

**TO UNDERSTAND THE DIGITAL TRANSFORMATION
IN HUMAN RESOURCES
AND EMPLOYEE PERCEPTION IN PUNE BASED IT MNC'S**

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BY

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May 2023

CERTIFICATE

This is to certify that the thesis entitled “**To Understand The Digital Transformation In Human Resources And Employee Perception In Pune Based IT MNC’s**” being submitted herewith for the award of the Degree of Doctor of Philosophy in Management under the faculty of Management, **Tilak Maharashtra Vidyapeeth, Gultekdi, Pune**, is the result of the original research work completed by **Mr. Sunil Deshpande** under my supervision and guidance and to the best of my knowledge and belief, the work embodied in this has not formed earlier the basis for the award of any degree or similar title of this or any other university or examining body.

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Abstract

Introduction

Jobs and employees are evolving. This is reflected in recent trends in Human Resources (HR), making it an obvious area of concentration for cutting-edge HR companies. Human resources (HR) in particular will be impacted by the ongoing digitization, with all its possibilities ranging from having basic integrations to adopting robotics and AI solutions. Human resources are supposedly in the midst of technological upheaval. It's hardly surprising that neither businesses nor academics pay much attention to the shared worries of IT and HR departments; both groups are still finding their feet in their evolving positions inside the company.

In today's digitally driven, globally-competitive marketplace, firms must constantly adapt or perish. As a result, businesses are looking for HR to play a more active role in helping them cultivate the organisational skills and competencies essential to creating and managing their digital businesses, as well as mentoring and advising them on effective talent acquisition strategies. So, HR must innovate to maintain efficiency and cut costs

HR can no longer disregard the relevance of digital HR Service Delivery and concentrate on HR Service Management because businesses now demand a return on investment from HR in the form of data-driven, cost-efficient, and high-quality HR Service Delivery.

Research background

Literature including surveys, annual reports of PwC, Deloitte, KPMG, Mackinsey, HR Trend Institute and views of experts like Dave Ulrich, Jose Bersin suggest that the user experience of Digital HR processes, services and applications will improve but there is little evidence to support this assumption. Digitalising such services and processes has also been cited for achieving cost savings and increased efficiency.

As such, this study is focused on looking into the status of Digitalisation and its impact on IT MNCs in Pune City as they have more direct experience with digital transformation than small and medium enterprises. Since Pune is home to a no.of companies with international foot print, it is a natural choice for this research.

Review of Literature

Deloitte claims that since businesses no longer adhere to the old standard of operating between the hours of 9 and 5, there is a need for always-on HR technology to accommodate the new ways in which employees engage with their companies. The nature of work, including the job of HR experts, will be profoundly affected by the rise of the digital workplace.

They go on to state that human resources professionals are beginning to see the benefits of self- service portals, HR analytics, and the integration of several internal and external social media platforms.

As far back as 1998, it was claimed that with the introduction of HR technology and HR service centers, HR would become consultants and professional partners with line managers as they are no longer going to be doing the day-to-day operational work.

In this context, HR technology platforms enable more and more system integration and access to data while at the same time decreasing the administrative load on the HR function. HR should seek to standardize and automate repeatable operational activities to guarantee that the 'basics' of HR are done properly so that HR Business Partners may become more credible

According to Gueutal and Stone, one of the main advantages of digital HR is that it frees HR to focus on more strategic tasks by facilitating the implementation of HRIS and optimizing operations. Making procedures more user-friendly and allowing employees to work from remote locations are two ways the workplace has become more convenient for workers.

Human resources and the phenomena of digitization have been the subject of much research in recent years, as was noted above. It was, therefore, possible to draw on a wealth of previously published works and other resources for this investigation.

Research Objectives

- To understand the managers' perception_of HR services post-digitization.
- To understand the ease of access to HR services_available to managers post-digitization.
- To understand the impact of digital transformation on the mental health_of HR managers.
- To understand the impact of digital transformation of HR services on various functions of HR.
- To understand the role of digital transformation of HR services from a finance perspective.
- To understand gender-based challenges_faced by HR managers in the implementation of digital HR services.
- To understand the HR leaders' perspective_on the digital transformation of HR services

Research Methodology

The survey method is used to collect the data through a link to Google Forms. The link was thus shared with survey participants. 354 HR Managers (sample size) responded to the survey.

A purposive sampling technique was used in view of the HR Manager's familiarity with the subject.

Data Analysis

Data is analysed in three phases i.e. Demographic, Descriptive and Hypothesis Testing procedures:

1) **Demographic & Descriptive Analysis :**

- 58% of Female HR Managers and 42% of Male HR Managers responded. This shows the gender-wise spread in IT Sector.
- Maximum no. of respondents (33.9%) are in the 13-20 years' experience band followed by 6-13 years (28.8%) This means most of the respondents are in the low to mid-level category.
- 54% of respondents are from very large organizations.
- Majority of the respondents (73.3%) are from Millennial Generation (born between 1977-1995) followed by Gen X and Gen Z.
- 66% of the respondents have stated that digitalization has caused an improvement in the range of services offered by HR.
- Respondents also stated that there is an improvement in the effectiveness of the services offered by HR. The HR function is more responsive in dealing with employee queries.
- Respondents feel that digitalisation has caused improvement in HR Services with ease of access.
- In addition to the above, the respondents stated that digitalization has caused improvement in Internal Job posting, access to internal job vacancies, Goal Setting & Performance Management process, and HR services availability of Mobile devices.
- Majority of the respondents (60%) have stated that the lines between work time and personal time have become blurred due to digitalisation.
- Majority of the respondents also stated that digitalisation has a positive impact on recruitment, onboarding, compensation management, HR Planning, Learning and development.

2) **Hypothesis Testing :**

After testing of hypotheses, the below are proved as their p-value is less than the level of significance (i.e. 0.05)

- There is a difference in the perception of managers about HR services after the digitization of HR.
- There is an association between the availability of HR services on mobile devices and the ease of access to HR managers
- There is an association between the imbalance of personal vis-à-vis professional life and the stress the managers are experiencing due to the digital transformation of HR.
- There is a difference in the perception of managers about the impact of digital HR services on various functions of the HR department.
- There is a difference in the perception of managers about the financial impact of digital HR services.
- There is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

Conclusion, Recommendation and Scope for Future Research

1) Conclusions

- After examining the data for post-digitization HR services from a number of angles, the researcher has concluded that employees are benefited from the introduction of fair performance appraisal systems, clear communication policies, and a streamlined internal job application process thanks to the introduction of digitization.
- The availability of HR systems and procedures anytime anywhere has led to an increase in the quality of HR services, which in turn has made HR functions more responsive and ultimately delivered an effective solution.
- From the demographic data analysis, we conclude that nearly 73% of the sample HR managers are Millennials, which indicates that they have the unique characteristic which is being digital. This is a positive finding for this study because millennials are more likely to understand the

implications of digital transformation.

- Researcher has concluded that over 60% of HR professionals, regardless of their job, operate in hybrid mode, and nearly 10% of HR professionals work remotely. This suggests that digital transformation is warranted in the new work culture, which is optimistic about the hybrid culture mode at large.
- After examining the data for post-digitization HR services from a number of angles, the researchers concluded that employees benefited from the introduction of fair performance appraisal systems, clear communication policies, and a streamlined internal job application process thanks to the introduction of digitization.
- It has also been observed that, in comparison to older systems, the digital transformation has added complexity to leave management, making it more difficult to administer.
- Because HR services may be accessed at any time, employees and managers are finding it more challenging to delineate between their personal and professional lives, which is a major contributor to stress and burnout. It follows that digital change has contributed to managerial and employee burnout.
- Thus, we may conclude that the period of digitization has brought both positive and negative changes, but has generally been regarded as a positive.
- From the perspective of a leader, financial constraints are one of the reasons that prevent such massive digital transformation initiatives from being put into action; yet, this budget problem comes to the fore in terms of managers who claim that budget is believed to be a hurdle.

Recommendations:

- Since cross-border communication is happening between the global offices and team, companies should develop smooth communication channels which will be upheld the motivation of employees to collaborate.
- The hybrid mode of work culture is going to stay here hence companies should make sure the technology should support both work from home and work from an office in a more agile way since the collaboration of

teams and data in both modes can create systems access issues should be taken care off.

- It has been observed that digital transformation has paved the way to a new way of working at the same time respondents of this research say that digital HR services are complex to use hence companies should work on delivering a more user-friendly interface of digital HR and also should focus on training activities aligning to users requirement rather than giving one type of training to all.
- As the line between personal and professional life is getting blurred and employees are experiencing burnout despite digital transformation. Companies should come up with Adhoc work structures and also should arrange digital wellness programs in their organizational culture and make it a routine exercise rather than a one-time activity.

Future Scope of Study:

1. The research study can be conducted for MSMEs (Micro, Small and Medium enterprises) to understand whether the challenges and opportunities perceived by multinationals are the same or different for them.
2. The study can be replaced with the industry since nowadays, all industries are embracing the digital transformation culture.
3. The study can also focus on the gender-based study on digital transformation impediments and how they differentiate between the genders.
4. The longitudinal study of HR leaders can reveal more insights about the digital transformation in their respective organizations to deliver more sustainable solutions.

Chapter-1: Introduction

1.1 Background of Study

Jobs and employees are evolving. This is reflected in recent trends in Human Resources (HR), making it an obvious area of concentration for cutting-edge HR companies. Human resources (HR) in particular will be impacted by the ongoing digitization, with all its possibilities ranging from having basic integrations to adopting robotics and AI solutions. Human resources are supposedly in the midst of technological upheaval.

It's hardly surprising that neither businesses nor academics pay much attention to the shared worries of IT and HR departments; both groups are still finding their feet in their evolving positions inside the company.

The lack of interest in the digital transformation of HRM among HR professionals and academics alike has also led to IT's neglect of HRM. This is especially true after the consolidation of software vendors, which diminished the diversity and innovation in HR software.

The evolution of technology, however, has emerged as "probably the most crucial" of the many variables impacting human resources. This has resulted in requests for the additional digital transformation of HRM research.

In today's digitally driven, globally-competitive marketplace, firms must constantly adapt or perish. As a result, businesses are looking for HR to play a more active role in helping them cultivate the organisational skills and competencies essential to creating and managing their digital businesses, as well as mentoring and advising them on effective talent acquisition strategies. So, HR must innovate to maintain efficiency and cut costs. To reclaim its position as a strategic partner and a key to achieving sustainable competitive advantage through the organization's valuable intangible assets, the HR department must assess its identity, its skills, its operating model, its service delivery, and the opportunities of HR technology.

In recent years, there has been a lot of focus on HR as a discipline. Yet, developments in HRIS / HRM technology have raised the question of HR's digitization or the extent to which HR can be automated thanks to improvements in IT. HR has, interestingly enough, been providing some

degree of digital services for years, such as giving rudimentary Manager Self-Services via Service Portals or having a system for the employees to manage e.g. absence requests. Service inefficiency, low-quality work, and a negative impression left on employers are all consequences of a lack of adequate digitization throughout the entire end-to-end process. HR can no longer disregard the relevance of digital HR Service Delivery and concentrate on HR Service Management because businesses now demand a return on investment from HR in the form of data-driven, cost-efficient, and high-quality HR Service Delivery.

1.2 IT Scenario of INDIA

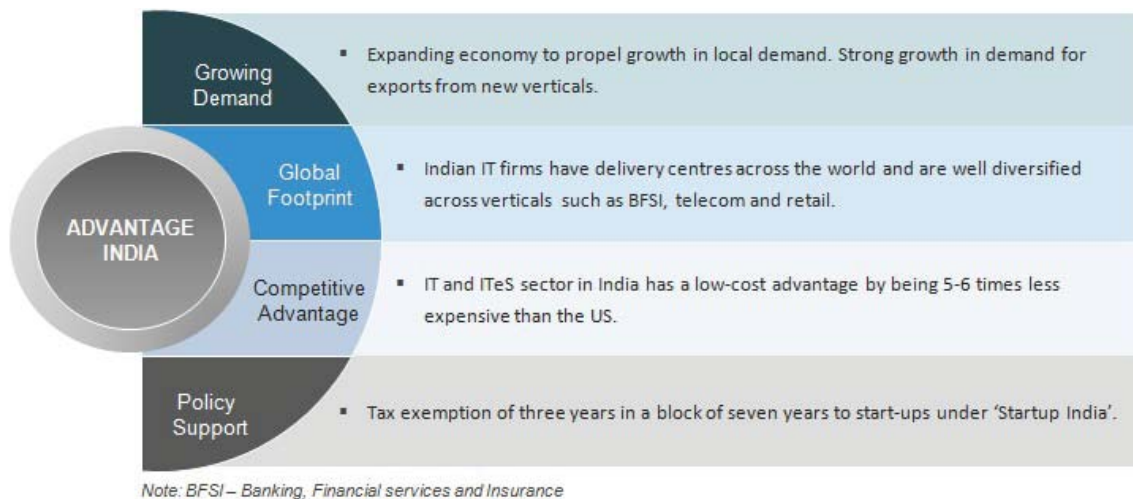


Figure 1- Nasscom: Competitive advantage of the Indian IT sector

As a whole, the IT-BPM sector in India is growing slower than the global sourcing market in India. Approximately 55% of the US\$ 185-190 billion international services sourcing activity in 2017-18 was conducted in India, making it the world's most prominent sourcing location. Over a thousand global delivery centres have been established by Indian IT & ITeS enterprises in roughly 80 countries.

With over 75% of the world's digital talent based in India, the country has quickly become the centre of digital skills.

In 2018-2019, the Indian information technology and technology-enabled services market was valued at US\$ 181 billion. The sector's overseas sales grew by US\$ 137 billion in FY19, while domestic sales (including hardware sales) rose by US\$ 44 billion.

In 2018, India's spending on IT was projected to rise by more than 9 per cent, reaching US\$ 87.1 billion. By 2025, it is projected that the sector will bring in US\$ 350 billion in revenue, with digital sales accounting for 38% of that total.

1.3 Rational Behind the Research

A report by Deloitte, titled Global Human Capital Trends, claims that as HR undergoes a digital transition, company executives can take a new approach to managing, organizing, and leading change.

Deloitte's 2017 Global Human Capital Trends Report, titled "Rewriting the rule for the digital era," focused on the digital workforce, the digital workplace, and digital human resources. Key findings included the following:

- 51% of responding companies are currently redesigning their organizations for digital business models;
- HR is focusing on building the organization of the future by hiring young, digitally competent workers who are comfortable with digital self-service and sharing information transparently; and
- 59% of responding companies are designing their HR programmes to leverage digital and mobile tools. People in this workforce want HR to provide them with a seamless digital experience.

There are more than 7 billion mobile devices in use today, one for nearly every person on Earth, and they generate 40 per cent of all internet traffic, so businesses have a great deal of room to grow in their use of this technology for HR.

Over 100 billion emails are sent and received each day, although only around seven per cent of them are considered urgent, and over 18.7 billion text messages are made and received each day by persons aged 25 to 34 receiving an average of 75 texts per day.

The human resources department should consider staff members as customers who value a seamless and enjoyable interaction with cutting-edge, always-available technology. For instance, 67.7 per cent of workers prefer using digital tools to obtain their benefits, as reported by Thomson Reuters in their 2016 Global Benefits Report.

Employees bring their expectations as consumers to the services they get from HR, transforming how HR engages with them across the board, from self-service to performance management and other traditional HR procedures.

Literature suggests that the user experience of digital HR procedures, services, and applications will improve, but there is little evidence to support this assumption. Digitalising such services and processes have also been cited for achieving cost savings and increased efficiency. The literature review will provide references to previous studies similar to the one being written.

When many businesses are transitioning to the digital world and a digital workforce, it's essential to ask whether or not this shift will improve the user experience, meet the demands of a diverse workforce, and save costs.

1.4 Problem Statement

Companies in today's rapidly digitalized world need to take advantage of the possibilities presented by digital technology if they want to remain competitive and achieve sustainable success. The literature is in agreement that human resource management plays a pivotal role in driving and facilitating the digital transformation of businesses. In the context of digitization, human resources is defined as playing a dual role: facilitating the company's overall digitalization while simultaneously being positioned as the job at hand for digital transformation. The former may be achieved through recruiting and training employees who already possess the digital expertise needed by the business, as well as by building an innovative culture inside the organisation. The latter can be achieved by integrating new forms of digital technology into HR-related procedures and processes.

1.5 Scope of Research Study

This study only covers the area in Pune city only, which is in the Indian state of Maharashtra. The researcher limits their focus to multinationals since they have had more direct experience with digital transformation than small and medium-sized enterprises. Since Pune is home to a number of companies with an international footprint, it seems like a natural location for this research.

1.6 Significance of Research Study

The digital transformation of HR, as stated in the Global Human Capital Trends Report, would allow HR leaders to modify their approach to managing, organising, and leading change while also improving the user experience of HR services.

While there is some research which claims that the user experience of digital HR processes, services, and applications would improve, there is surprisingly little data to back up these assertions. On top of that, there are plenty of sources claiming that digitalizing these kinds of services and processes may result in savings and efficiency.

At a time when many companies are transitioning to the digital world and a digital workforce, it's important to consider whether or not these changes will actually improve the user experience, meet the demands of a diverse workforce, and save costs.

As a human resources professional, the researcher has a vested personal interest in the topic at hand. The research career or the field of Digital HR may benefit from the expansion of existing information on this topic.

Chapter-2: Review of Literature

2.1 Introduction

DeSanctis's definition of HRIS was among the first of its kind. He said it's a specialized information system inside the organization's conventional functional domains, designed to assist human resource management's planning, administration, decision-making, and control activities.⁴

According to work done by Bandarouk in defining digital HRM, modern HR technologies are targeted towards employees and managers, whereas up until the mid-1980s, HR technology was restricted to HR departments only. The researcher aimed his study at gaining insight that may be useful for employees, managers and respective HR departments.⁵

Through this literature review, the researcher will give try to showcase several studies and surveys that have been undertaken on this topic. The researcher will show that there is a wealth of current studies on the benefits of digitizing HR services and procedures for many stakeholders, including employees, managers, HR experts, and businesses.

2.2 Human Resource Management- A Holistic Perspective

In this part of the study, the term "human resource management" is defined, its scope, responsibilities, features, importance, goals, history, models, and "electronic human resource management" are discussed, and examples or applications are given.

Human Resource Management: A Working Definition

Human resource management, also known as HRM, can be understood in several ways. The following are examples of some of these:

Human resource management (HRM) is an art form with the functionality to achieve, develop, and keep the potential workforce in a manner that achieves all its objectives at the highest level in line with the vision of institutions and organizations.

Human resource management (HRM) is the function within an institution or group that ensures the best use of available human resources in pursuit of predetermined organizational objectives.

Human resource management (HRM) is crucial because it helps institutions and groups maximize the potential of their most asset—their employees.

Human resource management (HRM) is the function that allows institutions and organizations to attract and retain a sufficient number of high-quality workers who can effectively fulfil their missions.

To sum up, HR is the practice of acquiring, managing, developing, and motivating an institution's or organization's workforce to achieve optimal results in line with the organization's mission, values, and objectives.

Human resource management aims to do two things:

1. Increase employee quality and employer efficiency by adopting institutional and organizational goals and
2. Selecting candidates by corporate culture in the most efficient manner to help the institution operate and make this work sustainable.

To sum up these two goals, it is important to guarantee an effective workplace to boost employee productivity and satisfaction.

Human Resource Management's Broader Purpose

Human resource management encompasses a wide range of activities, such as forecasting how many employees an institution or company will need, advertising open positions to attract qualified candidates, and making hires based on these projections. It also involves orienting additional employees to the company's goals and culture, providing them with appropriate training and feedback, and keeping them motivated and inspired.

Human resources deal with everyone from the top executive to the newest recruit at any given institution or business. Another group that HR aims to reach are people who have expressed interest in working for a company or agency but have not yet been hired.

The Accountability of Human Resource Management

Human resources are responsible for all employees regardless of their position or designation. From the moment an employee is hired until the day they either depart or resign, HRM is in charge of their every need. The HR team is responsible for finding and hiring new staff, training and educating them, assessing their abilities, and keeping them encouraged throughout the charge of finding and hiring new staff, training and educating them, assessing their abilities, and keeping them encouraged throughout the entire process. Human resource management (HRM) estimates how many and what kind of employees an institution or company will need, publicises job openings to fill those positions, interviews candidates to pick the most qualified candidates, and is in charge of estimating how many and what kind of employees an institution or company will need, publicising job openings to fill those positions, interviewing candidates to pick the most qualified candidates, and training them to fit in with the company's culture. Human resource management ensures that employees are productive, inspired, evaluated fairly, and integrated into the company's ethos.

These are the functions and obligations of an HR Department:

1. Human Resource Planning: Learning about an institution's or company's current staff to gauge the size and calibre of the employee pool, descriptions and analyses of all company functions, including the tasks performed and associated titles;
2. Recruitment and selection of personnel include analysing employment postings for technological, medical, and qualification requirements, as well as overseeing the hiring process
3. Training and Career Development for Staff Members: Helping staff members learn new skills and advance in their positions so that institutional and organisational requirements can be fulfilled.
4. Assessment of Performance: Taking Necessary Actions After Measuring and Evaluating Results
5. The process of classifying jobs by employee quality and then determining a reasonable salary by taking into account all revenue and expenditures is called job evaluation and pricing.
6. Managing interactions with labour organisations; conducting talks leading to collective bargaining and the resulting economic and societal benefits; protecting employee's health and safety at work;

7. HRIS: It is the goal of information systems to make human resources more regular and methodical by increasing data abundance.

Human Resource Management Facets

Among the responsibilities of human resource management are identifying the resources required by institutions and organisations, conducting promotional activities to acquire these resources, and then supplying them. In addition, it ensures that the current resource is adapted to the position, educated, motivated, and aligned with the institution's or organization's corporate culture in such a way that the institution or organisation reaps the greatest possible benefit from this resource.

The characteristics of human resources departments are as follows:

1. HRM aims to prevent the deterioration of personal information brought on by rapid change and development, as well as the increase in knowledge, and to foster the personal growth of employees.
2. HRM is the most essential aspect of any organisation, encompassing the administration of human resources, personnel management, industrial relations, and employees. It encompasses human-centric functions like satisfaction, motivation, career plans, performance evaluation, recruitment, compliance programmes, training, and development.
3. HRM's objective is to ensure the company's prosperity. Using information from the educational, psychological, and behavioural disciplines, HRM, personnel management, and industry relations are combined with the administration of employees to achieve this objective.
4. Human resource management (HRM) encompasses not only personnel management—a technical job that regulates employees' relations with the company—but also the management of the company itself and the accounting, marketing, and production processes that the company rely on.
5. Human resource management (HRM) seeks to create a company culture and increase employee engagement within the workplace.

6. Human resource management, or HRM, arose in the 1980s with its technological features and applications, and it focuses on people who have changed the way businesses interact with one another.
7. Concisely defining HRM is a formidable challenge. This is due to the continuous nature of human relations as a profession within this area of study. Each event requires its unique setting to ensure its smooth progression, and this holistic strategy is the way to go. Management of employee relationships is the bedrock of human resource management.
8. Human resource management (HRM) addresses the anticipated friction between employees caused by the separation of tasks within an organisation. It works to make sure the company and its employees are on the same page in terms of their shared and individual objectives.
9. Human resource management is separate from employee interactions at a company. To put it another way, human resource management looks at the big picture while still paying attention to the tiniest of details.
10. In modern bureaucratic organisations, the origin of authority has shifted. Discussions centre on management structures founded on authority, including executive ranks and responsibilities. Expertise, collaboration, and partnership have taken centre stage. Human resource management works to secure the necessary framework for making this collaboration a reality.
11. The technology industry is gaining popularity among consumers today. Employees who are valued for their expertise will become the focal point of future corporate systems. Human resource management (HRM) helps businesses get ready for HR training by preparing relevant data. Human effort is put into acquiring this knowledge, which elevates the value of humans as the ultimate arbiters of truth and accuracy.

Human Resource Management: Its Reason for Existence and Significance

Human resource management (HRM) is an umbrella term for a variety of tasks, the primary emphasis of which is on improving communication and working relationships between employees. Today, employees are a company's most valuable resource, making human resource management (HRM) crucial to the company's success. Human resource management entails making and enforcing appropriate choices and policies concerning employees.

To keep up with the times, it's essential to adapt your methods. Human resource management has emerged as a central focus for businesses around the world. Prominent scientists have stressed the importance of paying close attention to the process of transformation for any organization or group to succeed. An alternative to the traditional view of management that emphasised interpersonal connections emerged in the 1940s. It was generally agreed that the companies' human resources represented their greatest assets.

Human resources aim to accomplish four things:

1. Social Goal: To alleviate as much of society's negative strain and meet as many of its requirements as possible, the social purpose of organizations is to cater to the community's wants and needs.
2. Organizational Goal: To serve as the conduit through which the primary goals of other entities and groups can be achieved.
3. The Functional Purpose: To Be There When Necessary for Organizational Groups.
4. The Individual Goal: To aid businesses in accomplishing their aims, to supply organizations and groups with the resources they require, and to provide employees with the means by which their own performance can be supported, motivated, educated, and evaluated.

Human resources choices should always take into account these four factors. All employees and leaders of organizations and groups will reap the greatest benefits from the HR department if the work done by the HR department suits these four purposes.

How Human Resource Management Evolved Over Time:

Human Resource Management's historical progression is crucial to comprehending and discussing the strategic significance of HRM's roles and duties.

The idea of servitude in ancient Greece and Rome is a landmark in the study of labour and management. The guilds of the Medieval Ages had rigid hierarchies founded on the skills and experience of their members. The modern concept of an employer and an employee dates back only to the 18th century. The revolutionary ideals of freedom, justice, and equity that sparked the French Revolution also prompted a rethinking of the relationship between employees and their superiors. In the wake of the development of these ideas, unionisation rates rise.

Beginning with the Industrial Revolution, mechanisation spread the use of science and logic to everyday life. Production-related worker performance was improved through the implementation of concepts and methods pioneered by F.W. Taylor. Businesses adapted to the new ways of thinking that the Industrial Revolution ushered in, and these new ways of thinking have always had a primary emphasis on people. The significance of workers' output, incentive, methods of doing business, and conformity with the company grew across the board. Identifying requirements in the business world and matching them with qualified applicants has led to tangible, fruitful outcomes. Mechanization has revealed the significance of human jobs such as leadership, management, and execution. In a post-industrial world, human beings are essential to every step of production, and the importance of the services sector in economic life has grown exponentially. Since the 1980s, when globalisation increased rivalry between businesses, HRM has been a key business strategy. While businesses and other groups can easily replicate production-related technological advances, they lack the tools to improve their human resources (HR) through technological means.

Human resource management (HRM) is a management idea that is essential to running a successful company in the modern era. By looking back in time, we can see that science management, the original method of management, was eventually superseded by human resource management. Human resource management (HRM) is a contemporary strategy to management that has allowed institutions and groups to handle problems like employee motivation, education, development, and satisfaction.

Case Studies and Strategies for Efficient HRM with Technology:

The following are some of the most important uses of HR departments in light of recent technical advances:

1. The Employee Handbook serves as an introduction to the company's education, values, and rules for new hires. Budgeting for printing and the difficulty of making updates to printed handbooks make them an expensive option. By going digital, these pamphlets can be easily viewed, duplicated, and printed out again.
2. Employees' names, email addresses, phone numbers, and other relevant communication details are all kept in a "phonebook" directory. According to the study's findings, virtual employees may make better use of their time by transferring and learning information in digital settings rather than in a conventional way.
3. Data showing that all institutional and organisational data needed by employees has been converted is presented. This allows for the rapid and easy dissemination of information that is constantly evolving and being discussed, such as medical records and future plans for employment. This way, the HR team can build a repository of commonly requested queries without wasting time.
4. In this system, employees' information like retirement accounts, documents, and financial choices are stored, managed, and accessed electronically. This method helps employees evaluate their time and effort more efficiently and stops them from having to answer all retirement-related inquiries individually, as is needed by the HR department.
5. Organizations and groups can conduct research on their present applications and possible changes by using a questionnaire or another surveying technique, which helps save both time and efforts. Technology has made it simpler, more affordable, and quicker to perform studies and implement necessary adjustments. Because of this, issues can be resolved quickly and adjustments can be made with little effort. Therefore, it makes room for enhanced company processes.
6. Internal Employment Opportunities: Companies and other groups often post job openings and employee development plans online. In a digital setting, information can be disseminated more swiftly, directly, and plainly via the internet as opposed to the conventional method of posting employment advertisements. Increased applications, employee engagement, a reduced turnover rate, and organisational progress and development are all possible thanks to this method of application.
7. It takes time, money, and effort to advertise open positions and acquire the people those companies need to function. When jobs are advertised online, more people apply, and the human resources team can use advanced search filters to find the best candidates

faster. That is to say, the hiring procedure has become easier, quicker, and more effective.

8. Analysis of Candidates In today's digital world, it is possible to rapidly evaluate the information of multiple applicants by using keywords based on the skills desired. This screening choice makes it simple to zero in on the best possible applicants for a position.
9. Workforce Structure and Organizational Charts: These can be updated in real time and shared with all employees via the online.
10. Press Releases: Instantly share company-wide product details with employees, clients, and partners.
11. An electronic calendar detailing annual vacations and other special events for the company's employees is generated by this programme. Any changes to the schedule can be made simply by the person in charge, and word will rapidly spread throughout the office.
12. Digital space where businesses and their employees can share news and updates with one another. Employees will feel more committed to the business as a result.

Business operations have benefited greatly from technological advancements in terms of saving time and money and increasing the efficiency of human work. Human resources has sped up the fundamental communication, processes, and planning between divisions like marketing, sales, production, and finance, and cut down on bureaucracy and hierarchy structure, saving time and increasing efficiency.

Impact of the Digital Transformation on HR:

Human resources divisions in the modern era rely heavily on information technologies for tasks such as data collection, storage, maintenance, analysis, and dissemination. Human resources divisions have risen to the level of strategic coordinators and influencers among managers thanks to the tools made possible by technological advancements. The methodical analysis of data, coupled with technology, yields more efficient results than departments have been able to achieve to this point because departments cannot acquire efficient data that they cannot analyse.

The drivers of organization for speed, efficiency, and simplicity can be better understood by delving into the evolution of strategic human resource management.

Human resource management is evolving and developing from its historical focus on record-keeping to one on forging effective alliances. There are essentially four distinct phases that make up the whole procedure. The HR team and the strategic planning team have gone from separate studies to a unified plan of action in the second step. After the third stage, in which HR and strategy communicate more effectively with one another, HR entered the fourth stage, in which it deals with unforeseen circumstances and assumes a greater level of accountability.

Organisational websites with comprehensive material describe their own strategies and company cultures and recruit potential employees. By promoting the company's culture, chances, and training facilities, HR departments can boost the workplace brand and position their organisation as an employer of choice.

Technology has affected every industry and entity, as well as HR departments. Some of them include the following:

Dissemination of Data: Human resource advancements start with the automation of data exchange. First, there is unidirectional contact and the inclusion of all relevant data from within and outside the entity. The company's background, policies, announcements, newsletters, news, duties, and an operations manual are all included.

Database Creation: Employees' names, addresses, birthdays, areas of expertise, salaries, medical and retirement information, and other personal details are all stored here.

HR Operations: All administrative records and documents are kept online and are kept up-to-date with any changes, such as newly assigned duties. Employee performance evaluations based on job tasks, data utilisation, and multi-dimensional analyses are all examples of complex HR operations. There is no paper involved in any of the administrative procedures between employees and managers, nor in any of the apps used within the company itself that are accessible via the intranet. E-recruitment, e-selection, e-placement, e-learning, e-development, e-evaluation, e-performance, e-pricing, e-business, e-talent assessment, e-career management, and e-planning are all included here. It's now possible to perform many HRM tasks that were previously handled by conventional management entirely online.

2.3 Working in the Workplace which is Digitized.

There were more than 749 million internet users in India by 2020. Forecasts indicated that this number would rise to more than 1.5 billion by 2040, creating significant opportunities for the south Asian nation's internet service providers. Specifically, in 2019, India's internet market was rated second only to China's. It was predicted that the number of people using the internet would rise across all demographics, from urban to rural. Hence the workforce will be working longer and remotely with the advent of technology and the internet.

Key facilitators of digital transformation include social media, mobile computing, analytics, cloud computing, and the Internet of Everything. For recruiting digitally savvy people, businesses must have a compelling employer value proposition ("EVP") or employer brand. People are staying in the workforce longer. Therefore there are now both "born digital" and "digital immigrant" employees. Younger generations who have grown up with computers and the internet often have little recollection of a period before the internet. They have no trouble adjusting to today's constantly linked, real-time digital environment. Generation Z is the first to go for their phones within the first few minutes of waking up, and they seldom go more than an hour without checking it. Adults who are digital immigrants are constantly linked with the myriad of technologies and apps accessible on their mobile devices, just like their younger colleagues.⁶

It is without dispute that technological progress is occurring at a rate never seen before. The velocity of change brought about by innovations in areas such as Artificial Intelligence ("AI"), mobile platforms, sensors, and social collaboration systems, among others, is expected to increase. Individuals and communities alike are under strain because of this.⁷

Deloitte claims that the term "digital workplace" refers to all tools used by employees in their daily job. Examples include social networking sites, instant messaging programmes, and email. Applications might be desktop or mobile (usually accessed on a smartphone or other mobile devices).

Since businesses no longer adhere to the old standard of operating between the hours of 9 and 5, there is a need for always-on HR technology to accommodate the new ways in which employees engage with their companies. The nature of work, including the job of HR experts, will be profoundly affected by the rise of the digital workplace.⁸

They go on to state that human resources professionals are beginning to see the benefits of self-service portals, HR analytics, and the integration of several internal and external social media platforms. As far back as 1998, it was claimed that with the introduction of HR technology and HR service centres, HR would become consultants and professional partners with line managers as they are no longer going to be doing the day-to-day drudge labour. In this context, HR technology platforms enable more and more system integration and access to data while at the same time decreasing the administrative load on the HR function. HR should seek to standardize and automate repeatable operational activities to guarantee that the 'basics' of HR are done properly so that HR Business Partners may become more credible. The author, who has worked in human resources for twenty years, argues that one of HR's main responsibilities is to boost employee output with increasing engagement. The ordinary employee, for instance, may spend almost a quarter of their workday just checking and responding to emails. HR, in cooperation with company management, should investigate methods to decrease non-value-adding operations.⁹

With over half of all occupations in the world susceptible to automation, technology is fundamentally altering the workplace and the essence of employment itself. Although the Deloitte Global Human Capital Trends Reports for 2016 and 2017 suggest a shift in this mentality from HR functions, Spitzer argues that many HR functions are still clinging to traditional modes of engagement. This is even though digital organizations can focus on improving organizational efficiency rather than being consumed by administrative work.

The pervasive nature of technology and the experience of using it, rather than belonging to a certain generation, generate digital fluency, as found by Bennett. While agreeing with Bennett that digital natives and digital immigrants may share similar levels of digital fluency due to experiential learning when using technology, some suggest that more research is needed to determine how digital fluency affects work performance and career advancement.¹⁰

As a result of the widespread use of IT in business and the widespread availability of such tools on mobile devices, the traditional barriers between the office and the home have mostly vanished. According to research conducted by Cisco, 83 per cent of employees admit to using company resources for non-work-related purposes.

On the other hand, other studies have shown that employees who check their work emails outside of normal business hours are more likely to feel resentful and have more arguments at home.

