p-value > 0.05) at the 5% significance level, indicating that differences in responses are not statistically significant.

Table 5: Hypothesis (1) - 3rd Statement Responses

3rd Statement: Using AI / RPA enables me to move my concentration to higher-value-added duties, increasing my job satisfaction.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	4 (5%)	7 (9%)	11 (13%)	38 (47%)	21 (26%)	81	53%	76.50		
	Master	5 (9%)	4 (7%)	7 (12%)	28 (49%)	13 (23%)	57	38%	74.66	4	0.634
	PhD	0 (0%)	0 (0%)	0 (0%)	3 (60%)	2 (40%)	5	3%	96.59		
	Other	1 (11%)	1 (11%)	1 (11%)	3 (33%)	3 (33%)	9	6%	76.49		
Total							152	100%			
Job title	Juniour	7 (9%)	5 (6%)	10 (13%)	37 (47%)	20 (25%)	79	52%	75.30		
	Senior	3 (6%)	5 (10%)	6 (12%)	25 (48%)	13 (25%)	52	34%	77.51	4	0.951
	Team Lead / Supervisor	0 (0%)	1 (10%)	1 (10%)	4 (40%)	4 (40%)	10	7%	79.47		
	Manager	0 (0%)	1 (9%)	2 (18%)	6 (55%)	2 (18%)	11	7%	75.85		
Total							152	100%			
Years of Experience	less than 5	4 (6%)	3 (5%)	10 (14%)	27 (43%)	20 (32%)	64	42%	77.43		
	from 5 to less than 10	4 (8%)	4 (8%)	2 (4%)	26 (53%)	13 (27%)	49	32%	80.11	4	0.622
	from 10 to less than 15	2 (8%)	3 (12%)	3 (12%)	13 (52%)	4 (16%)	25	16%	69.67		
	from 15 and over	0 (0%)	2 (14%)	4 (29%)	6 (43%)	2 (14%)	14	9%	73.11		
Total		10 (7%)	12 (8%)	19 (13%)	72 (47%)	39 (25%)	152	100%			

The Kruskal-Wallis test results indicates that p-values (0.634, 0.951, 0.622) are greater than 0.05 at the 5% significance level, proving that there is no statistically significant differences between the mean ranks of different groups when examining the level of agreement among employees on the following statement "AI/ability RPA's to shift employees' focus to higher value-added tasks, improving job satisfaction."

Reliability Statistics

Table 6: Hypothesis (1) - Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardized items	Number of items
0.971	0.972	3

The three statements were evaluated using the same 5-point rating scale from "1=strongly disagree" to "5=strongly agree" to determine the agreement level of the first hypothesis, which implies that AI/RPA has a positive impact on employees work performance regardless of education, job title, or work experience. Cronbach Alpha was used to determine that adding each of the three statements to a joint scale was adequate. It assesses the degree of rigidity in the multiple correlation of all items on a scale. The scale is more stable and trustworthy when alpha is near to its maximum value of one. The Cronbach coefficient equals 0.97, which means that the variance's reliability is high and statistically significant.

4.4.4.2 Hypothesis 2

The next two questions were developed for measuring the extent to which employees believe AI/RPA will have an influence on their careers at GFSS.

Additional research on GFSS job expectations reveals a wide range of answers among employees. Only 8% of employees anticipate a good impact of AI/RPA on employment in GFSS, with 0% expecting a significant impact. However, 74 percent of GFSS employees feel that AI/RPA will have a negative impact on employment, with 36 percent predicting a very unfavorable impact.

Additional research on GFSS job expectations reveals a wide range of answers among employees. Only 8% of employees anticipate a good impact of AI/RPA on employment in GFSS, with 0% expecting a significant impact. However, 74 percent of GFSS employees feel that AI/RPA will have a negative impact on employment, with 36 percent predicting a very unfavorable impact.

Table 7: Hypothesis (2) - 1st Question Responses

1st Question: What will be the impact of AI / RPA on employment in GFSS in the future?		1. Much less Jobs	2. Somewhat less jobs	3. Almost the same	4. Somewhat more jobs	5. Much more jobs	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	31 (39%)	29 (37%)	15 (19%)	4 (5%)	0 (%)	81	53%	82.58		
	Master	20 (33%)	24 (40%)	9 (15%)	7 (12%)	0 (%)	57	38%	66.77	4	0.602
	PhD	1 (25%)	2 (50%)	1 (25%)	0 (0%)	0 (%)	5	3%	80.02		
	Other	4 (50%)	2 (25%)	1 (13%)	1 (13%)	0 (%)	9	6%	79.29		
Total							152	100%			
Job title	Juniour	31 (40%)	29 (37%)	14 (18%)	4 (5%)	0 (%)	79	52%	74.82		
	Senior	22 (39%)	24 (42%)	6 (11%)	5 (9%)	0 (%)	52	34%	80.25	4	0.843
	Team Lead / Supervisor	1 (14%)	2 (29%)	3 (43%)	1 (14%)	0 (%)	10	7%	60.69		
	Manager	1 (11%)	3 (33%)	3 (33%)	2 (22%)	0 (%)	11	7%	77.67		
Total							152	100%			
Years of Experience	less than 5	16 (27%)	28 (47%)	11 (19%)	4 (7%)	0 (%)	64	42%	75.34		
	from 5 to less than 10	22 (46%)	15 (31%)	7 (15%)	4 (8%)	0 (%)	49	32%	70.26	4	0.871
	from 10 to less than 15	11 (41%)	10 (37%)	4 (15%)	2 (7%)	0 (%)	25	16%	83.53		
	from 15 and over	7 (39%)	5 (28%)	5 (29%)	1 (6%)	0 (%)	14	9%	84.94		
Total		56 (38%)	58 (38%)	27 (18%)	12 (8%)	0 (0%)	152	100%			

The Kruskal-Wallis test compares mean rankings to see if there are statistically significant variations in employees' expectations of AI/RPA having an influence on future employment at GFSS . At the 5% significance level (p-value>0,05), there is insufficient evidence to reject the null hypothesis that the mean rankings of the groups are the same. The distribution of general level of agreement is consistent across degree, job title, and year of experience groups. As a result of the figures shown above, the hypothesis that "There are statistically significant differences in different groups of employees regarding fear of losing their jobs due to AI/RPA." is proven false.

Table 8: Hypothesis (2) - 2nd Question Responses

2nd Question: AI/RPA can produce reliable outcomes and remove inefficiencies in my performance.		1. Yes	2. Slightly	3. No	Total		Mean Rank	Mean Rank	P-Value
					Total	Persentage			
Degree of education	Bachelor	20 (25%)	34 (43%)	26 (33%)	81	53%	81.55		
	Master	13 (22%)	26 (44%)	20 (34%)	57	38%	69.26	4	0.23
	PhD	1 (25%)	1 (25%)	2 (50%)	5	3%	75.39		
	Other	3 (33%)	4 (44%)	2 (22%)	9	6%	80.20		
Total					152	100%			
Job title	Juniour	24 (31%)	34 (44%)	19 (25%)	79	52%	64.48		
	Senior	11 (19%)	23 (40%)	23 (40%)	52	34%	87.07	4	0.001
	Team Lead / Supervisor	0 (0%)	4 (50%)	4 (50%)	10	7%	109.83		
	Manager	1 (10%)	4 (40%)	5 (50%)	11	7%	82.79		
Total					152	100%			
Years of Experience	less than 5	26 (43%)	28 (47%)	6 (10%)	64	42%	64.95		
	from 5 to less than 10	10 (21%)	24 (50%)	14 (29%)	49	32%	77.03	4	0.001
	from 10 to less than 15	1 (4%)	8 (30%)	18 (67%)	25	16%	84.21		
	from 15 and over	0 (0%)	5 (28%)	13 (72%)	14	9%	100.00		
Total		37 (24%)	65 (43%)	50 (33%)	152	100%			

The Kruskal-Wallis test compares mean rankings and assesses whether or not there are statistically significant differences in employees' reactions to the fear of losing their employment according to AI/RPA. Only 24% of the 152 employees assessed are not worried about losing their employment, while 43% are slightly concerned. Only 33% of the employees assessed are truly scared.

At the p-value of 0.05, the Kruskal test findings reveal that there is no inconsistency in rejecting the null hypothesis of equal mean rankings for the variable job title and years of experience. Participants with varied job titles and years of experience showed statistically significant differences (p-value=0.001).