Workplace interactions between employees and their companies are evolving due to digitalization.

How coemployees communicate is evolving because of the proliferation of instant messaging programmes like Skype for business, email, and collaboration systems like Yammer and Slack.

The use of technology in the workplace is also causing shifts. Many businesses already use AI to handle mundane, repetitive activities, such as responding to consumer inquiries via chatbots or streamlining HR processes like onboarding new hires.¹¹

Jesuthasan argues that human resources facilitate digital engagement by allowing businesses to use ICT.

As said before, AI can do away with mundane administrative activities, allowing employees more time to focus on important projects. It will be highlighted later that digital technology, especially on mobile devices, can improve employees' capacity to strike a healthy balance between work and personal life.

As was previously said, how employees communicate and collaborate inside and between organizations is evolving due to the rise of digital collaboration technologies. Such collaborative technologies, along with online benefit portals and social learning platforms, are replacing or supplementing traditional face-to-face involvement. The digital realm is increasingly becoming where people want to engage with one another.

Jesuthasan argues that human resources may help shape the digital future by revamping corporate procedures to accommodate digitization and enlisting the help of all employees in the transition. To achieve digitalization, he argues, existing HR methods must be reimaged; organizational levels must be lowered or flattened, and services such as performance management and recruiting must be revamped to match the digital world and the needs of tech-savvy employees.¹²

The advantages of a paperless office There is a plethora of accounts and corroborating literature that provide the necessary context for this inquiry. It has been shown that businesses that invest in effective online social networks and collaboration tools get a productivity boost of seven per cent compared to those that do not.

According to Cisco's Connected World Report, sixty-four per cent of employees would be willing to take a pay cut in exchange for the option to work remotely.

Employee happiness is better for companies that provide internal social media capabilities. Human resources experts may show a clear Return on Investment ("ROI") if they make the most of technology by integrating diverse platforms and using it to its fullest extent.

The best companies provide their employees with an online benefits portal that provides a consumer-grade experience and can be accessed from any device.

According to the Cisco Connected World Technology Report November 2014

- 76% of respondents choose their smartphone over TV.
- For Wi-Fi, 58% of people would give up a feeling, and
- 54% look at their phone first thing in the morning.

Most individuals rely on between two and three gadgets daily.

- 53% of Americans would instead use their mobile phones than a landline.
- Almost 40% anticipate their mobile phone to be their primary electronic device by 2020.

Most human resources experts believe mobile technology (phones, tablets, apps) allows them to get work done more quickly than traditional desktop computers (PCs and laptops). More than half of the HR pros polled saw themselves as available around-the-clock, and the majority think office space will be optional. While most HR experts expect the 9–5 weekday to persist, almost half say that employees will need more freedom in their schedules in the future.

A further conclusion from the study of HR experts showed that 48% think managers won't have to be physically present in the same workplace as their boss, while 38% think that being reachable at all hours would be a need (but constant work will not be).

To compile their findings for "The effect of the digital workforce: The new equilibrium of the digitally changed organization," Forbes Insights (2017) polled 2158 top-level managers, including CIOs and app end users. They discovered that empowering staff with digital transformation tools led to increased productivity.

Employee productivity is boosted when apps can be accessed from any device, which enables business performance, results in more income, and reduces expenses.

This study identified three distinct types of workplaces. The first is the conventional workplace, where employees are given adequate technological resources to do their duties. In the second

type of evolving workplace, management makes it difficult for workers to get the applications and technologies they want and desire. The third type of workplace is the digital workplace, in which all the tools and applications that workers want and wish are easily accessible from any device.

According to the study, adapting to the digital workplace is the key to success in the modern business environment. Providing employees with a corporate technology and app experience similar to what they receive as consumers is essential to developing the digital workplace. The result is a more productive workforce and increased profitability for the business.

2.4 Organizational Barriers to Going Digital in Human Resources

Organizations have challenges with the rise of digital HR, and it's more complex than some authors make it sound. People Management quotes Peter Cheese, CEO of the CIPD, saying that despite the promise HR technology brings, productivity is dropping, and employee stress is growing due to the problems connected with the always-on aspect of technology.

Technology can have a detrimental influence in the workplace since employees can get hooked on them, lending credence to the views above. Some studies have found that the average person checks their phone more than 150 times daily. According to Rose's "Rewired: The Psychology of Technology" Blog, a person's addiction to technology and the resulting impression that they are constantly working might result from the constant connection of mobile devices, which can send work to employees even while they are at home.

The ramifications for an organization are evident since studies have shown that employees who use their phones at night to check email are less productive during the day. So, it's a problem for businesses to strike a balance between keeping employees engaged and letting that disruption in production and efficiency.

Some of the difficulties that businesses face while switching to digital HR are outlined by Bersin.

- We need leaders willing to shake things up as we transition to a digital workplace.
- Human resources professionals require upskilling to adapt to changing working methods and new technologies. Human resources (HR) business procedures and

practices will need to be altered to offer value-adding digital solutions. This is especially true for businesses that are trying to recruit members of Generation Z and the millennial generation.

- Successful transitions to digital environments require widespread support from staff rather than just the support of upper management.

Since more and more employees (millennials and soon Generation Z) are younger, digital natives, HR departments will almost have to act like digital marketing departments during the transition to digital not only to engage employees but also to attract, develop, and retain them.

The European Union's (EU's) General Data Protection Regulations (GDPR) address concerns over the privacy of personal information, including the individual's "right to be forgotten," the necessity of data accuracy, the timing of data deletion, and the prohibition on data exports outside the EU. New HR software, cloud-based technologies, and the integration of personal data with employment and performance data (such as sales performance) provide significant hurdles in this area for businesses (Regulation (EU) 2016/679). Companies must take GDPR seriously or risk fines of up to €20 million, loss of customers and employees, and harm to their brand.¹³

2.5 Future of Digital Human Resources

It is helpful to step back and assess the findings and conclusions of the reviewed literature at this juncture. Most commentators and authors seem to agree that digitizing human resources will improve the efficiency and effectiveness of the HR department, freeing up time for HR professionals to focus on higher-value tasks; this, in turn, will increase employee satisfaction with HR processes and services, especially as younger, more tech-savvy generations enter the workforce.

According to Gueutal and Stone, one of the main advantages of digital HR is that it frees HR to focus on more strategic tasks by facilitating the implementation of HRIS and optimizing operations. Making procedures more user-friendly and allowing employees to work from remote locations are two ways the workplace has become more convenient for workers.¹⁴

Despite obstacles, businesses must adapt their operations (not just HR) to the new digital landscape; in fact, 90% of global companies polled by Forbes in 2016 have already begun this

process, while 67% of CEOs surveyed by Fortune in 2015 identified themselves as heads of technology companies.

Companies must implement digital HR as a foundational necessity for change to future-proof their businesses. Using technology in human resources would result in more educated and motivating HR transactions and choices, ultimately boosting businesses' efficiency.

Seventy-six percent of people polled by Cisco in 2014 said they'd instead use their smartphone than watch television. According to Deloitte's Global Mobile Consumer Survey, nearly all people (18–24) check their mobile devices within three hours of waking up. More than half recheck it within fifteen minutes of retiring to sleep.

The author has previously shown that there are drawbacks to always-on connectivity and the employment of cell phones, but the prospects afforded by their use in digital HR cannot be overlooked. Due to the evolving nature of the workplace and the widespread use of mobile devices, HR may feel obligated to adopt a mobile strategy.

Working long hours, including being always available through a smartphone or the expectation of doing so, might have unintended repercussions, such as stress at work.

As Zielinski argues, smartphone autonomy boosts morale in the workplace. It's debatable whether or not they have a net beneficial effect on people's interactions with one another and the quality of their relationships. The widespread adoption of cell phones across demographics demonstrates their value as a platform for exchanging information.¹⁵

Research shows a strong correlation between autonomy, connections, knowledge sharing, employee happiness and productivity. When given more freedom to make decisions on the job, employees are more likely to feel engaged at work.¹⁶

Bakker expanded on the correlation between job happiness and productivity by focusing on engagement instead. Since engagement is a more dynamic kind of job satisfaction, it naturally results in even higher productivity levels. Despite the potential drawbacks already highlighted, the researcher may conclude that earlier research shows that cell phones give HR professionals enormous opportunities.¹⁷

Sixty-eight per cent of organizations surveyed by PWC in their Human Resources Technology Survey (August 2017) had at least one HR process in the cloud in 2015. This number has risen to seventy-three percent by 2017. Forty percent of companies questioned had their core HR

apps in the cloud. Only around a third of businesses using hosted (on-premises) apps expect to switch to the cloud within the next year and a half.

After introducing cloud apps, PWC discovered that 52 percent saw an increase in employee utilization, and 47 percent of managers reported using self-service applications more frequently. In addition to freeing HR to focus on strategic initiatives, one-third of respondents also noted that using cloud-based HR apps reduced the cost of HR employees.

The report from PWC ended with advice for a smooth transition to the cloud. The first piece of advice was that HR couldn't lead the charge for change independently; stakeholders from throughout the organization also needed to be on board. When developing and integrating cloud-based apps, businesses had the best success when they hired change management and communications professionals.

Many of those surveyed by PWC highlighted numerous difficulties in transitioning to cloud computing. 45 percent of respondents felt their purchases fell short of the promises made by the salesperson. There was a lack of internal resources (cited by 44% of respondents) and readiness (cited by 39%) for the necessary re-engineering process.

By utilizing cutting-edge tools, the HR department can keep and recruit the most talented employees in the market. New HR tools for finding and cultivating talent and improved decision-making thanks to better access to data and advancements in cloud computing are just two examples of this happening.

In a world where many people worry that employment will be mechanized and humans replaced by machines, there is an argument that digitization, automation, and technology still require humans.

Bajer argues that, rather than opposing or being threatened by digital change, humans and technology could develop a relationship in which they may jointly produce significant benefits. In his opinion, some tasks can only be done by a person, no matter how advanced technology gets. While computers can solve problems according to a predetermined set of rules encoded in code or algorithms, humans excel when no such rules exist. Humans are value-driven, and as a result, we may make value-based assessments and decisions that, compared to a rule based on a set of equations, may lead to a definitive conclusion. Machines can't be funny or empathetic at precisely the right moments as humans can (yet).

Bajer concludes that computers will take over routine, dull, and tedious tasks, allowing humans more time for imaginative and exploratory pursuits.¹⁸

The term "digital transformation" refers to more than simply a change in technology; it's an instrumentality, not an end goal. There is no single best strategy for achieving digital transformation, but it must involve people at every stage. It's crucial to have change agents that cut across departments to ensure the transition goes well.

2.6 Investments in Digital Transformation of Human Resources

Technology investment is nothing new. According to McKinsey's poll, 75% of CEOs who participated in the study planned to keep or expand their financial commitment to technological advancements. When asked if they were happy with their previous investments, more than half responded, while the other half wished they had invested more and built digital capacity sooner.

In 2012, researchers from Oxford Economics identified four megatrends in digital change. These four developments include mobility, data analytics, the cloud, and social media. As a result of technological advancements, HR managers now have access to technologies that allow them to track previously impossible metrics, which is a significant factor in HR's evolution into a strategic business function. The study by Oxford Economics found that organizations should consider the competitive risks of not using technology since it would be utilized to increase collaboration.

Most businesses utilize mobile technology for HR extensively. In a fascinating twist, fast-developing countries are more likely to embrace HR technology than developed ones.

Five tactics now employed by HR departments that are on the global stage were listed in the research.

- Shifting resources away from transactional work and toward value-added initiatives makes digital transformation self-sustaining.
- Accept the inevitable rise of the digital age. Due to the increased usage of process automation, world-class HR functions have a technology expenditure per HR FTE that is 18% more than peer HR functions, with the differential reaching as high as 80% in some businesses.

- Making choices based on analytical evidence should be prioritized. With the help of cutting-edge data, leaders can make more informed choices and boost productivity across the board.
- Create and provide services with the client in mind. HR delivery at world-class organizations is service-oriented and customer-focused.
- Human resources need to retool. More appropriate skills are utilized to leverage HR technology, and 20% more HR FTEs are dedicated to a leading transformation in world-class HR departments.

While spending on HR technology has grown, it has yet to be matched by equal increased investment in people capabilities and process re-design.¹⁹

According to Deloitte, companies must invest in HR capabilities and programmes to re-design HR processes to get the most out of HR technology.

2.7 Conceptual Framework

Human resources and the phenomena of digitization have been the subject of much research in recent years, as was noted above. It was, therefore, possible to draw on a wealth of previously published works and other resources for this investigation. Human resources (HR), Human resources (HR) service delivery (HR SD), human resources (HR) transformation, and human resources (HR) digitalization theory and research by Dave Ulrich, Josh Bersin, and Tanya Bondarouk formed the basis for this study. Human resource management consultancies like Deloitte and the HR Trend Institute contributed additional useful research materials that were incorporated into our investigation.

Dave Ulrich has done extensive study in the HR profession. Over the course of his career, he has written more than twenty books and one hundred papers on human resource management's role in helping businesses improve their leadership, speed, learning, accountability, and talent. In addition, he has helped create award-winning databases that evaluate the degree to which plans, organizational capabilities, human resources practises, human resources competences, and customer and investor outcomes are aligned.

Regarding human resources (HR), talent, and education, Josh Bersin is one of the most cited experts in the area. Bersin is the Principal and Founder of Bersin by Deloitte. He has been actively involved in important worldwide trends in leadership, management, human resources, and talent management technologies with the HR organization.

Tanya Bondarouk is a pioneer in digital HRM, combining Human Resource Management (HRM) with information technology. She is well-versed in the HRM and social considerations of IT implementations, having written extensively on the topic. Her studies cover many topics, such as HRM innovation, frameworks, and global talent management.

Although there are many papers written on human resources (HR) modernization and the establishment of HR-shared services, Researcher has tried to look for research that specifically focused on the implementation of integrated service management tools. For example, many studies have been conducted on HR digital transformation, i.e. how HR businesses have adopted the digital, e.g. SaaS-based Human Resources Information (HRIS) systems. Still, these studies need to pay more attention to the perspective of employees. That is what goes on outside HR and the necessary HR procedures enabled by core HCM systems.

From this description, we see that HRM is based on several intricate entities and goals that are essential to the success of any business. Human resources operations include a wide range of HR procedures, each of which entails a combination of necessary administrative chores, strategic aspects, and characteristics that provide value to HR operations.

Human resources may be thought of as having two sides: on the one hand, HR acts as a service provider for routine administrative duties like employee agreements, verification letters, and payroll and frequently asks about things like absenteeism. When HR is done well, it becomes a strategic business partner for the company, one that helps it expand and gain long-term competitive advantage through competent HCM.

Figure 2 below depicts a few examples of strategic endeavours, such as talent management, reward and learning, and Human Resources Development (HRD). Finding a happy medium between the two is a problem. To free up resources for developing HR partnerships, HR digitalization strives to automate HR processes fully.

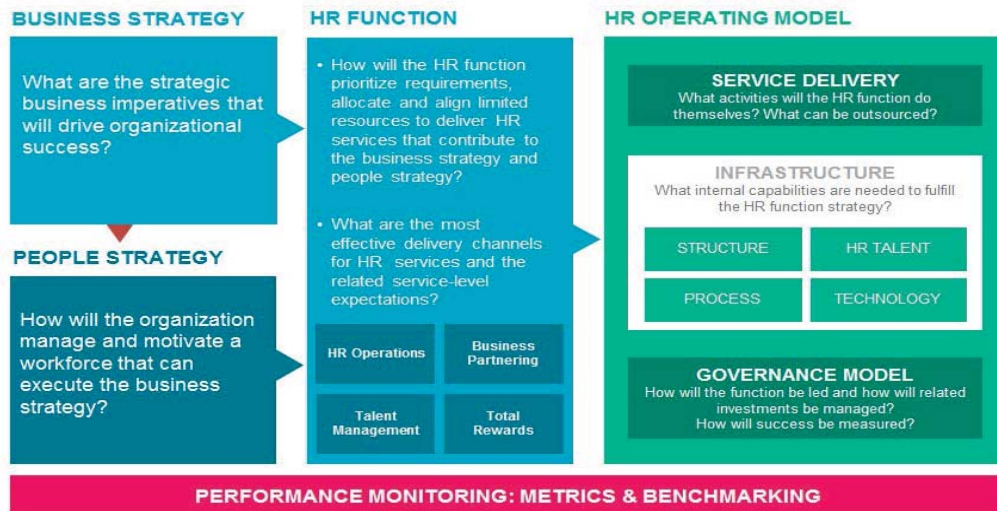


Figure 3: Mercer's HR Operating Model Framework

It's not a novel idea to suggest that human resources departments should devote more resources to strategic initiatives and less to routine administrative tasks. Notably, many companies still spend most of their time on administrative/advisory tasks while having low levels of HR Service Maturity and digital HR transformation (i.e. service delivery automation). This is evident from studies such as Deloitte's 2018 HR trends report, which found that only 31% of organizations worldwide are prepared for the challenges that automation, AI, and robotics bring, implying that HR has not been able to focus on areas such as talent management and talent acquisition to the extent that businesses require.²⁰

Additionally, the worth of HR has been heavily discussed and argued. Figure 3 summarises the five main points of Ulrich and Brockbank's description of HR's value proposition. I say that these benefits should be considered and used when human resources begin its digitization journey and start constructing a better service management system.

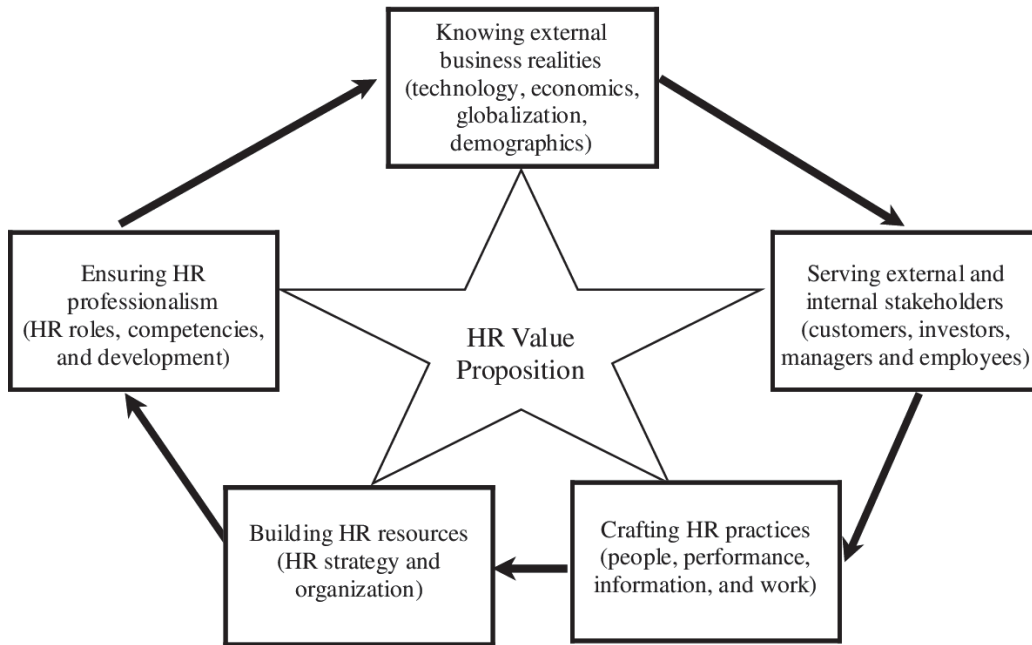


Figure 4: The elements of the HR value proposition by Ulrich

To begin, the HR department must be aware of the external factors that affect it, such as technological progress and the effects of globalization, so that it can adjust its HR resources and procedures accordingly. Secondly, HR should learn about its stakeholders' beliefs, aims, and necessities because it has diverse stakeholder groups with varying expectations. Third, HR must manage its people processes, policies, and technologies to ensure they benefit the company's stakeholders.

The fourth point emphasizes the need for a well-defined strategic planning process within human resources to ensure that the HR department's activities and investments align with the needs of the company and its long-term objectives. As a last and fifth point, HR should cultivate a culture of professionalism by cultivating competencies and assigning clear and proper responsibilities. In this way, the value proposition concepts serve as a foundation and guide for HR as they develop and roll out their digitization plans. Furthermore, I believe the framework exemplifies the reality that all these variables must be addressed for any HR transformation project to succeed, digital or not.

2.8 A Quest for Digital Transformation in Human Resources

Collaboration is preferred over cascade, adaptability is preferred over prescriptiveness, and leadership is preferred over management in the modern digital era. Human resources are the primary mover and shaker in this workforce revolution. According to Mario Moreira, HR must be able to reimagine its function to facilitate an Agile world, develop a value-driven organization, and achieve higher levels of satisfaction and output from workers. While technological advancements and digitization are essential to this endeavor, there are other catalysts for HR's change.²¹

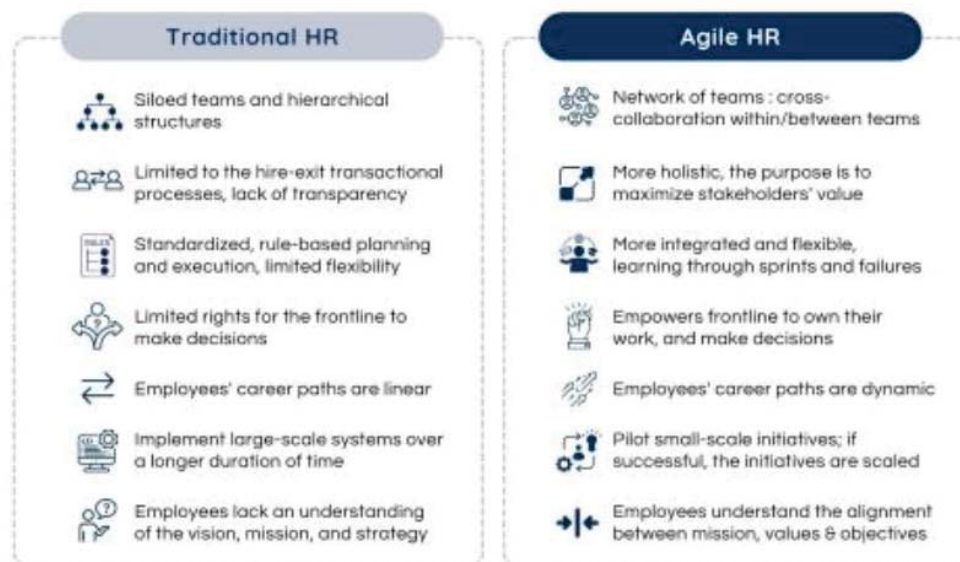


Figure 5: Bersin-Traditional vs New HR

Figure 4 depicts the outward manifestation of HR's transformation and provides context for why it's so important in today's fast-paced, much more digital and agile, internationally challenged, competitive corporate world. Overall, I agree with Ulrich, that a successful transformation improves the value of HR. However, I believe an approach to digital HR transformation should be integrated, aligned, innovative, and, most importantly, business-focused.²²

HR affects every aspect of a company and its employees, making the digital HR transition even more complex and challenging for firms. It is hardly a meaningful transformation if only a few best practises are used, such as e-HR, employee self-services, or deploying some HRIS system.

At its finest, technology is not the only engine of change but rather the driver and enabler of the transformation and the capabilities of an organization or a person.²³

Business Context, Outcomes, HR Redesign, and HR Accountability are the four pillars of the transformation paradigm proposed by Ulrich. This transformational tool allows businesses to adopt existing best practices and mould them into a cohesive, optimal system. Figure 5 by Ulrich is a model of HR transformation.²⁴



Figure 6: Model of HR Transformation by Ulrich

Moreover, in digital HR transformation efforts, it is also vital to identify the beginning point (i.e. present status), create transformation objectives, and define future status by defining the service delivery model, outsourcing strategy and governance model. In addition, a roadmap should be planned by envisioning the future state's structure, procedures, and technology and then aligning these elements at key points.²³

The first stage of the Ulrich model explains the business setting in which the change was implemented. Reasons may be based on economics, politics, geography, sociology, or any combination of these (i.e. the changing world we live in). Stakeholders, such as investors, consumers, regulators, suppliers, and rivals, are also identified during this stage. Together,

these two factors give businesses the justification they need to implement change. Having a clear and real business reason for the digital HR Service Delivery initiatives. Suppose an organization's competitors are all "going digital," for example. In that case, the organization may feel compelled to follow suit, even if it is not required or prepared for the transition.

The second stage focuses on the results or the answers to the "what" inquiry raised in the first. To compete and succeed, a business must have certain competencies, which Ulrich defines as the company's strengths. In the third stage, the process of going digital is discussed. For HR to meet the needs of its stakeholders, it may be necessary to rethink its organizational structure, HR strategy, set of HR practises, strategy for digital HR Service Delivery, and the function of HR Service Management. The human resources department must be well-structured and directed toward the proper goals, with coordinated and novel practices and competent HR personnel to make the most of this transition.

In the last stage, you'll choose who will be undergoing the change and their specific roles. Ulrich argues that while line managers are often held responsible for transformation projects, HR experts should take the lead in creating changes, and employees should be viewed as advisors. Line managers may manage employee cases using HR Service Portals. HR professionals can function as service architects, managing and creating services via HR Service Management tools in a traditional or digital HR Service Delivery model.

Human resources face a double whammy in the digital transformation journey: retooling HR processes and changing how people work. Verlinde finds that HR digital transformation is about more than just human resources; it's a radical shift that affects the whole business. Because of this, HR digitization is difficult.²⁵

Integrating HRM, people management, and all other facets linked to the application of HR technology (i.e. digital solutions) is a significant challenge and complexity. Additionally, as was previously said, because HR transformation affects the entire organization, digitization of HR causes stress among HR professionals, has the potential for user discontent, and might meet opposition from line managers.²⁶

The phenomenon of technological innovation and the age of smart machines in the workplace brings exciting difficulties and conflicts depending on how it is presented in different circumstances. For instance, in certain situations, technology might have an "automatic" impact (i.e., transforming engaging manual activities into boring, repetitive and demotivating ones). In contrast, in other contexts, technology can have an "informative" effect (i.e. manual tasks

become more challenging and interesting because of the richer information environment enabled by technology). I believe this conundrum also raises the extra challenge of digitalizing HR, as well as the necessity to address these issues when automating HR services and allowing HR Service Management.²⁷

2.9 Human Resources Information Systems

Human Resource Information Systems (HRIS) are defined by Kavanagh as follows:

A human resources information system that gathers, stores, processes, analyses, retrieves and disseminates data on employees of a business. A human resources information system consists of more than just hardware and software used to handle human resources tasks. Human resource information systems (HRIS) comprise technology, software, people, paperwork, guidelines, and records.²⁸

Human Capital Management (HCM) and Human Resource Information Systems (HRIS) serve the same purposes. Hence both acronyms can be used interchangeably here. HRIS are often based on classic Human Capital Management (HCM) functions such as employee and employment data registration, candidate screening and selection, employee training and development, and compensation and benefits administration. Three types of HRIS may be classified by their intended use: transactional, conventional, and transformative. While transactional systems are primarily concerned with maintaining records, conventional systems oversee fundamental HR tasks, and transformational systems improve the company's bottom line. HCM systems may be broken down into four distinct types of use cases:

1. Administrative and Workforce Management Applications consisting of core HR, payroll, record-keeping systems, time management and absence management.
2. Service Delivery applications consisting of self-service and transactional services.
3. Strategic HR applications include talent acquisition, eLearning, training, performance management, succession planning, competence planning and workforce planning.
4. Business Intelligence applications combined enable organizations to move toward metrics-based management.

However, even transactional and conventional systems may contribute to the company's strategic business value, aligning with the organization's overarching strategic aim. As was

previously said, the vast bulk of HR departments' efforts is put into transactional tasks, while just a fraction is invested in transformative initiatives. Because of this, it is crucial to ensure that the technology enables decreasing the time spent on transactional activities and releases time for traditional and transformational activities when developing, designing, and implementing digital HR services (i.e. helping cultural or organizational change, strategic direction, structural realignment, or increasing innovation).

Considering the widespread HR revolution taking place at the moment, HR technology has also entered a period of rapid development. In addition, HR can now connect its technology investment goals with other support functions like Finance and Facilities thanks to the maturation of enterprise-wide technology solutions. In this way, more developed HR Service Delivery and HR Service Management are made possible by enterprise service management technology developments. Overall, it can be stated that developments in transactional HR technology enable organizations to build more effective, cost-efficient, and high-quality HR Service Delivery models that are managed in a professional, metric-based (i.e. operational KPI's) manner, allowing HR to become automated and data-driven, as defined by the term digital HR transformation.

2.10 Trends in Human Resources

Human resource trends have been the subject of several reports, articles, and books. Companies like Deloitte, KPMG, PwC, and the HR Trend Institute, to name a few, have all launched annual global studies on the future of human resources, human resources trends, and digital transformation. From a high level, it is evident that HR and strategic areas like The Organization of the Future, Careers and Learning, Leadership, Performance management, Culture and Employee Experience, Talent Acquisition, People analytics, and The Future of Work is receiving the most attention. The Deloitte research found that regardless of the size or kind of a company, each of these five topics was ranked as one of the most significant worldwide trends.

The trends that look less relevant internationally according to the Deloitte study - Digital HR, People Analytics, The Augmented workforce and robots, computing, and AI – give an intriguing point of view to this study, especially since digitalization is a topical subject in HR firms. Figure 6 mentioned below, given by Deloitte about HR trends:

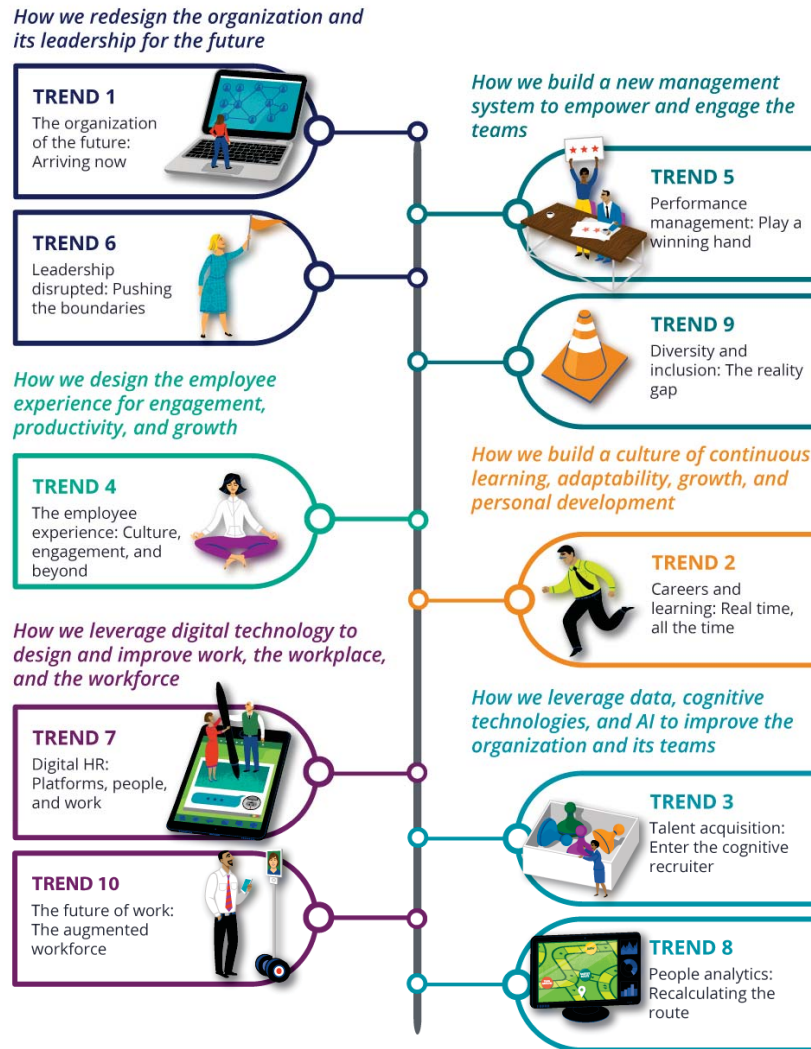


Figure 7: Trends in Human Resources by Deloitte

The ideas of digital HR and the digital workplace are routinely examined to support the hypothesis that digitization is a significant trend in human resources. Deloitte's The Deloitte digital workplace framework, for example, is a tool that helps businesses learn about their present digital workplace and spot areas of improvement that might facilitate more efficient operations.

The new possibilities presented by technological advancement are considered as major motivators in the effort to revamp the HR department. Artificial Intelligence (AI) and Machine Learning (ML), Conversational User Interfaces (CUI), Augmented Reality (AR), Virtual Reality (VR), and Big Data Analytics are just a few of the expected technological

advancements that HR professionals may look forward to in the coming years. Employers may utilize AR and VR to show prospective hires around the workplace and what it's like to work there by showing them what a typical day looks like. Therefore, this allows for first-rate HR services to candidates, with consequential benefits for corporate reputation and candidate satisfaction.

2.11 Defining Digitalization

The research shows that no single, all-encompassing concept of digitalization exists. Indeed, most writers used this word without explaining its significance to the reader. Instead of explaining digitalization, they introduce it by discussing its most important consequences for people and businesses.

According to Evseeva, "the digitization of processes is significant not only at the level of individual enterprises: there is a rising push from worldwide and local network organizations that can answer all new and fresh customer expectations as fast as feasible."²⁹

Ketolainen describes digital HR transformation as "the transition process of migrating to a digital HR to become automated and data-driven. It is the employment of technologies that permits altering business".³⁰

For businesses to be competitive in the long run, Das and Sureshkrishna argue that they must be open to adopting new technology. Here, digitization is viewed as a must, a phenomenon from which businesses cannot shy away.

After all, when researchers discuss digitalization, several features appear critical to effectively characterize it. The process of digitalization is (1) quick to change and adapt, (2) simple to implement, (3) centred on the needs of the consumer, (4) motivated by data, (5) built on teamwork, and (6) crucial to the success of businesses.

Therefore, the current research argues that digitalization entails more than just employing digital resources internally. Instead, it entails utilizing these resources to create new approaches to the company's core competencies and long-term goals.

According to Bengtsson and Bloom's research, human resource managers see digitization as a process that dictates an ever-changing environment. The cycle of digitalization's implications

for HR managers begins with the fact that technology enables implications and ends with the importance of such implications for HRM's performance.³¹

The effects of digitalization on employees have also been examined in several studies. For instance, surveys on employee digital engagement have increased participation in corporate activities, as discovered by Lager, who studied how businesses might embrace digital technologies to manage employees internationally. Fedorova investigated the effect of digitization on productivity in the workplace. They stressed how this success contributed to fewer mundane jobs and human mistakes.

2.12 Factors Important for implementation of HRM Digitalization

As proposed by Bondarouk, the TOP model categorizes the elements that influence the effectiveness of digitalizing HRM activities into three groups: technology, organizational, and people. We will discuss these aspects below:

Technological factors:

- Application and characteristics
 - Ease of use
 - Usefulness
- Data Characteristics
- Integration

Organizational factors:

- Organizational characteristics
 - Size of the company
 - Sector Characteristics
 - Department size of HR
 - Business area
 - Geographic area

- Capabilities and resources
 - Budget limitation and financial resources
 - Lack of awareness of HR system's potential
 - Capacity to acquire IT skills among HR staff

- People Factors
 - Top Management Support
 - User Acceptance
 - User Age, education, gender, job experience
 - Customer Involvement

You should remember application, data characteristics, and integration when thinking about technical variables. To better understand the organizational elements that influence HRM digitalization, we may divide them into two broad classes: organizational features and capabilities and resources. Finally, we emphasize two people-related issues: support from top management and buy-in from end users.