Table 9: Hypothesis (2) - Mann-Whitney test

Mann-Whitney U		P-Value
Job Title	Juniro-Senior	0.01
	Juniro-Manager	0.02
Years Of Experience	Less than 5 - From 10 to less than 15	0.015
	From 5 to less than 10 - From 15 and over	0.011
	Less than 5 - From 15 and over	0.001

Furthermore, the Mann-Whitney test indicates a high statistical probability (p-value 0,05) with a confidence level greater than 95% that there are statistically significant differences in responses of Juniors compared to Seniors and managers (p-value=0.01, p-value=0.02), but no statistically significant differences exist compared to Team Leaders. We can observe that 31 percent of the 79 total Juniors are worried or slightly afraid of losing their jobs, while 25 percent are not. In contrast, 40 percent of 78 professionals are not frightened, while 19 percent are concerned about losing their careers due to AI/RPA. However, the proportion of Juniors and managers who are concerned about losing their employment due to AI/RPA is nearly identical which is 40 to 44 percent respectively.

Juniors' responses are diametrically opposed to those of managers, with half of managers reporting that they are not scared and the other half reporting that they are slightly afraid. When it comes to years of experience, individuals with less than 5 years of experience have considerably lower mean rankings than employees with more than 10 years of experience. More than half of employees with more than 10 years of experience are not concerned about losing their jobs due to AI/RPA (65% with 10-15 years of experience, 72% with over 15 years of experience). Furthermore, 71% of participants with 5-10 years of experience Employees with less than 15 years of experience are more likely to be worried of losing their employment (51 percent are slightly afraid, while 20 percent are afraid), but employees with more than 15 years of experience are less likely to be afraid. Ones with more experience, on the other hand, show less fear of losing their employment than less experienced employees. As a result of the figures shown above, the hypothesis "there are statistically significant disparities in the reactions of different categories of employees about fear of losing their employment due to AI / RPA" is confirmed.

4.4.4.3 Hypothesis 3

Table 10: Hypothesis (3) - 1st Statement Responses

1st Statement: Consodering depending more on AI/RPA in future, The structure of management will change.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	7 (9%)	7 (9%)	9 (11%)	39 (49%)	18 (23%)	81	53%	73.91		
	Master	4 (7%)	6 (10%)	8 (13%)	24 (40%)	18 (30%)	57	38%	78.67	4	0.622
	PhD	0 (0%)	0 (0%)	0 (0%)	2 (50%)	2 (50%)	5	3%	105.96		
	Other	1 (13%)	1 (13%)	1 (13%)	4 (50%)	1 (13%)	9	6%	68.33		
Total							152	100%			
Job title	Juniour	5 (6%)	10 (13%)	9 (12%)	35 (45%)	19 (24%)	79	52%	75.16		
	Senior	7 (12%)	4 (7%)	4 (7%)	29 (50%)	14 (24%)	52	34%	76.54	4	0.851
	Team Lead / Supervisor	0 (0%)	1 (14%)	2 (29%)	2 (29%)	2 (29%)	10	7%	76.15		
	Manager	0 (0%)	1 (9%)	2 (18%)	4 (36%)	4 (36%)	11	7%	84.67		
Total							152	100%			
Years of Experience	less than 5	2 (3%)	7 (12%)	8 (14%)	28 (47%)	14 (24%)	64	42%	75.66		
	from 5 to less than 10	5 (10%)	3 (6%)	3 (6%)	22 (46%)	15 (31%)	49	32%	81.39	4	0.873
	from 10 to less than 15	3 (11%)	3 (11%)	3 (11%)	11 (41%)	7 (26%)	25	16%	74.54		
	from 15 and over	1 (6%)	1 (6%)	4 (22%)	9 (50%)	3 (17%)	14	9%	68.30		
Total		12 (8%)	15 (10%)	18 (12%)	69 (46%)	39 (25%)	152	100%			

The average scores of all three groups in terms of agreement that AI/RPAs reduce irregularities in their performance and produce correct findings are fairly comparable. The Kruskal-Wallis test findings indicate p-values (0.62, 0.85, 0.87, so p-value>0.05) at the 5% significance level, indicating that differences in responses are not statistically significant.