The research shows that digitization has advantages and disadvantages effects on HRM practises.

Table 1: Advantages and Disadvantages of Digitalization of HRM

Advantages of HRM digitalization:	Disadvantages of HRM digitalization:
1. Cost Saving	1. Data Security
2. Efficiency <ul style="list-style-type: none"> • <i>Time Saving</i> • <i>Productivity</i> • <i>HR Efficiency</i> • <i>Elimination of paperwork</i> 	2. Lacks suitable skills
3. Effectiveness <ul style="list-style-type: none"> • <i>Administrative Quality</i> • <i>Flexibilities of HR</i> • <i>Level of bureaucracy</i> 	3. Existing HR digital tools are not being exploited to their full potential
4. Employee Relationship <ul style="list-style-type: none"> • <i>Cooperation</i> • <i>Communication Quality</i> • <i>Employee get more informed about organizational issues</i> • <i>Employee Motivation</i> 	4. Difficulty in using new technologies by employees
5. Digital HR enables new employment forms	

When looking at the positives, the savings are consistently highlighted in the reviewed articles. Organizations may save money by using digital technologies to manage data and streamline operations.

But Murphy concluded that while employee satisfaction has increased thanks to digitalization of the HR function, it is still being determined whether digitalization involves a reduction in the operating costs of human resource management. Specifically, the author's research involved sending out a questionnaire to HR experts to determine the cost of digitalization and determine if the HR department had realized any operational savings due to digitalization. The results of Murphy's study indicated that although 19% of businesses have seen their HR management expenses reduce due to digitalization, 31% of businesses have seen their HR management costs increase. According to Murphy, introducing digital HR services and procedures does not cut the cost of running the HR function, but it may very well be that the cost of such is employed in various ways.³²

2.13 Prerequisites for an effective digitalization of HRM

Researchers stress the need to meet parameters for an HRM digitization process to be effective. That's why these things must happen:

- Determination of Purpose
- Identifying the central framework
- The use of modern technology to supplement more conventional methods

It is crucial that, first and foremost, the goals that this process must achieve inside the business be clearly and precisely identified. By doing so, the company and its employees may better understand where digital efforts should be focused and how new technologies affect each person's workplace.

Second, identifying essential stakeholders within the business is a prerequisite for the digital transformation of HRM. Human resources managers stand out as an actual example. Bloom argues that HR managers must see themselves as vital to digitalization. To fully reap the benefits of digitization, they must match their plan with the company's overall goal.

Bloom argues that HR managers must see themselves as vital to digitalization. To fully reap the benefits of digitization, they must match their plan with the company's overall goal.

Finally, Murphy argues that digital technologies should be viewed not as replacements for conventional HR processes but as means of facilitating such processes. However, specific traditional processes require revision to function optimally with contemporary technologies. Ketolainen agrees, stating that HR needs to strike a balance between static and fluid by providing vital administrative services as effectively as feasible and simultaneously being a value-creating strategic partner for the business.

2.14 Employees During the Era of Digital Transformation

In his essay "Digital Transformation Needs a Heart," MIT Principal Research Scientist George Westerman writes, "we must forget that it is people who make organizations operate". Academics and industry professionals alike believe that employees are a key factor in the success of digital transformation. Analyst firm Altimeter emphasized the importance of happy and engaged employees for successful digital transformation in their annual report *The State of Digital Transformation*: "Helping employees develop critical digital literacy—and training, retraining, and engaging them around a digital transformation vision—empowers them and turns them into capable allies in your transformation and innovation efforts".³³

It may be difficult to put into practice the findings of Tabrizi and colleagues, who found that companies with successful digital transformation "focused on changing the mindset of its members as well as the organizational culture and processes before they decide what digital tools to use and how to use them". As one example, the management consulting company BCG said that, according to their research, "leaders who oversee a digital transformation are typically obsessed with structural and procedural improvements and forget the people side—only to wonder why the effort failed".³⁴

Information systems studies that centre on the impact of digital transformation on workers are in their infancy. I looked at the existing literature to obtain a sense of the state of knowledge regarding the employee in the context of digital transformation. I gathered publications with "digital transformation" and "employee" in the title, abstract, or keywords from information systems journals and IS conference proceedings and studied them attentively.

During my study, I discovered that information systems scholars have paid attention to several facets of the human resource dimension in relation to digital transformation. To that end, I have categorised the pertinent IS literature on the employee dimension of digital transformation into four main research streams (see Figure 6): (1) the effects of digital transformation on employees, (2) employees responses to digital transformation, (3) the significance of employee engagement and methods for involving workers in digital transformation, and (4) enabling factors, or conditions that make it possible for businesses to involve workers in digital transformation.

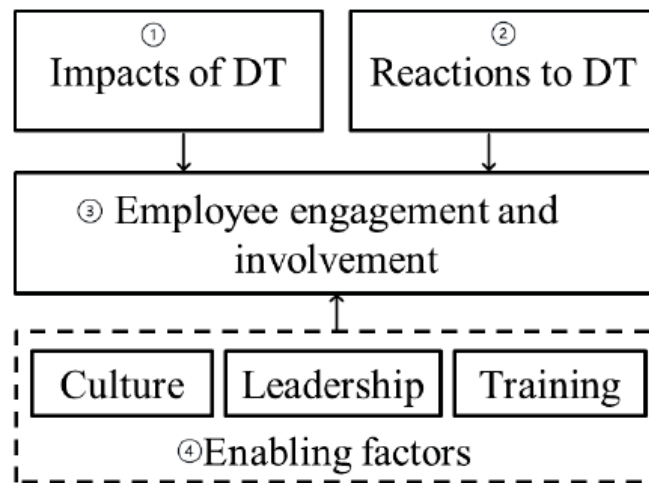


Figure 8: Employee Dimension of Digital Transformation

Impacts of digital transformation on employees

Integrating digital technologies, frequently in tandem, is a necessary part of any digital transformation effort. A company's present processes, structures, and arrangements will need to be modified to accommodate the introduction of new technology. This is becoming more and more obvious as the digital age forces established businesses to adapt to new demands from customers and environs. As a result, digital transformation may have direct and indirect effects on employees by disrupting established patterns in the workplace.³⁵

2.15 Employee reactions to digital transformation

Employees responses to the digital transition are as varied as the manner in which it may affect them. This study's second line of inquiry considers how various groups of employees are responding to the advent of digital technology. In particular, this includes the extensively researched subject of adoption of digital technologies and the motivation and attitudes of employees toward digital transformation.

Digital technology adoption

This emphasis on the use of digital technology is not surprising, given that digital transformation entails integration of digital technology. The "human dynamics through which new artefacts get (or fail to become) incorporated in the social and business processes of organisations" has been studied in relation to technology adoption and related topics like technology acceptance and diffusion.³⁶

The Technology Acceptance Model (TAM), created by Davis, is the most common framework used to examine the spread of new forms of digital technology. The TAM states that employees motivation to accept new technology is based on their expectations of the technology's utility and its perceived ease of use.³⁷

The impact of company culture on the adoption of IT has been studied by information systems scholars for some time. Several other theories and models, such as the unified theory of acceptance and use of technology (UTAUT) model and other corresponding theories, have been developed since the original TAM model to further our understanding of how and why technology and information systems are adopted (or not). According to Reimer and Johnston, the "messiness" of information systems adoption has prompted a vast corpus of information systems study on the reasons why employees oppose or only partially accept new information systems.³⁸

It has also been stressed in the literature that employee's emotions and beliefs might affect if and when they embrace new digital technology, and that information systems resistance may be psychologically driven, commonly referred to as negative psychology inertia. Researchers in the field of information systems have thus investigated means by which businesses might sway consumers' sentiments and opinions to promote adoption. The use of design, information,

and interaction to steer user behavior is an example of digital nudging. Because of the increasing complexity of the digital technology landscape because of digital transformation, the authors argued that employees need more guidance to navigate digital tools, and they proposed digital nudging as a promising approach to support digital technology adoption and application.³⁹

Employee attitudes and motivation

The literature has explored employee mindsets and motivation through a digital transformation lens. Attitudes toward digital transformation are crucial to its success because they shape employees' goals and motivate them to provide necessary active support for the transition. The digital transformation process and its consequences will be affected by the employees' positive and negative attitudes and motivation.

Employees are frequently portrayed as resistant to digital transformation, fearful of the changes that will come with it, and even suffering from technophobia (defined as "an irrational fear and/or anxiety that individuals form as a response to a new stimulus that comes in the form of a technology that modifies and/or changes the individual's normal or previous routine in performing a certain job/task,").

This view is based on the premise that workers are naturally resistant to novelty and progress. Employees may find it challenging to adjust to the many and ongoing changes that digital transformation brings to the workplace. There is a risk that employees would cling to "old ways of doing things" if they are unable to adapt to the new digital realities. They "tend to reject the changes consciously or unconsciously" if they believe their jobs are under danger due to the digital transition.

Further, employees are more likely to be resistant to the digital transformation if they do not comprehend the necessity for and the goal of the changes. It has been also observed that employees had a more unfavourable reaction to digital transformation if they believe that it would lead to greater monitoring of their job. Employees disapproval and lack of enthusiasm for the digital revolution are particularly pronounced among those over the age of 50.⁴⁰

On the other hand, studies show that some employees welcome the digital revolution with open arms and even find it inspiring. Some employees, rather than seeing the digital transition as a danger, saw it as a chance to expand their knowledge and skills. According to the research

conducted by Kluge, employees who reported higher levels of self-efficacy (the degree to which an individual believes in his or her own ability to achieve a goal) were more likely to embrace digital change. This finding can be explained by the fact that employees who believe they are capable of and competent with the digital technologies being introduced as part of the digital transformation are more likely to have optimistic expectations for their future performance and happiness. Employees' favorable views about digital transformation have been linked to a variety of factors, including their self-efficacy, the freedom to act on their own accord without interference from superiors, and their sense of connectedness to their peers. Employees who are stimulated and encouraged to engage in a continuous learning process as a result of the digital transformation are more likely to learn and adapt their behavior, making them more likely to feel motivated to approach the changes that will inevitably arise as a result of the transformation. When employees are inspired to contribute to the digital transformation, they are more likely to do so in a variety of ways, including providing useful feedback during the process and even taking the lead on digital transformation efforts.⁴¹

2.16 The importance of employee participation in digital transformation

Employees are emphasised as a key factor in the success of digital transformation initiatives in literature. Because employees will have varied responses to the change, it is crucial to have their buy-in, or employee engagement, to realise digital transformation's benefits. In this context, this part will deal with the research stream which is on methods for including existing staff in the digital transformation effort.

Bygstad discovered that high levels of employee involvement aided in the achievement of digital transformation by fostering a process that prioritised finding solutions over resolving problems and setting the stage for employee dedication and information sharing. Companies benefit from employees' insights on digital technologies, client needs, and the attitudes of their peers in the workplace. There is widespread consensus on the need for employee buy-in to the digital transformation process, yet many leaders report that doing so has proven to be one of their greatest problems.⁴²

Culture and leadership, where communication plays a vital part, such as via storytelling and management providing useful knowledge regarding the digital transformation, are cited as two of the most critical components in achieving employee engagement by Kane and colleagues.

Furthermore, we know from prior research that a lack of interest and participation on the part of employees is a typical cause of IT implementation failure. Therefore, studies have advised that firms should encourage employees to join or even lead the digital transformation, empowering workers to play roles as the "company's genuine digital transformers" and boosting employee engagement in the process. This necessitates including workers into digital transformation efforts and choices, whether through co-creation, intrapreneurship, or internal crowdsourcing.

Factors Responsible for the Involvement of Employees:

The literature stresses three broad themes, or facilitating factors, that need be in place for organisations to properly include and involve people in their digital transformation. The right culture, leadership, and training are all essential.

The Culture-

For digital transformation to be effective, a suitable and supporting culture must be fostered. In many cases, a cultural shift is required, but it is challenging to adapt the culture since the present culture and "conventional method of doing business" is firmly ingrained in managers and workers. It is recommended that businesses cultivate a culture that welcomes and adapts to the necessary transformations while also making possible the overall plan. For some scholars, "digital culture" is shorthand for the ideal cultural context for digital innovation. Building and nurturing a culture that is conducive to digital transformation is crucial, regardless of the nomenclature used to describe it, since it will aid employees in adapting to the ongoing changes that will occur as a result of the transition. Adoption of new digital technologies is also impacted by cultural factors. In addition, studies have shown that a good company culture is essential for winning the "war of talent" for top employees. Without a digital culture, digital talent will not want to remain in the organisation. An organization's digital culture may be seen as both a precondition and an outcome of a successful digital transformation.⁴³

Change-readiness, customer focus, creativity, speed, reliability, trust, and a willingness to take risks are just few of the cultural traits that Hartl and Hess identified as essential for a successful digital transformation. Moreover, experts have stressed the importance of a company adopting a culture that encourages collaboration, where mistakes are tolerated and knowledge and information are shared, to aid managers in encouraging and empowering staff to take initiative, think for themselves, and actively participate in discussions and decision-making. The environment also needs to encourage permanent development and education.⁴⁴

The Leadership-

New leadership requirements arise as a result of digital transformation, and effective leadership is discovered to be a precondition for digital transformation success. The literature places special emphasis on the following three points. First, it is argued that leadership styles will need to evolve as a result of digital transformation. E-leadership, digital leadership, and leadership 4.0 are just few of the phrases that have been used to define leadership in the era of digital transformation. It is suggested that a leadership style that accepts and embraces the digital era is necessary for digital transformation, regardless of the specific terminology used to describe it. Such a style would enable the taking of appropriate and passionate actions, marked by creativity, accountability, and exploration. Dery proposed a responsive leadership style for digital transformation, in which managers pay attention to how their employees feel the transition, are receptive to employee input and ideas, and actively seek out and implement feedback. To help employees adapt to the new realities brought on by the digital transition, Schwarzmüller argues for a relationship-focused leadership approach. This requires a leadership style marked by mentoring, networking, and teambuilding, as well as awareness of employees' wants and requirements.

In addition, it is underlined that a transformational leadership style is most suited for digital change. According to Bass and Avolio's definition, transformational leaders "stimulate interest among colleagues and followers to view their work from new perspectives, generate awareness of the mission or vision of the team and organisation, develop colleagues and followers to higher levels of ability and potential, and motivate colleagues and followers to look beyond.

Thus, a leader with a transformational style motivates followers by helping them relate to and comprehend the leader. It is argued that transformational leadership is suitable for digital transformation because it encourages knowledge sharing and innovative behaviour among managers and employees, contributes to the development of a positive digital culture, and drives the continuous improvement of employees' digital skills.

It turns out, secondly, that digital transformation calls for a different set of qualities and talents from leaders. Therefore, managers should emphasise the importance of employees developing new skills and learning on the job. Managers should set an example by learning the latest digital techniques themselves, and Schwarzmüller puts it succinctly: "as employees need to be agile and creative and have to constantly change and develop themselves, leaders might likewise

have to more actively promote and allow for such changes (e.g., by establishing a climate for change and reducing barriers)" Leaders who are empathetic (i.e. trustworthy, enthusiastic, respectful, coaching, motivating, and communicative) are the most important trait for successful digital transformation, followed by those who are innovative (i.e. technology-oriented, customer-oriented, visionary, risk-takers), and so on (i.e., fast).

Third, new forms of leadership have emerged as a result of digital transformation. These include the position of chief digital officer (CDO). Possibly, the emergence of the CDO position was prompted by a dearth of other senior jobs in the company that combined commercial acumen with IS expertise. The Chief Digital Officer (CDO) is frequently tasked with leading the company's digital transformation, which he or she may achieve in a variety of ways based on the company's goals, the maturity of the business, and the CDO's own skills and experience. Still, it's the CDO's responsibility to consider the difficulties and concerns of workers. "with the capacity to inspire others CDOs not only operate as advisors to the senior management team but also act as effective motivators of the full workforce and therefore allow the digital transformation in the first place,"⁴⁵

The Training-

For a digital transformation to be successful, training personnel is essential, not only because of the new competencies needed, but also so that they can adapt to the changes that will inevitably arise as a result of digitalization. Training is not a stand-alone process that can be ignored throughout the transition to digital. The digital transition should instead prioritise training. In order to stay up with the ever-evolving technological landscape and prevent their own abilities from becoming obsolete, the literature stresses the significance of life-long learning for employees. In light of this, it is advised that businesses provide workers with ongoing training and development opportunities to help them acquire new skills, improve existing ones, and keep their knowledge current.

Changes in the kind and quality of employee training may also result from the digital revolution. Employees "may attend the training aligned with their work schedules, matched with their self-pacing and choice of topic," as advocated by Foerster-Metz in his call for the use of digital learning platforms to personalise training programmes. Ferreira and coworkers propose using social media technologies into training activities across a variety of learning situations to facilitate adaptability in pedagogical approach. This is consistent with the findings

of Sousa and Rocha, who discovered that in the digital era, collaborative communities, cooperative learning, and network involvement were the most prominent means of learning. The authors also discovered that the majority of the influence of these digital learning strategies was exerted via mobile technology and social media software.

Human resources (HR) and recruiting play an increasingly important role as training becomes central to employee engagement and the success of digital transformation. Human resource management (HRM) is evolving in the digital age; HR now has the chance to influence digital transformation in both overt and covert ways, helping businesses "recruit, retain, and derive value from top millennial talent and so remain ahead of the competition."⁴⁶

2.17 Leadership for a Digitally Transformed World

A new environment has emerged in the digital era in which leaders may effectively deploy essential skills and propel their organisations to success (or survive). There is intense competition among businesses for capable executives who can steer their companies through the transformation from digital service providers to digital enterprises. The modern business environment is fast-paced, unpredictable, and uncertain, thus HR policies and procedures must adapt to place more emphasis on the employee experience to improve the customer experience and other critical performance indicators.

In addition, industries may respond to business imperatives with increasing agility thanks to the proliferation of networked-based teams and the development of short-term, contract-based "gig workers," fueling HR's emergence as a leader in the transformation of organisations. The personnel, workspace, and organisational strategies that boost competitive advantage have been thrown up to HR because of these disruptions, creating a massive opportunity for HR to galvanise the change to the digital organisation. Further, HR leaders may play a pivotal role in their organisations' success in the digital era and beyond provided they are open to redefining their job.

The key to future company success will be finding the sweet spot between technological advancement and interpersonal influence.

Without taking into account the way work is done and the expectations of the workforce, a company cannot simply instal new technology and expect to see favourable commercial

consequences. A solid groundwork for digital transformation may be laid by leaders who work to shift employee perspectives and encourage a culture of creativity. The digital infrastructure must serve as a tool for measuring, monitoring, and controlling the employee experience. The rapid speed of technological development has altered the habits of both employees and customers, resulting in changes to the way businesses function. "tools that automate conventional HR activities" are giving way to "platforms and applications that make life at work better" as HR technology and practises evolve to reflect new digital capabilities and management strategies.⁴⁷

We're making changes across the spectrum as an organization and a workforce. The below-mentioned figure depicts this very well:

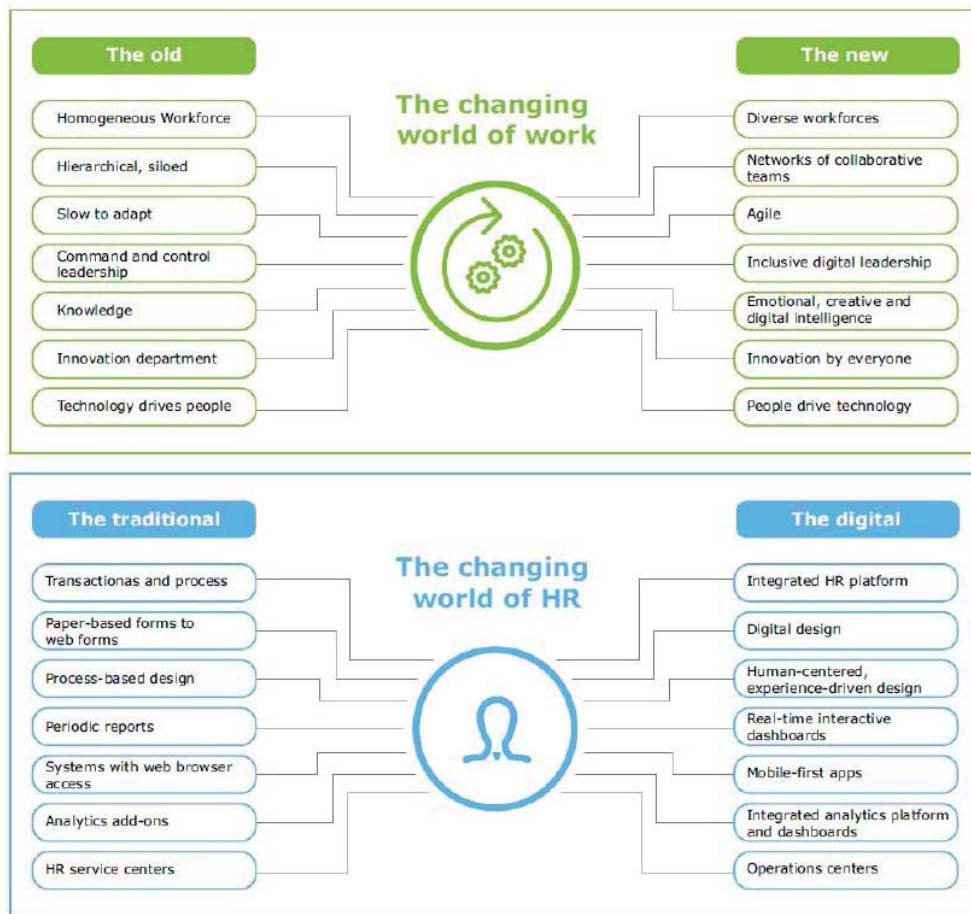


Figure 9: HR practice responding to the changing world-Deloitte Report 2017

Although HR and business leaders will always need to pay attention to technological developments, the importance of leadership, and especially HR leadership, has increased in the age of digital transformation. Human resources executives can make a real difference. Unfortunately, just 5% of companies questioned by Deloitte's Human Capital Trends Survey consider themselves to have excellent digital leadership.

Digital HR: Platforms, people, and work:

Human resources are under pressure to do more to assist businesses in becoming digitally enabled. In the first step of this process, HR leaders investigate innovative digital tools, platforms, and methods of operation.

The field of human resources is experiencing radical transformation at present. Human resources, traditionally seen as a support department that provided employee services, is now being pushed to spearhead the digital transformation wave that is sweeping businesses around the world. This transition is occurring in three ways that we may observe:

1. How can organizations foster new management techniques (what we term "digital DNA"), a culture of creativity and sharing, and a set of talent practise that allow for a network-based organisation?
2. How can businesses create a digital workplace that fosters productivity, utilizes cutting-edge methods of communication (like Slack, Workplace by Facebook, Microsoft Teams, and many more), and encourages employees' participation, health, and sense of mission?
3. How can businesses transform the human resources department such that it functions digitally, uses digital tools and applications to provide answers, and is always experimenting with and innovating?

HR leaders are increasingly being asked to assist steer their companies toward "becoming digital," as opposed to merely "doing digital."

The foundation for digital HR is laid by many years of work. Human resources were primarily concerned with personnel operations in the 1960s and 1970s, as well as automating transactions and maintaining a reliable employee system of record. Human resources were reimagined in the 1980s as a "service organisation," with specialised hubs taking charge of key personnel practises, centralised call centres meeting the demands of employees, and integrated HR

business partners. Human resources underwent yet another overhaul in the 1990s and early 2000s, this time centred on integrated talent management and frequently accompanied by brand-new hiring, training, appraisal, and pay structures.

Today, human resources departments are more concerned with shaping the future of their organisations. Young people who are familiar with technology and who aren't afraid to take initiative and share data openly are in high demand, and many companies are eager to hire them. Employees want HR to provide a seamless digital workplace experience centred on collaboration, efficiency, and empowerment.

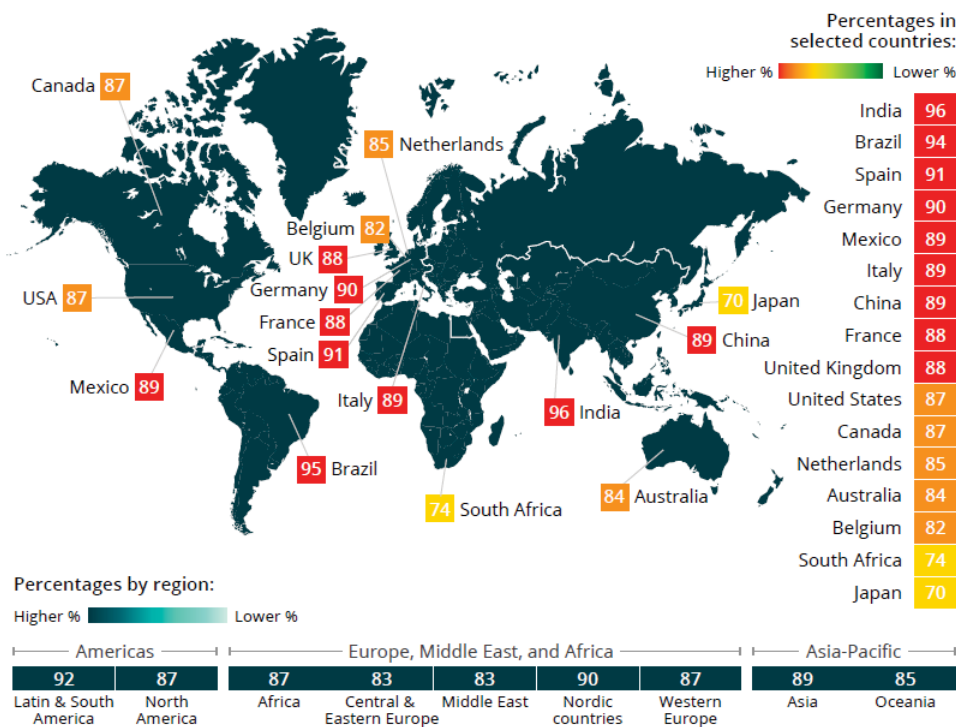


Figure 10: Digitization of organization trend - Deloitte University Press 2017

Changing the Rules for Building the new Digital HR:

None of HR's traditional duties has been eliminated, but modern HR departments face increased pressure to innovate in areas such as talent practice redesign (including recruitment, leadership development, and performance evaluation), app development, and the creation of an engaging workplace environment for employees. All this must be done with a focus on structuring the organisation around teams, applying analytics and organisational network analysis, and pushing a worldwide focus on diversity, culture, learning, and careers.

The foundation of digital HR is the willingness to try new things. As firms become networks and the workforce base gets both older and younger, new techniques are needed in practically every HR department. Nowadays, companies regularly employ hackathons, fast design groups, prototypes, and "minimally viable products" to launch test HR initiatives.

Now more people than ever are using design thinking. Rather than delivering HR programmes based on antiquated business procedures, modern HR departments do in-depth research into the varied demands of their workforce. Journey maps are being offered by HR in place of more conventional career models, and complicated processes are being replaced with locally-based practices built on an integrated platform.

Knowledge of digital technologies is essential for digital HR. While cloud-based HR tools offered significant benefits to enterprises, they are no longer enough. HR departments at major corporations including Royal Bank of Canada, Deutsche Telekom, Ford, and others have formed in-house digital design teams to rethink traditional approaches to HR problems in light of applications that integrate with existing workflows. Essentially, this entails treating the cloud as a "platform" and developing applications for internal use.

Many new HR products and solutions are being developed with mobile applications, artificial intelligence, and a focus on the user experience in mind.

Human resources may now operate in a near-real-time fashion thanks to these tools. SAP and Reliance Jio are just two examples of companies that keep tabs on indicators like employee engagement, new hires, and attrition rate in real time to assist business leaders to make better decisions. IBM has begun to employ AI capabilities to provide executives with regular pulses on how their teams are doing, letting them detect tendencies that might stand in the way of performance or retention and urging them to proactively address them through coaching, recognition, or community development.

With the rise of digital HR and the development of new digital platforms for HR departments, business partners are better equipped to focus on the company's operations thanks to their increased digital competence. According to our findings, high-performing HR teams consist of fewer generalists and more senior HR business partners. This has led many HR departments to retrain their employees and assign them to new positions as senior consultants, making use of existing digital resources.

2.18 The Future of Human Resource Digitalization Beyond COVID-19

Most likely, COVID-19 is the most significant challenge that mankind has encountered in recent history. The worldwide economy was devastated, and people's lives were turned upside down as a result of the pandemic. However, massive disruptions come with a chance for enormous change. Our swift adaptation to a work-from-home strategy to guarantee business continuity is a testament to the inventiveness and adaptability that make humans stand out as a species. The advent of digital technology was a lifesaver, preserving the economic security of many individuals throughout the world.

While this crisis highlighted gaps in the existing digital HR landscape, it also allows HR to take the lead and model how the rest of the organisation may flourish in a continually disrupted environment by implementing more digital ways of working.

Businesses have benefited from the pandemic because they have learned to rely on technology to enable their employees to do their job with the same level of care and precision as they would if they were in the office. Organizations benefited from the reduced rent and operational expenses they experienced as a result of relocating operations elsewhere. After this catastrophe has been averted, there is no reason to expect life to return to normal. The use of modern technological advancements is no longer a luxury but a must in today's world.

It was found in a poll conducted by Darwinbox, a cloud-based Integrated HR platform, that 84 percent of businesses had implemented or were going to employ at least one HR technology solution during the pandemic. The lessons learned by the international business community during COVID-19 have had a profound impact on the spread of digital technology. The key takeaways that prompted HR departments to embrace digital technology at large are as follows:

1. Remote Work Is Here to Stay:

Worldwide, businesses see remote employment as a chance to improve their environmental footprint while also reaping several short-, medium-, and long-term benefits. Reduced overhead costs, shorter commute times, fewer business travels, and sharper mental concentration and attention are just a few of the far-reaching advantages. It also gives businesses some leeway in the case of unforeseen surprises.

2. Personal Safety and Health Have Become Paramount

Due to the pandemic, businesses now understand that their employees are their most significant asset. The business community throughout the world has now reached a

consensus on the importance of health and safety, and it's universal and nearly unanimous. Several policies, including flexible scheduling, mental health standards, and innovative approaches to performance assessment and management, have been implemented by companies as employees gradually return to the office after working remotely.

3. Going Digital Was Inevitable

Until the pandemic struck, the majority of multinational corporations had already begun their transition to digital operations. A process expected to take several years to implement was implemented in only a few short weeks. There was no other choice for businesses of all sizes than to make digital transformation work for them, so they did. Both employees and managers picked up the skills and mindsets necessary to perform well under trying conditions. The pandemic only served to emphasise what most businesses already understood but were putting off doing: the need to embrace digital transformation.

4. Distributed Authority Must Include Central Coordination

In the past, different levels of management in an organisation had to solve problems independently. This was especially true when there were several locations and departments involved. The organisational structure had decentralised power but lacked centralised coordination. As a result of COVID, businesses have to develop a plan for centrally coordinating with locally controlling the HR function based on shared platforms, goals, and values. It is now common to practise for employees in different parts of the world to meet daily through Google Hangouts or Zoom to discuss issues and make decisions that affect only their region.

5. A Business Continuity Plan is Essential

The pandemic exposed the unpreparedness of several international organisations to deal with a disaster. A business continuity strategy is essential in the event of any disaster, not only a worldwide pandemic. Business executives throughout the world are warning that climate change and rising sea levels are just the beginning of the global challenges we will confront in the coming years. When being ready to respond to a worldwide disaster, it's important to have a cloud platform, prioritise the employee experience, map out the employee journey, and use people analytics.

6. Communication is Key

Maintaining operations throughout a global pandemic would have been impossible without effective internal communication. Even if digital technology were crucial in

facilitating communication and streamlining operations, nothing would have been achieved if businesses hadn't engaged with their staff, listened to their issues, and taken steps to address them. Even the most advanced computer programmes and digital devices have their limits. When it comes to human resources, technology and technologies are meant to supplement our skills rather than render us obsolete.

How businesses functioned before the crisis no longer applies. Companies have had to think about things like making sure they don't go under, bringing in money, keeping their people safe and well, and providing them with rules that are both legal and moral. Human resources digital technology has been a crucial part of keeping international companies moving forward. Ahead of the pandemic, many companies had already recognised the significance of digital transformation. Everyone else should have made the transition to digital HR tools sooner, now that they see the benefits. Companies, perhaps, will not put this knowledge to rest too quickly.⁴⁸

2.19 Research Gap

The significance of digital transformation in the context of India must be appreciated. Companies in India are said to be among the readiest in the world for the digital transformation age since the country is widely regarded as a leader in the use of innovation to propel technology to new heights.

Human resource management (HRM) is set to be significantly altered by the proliferation of digital technologies, which permeate every aspect of the modern workplace. The goal of this research is to better understand how digital revolution is influencing human resource management. The purpose of this study is to investigate how HR experts feel the HRM function is evolving in the face of rapid technological change. The research was conducted in India and reflects the opinions of HR experts there.⁵⁰

The greatest way to make sense of digital transformation initiatives is from the viewpoint of a company. The goal of these plans is to adapt the company's goods, procedures, and structures to the changes brought about by technological advancements. It has been shown that digital transformation strategies affect and are affected by business models. Human resource management (HRM) is also business-focused and transformative because of the value it provides to companies as a strategic ally, operational guru, and employee advocate.⁵¹

While it's obvious that digitalization is having an impact on organisations and human capital, Bengtsson and Bloom argue that there has been scant research into how digitalization is experienced by HR managers in practice.³¹ This study aims to fill that knowledge gap by investigating HR managers' points of view. This study's other useful addition is that it identifies crucial elements for achieving a successful digital transition. There has been relatively little research done in this field.⁴⁹

Chapter-3: Methodology of Research

Research methods used by the researcher are discussed in this section. It provides a comprehensive overview of the researcher's options in terms of research philosophies and methods. In this chapter, the researcher will mention the rationale behind selecting a certain approach to the study.

The researcher will explain the methodology used and the limitations that may have affected the results in this section. Finally, the researcher will describe the methods used to gather and analyse the data used in this study.

3.1 Philosophy of Research

Research philosophy is a collection of assumptions about the nature of the world being studied. Many assumptions about the methodology of the study are born out of the research philosophy. The researcher's research philosophy can shed light on the rationale behind the study's underlying assumptions and methods.

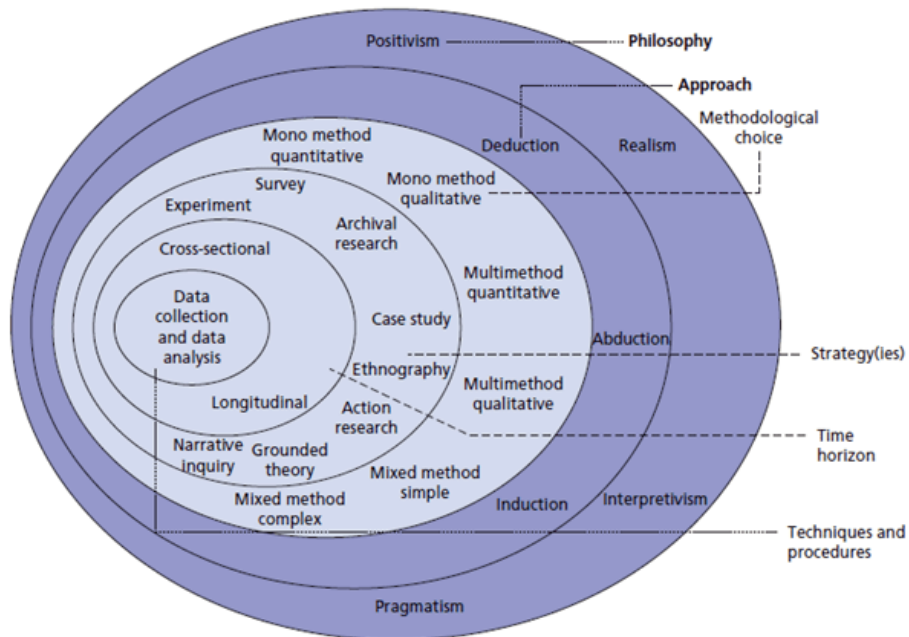


Figure 11: The Research Onion by Saunders et.al

The five pillars of research philosophy depicted above in the research onion will be briefly covered here in light of their relevance to the study at hand.

1. Working with these empirically verifiable aspects of society leads to rule-of-law-like generalisations, which is central to positivism. **Positivism** holds that knowledge may be gained by using scientific procedures to observe and measure facts, which then allow for causal explanation and prediction. From an axiological stance, the researcher should not bring any preconceived values into the study.
2. Critical realism is grounded in an examination of the world as it actually exists. The goal of any critical realism is to see beyond the immediate circumstances and understand the wider picture. According to previous studies, knowing the social setting in which an event was viewed is crucial for grasping its significance.
3. The interpretivist's ontology is deep and varied since it is a product of cultural and linguistic interaction. Therefore, it is entirely subjective, as interpretivist scholars value complexity, richness, and the interpretation of many realities.
4. Truth and knowledge, according to postmodernists, are relative to the prevailing political and ideological systems. This study has a value to it. For postmodernists, the only way to establish order is through the linguistic tools of categorization and classification.
5. Pragmatism thinks that thoughts are only meaningful or valuable when they produce action. The pragmatic approaches research from the perspective of a problem, and the formulation of the research topic is given more attention than the study itself.

The researcher has considered the five aforementioned research philosophies and has settled on positivism as the foundation for this study since researcher is able to approach the topic without any preconceived notions or biases, as evidenced by the fact that the research question asks, "Can the digitalisation of HR services change employee views of those services and the HR function?"

Because it is unknown whether or not the increasing automation of HR processes will increase or decrease levels of satisfaction among workers, no assumptions can be made about this phenomenon.

To positivists, organisations are transparent enough to be researched scientifically and statistically, and the information gained from such research may be used to foresee potential problems in the workplace.

3.2 Research Approach

As a first step in establishing the guiding research philosophy for this study, the author has settled on positivism and thus used a deduction-based research strategy. Second, a deductive technique is being used if a theory has been derived from a body of literature and the study is being conducted to confirm or disprove that theory.

The researcher here argues that it is wise to lay forth the reasons why the induction and abduction techniques were not used in order to demonstrate the value of the deductive approach to the research.

In general, the inductive method to research is when evidence is gathered on which a hypothesis is formed or created. This is not the case in this research proposal, as we can see from the literature analysis that some theory already exists on which the author will collect data to verify or refute the theory while also adding to the body of knowledge on the selected study subject.

As with induction, abduction combines data collecting and theory formation with subsequent testing of hypotheses. For the same reasons given above, the abduction technique cannot be applied in this study since the proposal's goal is to build on previous research in the field of digital human resources.

3.3 Research Strategy

While the positivist research philosophy is often connected with quantitative research methodologies, this is not the sole reason the author has selected this approach. It is appropriate to utilise quantitative methods in this study since they assess variables that may be specified numerically and then analysed statistically to uncover links between the variables.

The author has used an online survey tool (Google Forms) and then analysed the results (using SPSS). The survey was selected because it provides a low-cost way to obtain standardised data from a large sample of the population. The researcher performed a pilot test of survey on 30

people who were known personally but who are not representative of the survey's intended audience. Participants in the pilot study came from a human resources specialization. Any questions or response options that were too vague were revised based on replies to the pilot survey.

Since it is a cross-sectional survey, the data in this study represents a moment in time. Longitudinal research would provide the most accurate picture of how employees feel about HR's digital transformation.

The researcher, with his background in HR and familiarity with statistical analysis using SPSS, found the quantitative method to be most suitable, albeit it was also used among a smaller group of HR leaders who had a more in-depth grasp of digital HR.

3.4 Population and Sampling

The researcher has selected all the MNCs since these organizations are digitizing their human resources considering their scale of business. Though such digitization data can be obtained from software vendors for other companies that number wouldn't be a reliable estimate of the percentage of companies that have digitised their HR services and procedures during the last year since such data is fiercely guarded by these HR software vendors. Hence researcher zeroed down on MNCs.

All employees from the human resource department with at least a year of service at the time of the survey were targeted from each of the participating organisations, as the survey would ask them to reflect on their perception of the digitalization of HR services and processes. The employees which have been interviewed are from Metro Offices as well as Non Metro Offices (Working from home – such as their native places or from remote locations such as tier-2&3 towns).

The researcher has coordinated the rollout of the electronic questionnaire with the appropriate HR Leaders inside each organisation and supplied email templates to accompany the rollout of the survey's electronic link.

Sample Size:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

e is the desired level of precision (i.e. the margin of error),

p is the (estimated) proportion of the population which has the attribute in question,

q is 1 – p.

$$(1.96)^2 (0.5) (0.5) / (0.06)^2 = 267.$$

Therefore, we should be able to achieve the necessary levels of confidence with a sample of 267 randomly selected samples from our target group.

Finally, the researcher collected data from 354 respondents. Hence for the analysis purpose, we will be using a sample size of 354.

Sampling Technique:

The purpose of this research was to learn more about the digital-HR revolution taking place in IT MNCs in Pune. This situation called for consultation with experts in the field. In particular, it should have included individuals versed in the application of digital HR solutions within the framework of IT multinational corporations.

Human resource experts play a crucial role in the strategic decision-making process for the HR function, including the execution of digital initiatives, due to the unique organisational structure of MNCs. According to the tenets of the constructionist school of thought in research, it was very crucial to incorporate data from both camps in the sample.

In addition, as we saw in the literature review, there is some evidence to suggest that the personalities of the senior HR leaders involved can have a major impact on how well this plan is carried out. So, we've chosen to use a judgemental or purposive sampling strategy to recruit people to participate in the study. Purposive sampling, often known as a non-probability

sampling strategy, proposes that participants are chosen for their familiarity with the subject under study.

3.5 Ethical Issues and Procedures

In accordance with past researchers, who state that one is more likely to acquire access to study participants through known contacts, the research scholar in this particular research study got access to participating organisations through their professional relationships inside multiple organisations.

The research was conducted without any ethical concerns on the side of the researcher because all respondents voluntarily filled out the survey that was sent to them by their company's human resources department.

The following are acknowledged by the author notwithstanding this.

1. The participants' right to confidentiality must be upheld. No identifying information was requested from survey takers, and their anonymity was guaranteed.
2. Information collected cannot be used to identify the participating organisations.
3. This study's participants were not compelled to take part.
4. No data was tampered with, and it was all analysed in its original form.

3.9 Limitations to the Research

1. The study has one critical drawback: it depends on participants remembering how satisfied they were with HR before digitalization to draw conclusions about how satisfied they are now.
2. As the researchers have mentioned in the above section, the research time frame was a limitation; a longitudinal study may have produced more trustworthy results.
3. Researchers of surveys are always at the mercy of their respondents. In order to spread the word about the survey, the researcher has spoken with other human resources employees at the companies that are taking part.

3.10 Research Objectives

The following research objectives have been defined by the researcher for this research study:

1. To understand the manager's perception of HR services post-digitization.
2. To understand the ease of access to HR services available to managers post-digitization.
3. To understand the impact of digital transformation on the mental health of HR managers.
4. To understand the impact of digital transformation of HR services on various functions of HR.
5. To understand the role of digital transformation of HR services from a finance perspective.
6. To understand gender-based challenges faced by HR managers in the implementation of digital HR services.
7. To understand the HR leader's perspective on the digital transformation of HR services.

3.11 Research Hypotheses

1. **H1:** There is a difference in the perception of managers about HR services after the digitization of HR.
2. **H1:** There is an association between the availability of HR services on mobile devices and the ease of access to HR managers.
3. **H1:** There is an association between the imbalance of personal vis-à-vis professional life and the stress the managers are experiencing due to the digital transformation of HR.
4. **H1:** There is a difference in the perception of managers about the impact of digital HR services on various functions of the HR department.
5. **H1:** There is a difference in the perception of managers about the financial impact of digital HR services.
6. **H1:** There is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

Chapter-4: Analysis of Data & Findings

In this chapter, we will analyse the data to understand its utility from a study perspective. The analysis will be in three phases demographic, descriptive and hypotheses testing procedures.

Part 1: Analysis of HR Managers Data

Demographic Analysis

1. Respondent's Gender

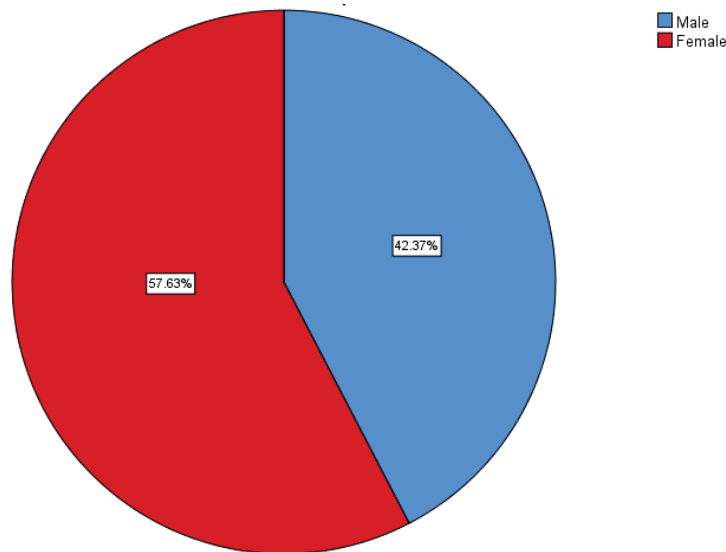


Figure 12: Gender of the responding HR managers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	150	42.4	42.4	42.4
	Female	204	57.6	57.6	100.0
	Total	354	100.0	100.0	

Table 2: Gender of HR managers

From the above pie chart it's evident that the female HR managers were more 58% compared to the male HR managers 42%. This shows the spread of male vs female HR managers in the information technology sector companies.

2. Respondent's Work Experience

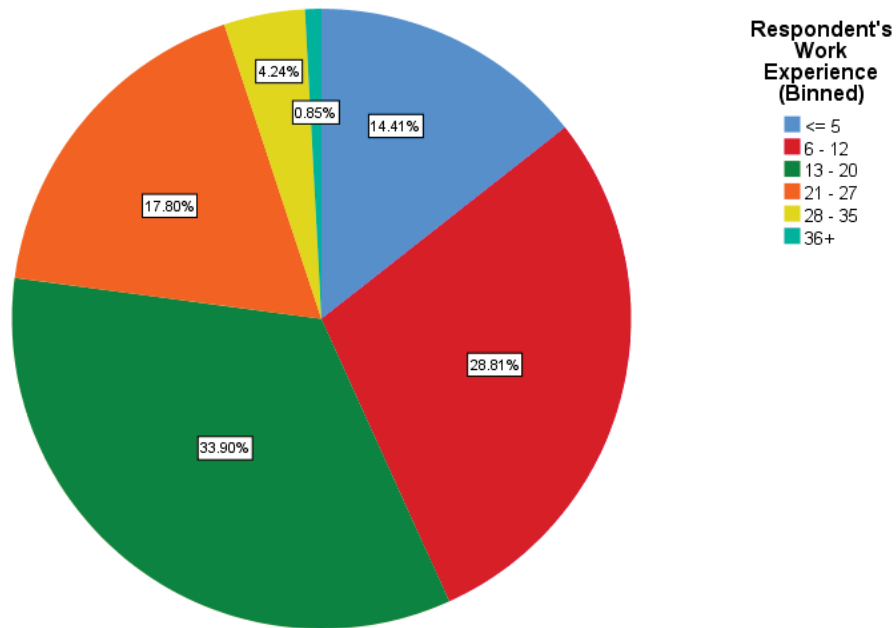


Figure 13: HR manager's work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<= 5	51	14.4	14.4	14.4
	6 - 12	102	28.8	28.8	43.2
	13 - 20	120	33.9	33.9	77.1
	21 - 27	63	17.8	17.8	94.9
	28 - 35	15	4.2	4.2	99.2
	36+	3	.8	.8	100.0
	Total	354	100.0	100.0	

Table 3: Frequency table-Work Experience of HR Managers

It can be seen from the pie chart that the maximum number of respondents is in the 13–20-year experience band (33.90%) followed by the 6–12-year experience band (28.81%). Then comes the 21-27 year band (17.80%) followed by the <=5-year experience band. The 28–35-year and 36+ year experience bands have a small number of respondents.

This would mean that most of the respondents are in low to mid-level experienced categories.

3. Respondent’s Work Location

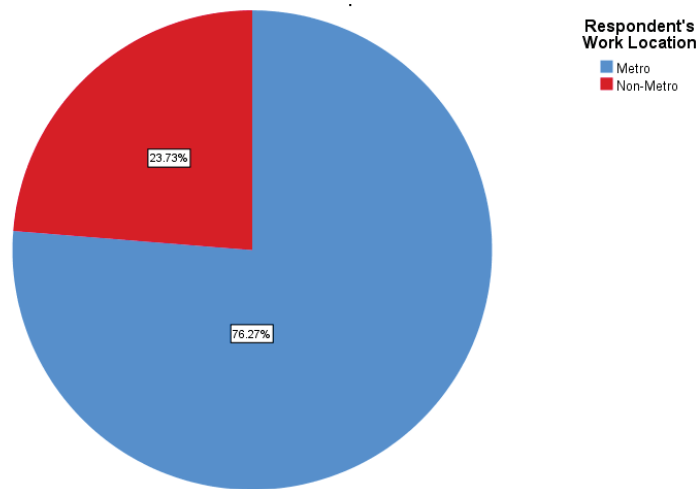


Figure 14: HR manager’s work location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Metro	270	76.3	76.3	76.3
	Non-Metro	84	23.7	23.7	100.0
	Total	354	100.0	100.0	

Table 4: Frequency table- Distribution of HR managers location

It can be seen from the pie chart that most of the respondents are from metro cities (76.27%) with those from non-metro places having a low percentage (23.73%).

4. Number of Employees in Respondent's Organisation

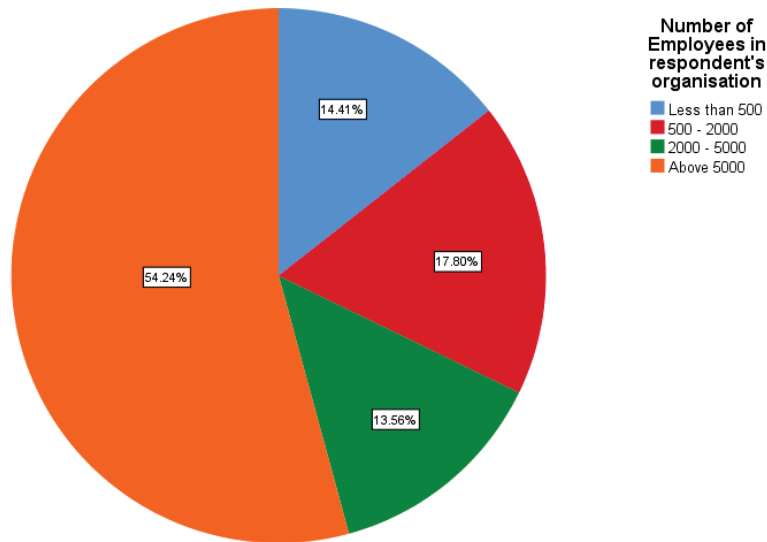


Figure 15: HR manager's company's employee count

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 500	51	14.4	14.4	14.4
	500 - 2000	63	17.8	17.8	32.2
	2000 - 5000	48	13.6	13.6	45.8
	Above 5000	192	54.2	54.2	100.0
	Total	354	100.0	100.0	

Table 5: Frequency table-HR manager's company's employee count

It can be seen from the pie-chart that majority of the respondents (54.24%) are from organisations with >5000 employees followed by close numbers from 500-2000 employee band (17.8-%), less than 500 employee band (14.41%) and 2000-5000 employee band (13.56%). This shows that most of the respondents are from very large organisations.

5. Whether the company has an office outside India

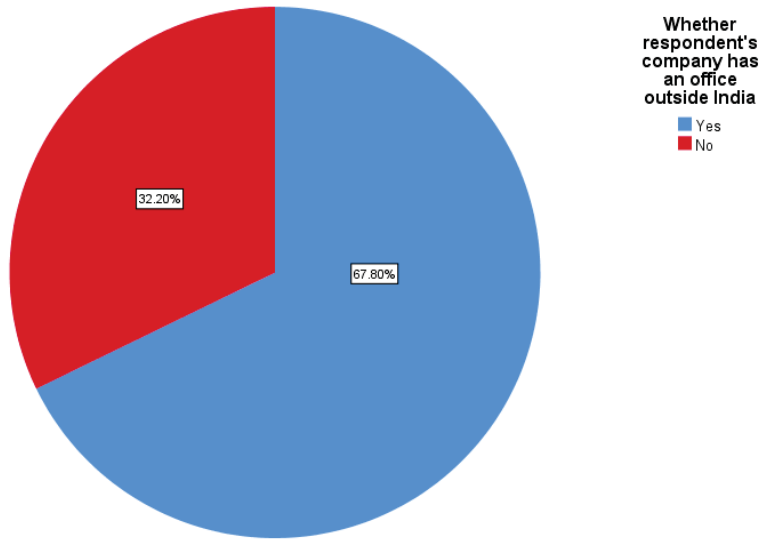


Figure 16: Participating companies having offices outside India

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	240	67.8	67.8	67.8
	No	114	32.2	32.2	100.0
	Total	354	100.0	100.0	

Table 6: Frequency table- Participating companies having offices outside India

It can be seen from the pie-chart that majority of the respondents are from companies having offices outside India as well followed by the band of not having so (32.20%).

6. Whether the respondent's company works with teams outside India

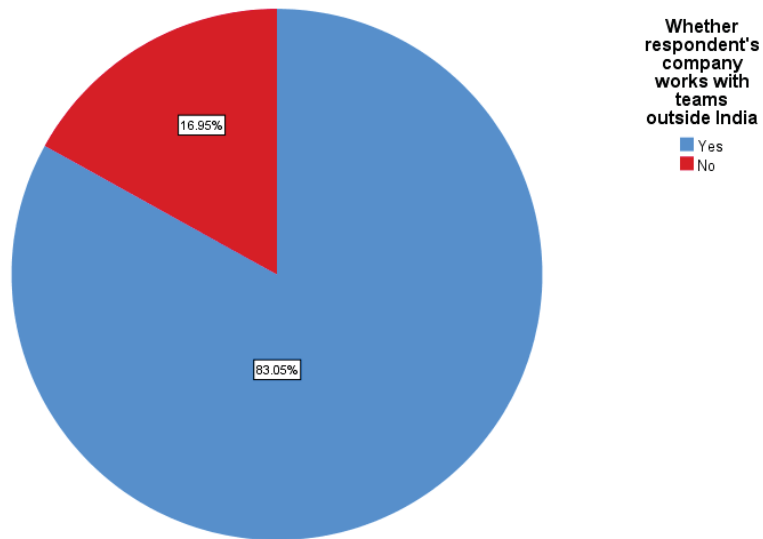


Figure 17: Collaboration of teams in a different geography

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	294	83.1	83.1	83.1
	No	60	16.9	16.9	100.0
	Total	354	100.0	100.0	

Table 7: Frequency table-Collaboration of teams in a different geography

It is seen from the pie-chart that majority of the respondents are from organisations working with teams outside India which is almost 83% of the total whereas only 17% of the organisations working with teams inside India.

7. Respondent's role in HR

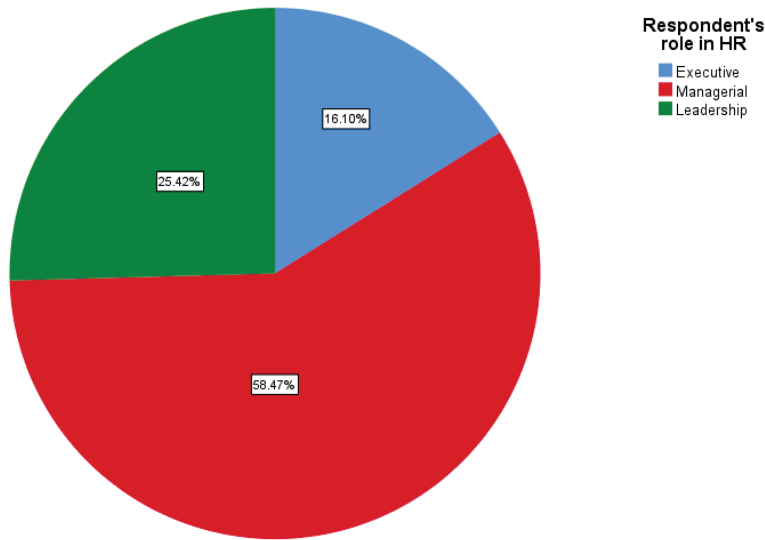


Figure 18: Formal role of responding managers in HR function

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive	57	16.1	16.1	16.1
	Managerial	207	58.5	58.5	74.6
	Leadership	90	25.4	25.4	100.0
	Total	354	100.0	100.0	

Table 8: Frequency table- Formal role of responding managers in HR function

Most of the respondents are in the managerial category (58.47%) followed by the leadership category (25.42%) and then lastly the Executive category (16.10%). This shows that most of the respondents play a mid-experience level role in HR.

8. Respondent's Mode of Work

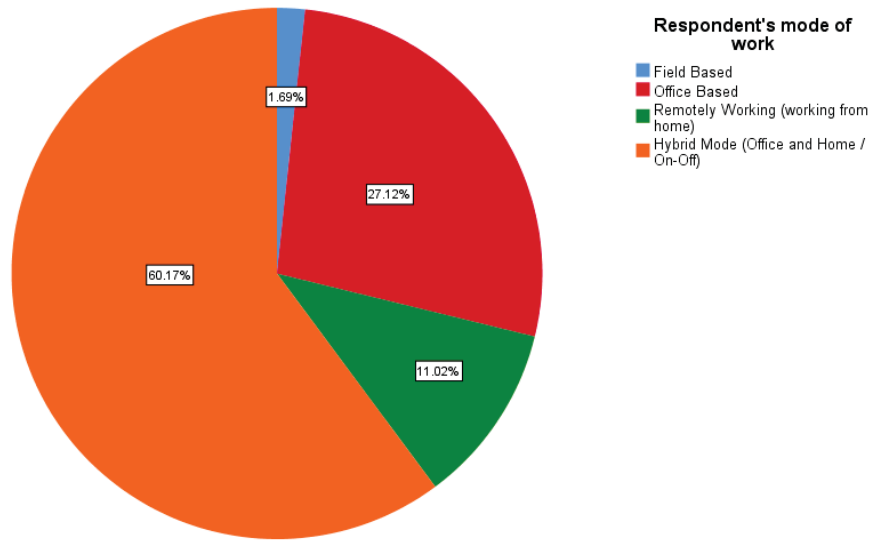


Figure 19: Responding manager's mode of work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Field Based	6	1.7	1.7	1.7
	Office Based	96	27.1	27.1	28.8
	Remotely Working (working from home)	39	11.0	11.0	39.8
	Hybrid Mode (Office and Home / On-Off)	213	60.2	60.2	100.0
	Total	354	100.0	100.0	

Table 9: Frequency table-Responding manager's mode of work

It can be seen from the pie-chart that the majority of respondents are operating in a Hybrid (home and office) Mode of work (60.17%) followed by Office Based Mode (27.12%), Remotely Working Mode (11.02 %) and field-based mode (1.69%).

9. Respondent's level in the organisation with respect to experience

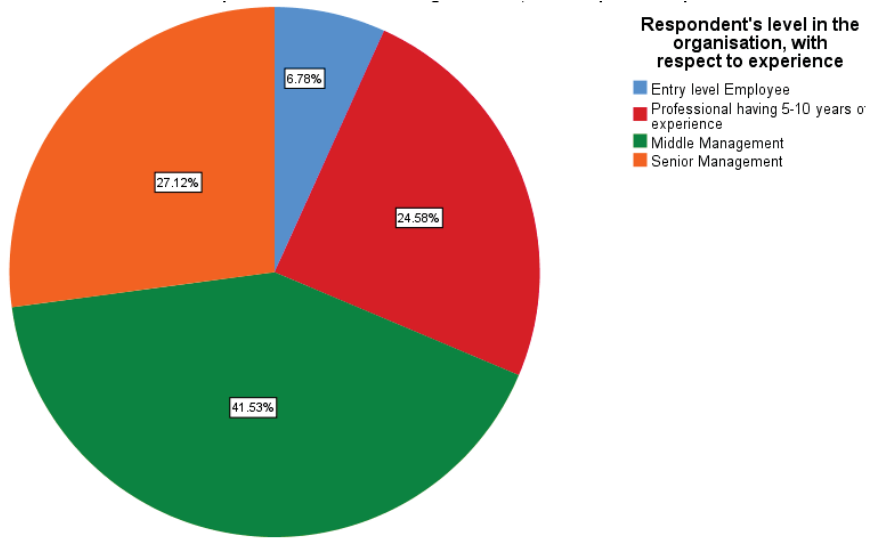


Figure 20: Levels of respondents considering their experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Entry level Employee	24	6.8	6.8	6.8
	Professional having 5-10 years of experience	87	24.6	24.6	31.4
	Middle Management	147	41.5	41.5	72.9
	Senior Management	96	27.1	27.1	100.0
	Total	354	100.0	100.0	

Table 10: Frequency table- Levels of respondents considering their experience

It can be seen from the pie chart that the majority of the respondents are from the Middle Management Level (41.53%) followed by two close percentage levels of Senior Management (27.12%) and 5-10 Year Experience or Junior Management (24.58%). Then come the extreme ends of Entry Level (6.78%) and C-Level / Executive Level (3.39%).

10. Respondents belonging to generations.

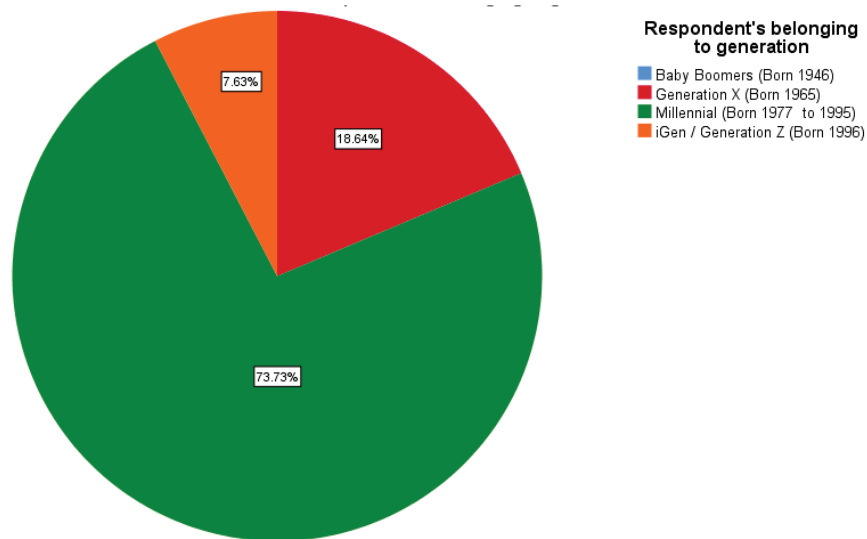


Figure 21: Generation respondents belong to

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Generation X (Born 1965)	66	18.6	18.6	18.6
	Millennial (Born 1977 to 1995)	261	73.7	73.7	92.4
	iGen / Generation Z (Born 1996)	27	7.6	7.6	100.0
	Total	354	100.0	100.0	

Table 11: Frequency table- Generation of Respondents

It can be seen from the piechart that the majority of the respondents are from the Millennial Generation - Born between 1977 to 1995 (73.73%) followed by Generation X – Born in 1965 (18.64%) and I Gen / Generation Z (Born 1996).

Descriptive Analysis

1. Post digitization of HR services - Change in access to HR team members for advice and assistance.

Table 12: Frequency table- Access to HR team for the employees post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	12	3.4	3.4	3.4
	No Change	30	8.5	8.5	11.9
	Improved	219	61.9	61.9	73.7
	Greatly Improved	93	26.3	26.3	100.0
	Total	354	100.0	100.0	

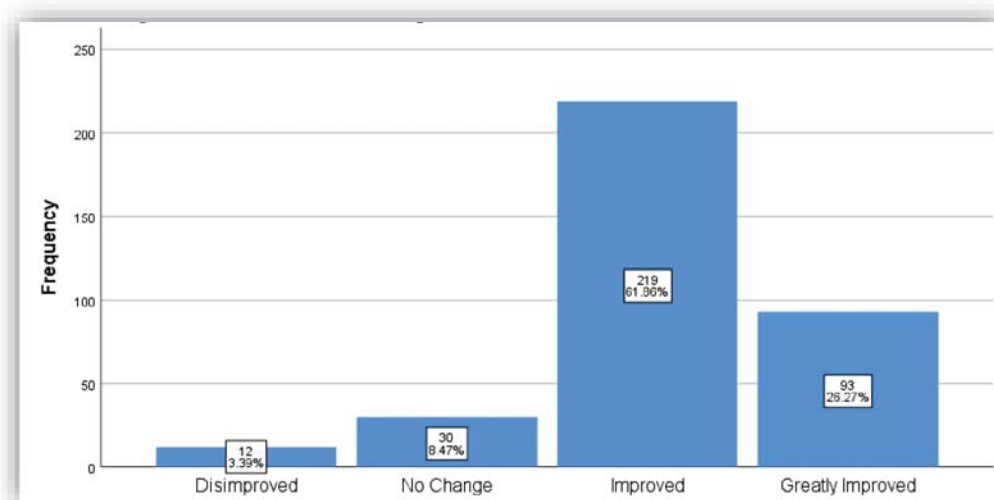


Figure 22: Bar chart-Access to HR team for the employees post digitization

The above results suggest that around 61.86% of the respondents have stated that post digitalization there has been an improvement in access to HR team members for advice and assistance followed by 26.27% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused an improvement in access to HR team members for advice and assistance.

2. Post digitization of HR services - Change in the range of services offered by the HR function

Table 13: Frequency table- Change in services offered by HR function post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	3	.8	.8	.8
	No Change	21	5.9	5.9	6.8
	Improved	234	66.1	66.1	72.9
	Greatly Improved	96	27.1	27.1	100.0
	Total	354	100.0	100.0	

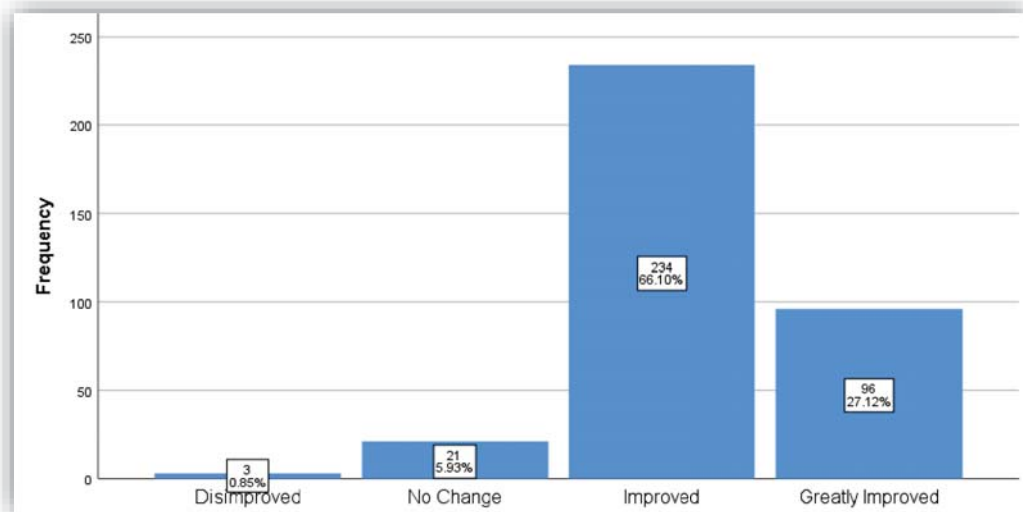


Figure 23: Bar chart-Change in services offered by HR function post digitization

The above results suggest that around 66.10% of the respondents have stated that post digitization there has been an improvement in the range of services offered by the HR function followed by 27.12% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused an improvement in the range of services offered by the HR function.

3. Post digitization of HR services - Change in effectiveness of the services received from the HR function

Table 14: Frequency table- Effectiveness of HR services post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	3	.8	.8	.8
	No Change	30	8.5	8.5	9.3
	Improved	249	70.3	70.3	79.7
	Greatly Improved	72	20.3	20.3	100.0
	Total	354	100.0	100.0	

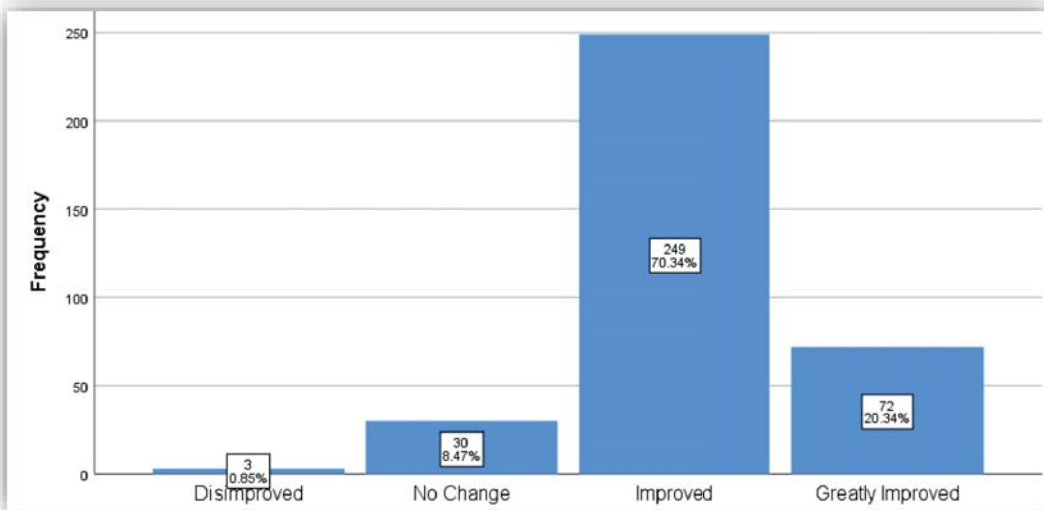


Figure 24: Bar Chart- Effectiveness of HR services post digitization

The above results suggest that around 70.34% of the respondents have stated that post digitalization there has been a change (improvement) in the effectiveness of the services received from the HR function followed by 20.34% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused an improvement in the effectiveness of services received from the HR function.