Table 11: Hypothesis (3) - 2nd Statement Responses

2nd Statement: Many tasks performed by low & middle management will be taken over by AI/RPA.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	5 (6%)	8 (10%)	11 (14%)	31 (39%)	24 (30%)	81	53%	76.41		
	Master	5 (8%)	4 (7%)	9 (15%)	25 (42%)	16 (27%)	57	38%	74.52	4	0.514
	PhD	0 (0%)	0 (0%)	0 (0%)	2 (50%)	2 (50%)	5	3%	75.09		
	Other	1 (11%)	1 (11%)	1 (11%)	3 (33%)	3 (33%)	9	6%	76.49		
Total							152	100%			
Job title	Juniour	6 (8%)	8 (10%)	10 (13%)	28 (36%)	25 (32%)	79	52%	76.64		
	Senior	5 (9%)	4 (7%)	7 (12%)	28 (49%)	13 (23%)	52	34%	73.30	4	0.683
	Team Lead / Supervisor	0 (0%)	1 (14%)	1 (14%)	2 (29%)	3 (43%)	10	7%	83.60		
	Manager	0 (0%)	1 (10%)	2 (20%)	3 (30%)	4 (40%)	11	7%	86.20		
Total							152	100%			
Years of Experience	less than 5	4 (7%)	7 (12%)	9 (15%)	20 (33%)	20 (33%)	64	42%	79.07		
	from 5 to less than 10	4 (9%)	4 (9%)	4 (9%)	23 (49%)	12 (26%)	49	32%	75.50	4	0.844
	from 10 to less than 15	1 (4%)	2 (8%)	2 (8%)	12 (50%)	7 (29%)	25	16%	71.73		
	from 15 and over	0 (0%)	1 (6%)	5 (28%)	6 (33%)	6 (33%)	14	9%	76.72		
Total		12 (8%)	15 (10%)	20 (13%)	65 (43%)	40 (27%)	152	100%			

At the 5% significance level, the Kruskal-Wallis test results show p-values (0.514, 0.683, 0.844) greater than 0.05, indicating that there is no statistically significant difference between the mean ranks of different groups when assessing employees' expectation agreement on the statement that "Many tasks performed by low & middle management will be taken over by AI/RPA."

4.4.4.4 Hypothesis 4

Table 12: Hypothesis (4) – 1st Statement Responses

1st Statement: Managerial skills & requirments will change due to the influence of AI/RPA.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	9 (11%)	6 (7%)	10 (12%)	36 (44%)	20 (25%)	81	53%	75.68	4	0.068
	Master	6 (11%)	5 (9%)	7 (12%)	25 (44%)	14 (25%)	57	38%	75.85		
	PhD	0 (0%)	0 (0%)	0 (0%)	3 (60%)	2 (40%)	5	3%	118.02		
	Other	1 (11%)	1 (11%)	1 (11%)	4 (44%)	2 (22%)	9	6%	65.25		
Total							152	100%			
Job title	Juniour	10 (13%)	4 (5%)	10 (13%)	34 (43%)	21 (27%)	79	52%	73.71	4	0.748
	Senior	5 (10%)	6 (12%)	3 (6%)	24 (46%)	14 (27%)	52	34%	78.22		
	Team Lead / Supervisor	0 (0%)	1 (10%)	3 (30%)	4 (40%)	2 (20%)	10	7%	78.12		
	Manager	1 (9%)	1 (9%)	2 (18%)	6 (55%)	1 (9%)	11	7%	84.85		
Total							152	100%			
Years of Experience	less than 5	7 (11%)	3 (5%)	9 (14%)	27 (42%)	18 (28%)	64	42%	74.75	4	0.799
	from 5 to less than 10	5 (10%)	4 (8%)	4 (8%)	24 (49%)	12 (24%)	49	32%	80.52		
	from 10 to less than 15	4 (16%)	2 (8%)	1 (4%)	13 (52%)	5 (20%)	25	16%	74.80		
	from 15 and over	0 (0%)	3 (21%)	4 (29%)	4 (29%)	3 (21%)	14	9%	73.09		
Total		16 (11%)	12 (8%)	18 (12%)	68 (45%)	38 (25%)	152	100%			

At the 5% significance level, the Kruskal-Wallis test results show p-values (0.680, 0.748, 0.799) greater than 0.05, indicating that there is no statistical significance difference between the mean ranks of different groups when evaluating employees' agreement on Managerial skills & requirements will change due to the influence of AI/RPA.