4. Post digitization of HR services – Change in the responsiveness of the HR function in dealing with questions and queries

Table 15: Frequency chart- Change in the responsiveness of the HR function post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	3	.8	.8	.8
	No Change	39	11.0	11.0	11.9
	Improved	249	70.3	70.3	82.2
	Greatly Improved	63	17.8	17.8	100.0
	Total	354	100.0	100.0	

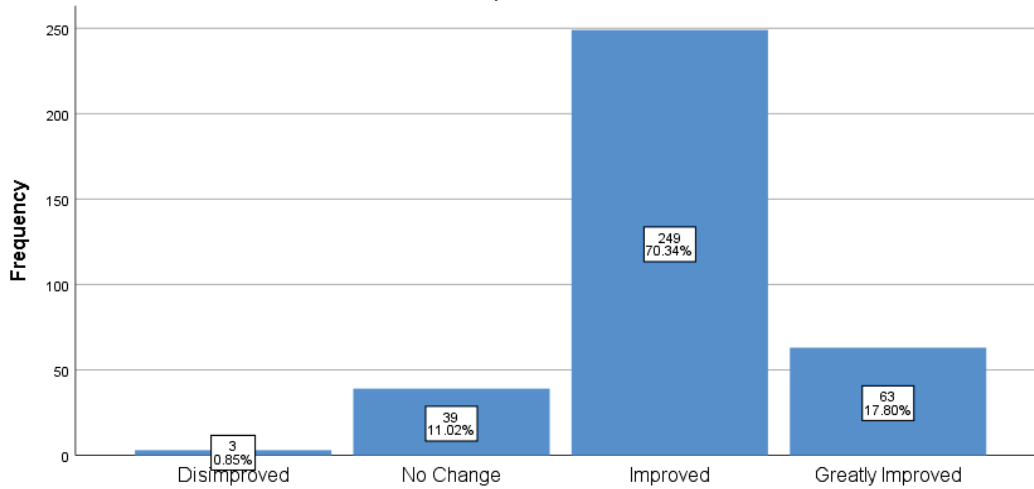


Figure 25: Bar chart- Change in the responsiveness of the HR function post digitization

The above results suggest that around 70.34% of the respondents have stated that post digitalization there has been a change in responsiveness of the HR function in dealing with questions and queries, followed by 17.80% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused an improvement in the responsiveness of the HR function in dealing with questions and queries.

5. Post digitization of HR services - Change in quality of the service offered by the HR function

Table 16: Frequency table-Change in quality of service offered by HR function post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	3	.8	.8	.8
	No Change	33	9.3	9.3	10.2
	Improved	261	73.7	73.7	83.9
	Greatly Improved	57	16.1	16.1	100.0
	Total	354	100.0	100.0	

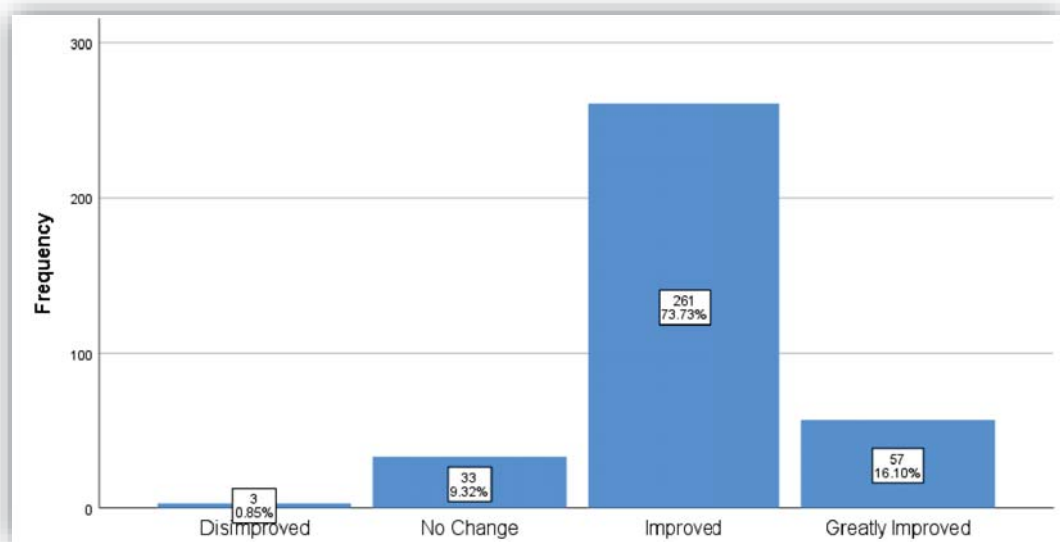


Figure 26: Bar chart- Change in quality of service offered by HR function post digitization

The above results suggest that around 73.73% of the respondents have stated that post digitalization there has been a change in the form of an improvement in the quality of services offered by the HR function, followed by 16.10% of them who feel that the same has greatly improved. Thus, most of the respondents feel that digitalisation has caused an improvement in the quality of services offered by the HR function.

6. Post digitization of HR services - Change in ease of access to HR policies and procedures

Table 17: Frequency table-Ease of access to HR policies post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	6	1.7	1.7	1.7
	No Change	24	6.8	6.8	8.5
	Improved	243	68.6	68.6	77.1
	Greatly Improved	81	22.9	22.9	100.0
	Total	354	100.0	100.0	

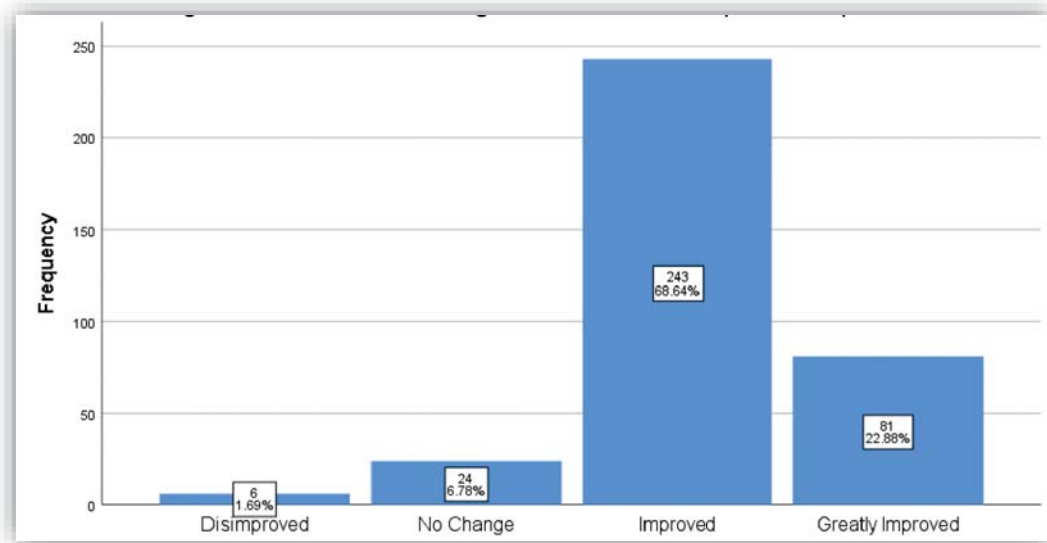


Figure 27: Bar chart-Ease of access to HR policies post digitization

The above results suggest that around 68.64% of the respondents have stated that post digitalization there has been an improvement in the form of greater ease of access to HR policies and procedures, followed by 22.88% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused increased ease of access to HR policies and procedures.

7. Post digitization of HR services - Change in communication about policies and procedures affecting respondent's work

Table 18: Frequency table-Digitization affecting the communication of policies and procedures at work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Greatly Disimproved	6	1.7	1.7	1.7
	Disimproved	6	1.7	1.7	3.4
	No Change	57	16.1	16.1	19.5
	Improved	231	65.3	65.3	84.7
	Greatly Improved	54	15.3	15.3	100.0
	Total	354	100.0	100.0	

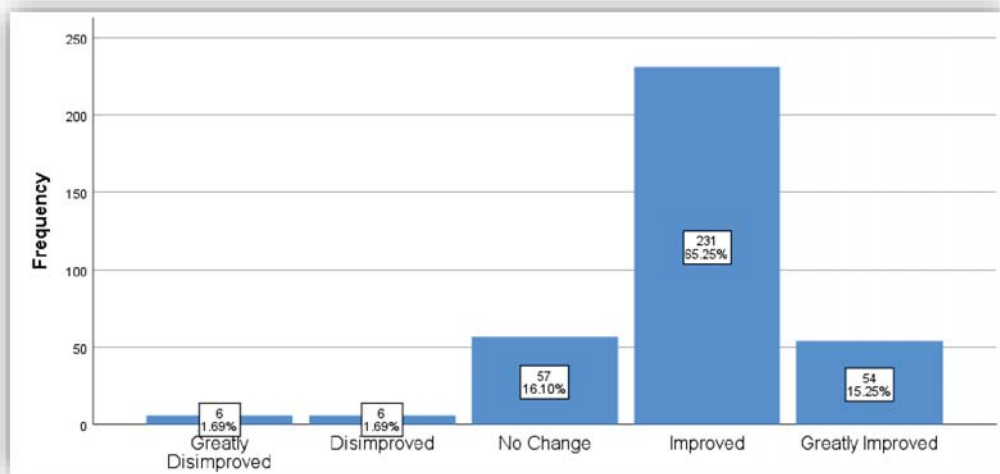


Figure 28: Bar chart-Digitization affecting the communication of policies and procedures at work

The above results suggest that around 65.25% of the respondents have stated that post-digitalization there has been an improvement in communication about policies and procedures affecting respondents' work, followed by 15.25% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused an improvement in communication about policies and procedures affecting respondents' work.

8. Post digitization of HR services - Change in ability to book annual leave online

Table 19: Frequency table- Ability to book for leave online post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Greatly Disimproved	3	.8	.8	.8
	Disimproved	6	1.7	1.7	2.5
	No Change	39	11.0	11.0	13.6
	Improved	180	50.8	50.8	64.4
	Greatly Improved	126	35.6	35.6	100.0
	Total	354	100.0	100.0	

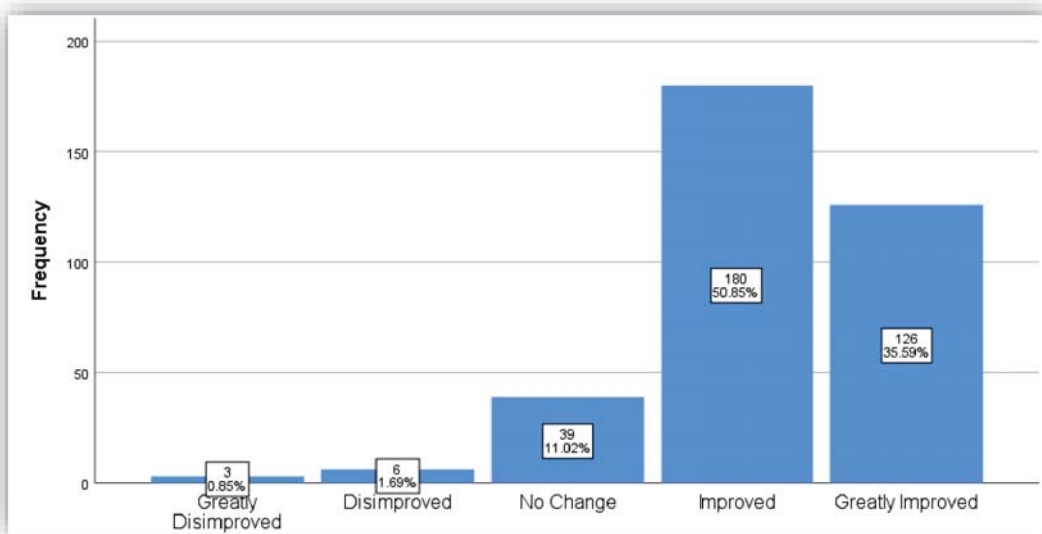


Figure 29: Bar chart-Ability to book for leave online post digitization

The above results suggest that around 50.85% of the respondents have stated that post-digitalization there has been an improvement in the ability to book annual leave online, followed by 35.59% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused an improvement in the ability to book annual leave online.

9. Post digitization of HR services - Change in ability to record other leave such as sick absence or statutory leave (e.g., Maternity Leave, Paternity Leave)

Table 20: Frequency table- Ability to record the change in leaves online after digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	3	.8	.8	.8
	No Change	30	8.5	8.5	9.3
	Improved	195	55.1	55.1	64.4
	Greatly Improved	126	35.6	35.6	100.0
	Total	354	100.0	100.0	

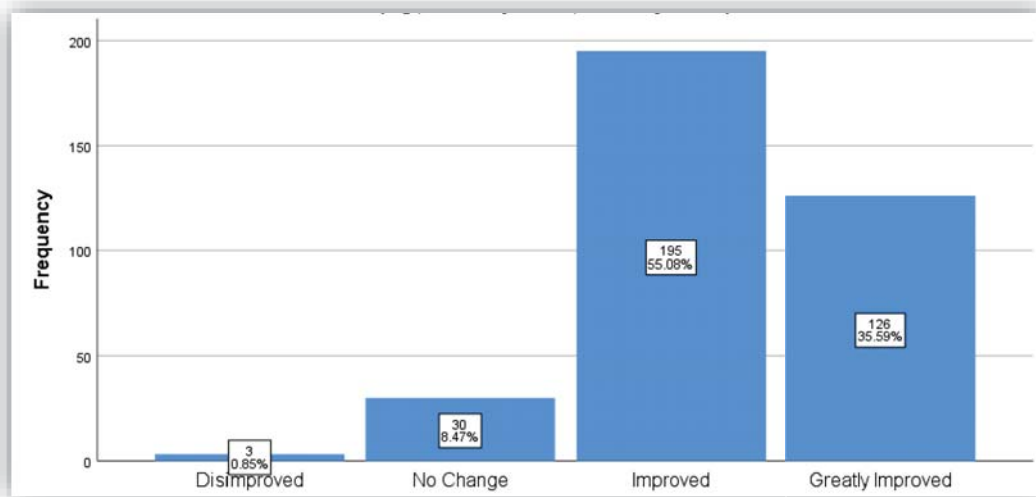


Figure 30: Bar chart-Ability to record the change in leaves online after digitization

The above results suggest that around 55.08% of the respondents have stated that post digitalization there has been an improvement in the ability to record other leave such as sickness, absence or statutory leave, followed by 35.59% of them who feel that the same has greatly improved. Thus, most of the respondents feel that digitalisation has caused an improvement in the ability to record other leave such as sickness, absence or statutory leave.

10. Post digitization of HR services - Change in ability to update my personal details such as address and civil status

Table 21: Frequency table-Ability to update the personal details online post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	3	.8	.8	.8
	No Change	39	11.0	11.0	11.9
	Improved	186	52.5	52.5	64.4
	Greatly Improved	126	35.6	35.6	100.0
	Total	354	100.0	100.0	

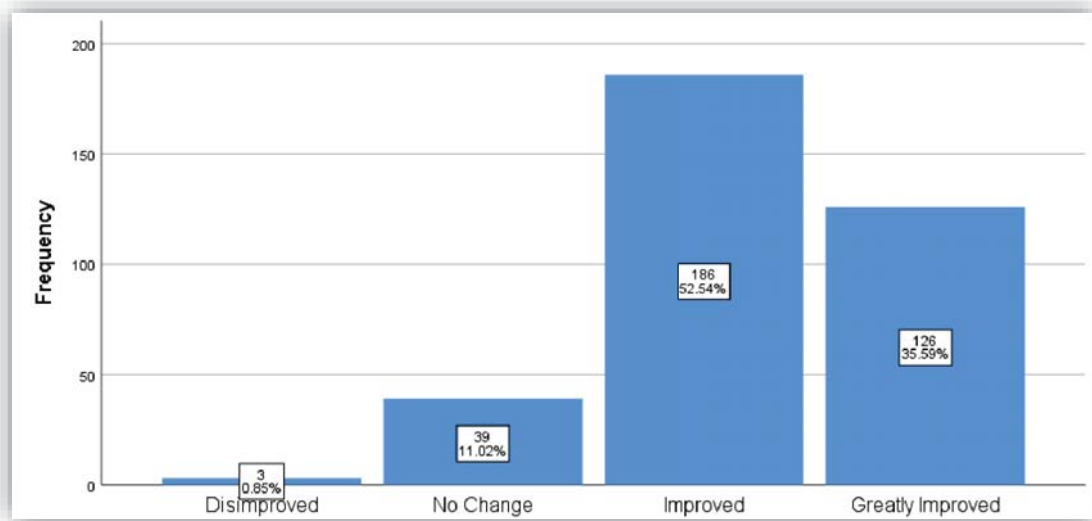


Figure 31: Bar chart-Ability to update the personal details online post digitization

The above results suggest that around 52.54% of the respondents have stated that post digitalization there has been an improvement in the ability to update their personal details such as address and civil status, followed by 35.59% of them who feel that the same has greatly improved. Thus, most of the respondents feel that digitalisation has caused an improvement in the ability to update their personal details.

11. Post-digitalization of HR services - Change in access to internal job vacancies

Table 22: Frequency table-Access to internal job vacancies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	9	2.5	2.5	2.5
	No Change	57	16.1	16.1	18.6
	Improved	195	55.1	55.1	73.7
	Greatly Improved	93	26.3	26.3	100.0
	Total	354	100.0	100.0	

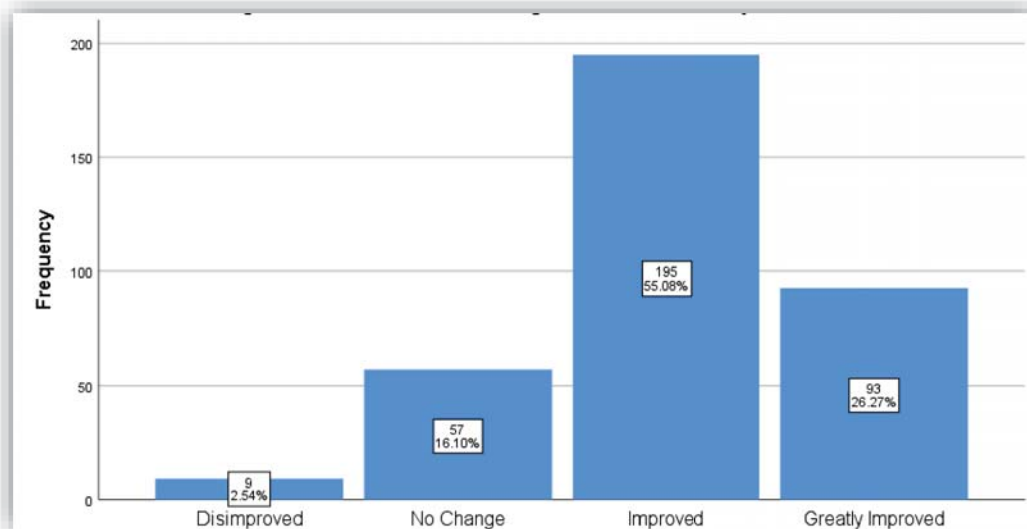


Figure 32: Bar chart-Access to internal job vacancies

The above results suggest that around 55.08% of the respondents have stated that post digitalization there has been an improvement in the access to internal job vacancies, followed by 26.27% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused a change in the form of improvement in access to internal job vacancies.

12. Post digitization of HR services - Change in ability to apply online for internal job vacancies

Table 23: Frequency table-Making application for an internal job online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	9	2.5	2.5	2.5
	No Change	63	17.8	17.8	20.3
	Improved	201	56.8	56.8	77.1
	Greatly Improved	81	22.9	22.9	100.0
	Total	354	100.0	100.0	

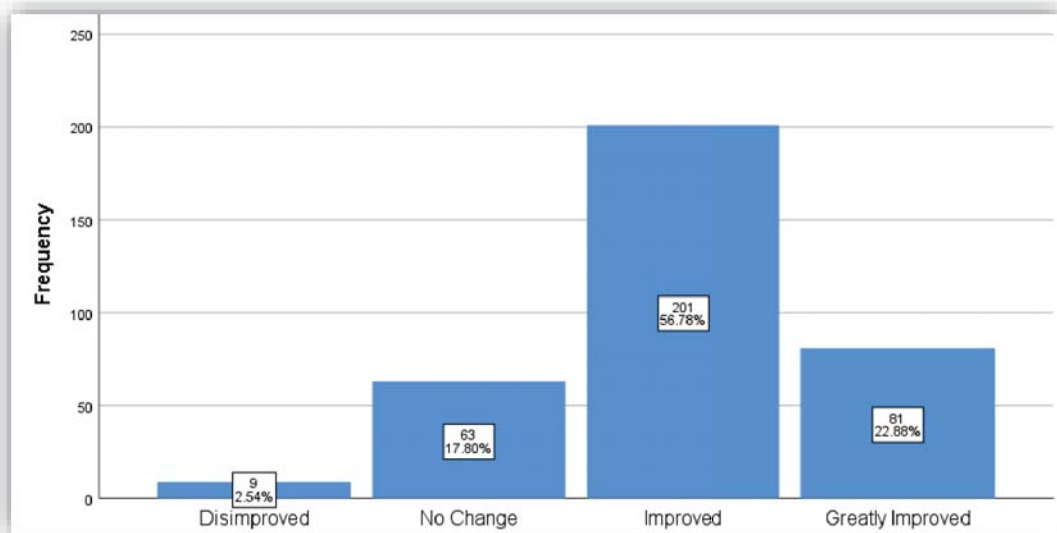


Figure 33: Bar chart-Making application for the internal job online

The above results suggest that around 56.78% of the respondents have stated that post digitalization there has been an improvement in the ability to apply online for internal job vacancies, followed by 22.88% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused a change in the form of improvement in the ability to apply online for internal job vacancies.

13. Post digitization of HR services - Change in responsiveness to internal job applications

Table 24: Frequency table-Responsiveness to internal job applications post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	6	1.7	1.7	1.7
	No Change	72	20.3	20.3	22.0
	Improved	213	60.2	60.2	82.2
	Greatly Improved	63	17.8	17.8	100.0
	Total	354	100.0	100.0	

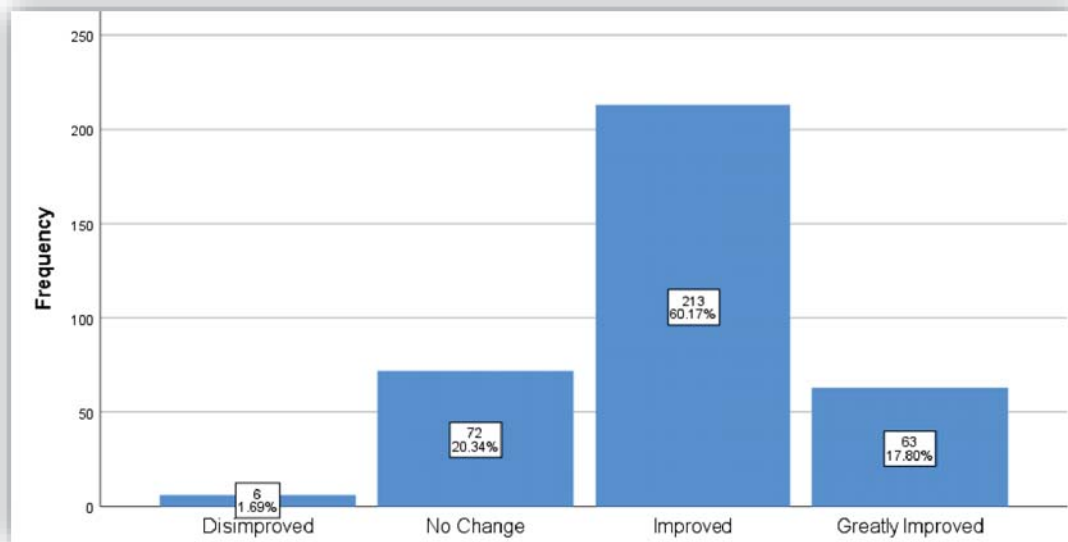


Figure 34: Bar chart-Responsiveness to internal job applications post digitization

The above results suggest that around 60.17% of the respondents have stated that post digitalization there has been an improvement in responsiveness to internal job applications, followed by 17.80% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused a change in the form of improvement in the responsiveness to internal job applications.

14. Post digitization of HR services - Change in ability to create performance goals and objectives

Table 25: Frequency table-Creating performance goals and objectives online post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	6	1.7	1.7	1.7
	No Change	51	14.4	14.4	16.1
	Improved	222	62.7	62.7	78.8
	Greatly Improved	75	21.2	21.2	100.0
	Total	354	100.0	100.0	

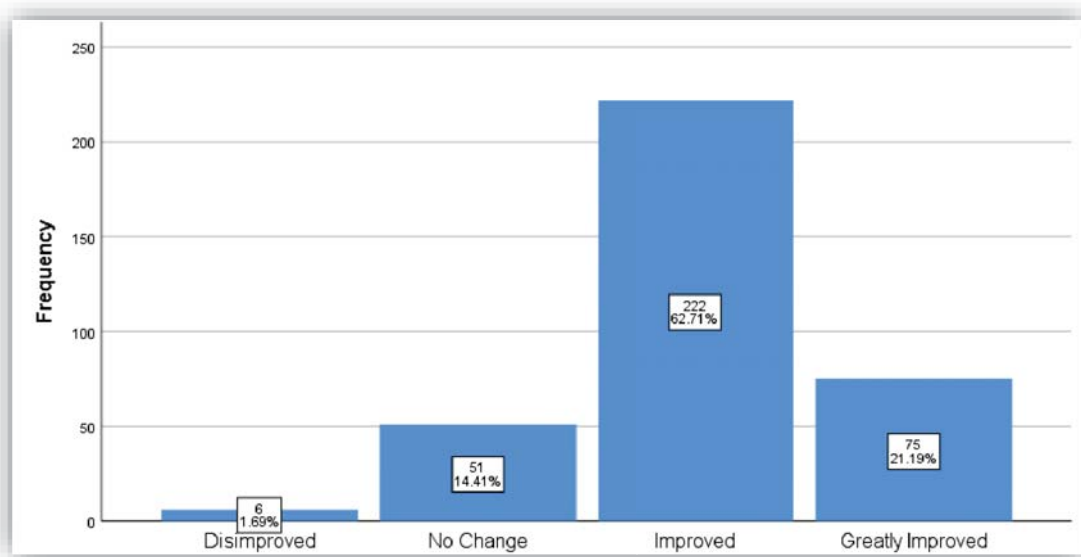


Figure 35: Bar chart-Creating performance goals and objectives online post digitization

The above results suggest that around 62.71% of the respondents have stated that post digitalization there has been an improvement in responsiveness to internal job applications, followed by 21.19% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused a change in the form of improvement in the responsiveness to internal job applications.

15. Post digitization of HR services - Change in ability to review, amend or update performance goals and objectives throughout the year

Table 26: Frequency table-Change/Amendment/Review/Update of performance goals round the year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	9	2.5	2.5	2.5
	No Change	48	13.6	13.6	16.1
	Improved	228	64.4	64.4	80.5
	Greatly Improved	69	19.5	19.5	100.0
	Total	354	100.0	100.0	

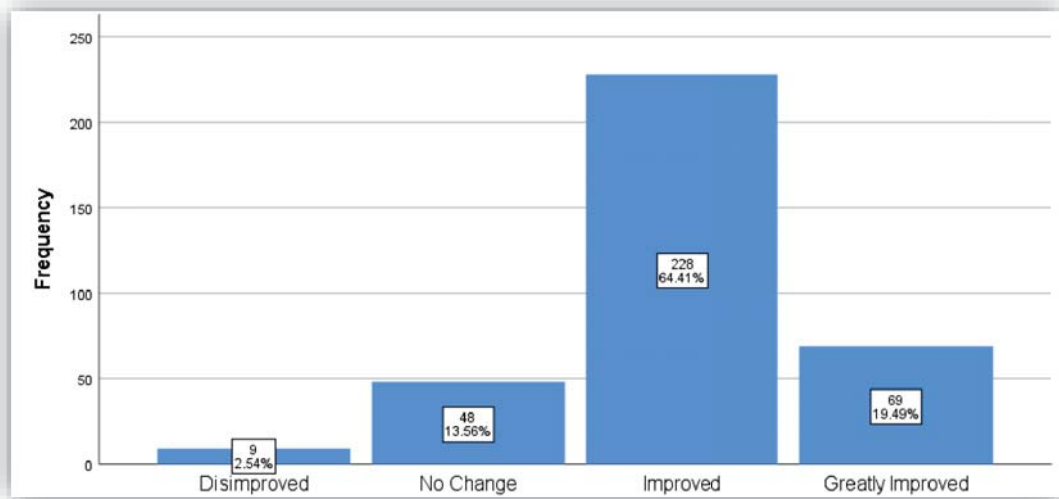


Figure 36: Bar chart-Change/Amendment/Review/Update of performance goals round the year

The above results suggest that around 64.41% of the respondents have stated that post digitalization there has been an improvement in the ability to review, amend or update performance goals and objectives throughout the year, followed by 19.49% of them who feel that the same has greatly improved. Thus, most of the respondents feel that digitalisation has caused a change in the form of improvement in the ability to review, amend or update performance goals and objectives throughout the year.

16. Post digitization of HR services - Change in ability to complete performance appraisals

Table 27: Frequency table-Conducting Performance Appraisals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disimproved	9	2.5	2.5	2.5
	No Change	60	16.9	16.9	19.5
	Improved	222	62.7	62.7	82.2
	Greatly Improved	63	17.8	17.8	100.0
	Total	354	100.0	100.0	

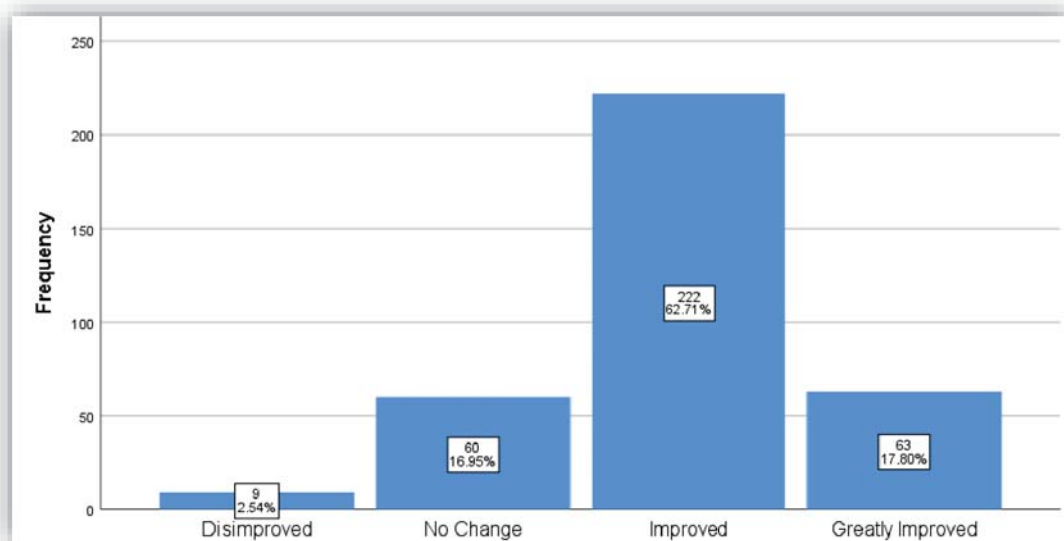


Figure 37: Bar chart-Conducting Performance Appraisals

The above results suggest that around 62.71% of the respondents have stated that post-digitalization there has been an improvement in the ability to complete performance appraisals, followed by 17.80% of them who feel that the same has greatly improved. Thus, the majority of the respondents feel that digitalisation has caused a change in the form of improvement in the ability to complete performance appraisals.

17. Before the introduction of digital HR services, respondent was well informed of the upcoming changes

Table 28: Frequency table-Awareness of employees on upcoming changes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	198	55.9	55.9	55.9
	No	48	13.6	13.6	69.5
	Don't Know	108	30.5	30.5	100.0
	Total	354	100.0	100.0	

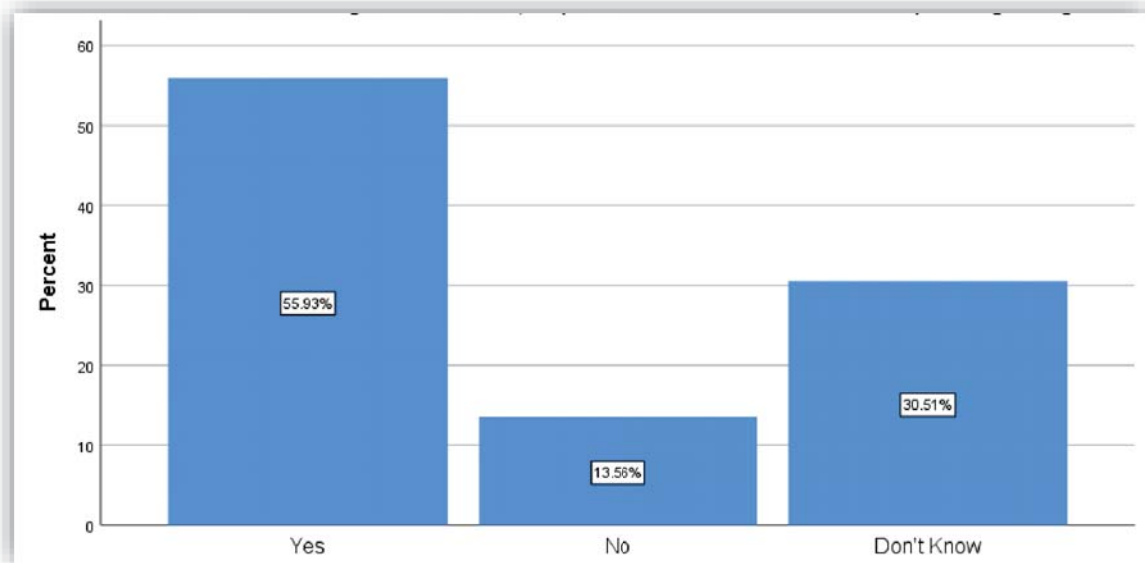


Figure 38: Bar chart-Awareness of employees on upcoming changes

The above results suggest that 55.93% of the respondents have stated that before the introduction of digital HR services, respondents were well informed of the upcoming changes, in addition to that 14% say that they were not aware. While 31% have no clear picture of what these changes look like.