Table 13: Hypothesis (4) – 2nd Statement Responses

2nd Statement: Managers must get ready for future and strat to get familier with AI/RPA tools and tehcniques.		1.Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree	Total		Mean Rank	Mean Rank	P-Value
							Total	Persentage			
Degree of education	Bachelor	4 (5%)	10 (12%)	9 (11%)	36 (44%)	22 (27%)	81	53%	73.51		
	Master	5 (9%)	4 (7%)	6 (11%)	28 (49%)	14 (25%)	57	38%	77.16	4	0.614
	PhD	0 (0%)	0 (0%)	1 (20%)	3 (60%)	1 (20%)	5	3%	110.71		
	Other	2 (22%)	2 (22%)	0 (0%)	2 (22%)	3 (33%)	9	6%	79.78		
Total							152	100%			
Job title	Juniour	7 (9%)	10 (13%)	8 (10%)	33 (42%)	21 (27%)	79	52%	72.29		
	Senior	3 (6%)	4 (8%)	6 (12%)	25 (48%)	14 (27%)	52	34%	78.29	4	0.845
	Team Lead / Supervisor	0 (0%)	1 (10%)	1 (10%)	5 (50%)	3 (30%)	10	7%	85.17		
	Manager	1 (9%)	1 (9%)	1 (9%)	6 (55%)	2 (18%)	11	7%	90.17		
Total							152	100%			
Years of Experience	less than 5	4 (6%)	8 (13%)	9 (14%)	26 (41%)	17 (27%)	64	42%	72.10		
	from 5 to less than 10	4 (8%)	4 (8%)	3 (53%)	26 (53%)	12 (24%)	49	32%	79.25	4	0.871
	from 10 to less than 15	2 (8%)	3 (12%)	1 (44%)	11 (44%)	8 (32%)	25	16%	78.55		
	from 15 and over	1 (7%)	1 (7%)	3 (43%)	6 (43%)	3 (21%)	14	9%	79.45		
Total		11 (7%)	16 (11%)	15 (10%)	69 (46%)	40 (26%)	152	100%			

At the 5% significance level, the Kruskal-Wallis test results show p-values (0.614, 0.845, 0.871) greater than 0.05, indicating that there is no statistical significance difference between the mean ranks of different groups when evaluating employees' agreement on Managerial skills & requirements will change due to the influence of AI/RPA.

Table 14: Hypothesis (4) – Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardized items	Number of items
0.963	0.972	3

The two statements were evaluated using the same 5-point rating scale from "1=strongly disagree" to "5=strongly agree" to determine the agreement level of the fourth hypothesis, which implies that There are statistically significant differences in managers' responses regarding the skills needed in management in future. Cronbach Alpha was used to determine that adding each of the two statements to a joint scale was adequate. It assesses the degree of rigidity in the multiple correlation of all items on a scale. The scale is more stable and

trustworthy when alpha is near to its maximum value of one. The Cronbach coefficient equals 0.97, which means that the variance's reliability is high and statistically significant.

4.4.5 Interview

Beside the survey, An online meeting with middle-level manager was performed using MS Teams to offer a more thorough context for the survey results. The meeting allows more flexibility. During the interview, the author wanted to know if there is a valid worry related to employees and Low & middle management that they might be replaced by AI/RPA in future, and if there are any measures in place to encourage staff to participate in AI/RPA-related initiatives & learnings. Because the interviewee has more experience than the interviewer, they may convey their views and ideas in a genuine conversation, allowing for unexpected replies and difficulties that may develop throughout the interview.

The following are the outcomes of the conversation:

- The interviewee is conducting 1-1 meetings with his team also he is going through interview with his manager in order to engage in AI/RPA related initiatives, and to be encouraged to consider which processes have the potential to be improved. New employees are especially encouraged to give their opinions or suggestions on how to enhance the processes, since they may look at the processes from a different perspective and perhaps detect procedures that, in their opinion, do not make sense.

- He is encouraging his team to collaborate with IT and assigning projects to the employees. He recognizes that automation gives more time to the staff for new activities and experiences, personal growth, or acquiring new skills. It is critical to demonstrate what they can accomplish in the future when RPA frees up their time for more interesting duties, such as demonstrating a new function that they can fill or how to advance up the career ladder.

- He also mentioned that regarding the fear of losing the work, he sees that if workers begin to upgrade their skills and competences immediately, in accordance with current technological developments, the chances of being replaced by AI/RPA are

minimal. He claims that AI/RPA is replacing monotonous, rule-based processing activities but not occupations that are being eliminated. Instead, occupations are evolving, allowing individuals to focus on higher-value added tasks.

- He also mentioned that many colleagues are interested now in working on the finance automation projects, many are applying to both teams Project Management Teams & Project Excellence Team which require skilled accountants at observing, evaluating, and utilizing AI/RPA systems that will be needed. Accountants must act and evaluate the potential to automate tasks. The company provides employees and managers with all the necessary training to advance their knowledge, and they should be technology-friendly, open-minded, and ready for change.

- The firm is expanding, and so are the number of procedures. Changes and process improvements are ongoing. The processes in place now will appear entirely different in the following years. Accountants & mangers with basic IT skills as well as the willingness to integrate more efficient technologies into current procedures, will always be in demand. Furthermore, he feels that there is a rising need for finance and accounting professionals that have a combination of educational degrees, professional experiences, and skills that encompass data analysis and business analytics.

5. Results and Discussion

This thesis has proposed a new viewpoint on the use and perception of artificial intelligence and RPA by financial operations professionals as financial process automation becomes increasingly crucial. This chapter summarizes the prior chapter's observations and offers views on study findings, theoretical and practical contributions, limits, and future research.

5.1 Key Findings

The last component of this thesis is a discussion in which the literature is compared to survey and interview data. During the practical section, it was critical to determine how employees & managers from various groups of the GFSS see the usage of artificial intelligence at their job, as well as whether they have any worries about their employment.

Conclusions of the research questions are as follows:

1. How do GFSS employees & managers perceive the use of AI/RPA in their workplace?

Two views are addressed in order to offer a more logical solution to this subject. On the one hand, we investigated whether the benefits of AI/RPA, which have been widely highlighted in the literature, increase the quality of performance of GFSS staff. On the other side, we determine whether staff are motivated and eager to work with AI / RPA.

Previously mentioned in the literature review that the implementation of AI/RPA improves the quality of accounting procedures inside firms (GFSS). In this study, employees from Novartis Company proved that. According to the survey results, employees are aware of artificial intelligence capabilities and feel that with its assistance, they may attain productivity in their job. Seventy percent of those who are participated said they already profit from automation.

They agreed that AI/RPA may replace routine jobs while complementing non-routine duties, minimize work discrepancies, and offer reliable outcomes. It enables employees and managers to minimize stress and focus on higher-value-added activities, increasing job satisfaction and helping them to define their connections with work in a more positive and socially helpful manner. Differences in work experience, education, and position had no effect on this outcome, implying that all employees, regardless of status, benefit from AI in the workplace.

Regarding the second viewpoint of the study question, around 70 percent of participants demonstrated their interest and readiness to work with AI-based systems and contribute to the development of accounting systems. Job title and years of work experience were statistically demonstrated to have the most influence. Employees with more than ten years of experience, in instance, were more excited to work with AI than less experienced employees.

Finally, the thesis author intended to investigate if workers' desire and readiness to engage with AI are connected to its favourable qualities that boost their job productivity. According to research into UTAUT's idea, predicted performance is substantially tied to employees' willingness to adopt technology. The author attributed workers' desire to utilize AI / RPA systems to their enthusiasm to work with AI / RPA systems and their readiness to contribute to the system's design. According to the findings of the study, behavioural intent to employ AI apps to help operations management is largely reliant on predicted performance.

2. What is impact of AI/RPA on the future jobs at GFSS?

The answers of the second study question revealed that the influence of RPA / AI might be evaluated positively or negatively. Our study's key findings may be summarized as follows. According to one study, 74% of employees believe that the quantity of available employment would decline drastically in the future. Only 8% believe in the creation of new professions.

The remaining 18% believe that the number of jobs will stay roughly the same. These findings are consistent with the points found in the literature review part. which found that automation may provide enormous strategic value to the profession, particularly in general financial services. It is evident that automation, even though it has not yet been fully embraced in the business, is the second most important strategic objective, just after process improvement. Particularly in financial operations, up to 56 percent of positions may be subject to automation.