18. Respondent received adequate training on digital HR services to use them correctly

Table 29: Frequency table-Training to use digital HR services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	246	69.5	69.5	69.5
	No	108	30.5	30.5	100.0
	Total	354	100.0	100.0	

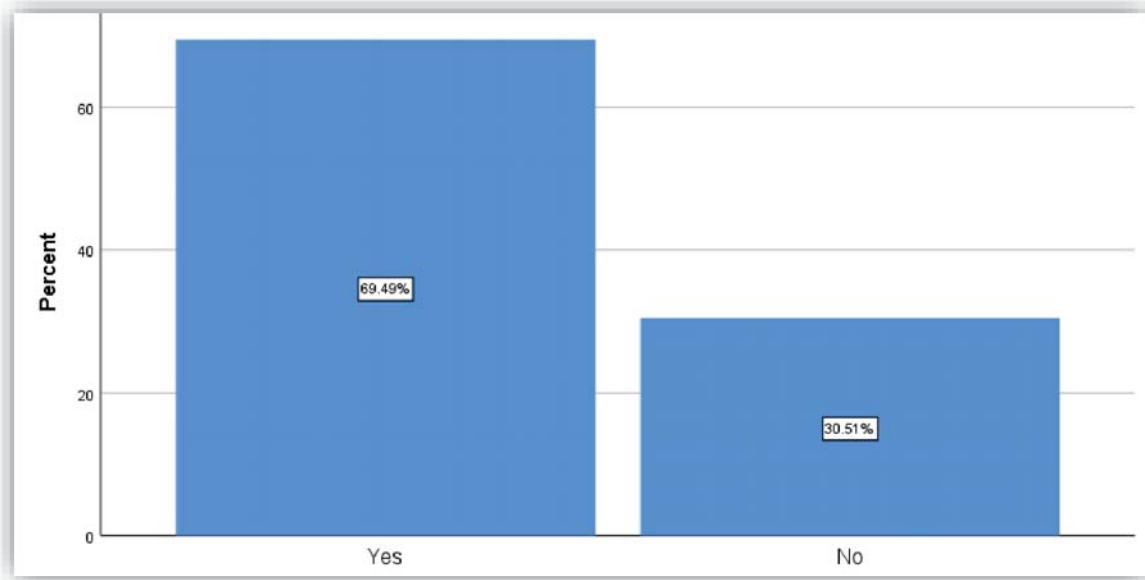


Figure 39: Bar chart-Training to use digital HR services

The above results suggest that 69.49% of the respondents have stated that they had received adequate training to use digital HR services whereas 30.51% said they didn't receive the training to use digital HR services. Most of the sample respondents suggest that they are receiving adequate training on digital HR services.

19. Digital HR services and processes are easy to use

Table 30: Frequency table-Usability of digital HR services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	243	68.6	68.6	68.6
	No	111	31.4	31.4	100.0
	Total	354	100.0	100.0	

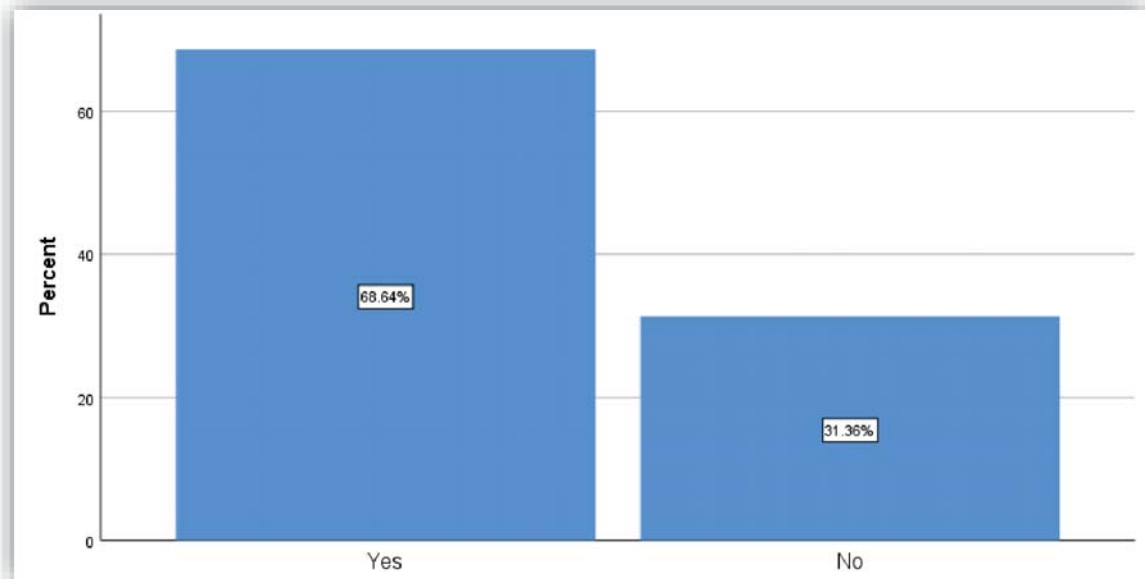


Figure 40: Bar chart-Usability of digital HR services

The above results suggest that 69% of the respondents have stated that it is easy to use the digital HR services whereas there were 31% of respondents said that using digital HR services is not an easy game for them. Thus, majority of the respondents have stated that they receiving adequate training on digital HR services to use them correctly.

20. Digital HR services and processes are available on mobile devices

Table 31: Frequency table-Availability of HR services on mobile devices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	210	59.3	59.3	59.3
	No	87	24.6	24.6	83.9
	Don't Know	57	16.1	16.1	100.0
	Total	354	100.0	100.0	

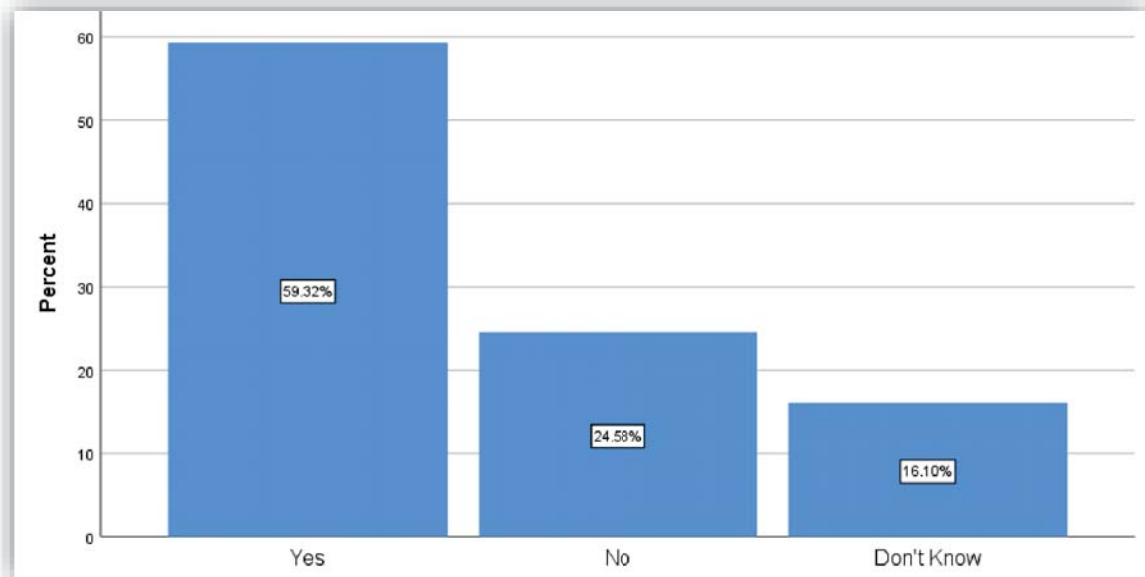


Figure 41: Bar chart-Availability of HR services on mobile devices

The above results suggest that 59% of the respondents have stated that post-digitalisation there was an improvement in the form of availability of digital HR services and processes on mobile devices, in addition to that 16% say that they are not sure whether the service is available of mobile devices and 25% clearly stated that no the services are not available on mobile devices.

21. Respondent accesses work related HR systems from home

Table 32: Frequency table-Access to work related HR systems from home

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.8	.8	.8
	Disagree	15	4.2	4.2	5.1
	Neutral	30	8.5	8.5	13.6
	Agree	186	52.5	52.5	66.1
	Strongly Agree	120	33.9	33.9	100.0
	Total	354	100.0	100.0	

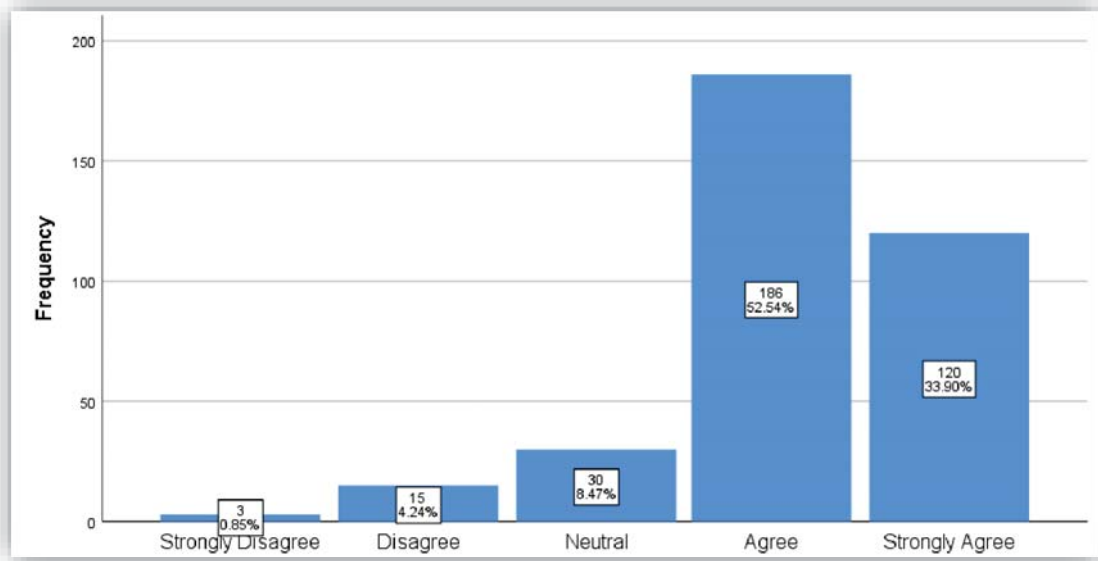


Figure 42: Bar chart-Access to work related HR systems from home

The above results suggest that 52.54% of the respondents have stated that post digitalisation there was an improvement in the form of they accessing work related HR systems from home, in addition to 33.90% of them who feel that the same has greatly improved. Thus, majority of the respondents have stated that there was an improvement in the form of they accessing work related HR systems from home.

22. Respondent feels more connected to the workplace

Table 33-Frequency table: Connected Workplaces

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.8	.8	.8
	Disagree	9	2.5	2.5	3.4
	Neutral	81	22.9	22.9	26.3
	Agree	168	47.5	47.5	73.7
	Strongly Agree	93	26.3	26.3	100.0
	Total	354	100.0	100.0	

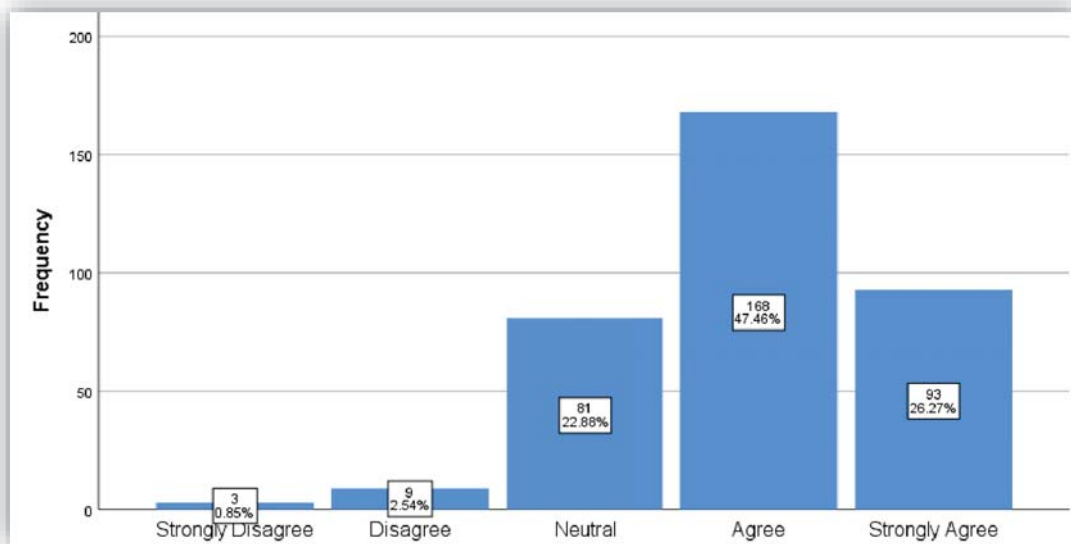


Figure 43- Bar Chart: Connected Workplaces

The above results suggest that 47.46% of the respondents have stated that post digitalisation there has been an improvement in the form of feeling more connected to the workplace, in addition to 26.27% of them who feel that the same has greatly improved. Thus, the majority of the respondents have stated that there was an improvement in the form of their feeling more connected to the workplace.

23. Respondent feels that the lines between work time and personal time have become blurred as a result of digitization

Table 34: Frequency table-Personal vis-a-vis Professional lives have got mixed due to digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	45	12.7	12.7	12.7
	Neutral	96	27.1	27.1	39.8
	Agree	132	37.3	37.3	77.1
	Strongly Agree	81	22.9	22.9	100.0
	Total	354	100.0	100.0	

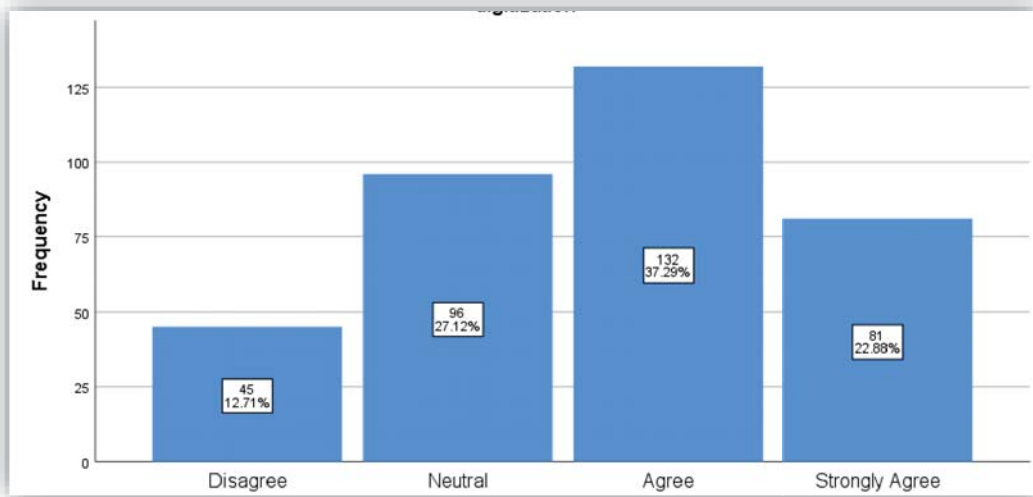


Figure 44: Bar chart-Personal vis-a-vis Professional lives have got mixed due to digitization

The above results suggest that 37.29% of the respondents have agreed that the lines between work time and personal time have become blurred as a result of digitization, in addition to 22.88% of them who have strongly agreed to this. Thus, majority of the respondents have stated that the lines between work time and personal time have become blurred as a result of digitization.

24. Respondent feels more stressed as a result of having more access to digital HR services and tools

Table 35: Frequency table-Stress built up due to more access to the digital HR technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.8	.8	.8
	Disagree	108	30.5	30.5	31.4
	Neutral	108	30.5	30.5	61.9
	Agree	102	28.8	28.8	90.7
	Strongly Agree	33	9.3	9.3	100.0
	Total	354	100.0	100.0	

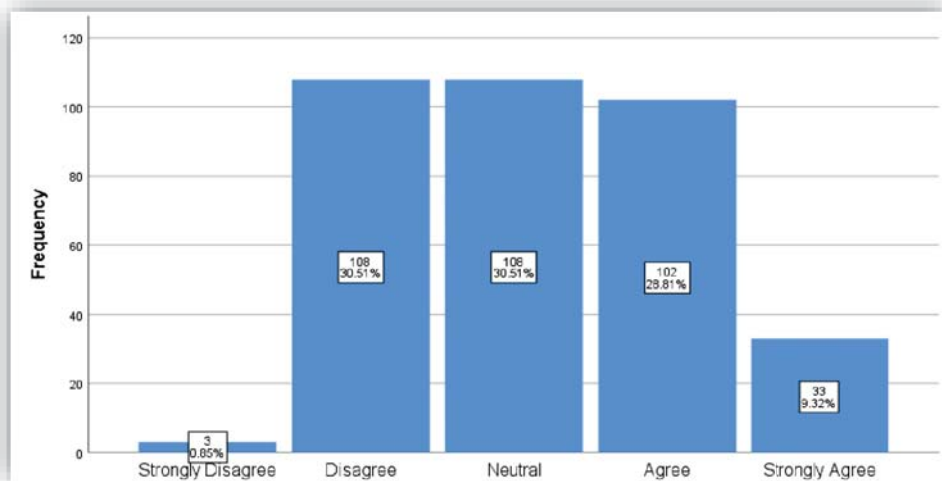


Figure 45: Bar chart-Stress built up due to more access to the digital HR technology

The above results suggest that 30.51% disagree and 0.85% strongly disagree that they feel more stressed as a result of having more access to digital HR services. 30.51% are neutral. Whereas, 28.81% agree and 9.32% strongly agree that that they feel more stressed as a result of having more access to digital HR services. Thus, the opinion can be considered to be mixed, though more of the respondents by a narrow margin have stated that that they feel more stressed as a result of having more access to digital HR services.

25. Availability of a formal HR technology roadmap in the respondent's organisation

Table 36: Frequency table-Formal HR technology roadmap

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	186	52.5	52.5	52.5
	No	102	28.8	28.8	81.4
	Don't Know	66	18.6	18.6	100.0
	Total	354	100.0	100.0	

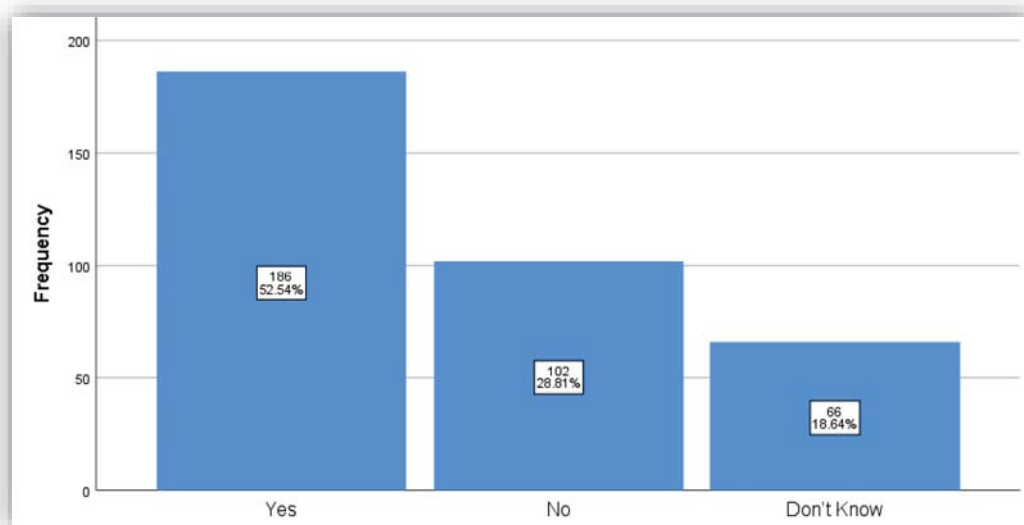


Figure 46: Bar chart-Formal HR technology roadmap

The above results suggest that 52.54% of the respondents have said 'Yes' to the availability of a formal HR technology roadmap in the respondent's organisation. 28.81% have said 'No' and 18.64% have said 'Don't Know'. Thus, the majority of the respondents have confirmed the availability of a formal HR technology roadmap in respondent's organisation.

26. Who is responsible for HR technology within respondent's organisation?

Table 37: Frequency table-Ultimate responsibility for HR technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CEO	48	13.6	13.6	13.6
	HR	243	68.6	68.6	82.2
	IT	33	9.3	9.3	91.5
	Don't Know	30	8.5	8.5	100.0
	Total	354	100.0	100.0	

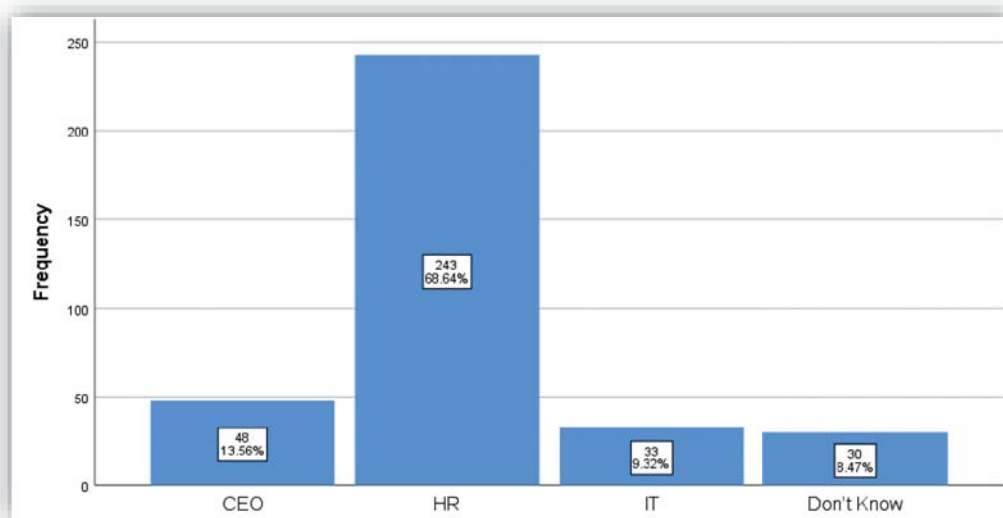


Figure 47: Bar chart-Ultimate responsibility for HR technology

The above results suggest that the following are the stakeholders who the respondents think are responsible for HR technology within respondent's organisation.

CEO - 13.56%, HR – 68.64%, IT – 9.32% and 8.47% say they 'Don't Know'

Thus, majority of the respondents feel that HR is responsible for HR technology within respondent's organisation.

27. Rating of positive impact of digital HR services on – Recruitment

Table 38: Frequency table-Impact of Digital HR services on recruitment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	6	1.7	1.7	1.7
	Low Impact	15	4.2	4.2	5.9
	Neutral	66	18.6	18.6	24.6
	Moderate Impact	171	48.3	48.3	72.9
	High Impact	96	27.1	27.1	100.0
	Total	354	100.0	100.0	

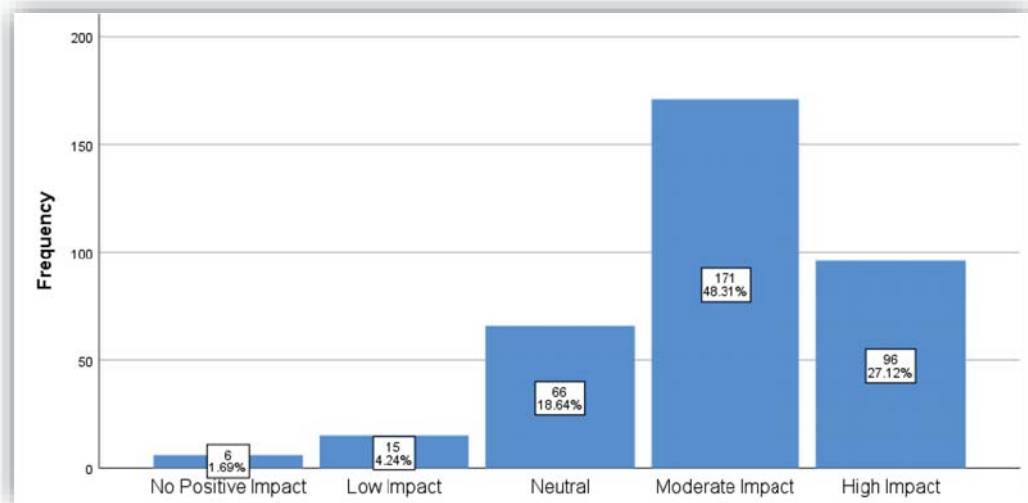


Figure 48: Bar chart-Impact of Digital HR services on recruitment

The above results suggest that 48.31% of the respondents feel that digital HR services have a moderate impact, followed by 27.12% who feel that it has a highly positive impact. 18.64% are neutral followed by 4.24% who feel that there is low positive impact and 1.69% feel that there is no positive impact. Thus, majority of the respondents feel that digital HR services have a positive impact in respondent's organisation.

28. Rating of positive impact of digital HR services on - Compensation & Benefits

Table 39: Frequency table-Impact of Digital HR services on Compensation & Benefits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	3	.8	.8	.8
	Low Impact	12	3.4	3.4	4.2
	Neutral	99	28.0	28.0	32.2
	Moderate Impact	153	43.2	43.2	75.4
	High Impact	87	24.6	24.6	100.0
	Total	354	100.0	100.0	

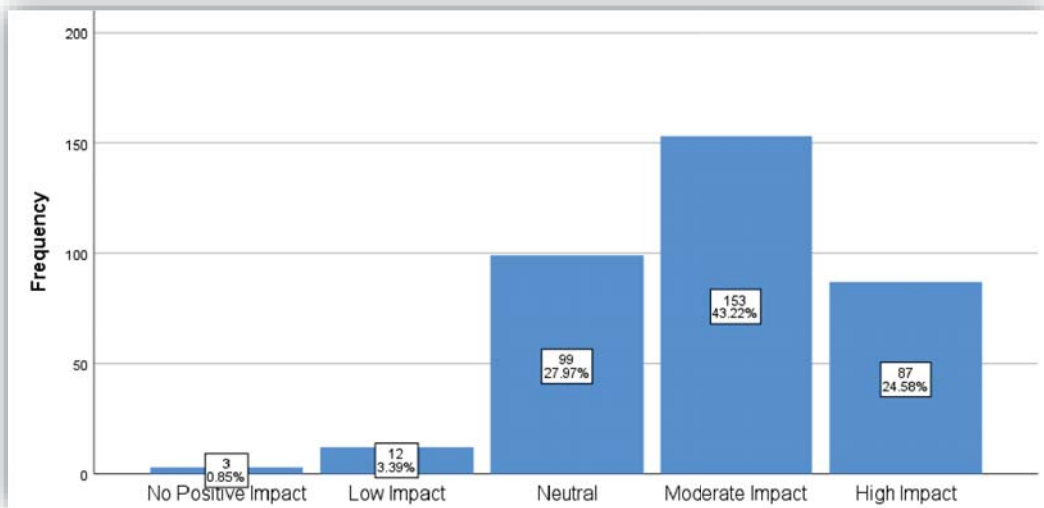


Figure 49: Bar chart-Impact of Digital HR services on Compensation & Benefits

The above results suggest that 43.22% of the respondents feel that digital HR services have had a positive impact on compensation & benefits, followed by 24.58% who feel that it has had a highly positive impact. 27.97% are neutral followed by 3.39% who feel that there is a low positive impact and 0.85% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on compensation & benefits in respondent's organisation.

29. Rating of positive impact of digital HR services on – Administration

Table 40: Frequency table-Impact of Digital HR services on Administration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	9	2.5	2.5	2.5
	Low Impact	18	5.1	5.1	7.6
	Neutral	99	28.0	28.0	35.6
	Moderate Impact	132	37.3	37.3	72.9
	High Impact	96	27.1	27.1	100.0
	Total	354	100.0	100.0	

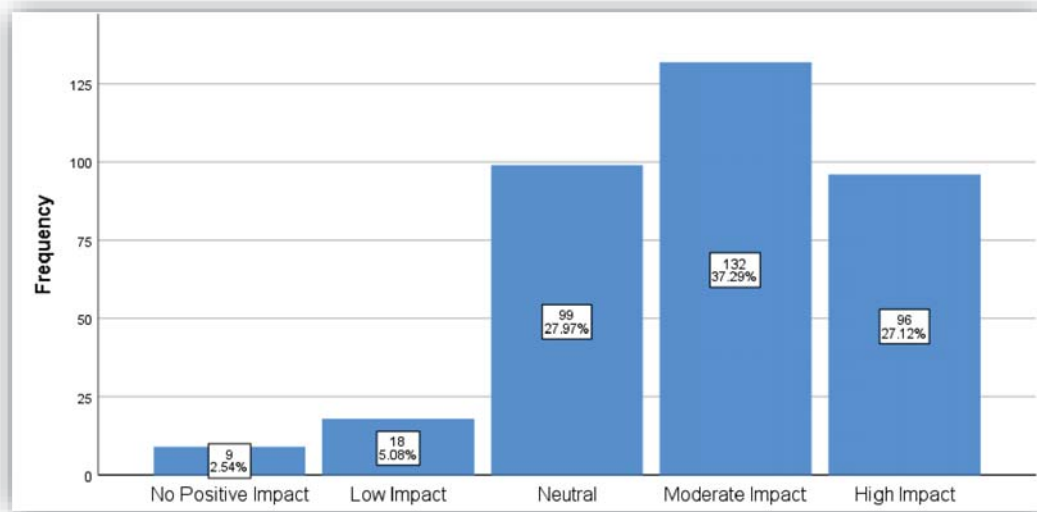


Figure 50: Bar chart-Impact of Digital HR services on Administration

The above results suggest that 37.29% of the respondents feel that digital HR services have had a moderate positive impact on administration, followed by 27.12% who feel that it has had a highly positive impact. 27.97% are neutral followed by 5.08% who feel that there is a low positive impact and 2.54% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on administration in respondent's organisation.

30. Rating of positive impact of digital HR services on - HR Planning

Table 41: Frequency table-Impact of Digital HR services on HR Planning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	3	.8	.8	.8
	Low Impact	18	5.1	5.1	5.9
	Neutral	102	28.8	28.8	34.7
	Moderate Impact	162	45.8	45.8	80.5
	High Impact	69	19.5	19.5	100.0
	Total	354	100.0	100.0	

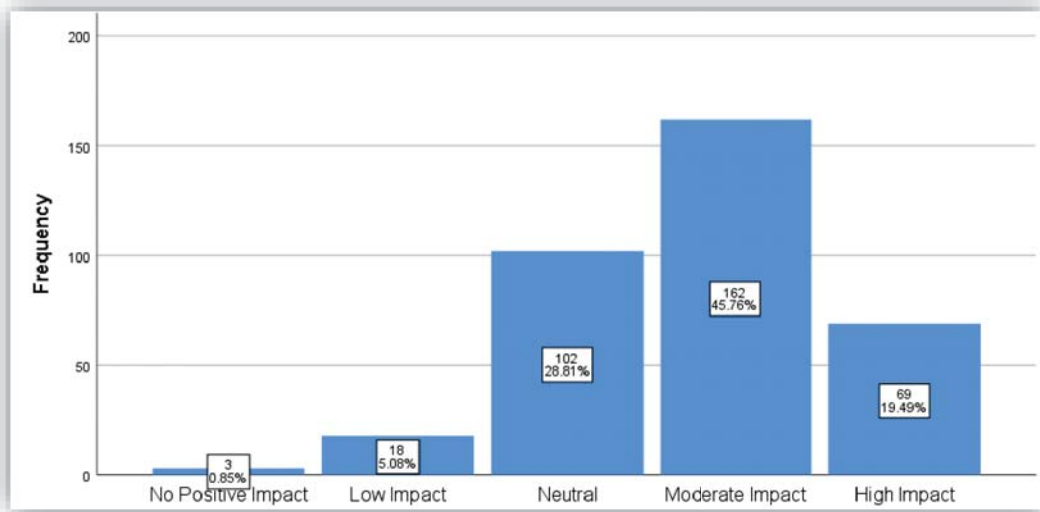


Figure 51: Bar chart-Impact of Digital HR services on HR Planning

The above results suggest that 45.76% of the respondents feel that digital HR services have had a moderate positive impact on HR planning, followed by 19.49% who feel that it has had a highly positive impact. 28.81% are neutral followed by 5.08% who feel that there is a low positive impact and 0.85% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on HR planning in respondent's organisation.

31. Rating of positive impact of digital HR services on - Employee Onboarding

Table 42: Frequency table-Impact of Digital HR services on employee onboarding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	15	4.2	4.2	4.2
	Low Impact	6	1.7	1.7	5.9
	Neutral	51	14.4	14.4	20.3
	Moderate Impact	147	41.5	41.5	61.9
	High Impact	135	38.1	38.1	100.0
	Total	354	100.0	100.0	

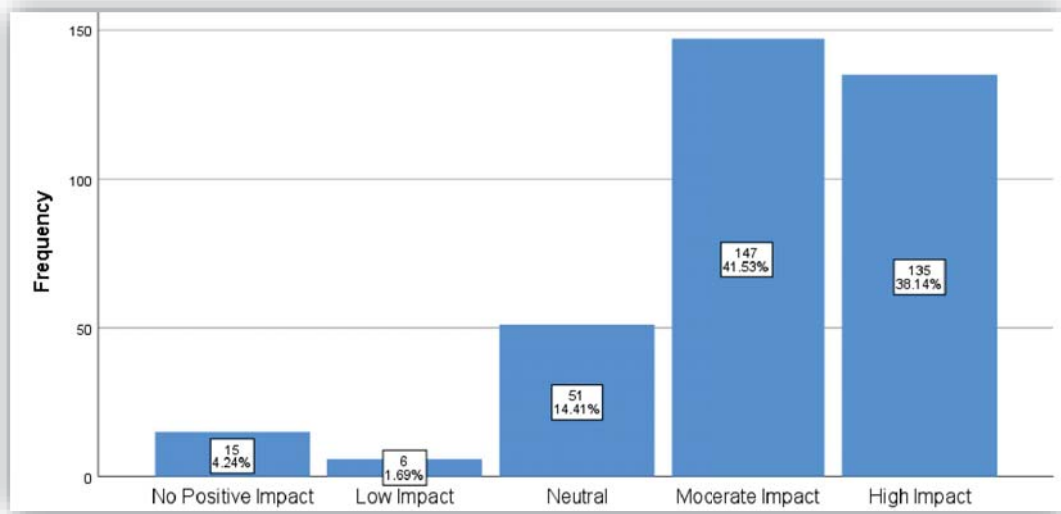


Figure 52: Bar chart-Impact of Digital HR services on employee onboarding

The above results suggest that 41.53% of the respondents feel that digital HR services have had a moderate positive impact on Employee Onboarding, followed by 38.14% who feel that it has had a highly positive impact. 14.41% are neutral followed by 1.69% who feel that there is a low positive impact and 4.24% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on Employee Onboarding in respondent's organisation.

32. Rating of positive impact of digital HR services on - Performance Management

Table 43: Frequency table-Impact of Digital HR services on performance management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	9	2.5	2.5	2.5
	Low Impact	9	2.5	2.5	5.1
	Neutral	72	20.3	20.3	25.4
	Moderate Impact	162	45.8	45.8	71.2
	High Impact	102	28.8	28.8	100.0
	Total	354	100.0	100.0	

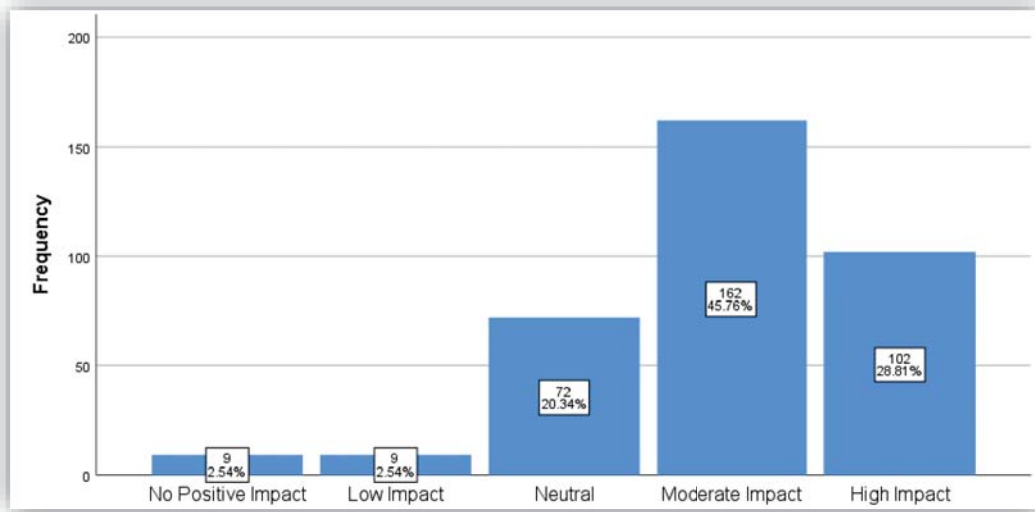


Figure 53: Bar chart-Impact of Digital HR services on performance management

The above results suggest that 45.76% of the respondents feel that digital HR services have had a moderate positive impact on Performance Management, followed by 28.81% who feel that it has had a highly positive impact. 20.34% are neutral followed by 2.54% who feel that there is a low positive impact and 2.54% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on Performance Management in respondent's organisation.