However, another viewpoint has been detected through the conducted interview, it reveals that it is not about the positions that will be cut, but about duties performed manually by accountants that will be transformed or deleted due to automation which will affect as well the low & middle level management in reporting. The tasks will be changed but not eliminated. Even if the workload is decreased, new and more fascinating roles will be created. The firm is expanding, and so are the number of procedures.

It might be indicated that the impact may be less likely and severe than projected if accountants do not continue to spend a large amount of time managing accounts and instead aim to give decision support services to managers by continually assessing procedures and recommending new ideas. technological advancements, capitalizing on new opportunities presented by the wave of artificial intelligence

5.2 Implications and limitations

This thesis attributed to studies on AI / RPA on financial operations in finance shared services. The UTAUT model's predicted performance variable was studied. The study of the influence of predicted performance on intention to use AI/RPA supplements past research on comparable subjects concerning the usage of AI applications while also contributing to future research, as no research on the effect of AI/RPA on financial operations could be discovered. This section is constrained to finding only one aspect, expected performance, that impacts employees' intents to work with AI / RPA-based systems, rather than assessing

all four factors, including societal effect, contributing factors, and expected effort. These considerations must be taken into account in future research to provide a comprehensive picture of technology adoption by financial operations staff.

Furthermore, observations on the influence of artificial intelligence (AI) and robots on employment and management are given using data from a survey of individuals. The study focus was in determining if employees are anxious about losing their work and if these employees' fears are justified in the viewpoint of their supervisors. Several features of GFSS staff, such as job experience and title, have been recognized, however research on these topics is restricted in academia. In-depth interviews with employees would be beneficial in order to acquire a deeper understanding of their aims and concerns.

This research can assist accounting professionals and their managers in other shared services who are preparing to or are just beginning to implement AI/RPA in identifying patterns, consequences, and issues. It may also assist AI/RPA solution providers who want to deliver their automation solutions to Novartis workers in identifying employee problems and reaching out to employees to help them learn more about AI/RPA.

6. Conclusions

The primary goal of this thesis was to study the influence of artificial intelligence (AI) on the performance of GFSS employees and managers at Novartis company.

The first goal of this research was to investigate important hypotheses regarding present trends and future possibilities of artificial intelligence in finance shared services. The subjects discussed were diverse. It was specifically the history, techniques, and precise description of AI, human cognitive differences and AI, real-world AI applications, and ultimately workplace and AI. Also discusses the function and significance of technologies such as AI and RPA in financial services.

The second goal was to investigate the problems, possibilities, advantages, and consequences of artificial intelligence in financial shared services. One of the biggest problems, according to the research, is general anxiety about automation. The author conducted research on this issue using credible and reliable sources and determined how essential the role of management is and what measures from middle management are required to address employee concerns.

Moreover, the author performed short interview in MS Teams to hear about the perceptions of the staff being displaced by automation. Encouragement of the staff to study and apply AI/RPA has been discovered. Answers to questions concerning workers' perceptions on major AI/RPA capabilities as well as their positive intents to utilize and work with AI/RPA, were discovered. Other responses were linked to anxiety over losing a job.

The third goal was to investigate the influence of AI/RPA on low level and middle level management. According to Mann-Whitney tests, there are statistically significant disparities between entry-level employees who are junior position and Low & middle level management (Seniors, Team Leader/Supervisors, and managers). Employees with fewer than 5 years of experience in particular are more concerned about their jobs than mid-level employees.

7. References

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8. List of abbreviations

AI	Artificial intelligence
RPA	Robotic Process Automation
ML	Machine Learning
DNN	Deep Neural Networks
IRR	Internal Rate of Return
NPV	Net Present Value
M&A	Mergers and acquisitions
GANs	Generative Adversarial Networks
OAI	Organizational Artificial Intelligence
CEO	Chief Executive officer
GFSS	Global Financial Shared Services Centers
SSO	Shared Service Organization
KPIs	Key Performance Indicators
AIHP	The Accenture Institute for High Performance
PMBOK	Project Management Body of Knowledge
IEEE	The Institute of Electrical and Electronics Engineers
PO	Purchase Order
CRM	Customer Relationship Management system
ERP	Enterprise Resource Planning Systems
CoE	Center of Excellence
IBM SPSS	IBM Statistical Package for Social Sciences

10 List of Figures & Tables

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