33. Rating of positive impact of digital HR services on - Salary Planning

Table 44: Frequency table-Impact of Digital HR services on salary planning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	15	4.2	4.2	4.2
	Low Impact	12	3.4	3.4	7.6
	Neutral	105	29.7	29.7	37.3
	Moderate Impact	135	38.1	38.1	75.4
	High Impact	87	24.6	24.6	100.0
	Total	354	100.0	100.0	

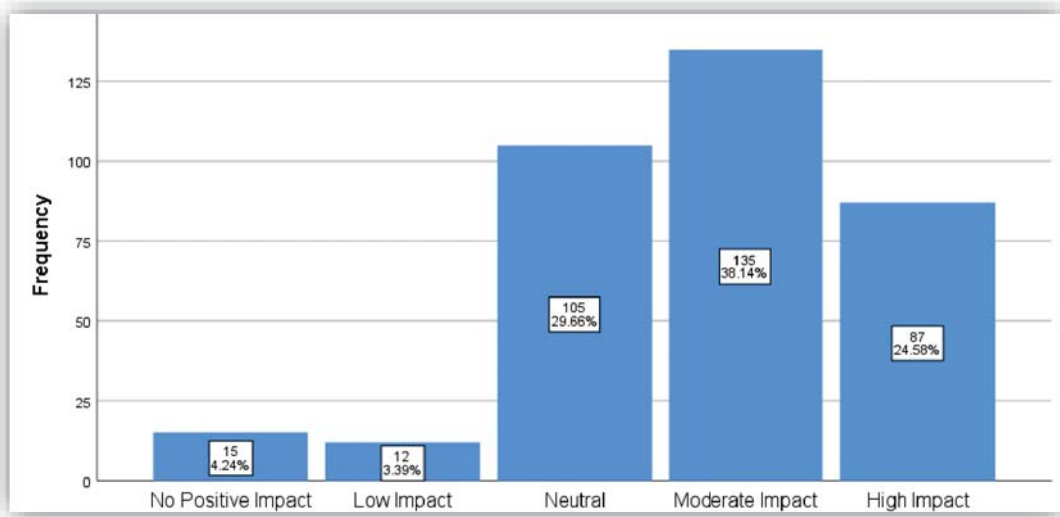


Figure 54: Bar chart-Impact of Digital HR services on salary planning

The above results suggest that 38.14% of the respondents feel that digital HR services have had a moderate positive impact on Salary Planning, followed by 24.58% who feel that it has had a highly positive impact. 29.66% are neutral followed by 3.39% who feel that there is a low positive impact and 4.24% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on Salary Planning in respondent's organisation.

34. Rating of positive impact of digital HR services on - Learning & Development

Table 45: Frequency table-Impact of Digital HR services on learning and development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	18	5.1	5.1	5.1
	Low Impact	18	5.1	5.1	10.2
	Neutral	72	20.3	20.3	30.5
	Moderate Impact	129	36.4	36.4	66.9
	High Impact	117	33.1	33.1	100.0
	Total	354	100.0	100.0	

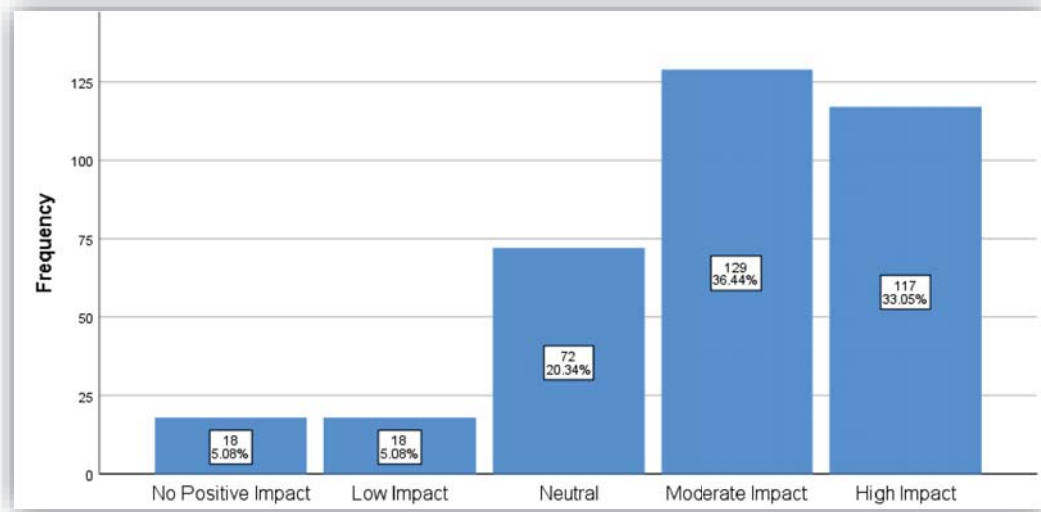


Figure 55: Bar chart-Impact of Digital HR services on learning and development

The above results suggest that 36.44% of the respondents feel that digital HR services have had a moderate positive impact on Learning & Development, followed by 33.05% who feel that it has had a highly positive impact. 20.34% are neutral followed by 5.08% who feel that there is a low positive impact and 5.08% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on Learning & Development in respondent's organisation.

35. Rating of positive impact of digital HR services on - Employee engagement with HR function

Table 46: Frequency table-Impact of Digital HR services on employee engagement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	3	.8	.8	.8
	Low Impact	24	6.8	6.8	7.6
	Neutral	87	24.6	24.6	32.2
	Moderate Impact	165	46.6	46.6	78.8
	High Impact	75	21.2	21.2	100.0
	Total	354	100.0	100.0	

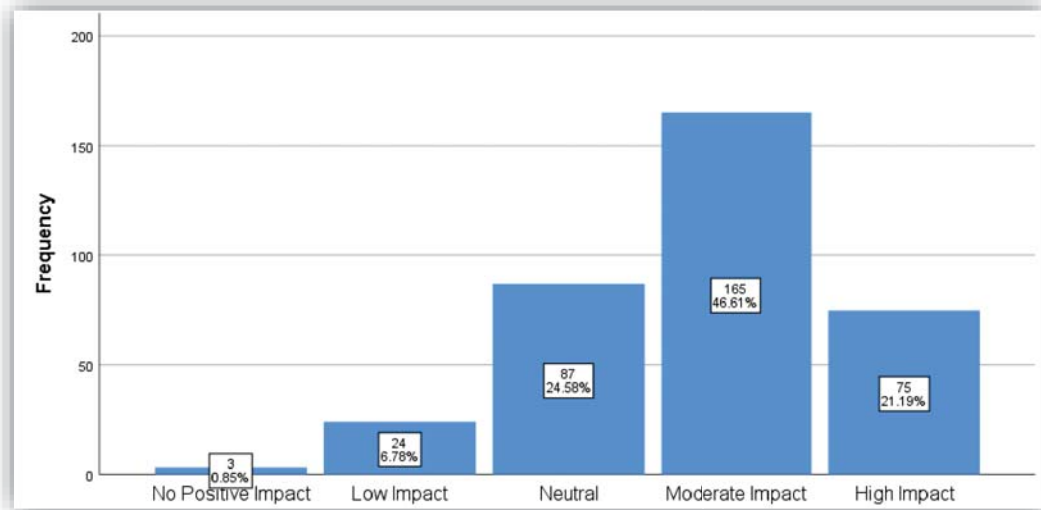


Figure 56: Bar chart-Impact of Digital HR services on employee engagement

The above results suggest that 46.61% of the respondents feel that digital HR services have had a moderate positive impact on Employee engagement with HR function, followed by 21.19% who feel that it has had a highly positive impact. 24.58% are neutral followed by 6.78% who feel that there is a low positive impact and 0.85% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on Employee engagement with HR function in respondent's organisation.

36. Rating of positive impact of digital HR services on - Employee satisfaction with the HR function

Table 47: Frequency table-Impact of Digital HR services on employee satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Positive Impact	6	1.7	1.7	1.7
	Low Impact	18	5.1	5.1	6.8
	Neutral	102	28.8	28.8	35.6
	Moderate Impact	162	45.8	45.8	81.4
	High Impact	66	18.6	18.6	100.0
	Total	354	100.0	100.0	

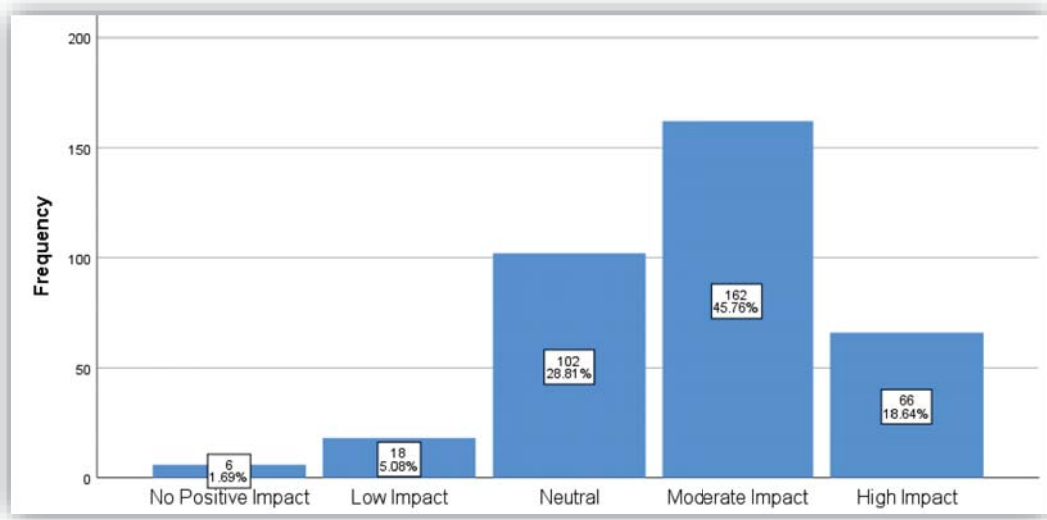


Figure 57: Bar chart-Impact of Digital HR services on employee satisfaction

The above results suggest that 45.76% of the respondents feel that digital HR services have had a moderate positive impact on Employee satisfaction with the HR function, followed by 18.64% who feel that it has had a highly positive impact. 28.81% are neutral followed by 5.08% who feel that there is a low positive impact and 1.69% feel that there is no positive impact.

Thus, majority of the respondents feel that digital HR services have had a positive impact on Employee satisfaction with the HR function in respondent's organisation.

37. Implementation of digital HR services - The biggest obstacle faced by HR in respondent's organization

Table 48: Frequency table-Obstacle faced by HR in the implementation of digital HRservices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Customization	87	24.6	24.6	24.6
	Budget	33	9.3	9.3	33.9
	Education & Awareness	99	28.0	28.0	61.9
	Buy-in from Senior Management	48	13.6	13.6	75.4
	Compatibility with legacy systems	87	24.6	24.6	100.0
	Total	354	100.0	100.0	

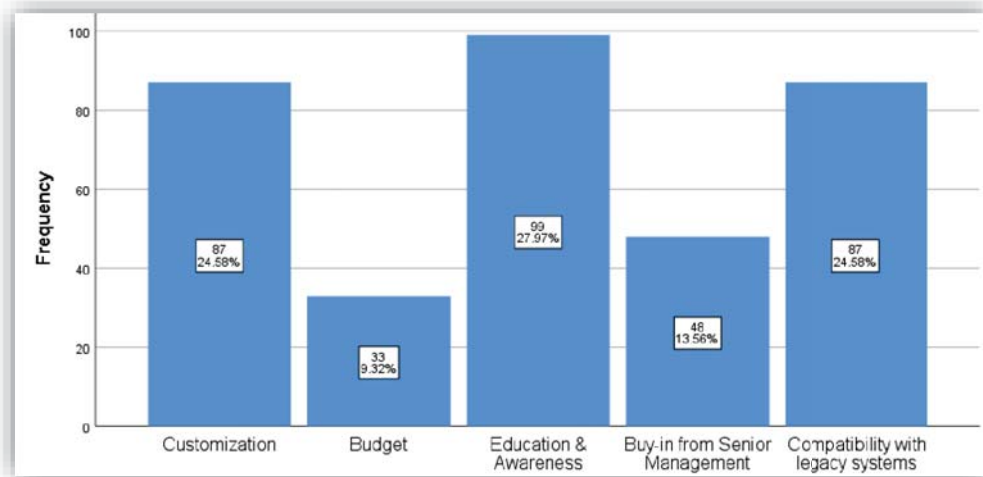


Figure 58: Bar chart-Obstacle faced by HR in the implementation of digital HR services

The above results suggest that 27.97% of the respondents feel that the biggest obstacle faced by HR faced in the respondent organization was Education and Awareness, 24.58% each felt it to be Customisation and Compatibility with Legacy Systems respectively, 13.56% felt it to be Buy-In from Senior Management and 9.32% felt it to be the Budget. Thus, there is an almost equal opinion on the biggest obstacle faced by HR faced in respondent organization between Education and Awareness, Customisation and Compatibility with Legacy Systems though the first one has a slightly higher percentage.

38. Post digitization of HR services - Was a measurable return on investment seen from the implementation costs?

Table 49: Frequency table-Measurable RoI due to digitization of HR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	180	50.8	50.8	50.8
	No	60	16.9	16.9	67.8
	Don't Know	114	32.2	32.2	100.0
	Total	354	100.0	100.0	

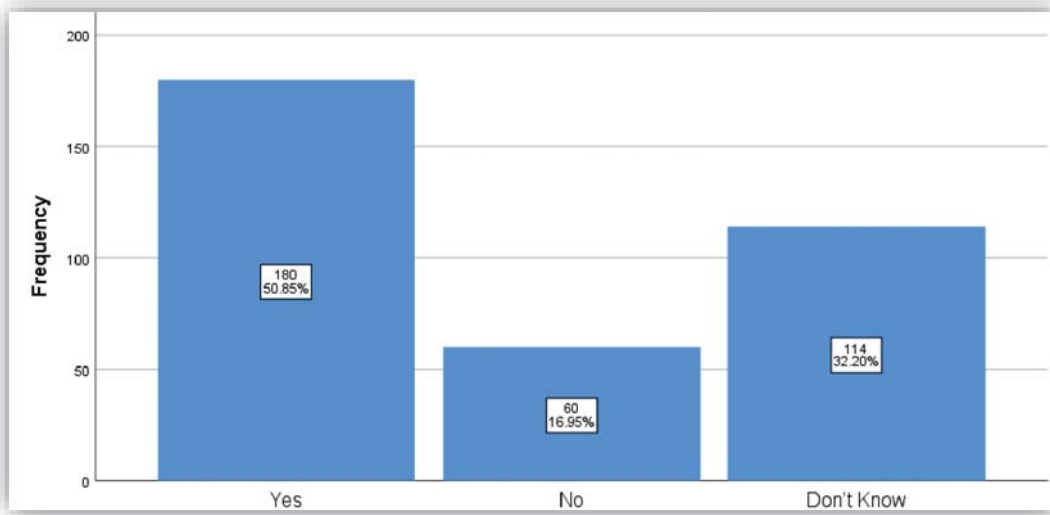


Figure 59: Bar chart-Measurable RoI due to digitization of HR

The above results suggest that 50.85% of the respondents feel that there was a measurable return on investment seen from the implementation costs post digitization of HR services, 16.95% feel that there was no measurable return and 32.20% 'Don't Know'.

Thus, a majority of the respondents feel that there was a measurable return on investment seen from the implementation costs post digitization of HR services

39. Post digitization of HR services - Change in FTE headcount in HR

Table 50: Frequency table-Change in FTE headcount due to digitization of HR services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remained the same	114	32.2	32.2	32.2
	Increased	90	25.4	25.4	57.6
	Decreased	51	14.4	14.4	72.0
	Don't Know	99	28.0	28.0	100.0
	Total	354	100.0	100.0	

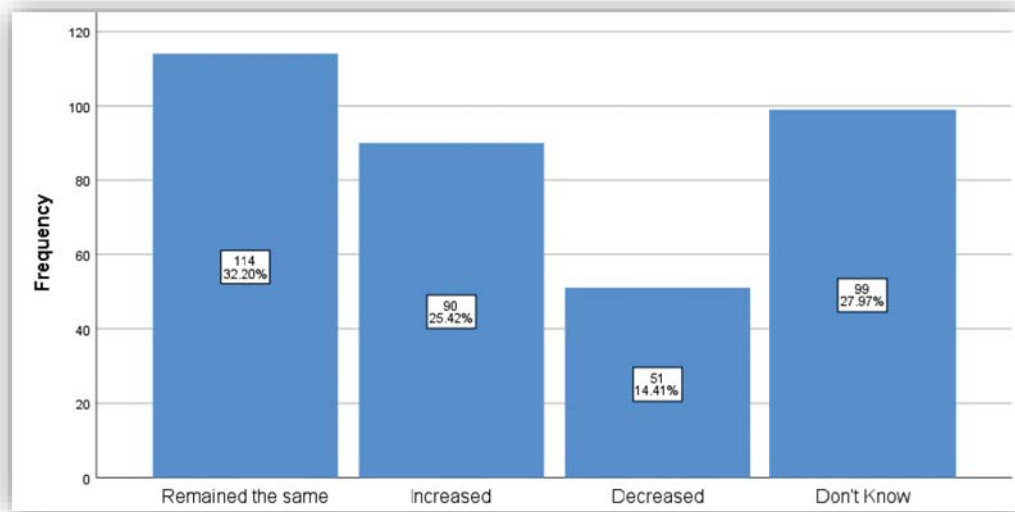


Figure 60: Bar chart-Change in FTE headcount due to digitization of HR services

The above results suggest that 32.20% of the respondents feel that there was no change in FTE headcount in HR post digitization of HR services, 25.42% felt that FTE headcount increased, 14.41% felt it decreased and 27.97% 'Don't Know'.

Thus, a majority of the respondents feel that there was no change in FTE headcount in HR post digitization of HR services, followed by a lower but almost the same percentage of respondents saying that it increased and 'Don't Know' respectively. Those feeling that the headcount decreased are in higher minority.

40. Post digitization of HR services - Change in cost of running the HR function

Table 51: Frequency table-Cost of running HR function post digitization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remained the same	81	22.9	22.9	22.9
	Increased	102	28.8	28.8	51.7
	Decreased	45	12.7	12.7	64.4
	Don't Know	126	35.6	35.6	100.0
	Total	354	100.0	100.0	

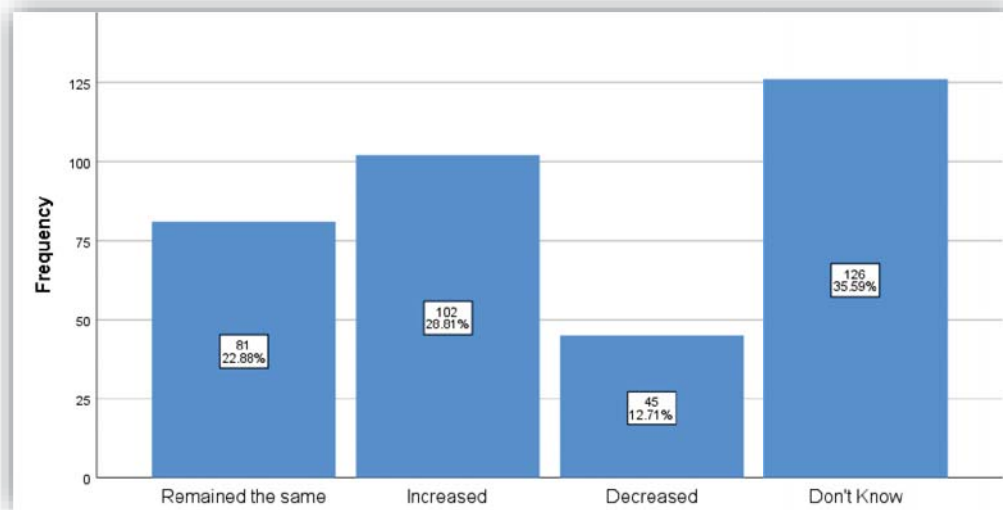


Figure 61: Bar chart-Cost of running HR function post digitization

The above results suggest that 35.59% of the respondents 'Don't Know' whether post digitization of HR services, there was any change in the cost of running the HR function, 28.81% of respondents feel that the cost increased, 22.88% of respondents felt it remained the same and 12.71% felt that the cost decreased.

Thus, a majority of the respondents 'Don't Know' whether post digitization of HR services, there was any change in the cost of running the HR function, with the second highest percentage feeling it increased, followed by those who felt it remained the same and lastly those who felt the cost decreased.

41. How engaged are employees with the digital HR services and processes?

Table 52: Frequency table-Engagement of employees post digitization of HR services and processes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Actively Disengaged	6	1.7	1.7	1.7
	Disengaged	45	12.7	12.7	14.4
	Engaged	264	74.6	74.6	89.0
	Highly Engaged	39	11.0	11.0	100.0
	Total	354	100.0	100.0	

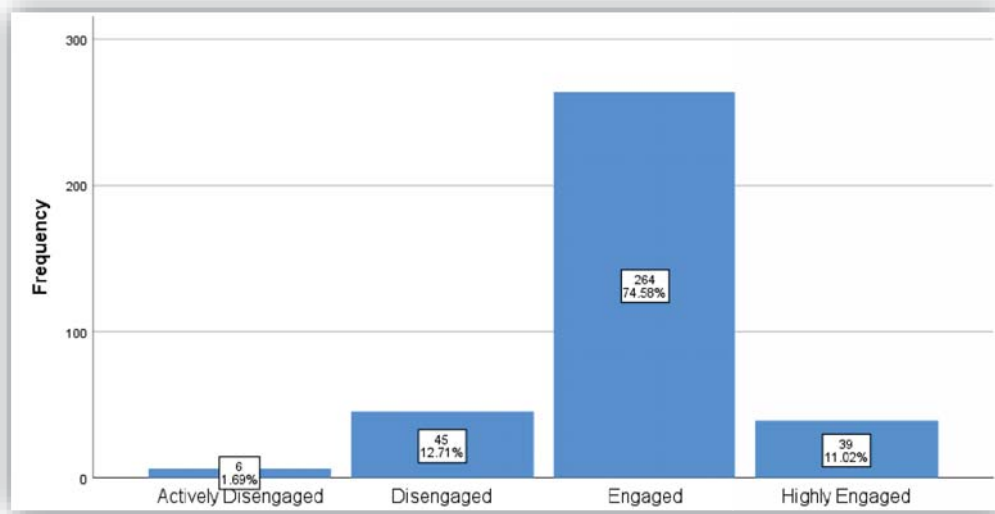


Figure 62: Bar chart-Engagement of employees post digitization of HR services and processes

The above results suggest that 74.58% of the respondents feel that employees are engaged with the digital HR services and processes, 11.02% respondents felt that they are highly engaged, 12.71% respondents felt that they disengaged and 1.69% respondents felt that they are actively disengaged.

Thus, a majority of the respondents feel that employees are engaged with the digital HR services and processes.

42. Primary objective of your HR technology spend over the next two years is - self-service, system integration, next-generation upgrades or mobile apps?

Table 53: Frequency table-Objective of HR technology spend over next two years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Self-Service	42	11.9	11.9	11.9
	System Integration	63	17.8	17.8	29.7
	Next generation upgrades	120	33.9	33.9	63.6
	Mobile Apps	81	22.9	22.9	86.4
	Don't Know	48	13.6	13.6	100.0
	Total	354	100.0	100.0	

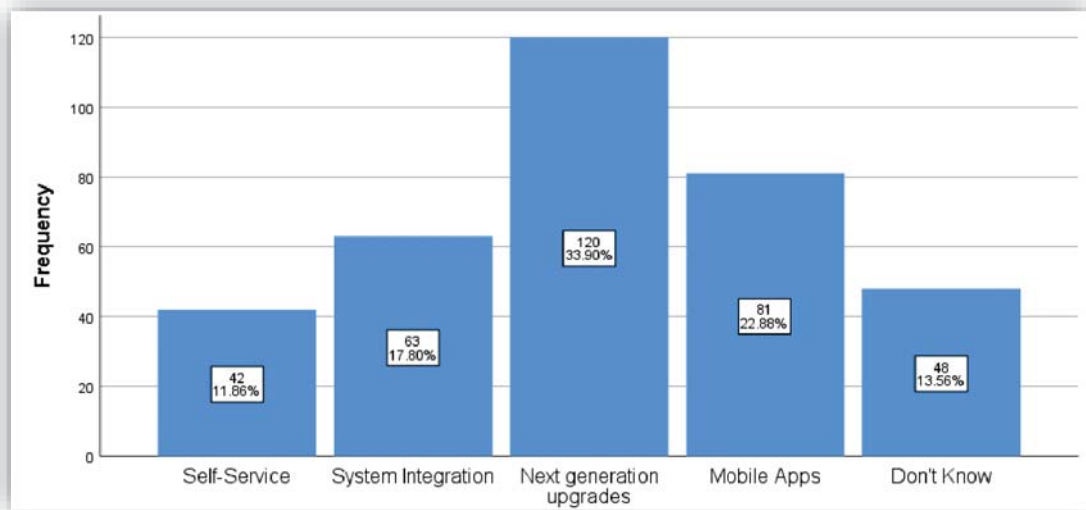


Figure 63: Bar chart-Objective of HR technology spend over next two years

The above results suggest that 33.90% of the respondents feel that the primary objective of the HR technology spend over the next two years is Next Generation Upgrades, 22.88% respondents feel that it is Mobile Apps, 17.80% of respondents feel it is System Integration, 13.56% respondents 'Don't Know' and 11.86% respondents feel it is Self-Service. Thus, a majority of the respondents feel that the primary objective of the HR technology spend over the next two years is Next Generation Upgrades followed by others in decreasing percentages.

Part 2: Analysis of HR Leaders Data

Demographic Analysis

1. Responding Leaders Gender

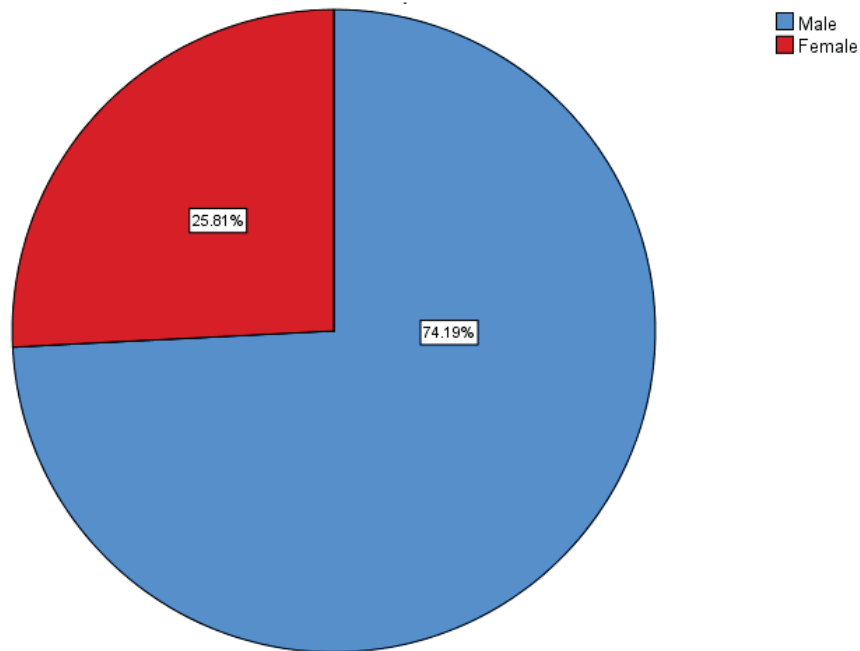


Figure 64: Leader's Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	23	74.2	74.2	74.2
	Female	8	25.8	25.8	100.0
	Total	31	100.0	100.0	

Table 54: Leader's Gender

From the above pie chart it is evident that the HR function of the responding organizations is having more male HR leaders as compared to female HR leaders. Male HR leaders constitute nearly 74% of the total sample size whereas female leaders are 26% only.

2. Responding leaders' age group

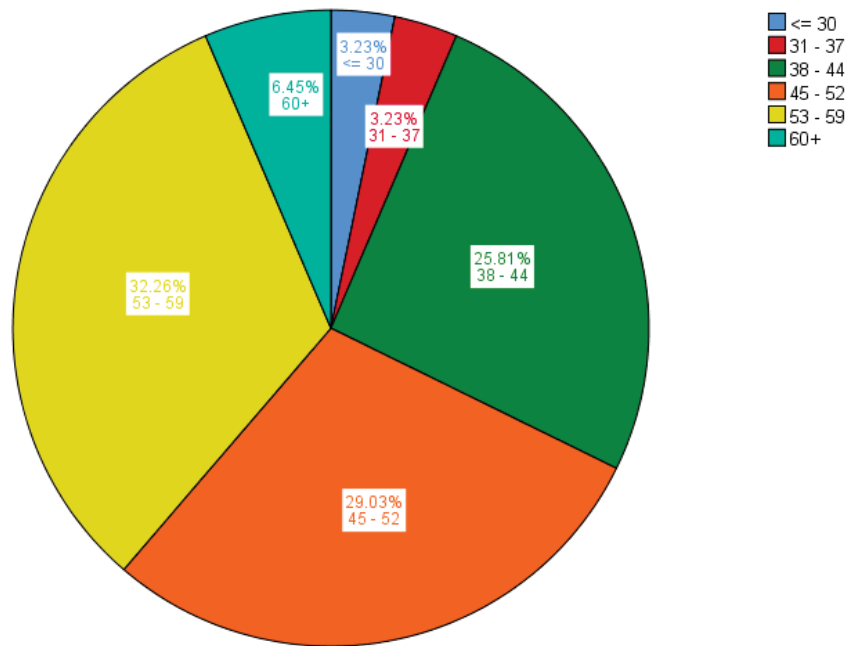


Figure 65: Leaders belonging to age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<= 30	1	3.2	3.2	3.2
	31 - 37	1	3.2	3.2	6.5
	38 - 44	8	25.8	25.8	32.3
	45 - 52	9	29.0	29.0	61.3
	53 - 59	10	32.3	32.3	93.5
	60+	2	6.5	6.5	100.0
	Total	31	100.0	100.0	

Table 55: Leaders belonging to age group

From the above pie chart its evident that the maximum number of leaders (32.26%) belong to the age group of 53-59 years followed by 45-52 years (29.03%) after that group the other group is from 38-44 years (25.81%). Hence, we can say that the leaders are mature considering their age group.

3. Reasons for not automating the HR functions in the organization

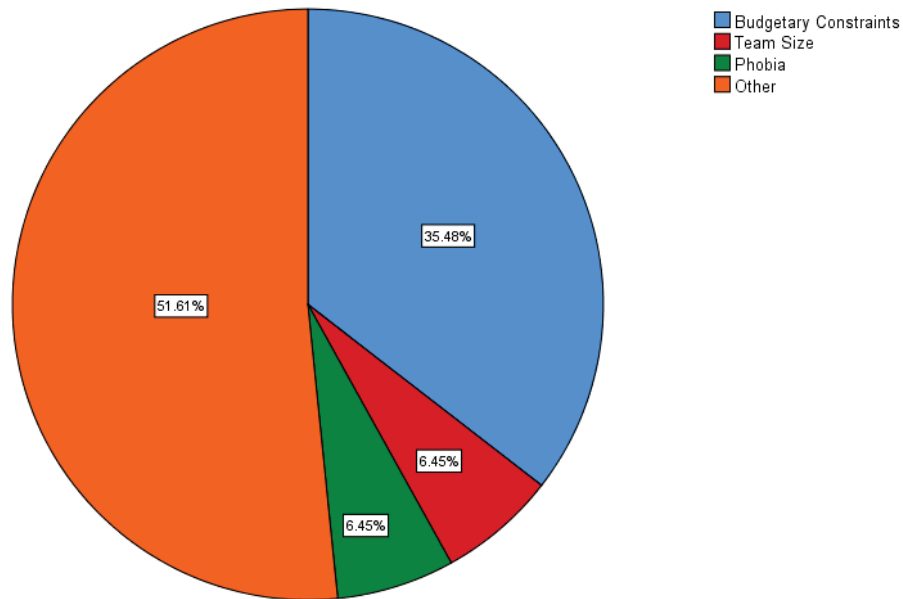


Figure 66: Reasons for not automating the HR services and what leaders believe

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Budgetary Constraints	11	35.5	35.5	35.5
	Team Size	2	6.5	6.5	41.9
	Phobia	2	6.5	6.5	48.4
	Other	16	51.6	51.6	100.0
	Total	31	100.0	100.0	

Table 56: Reasons for not automating the HR services and what leaders believe

From the above pie chart, we can say that most of the responding leaders believe that there is some other reason than the rest of the reasons but the next reason to believe is budgetary constraints. The lowest percentage options were team size and phobia of digital transformations which constitutes 13%.

4. Productive tools used in day-to-day operations

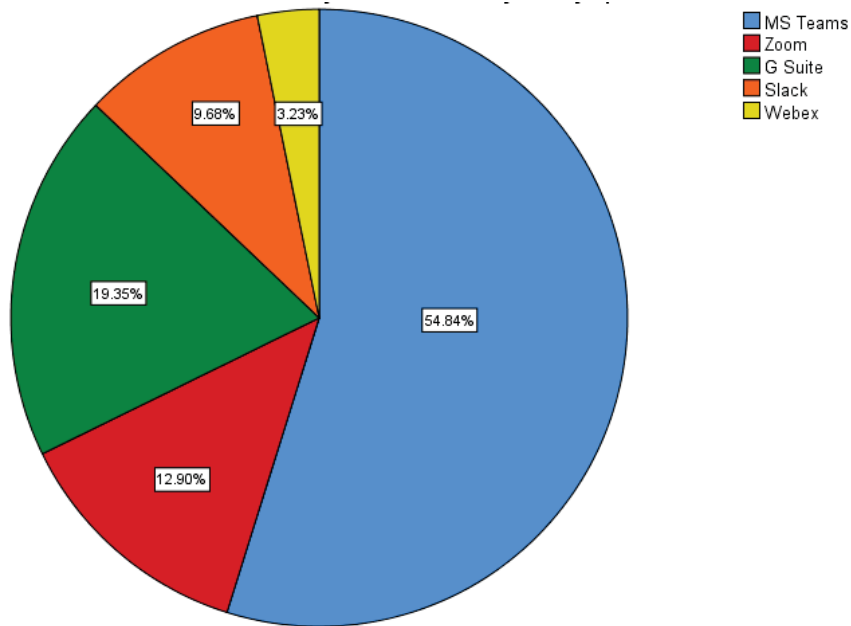


Figure 67: Leaders think of productive tools to be used in day-to-day operations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MS Teams	17	54.8	54.8	54.8
	Zoom	4	12.9	12.9	67.7
	G Suite	6	19.4	19.4	87.1
	Slack	3	9.7	9.7	96.8
	Webex	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

Table 57: Leaders think of productive tools to be used in day-to-day operations

The above pie chart suggests that most of the leaders think almost 55% that MS Teams is their preferred choice for day-to-day operations while 19% leaders give opinion that G-Suite is their preferred choice and 13% prefer Zoom whereas Slack and Webex preference is low as compared to other choices.

5. HR tools being used on a day-to-day basis

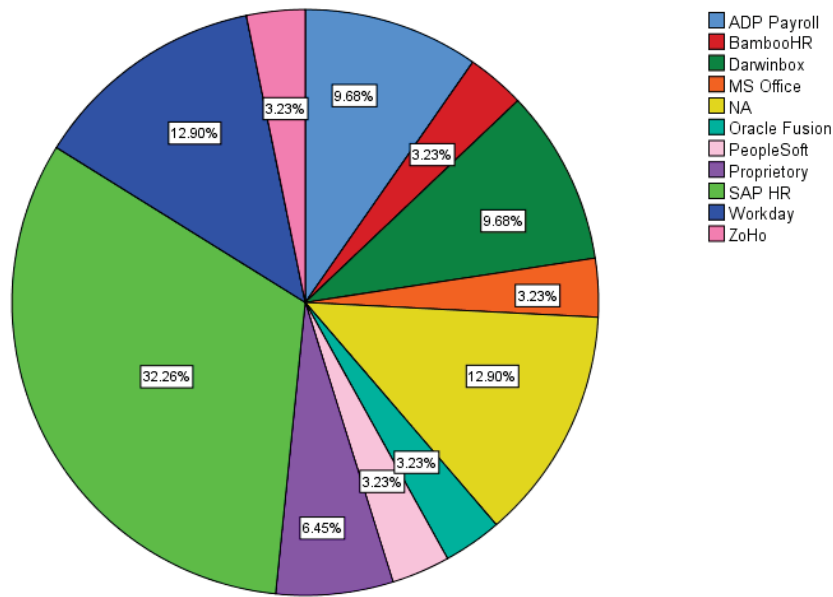


Figure 68: HR tools used in the responding organizations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ADP Payroll	3	9.7	9.7	9.7
	BambooHR	1	3.2	3.2	12.9
	Darwinbox	3	9.7	9.7	22.6
	MS Office	1	3.2	3.2	25.8
	NA	4	12.9	12.9	38.7
	Oracle Fusion	1	3.2	3.2	41.9
	PeopleSoft	1	3.2	3.2	45.2
	Proprietary	2	6.5	6.5	51.6
	SAP HR	10	32.3	32.3	83.9
	Workday	4	12.9	12.9	96.8
	ZoHo	1	3.2	3.2	100.0
Total	31	100.0	100.0		

Table 58: HR tools used in the responding organizations

The most used tool in HR function is SAP HR (32%) leaders say followed by ADP Payroll (13%) at the same time equally the other leaders don't want to reveal the software they were using. The rest of the software tools were in less use as compared to these market leaders such as SAP and ADP, still, MS office, Bamboo HR, Darwin Box Oracle and Peoplesoft have captured a space in Indian IT companies.

6. The pain point leaders believe that currently exists in digital HR

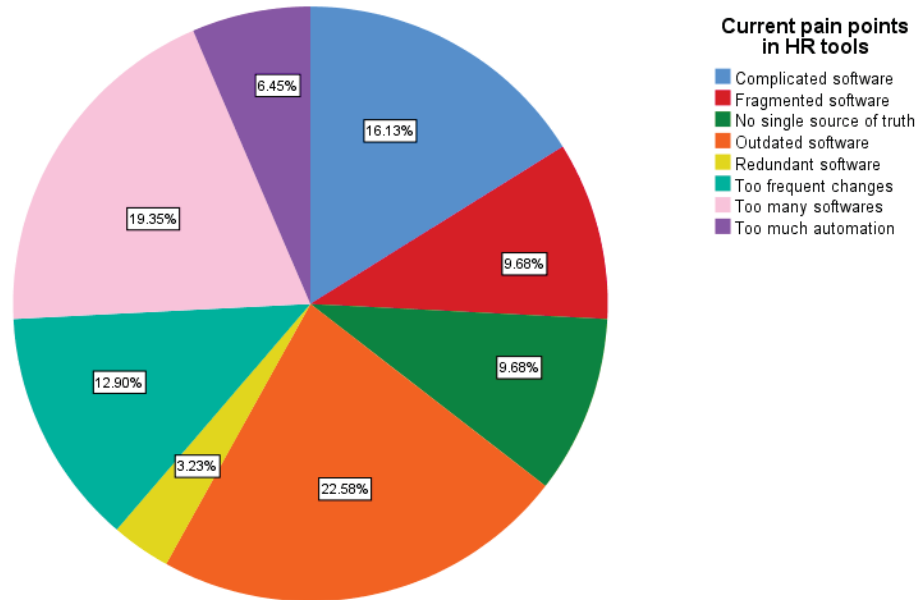


Figure 69: Pain points exist in digital HR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Complicated software	5	16.1	16.1	16.1
	Fragmented software	3	9.7	9.7	25.8
	No single source of truth	3	9.7	9.7	35.5
	Outdated software	7	22.6	22.6	58.1
	Redundant software	1	3.2	3.2	61.3
	Too frequent changes	4	12.9	12.9	74.2
	Too many softwares	6	19.4	19.4	93.5
	Too much automation	2	6.5	6.5	100.0
	Total	31	100.0	100.0	

Table 59: Pain points exist in digital HR

The various pain points have been highlighted by the HR leaders which can be evident from the above pie chart. Looking it critically we can say that most of the HR leaders believe they are using outdated software (23%) whereas 19% say that they are using too many different software in digital HR cases. Considering the third top percentage is 16% which suggests that leaders believe they are using very complicated software systems in the case of human resource function.

7. Being an HR professional, how the respondent looks at the HR software's

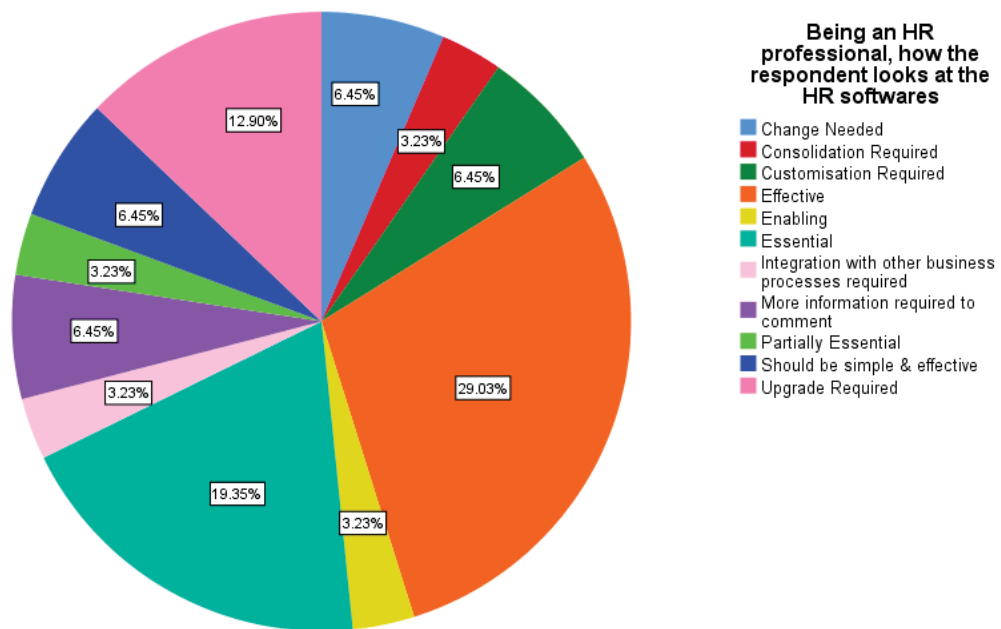


Figure 70: HR leader's point of view towards HR Software

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Change Needed	2	6.5	6.5	6.5
	Consolidation Required	1	3.2	3.2	9.7
	Customisation Required	2	6.5	6.5	16.1
	Effective	9	29.0	29.0	45.2
	Enabling	1	3.2	3.2	48.4
	Essential	6	19.4	19.4	67.7
	Integration with other business processes required	1	3.2	3.2	71.0
	More information is required to comment	2	6.5	6.5	77.4
	Partially Essential	1	3.2	3.2	80.6
	Should be simple & effective	2	6.5	6.5	87.1
	Upgrade Required	4	12.9	12.9	100.0
	Total	31	100.0	100.0	

Table 60: HR leader's point of view towards HR Software

When the researcher asked the HR leaders what they think the HR software should have while considering the digital transformation of human resource function. The above pie chart unfolds this where we can see that 29% of leaders say that the software should be overall effective whereas 13% of leaders say that it should cater to the integration with other business processes 19% leaders say that the essential duties of HR function should not be missed while considering this digital transformation of HR.

8. Is there any human interaction / intervention exist of HR professionals in spite of HR automation?

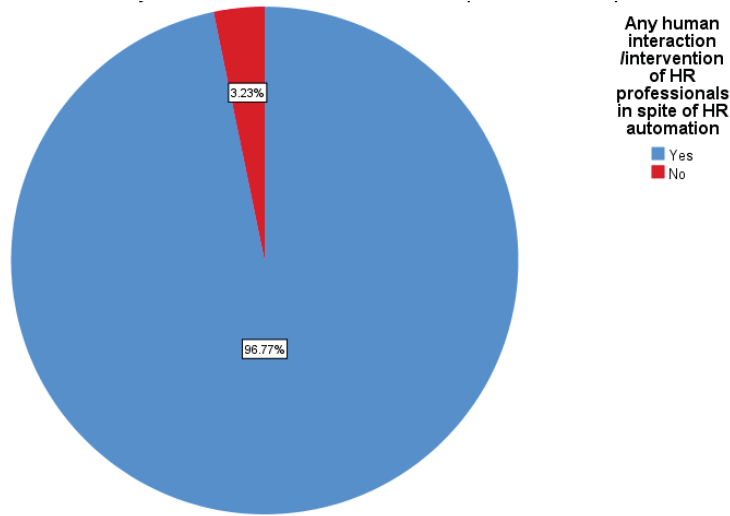


Figure 71: Human intervention in spite of HR automation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	96.8	96.8	96.8
	No	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

Table 61: Human intervention in spite of HR automation

As we understand from the different scenarios mentioned above that the digital HR transformation brings various advantages as well as some challenges amidst such situations when we tried to find out whether the human intervention went off due to HR automation we got to know from the above pie chart that 97% leaders say that yes there is human intervention/interaction exit even if they had automated the HR systems and processes.

9. As an HR leader, when was the last time when you learned new software related to HR

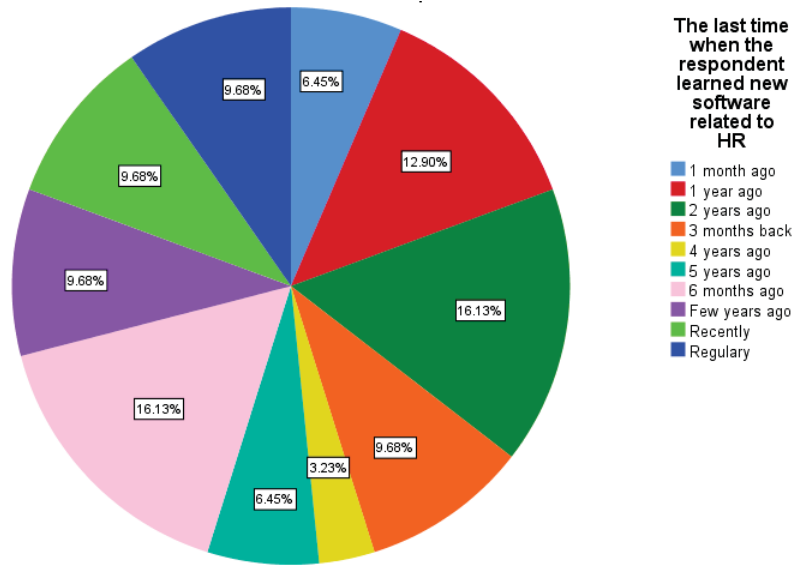


Figure 72: Time spent by HR leaders in learning new software

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 month ago	2	6.5	6.5	6.5
	1 year ago	4	12.9	12.9	19.4
	2 years ago	5	16.1	16.1	35.5
	3 months back	3	9.7	9.7	45.2
	4 years ago	1	3.2	3.2	48.4
	5 years ago	2	6.5	6.5	54.8
	6 months ago	5	16.1	16.1	71.0
	Few years ago	3	9.7	9.7	80.6
	Recently	3	9.7	9.7	90.3
	Regularly	3	9.7	9.7	100.0
	Total	31	100.0	100.0	

Table 62: Time spent by HR leaders in learning new software

As we can see that nearly 50% of the leaders are saying that they learned something continuously whereas almost 50% rest of the leaders are saying a long time has passed since they learned something new.

10. Criterion used to decide and prioritize which HR processes are to be digitized

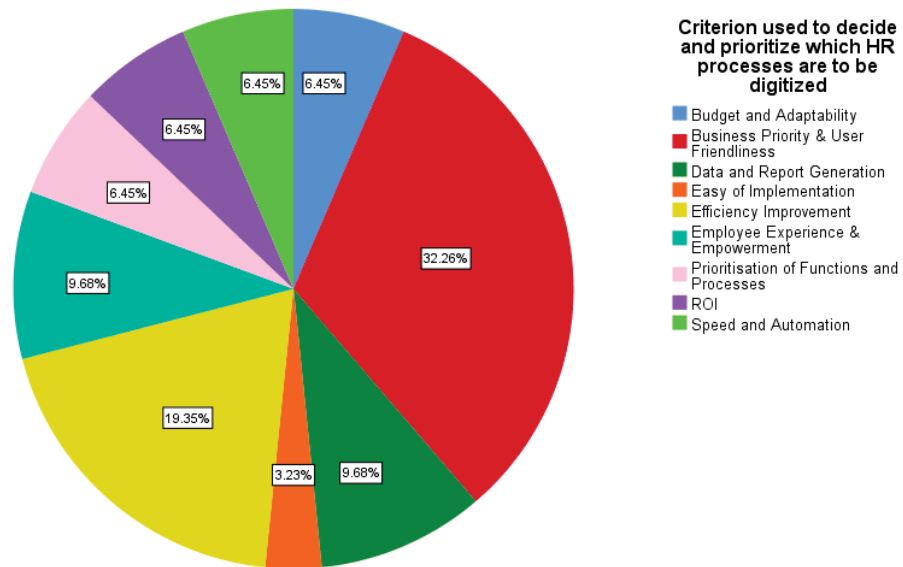


Figure 73: Criterion to decide to digitize HR processes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Budget and Adaptability	2	6.5	6.5	6.5
	Business Priority & User Friendliness	10	32.3	32.3	38.7
	Data and Report Generation	3	9.7	9.7	48.4
	Easy of Implementation	1	3.2	3.2	51.6
	Efficiency Improvement	6	19.4	19.4	71.0
	Employee Experience & Empowerment	3	9.7	9.7	80.6
	Prioritisation of Functions and Processes	2	6.5	6.5	87.1
	ROI	2	6.5	6.5	93.5
	Speed and Automation	2	6.5	6.5	100.0
	Total	31	100.0	100.0	

Table 63: Criterion to decide to digitize HR processes

When the leaders have been asked which criterion they believe help to make decision on digitizing the HR processes and leaders comes up with the answers based on above pie chart is 32% leaders say that business priority and User friendliness is the criterion to digitize HR where 19% say that Efficiency improvement is the criterion to decide about digitizing the HR and other almost equally 10% of two groups leaders were suggesting employee experience and empowerment and Data and Report generation criterion would be their choice for digitizing the HR.

11. HR Cloud Solution - Timeframe for the implementation project

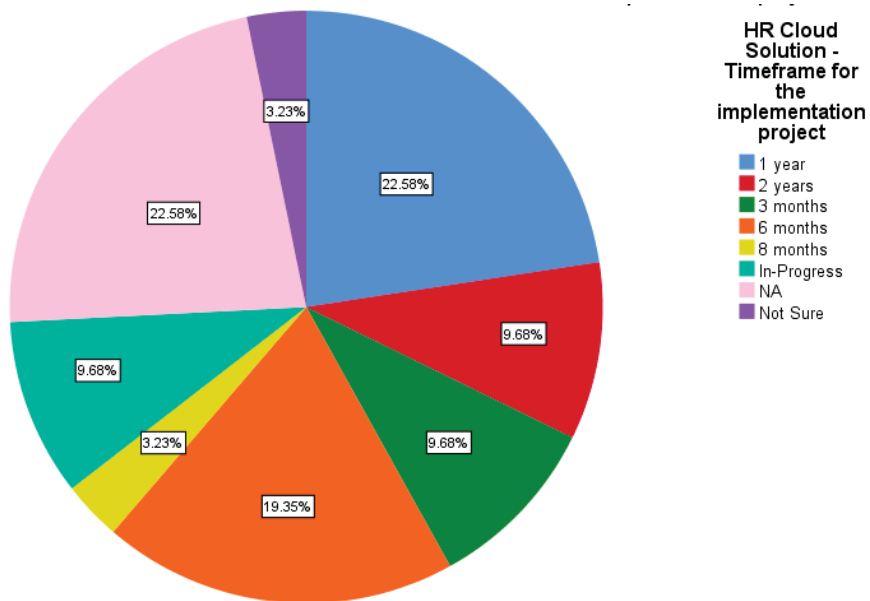


Figure 74: Leader's vision on HR cloud solution timeframe for project implementation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 year	7	22.6	22.6	22.6
	2 years	3	9.7	9.7	32.3
	3 months	3	9.7	9.7	41.9
	6 months	6	19.4	19.4	61.3
	8 months	1	3.2	3.2	64.5
	In-Progress	3	9.7	9.7	74.2
	NA	7	22.6	22.6	96.8
	Not Sure	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

Table 64: Leader’s vision on HR cloud solution timeframe for project implementation

As the above pie chart indicates that 23% of leaders say they took almost 1 year for HR cloud solution implementation whereas the same number of leaders are not ready to reveal their timelines. There are 19% of leaders believe they had implemented the HR cloud solution in 6 months timeframe whereas 10% of leaders believe they had done the same in 3 months of timeframe.

12. Post HR Cloud Implementation - Rating of the way of work

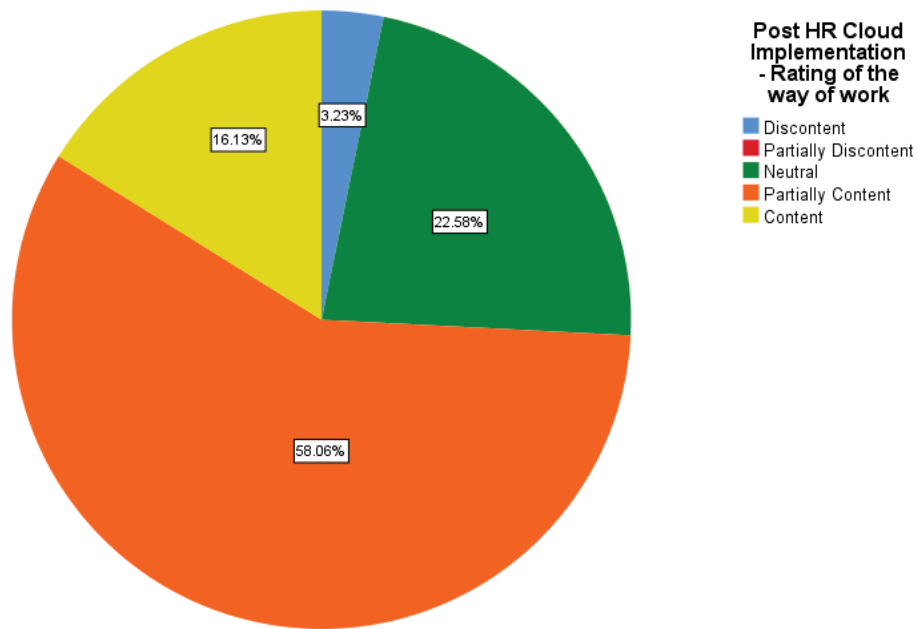


Figure 75: Leader’s satisfaction post HR cloud solution implementation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Discontent	1	3.2	3.2	3.2
	Neutral	7	22.6	22.6	25.8
	Partially Content	18	58.1	58.1	83.9
	Content	5	16.1	16.1	100.0
	Total	31	100.0	100.0	

Table 65: Leader's satisfaction post HR cloud solution implementation

After the implementation of HR Cloud solution, when the leaders have been asked to rate the work in which it is taking place post implementation of HR Cloud solution and how much they are satisfied about the same, the above pie chart makes it clear that only 16% leaders are content with the solution helping the way the work should take place where 58% are partially content about the work and 23% leaders stayed neutral whereas only 3% are completely discontent with the solution and work happening in their respective organization.

13. Use of HR metrics for HR cloud solution implementation.

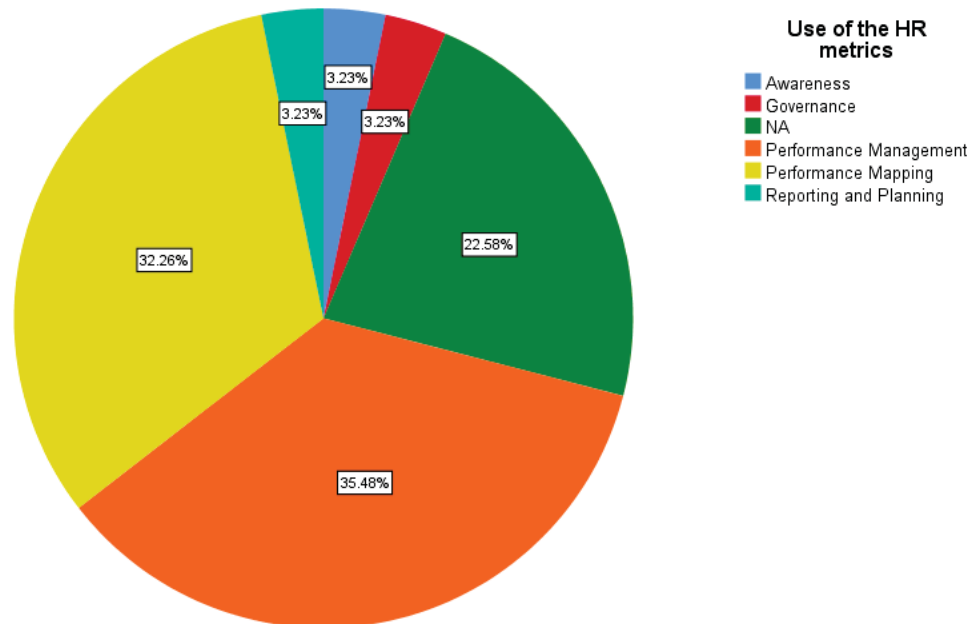


Figure 76: HR metrics for HR Cloud Solutions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Awareness	1	3.2	3.2	3.2
	Governance	1	3.2	3.2	6.5
	NA	7	22.6	22.6	29.0
	Performance Management	11	35.5	35.5	64.5
	Performance Mapping	10	32.3	32.3	96.8
	Reporting and Planning	1	3.2	3.2	100.0
	Total	31	100.0	100.0	

Table 66: HR metrics for HR Cloud Solutions

When we have seen the different versions of HR Cloud solutions, we asked the leaders which metrics make more sense while implementing the HR cloud solutions. The above pie chart makes this very clear that 35% of leaders say that performance management is the key metric followed by 32% for performance mapping and 23% opted not to reveal whereas the last 10% of leaders in total suggested awareness, governance and reporting and planning are the key metrics.

14. Advantages of a consistent cross-domain KPI seen by the respondent

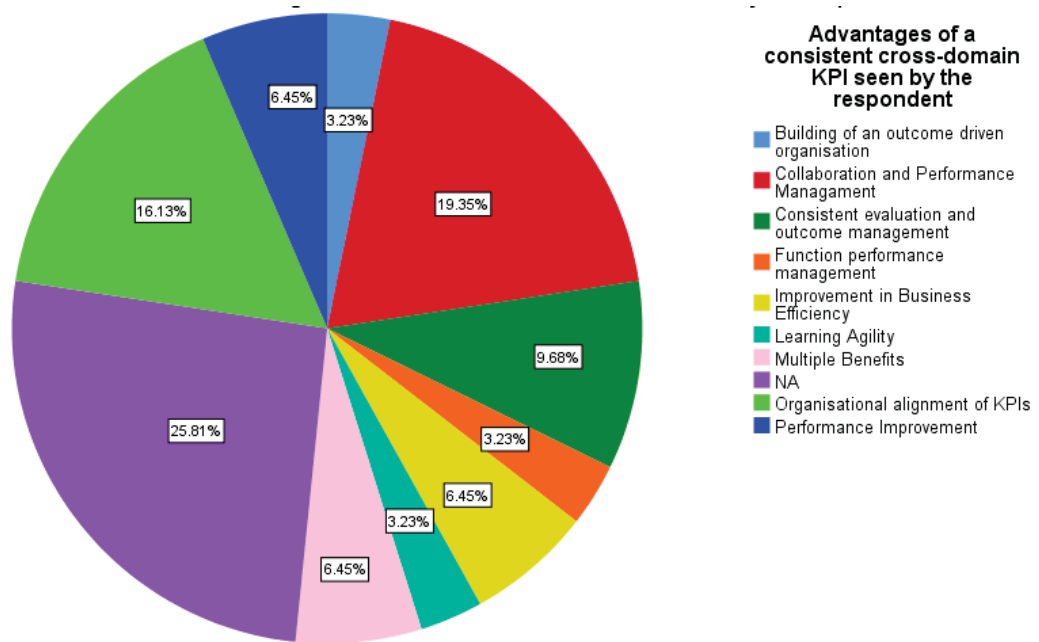


Figure 77: Advantages the leaders see in cross-domain KPI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Building of an outcome driven organisation	1	3.2	3.2	3.2
	Collaboration and Performance Management	6	19.4	19.4	22.6
	Consistent evaluation and outcome management	3	9.7	9.7	32.3

Function performance management	1	3.2	3.2	35.5
Improvement in Business Efficiency	2	6.5	6.5	41.9
Learning Agility	1	3.2	3.2	45.2
Multiple Benefits	2	6.5	6.5	51.6
NA	8	25.8	25.8	77.4
Organisational alignment of KPIs	5	16.1	16.1	93.5
Performance Improvement	2	6.5	6.5	100.0
Total	31	100.0	100.0	

Table 67: Advantages the leaders see in cross-domain KPI

Since there were different KPIs while considering the HR cloud solution implementation when we asked the HR leaders what advantages they see as a result of cross-domain KPI the result came out is evident in the above pie chart which suggests that 26% of leaders are not interested to reveal which cross-domain metrics they consider as an advantage whereas 19% leaders see collaboration and performance management and 16% leaders see the organizational alignment of KPI's.

15. Indication and measurement method of a good job. If it was possible to get quantitative evaluations of your work at any frequency - what would that be?

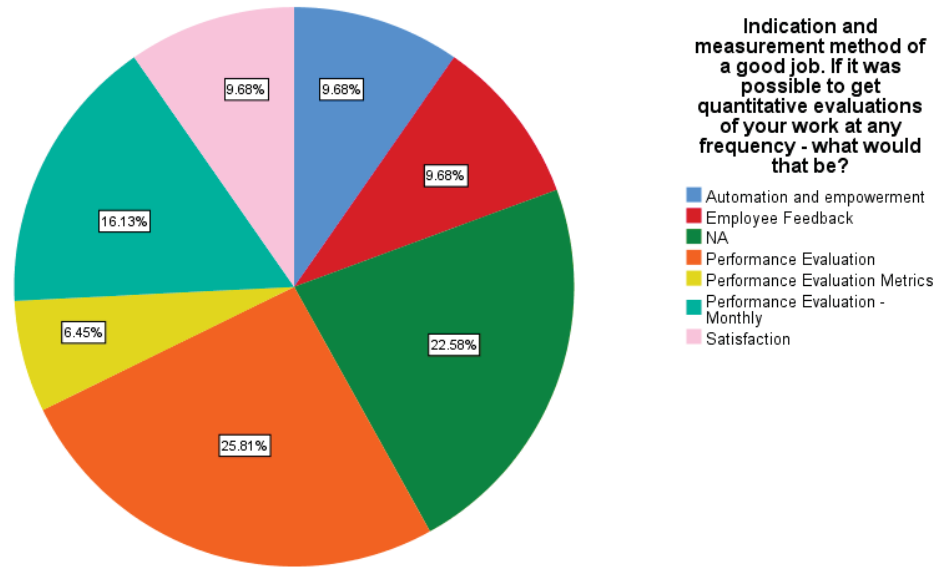


Figure 78: Measurement method of a job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Automation and empowerment	3	9.7	9.7	9.7
	Employee Feedback	3	9.7	9.7	19.4
	NA	7	22.6	22.6	41.9
	Performance Evaluation	8	25.8	25.8	67.7
	Performance Evaluation - Monthly	5	16.1	16.1	83.9
	Performance Evaluation Metrics	2	6.5	6.5	90.3
	Satisfaction	3	9.7	9.7	100.0
	Total	31	100.0	100.0	

Table 68: Measurement method of a job

The above pie chart shows that 25% of leaders believe that performance evaluation is a good indication of the measure of a job where 23% don't want to reveal this and 16% of leaders say that the performance evaluation should happen monthly and 10% each category of automation and empowerment, a satisfaction of employees and employee feedback think are a good way of measurement of a good job.

Hypotheses Testing

Research Question-1: Whether there is a difference in the perception of managers about HR services after the digitization of HR?

Statistical Test: Friedman Chi-square Test

Hypothesis

H0: There is no difference in the perception of managers about HR services after the digitization of HR.

H1: There is a difference in the perception of managers about HR services after the digitization of HR.

Level of Significance (α) = 0.05

Test Statistics Table

N	354
Chi-Square	251.151
df	15
Asymp. Sig.	.000

Table 69: Test statistics for Friedman - Hypothesis-1

Observation: $\chi^2(15)=251.151$, p-value<0.05

Findings:

After the testing of the hypothesis, we arrived at the finding that we fail to accept the null hypothesis as the p-value is below the definitions point (0.05). The perception of managers differs post-digitization of HR services.

To evaluate where the differences lie, we refer to the following table of ranks:

Post Digitization Statements for Managers	Mean Rank
Post digitization of HR services - Change in ability to record other leave such as sickness absence or statutory leave (e.g., Maternity Leave, Paternity Leave)	9.78
Post digitization of HR services - Change in ability to update my personal details such as address and civil status	9.57
Post digitization of HR services - Change in ability to book annual leave online	9.48
Post digitization of HR services - Change in the range of services offered by the HR function	9.21
Post digitization of HR services - Change in ease of access to HR policies and procedures	8.84
Post digitization of HR services - Change in access to HR team members for advice and assistance.	8.83
Post digitization of HR services - Change in the effectiveness of the services received from the HR function	8.49
Post digitization of HR services - Change in access to internal job vacancies	8.29
Post digitization of HR services - Change in ability to create performance goals and objectives	8.19
Post digitization of HR services - Change in the responsiveness of the HR function in dealing with questions and queries	8.17
Post digitization of HR services - Change in quality of the service offered by the HR function	8.16

Post digitization of HR services - Change in ability to apply online for internal job vacancies	8.02
Post digitization of HR services - Change in ability to review, amend or update performance goals and objectives throughout the year	7.99
Post digitization of HR services - Change in communication about policies and procedures affecting respondent's work	7.72
Post digitization of HR services - Change in ability to complete performance appraisals	7.65
Post digitization of HR services - Change in responsiveness to internal job applications	7.59

Table 70: Mean Rank Table for Post Digitization of HR services-Managers Perception

From the ranks table, it can be seen that there is a high variation in leave management and personnel details management whereas the least variation is observed among performance management and internal job application management.

Research Question-2: Whether there is an association between the availability of HR services on mobile devices and the ease of access to HR managers?

Statistical Test: Chi-Square test of contingency

H0: There is no association between the availability of HR services on mobile devices and the ease of access to HR managers.

H1: There is an association between the availability of HR services on mobile devices and the ease of access to HR managers.

Level of Significance (α) = 0.05

Test Statistics Table

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	95.624	4	.000
Likelihood Ratio	82.335	4	.000
Linear-by-Linear Association	20.53	1	.000
N of Valid Cases	354		

Table 71: Test statistics for Hypothesis-1 - Chi-square test

Observation: $\chi^2 (4) = 95.624, p\text{-value} < 0.05$

Findings:

Since p-value is less than level of significance (0.05), we reject the null hypothesis hence the alternate hypothesis suggests that there is an association between the availability of HR services on mobile devices and the ease of access to HR managers. To see the association the below mentioned figure will help us to understand it:

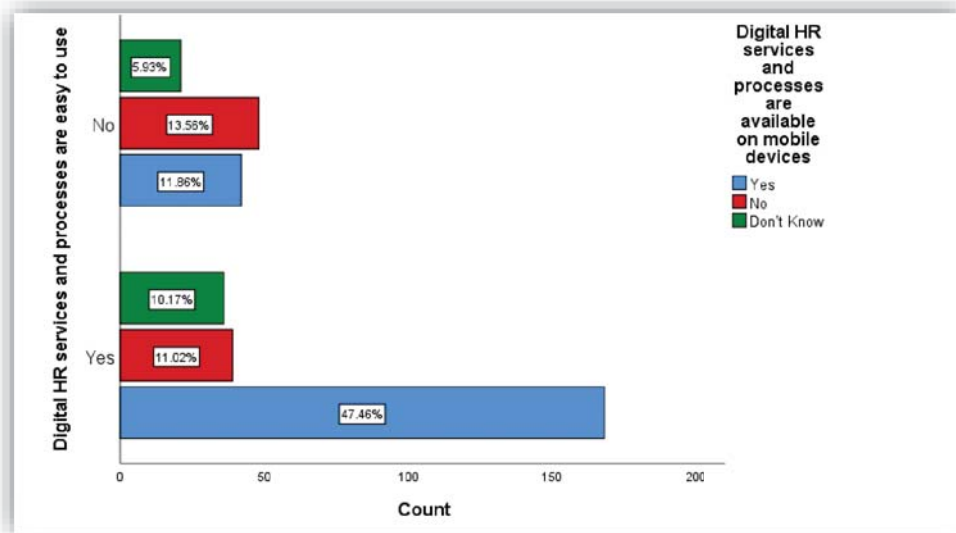


Figure 79: Bar chart-Association between ease of access and availability of HR services on mobile devices

From the above bar chart it's evident that the availability of HR services on mobile devices is there and the ease of use of these services is improved greatly post-digitization.

Research Question-3: Whether there is an association between the imbalance of personal vis-à-vis professional and the stress the managers are experiencing due to the digital transformation of HR?

Statistical Test: Chi-Square test of contingency

H0: There is no association between the imbalance of personal vis-à-vis professional life and the stress the managers are experiencing due to the digital transformation of HR.

H1: There is an association between the imbalance of personal vis-à-vis professional life and the stress the managers are experiencing due to the digital transformation of HR.

Level of Significance (α) = 0.05

Test Statistics Table

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	207.636	12	.000
Likelihood Ratio	188.637	12	.000
Linear-by-Linear Association	116.724	1	.000
N of Valid Cases	354		

Table 72: Test Statistics for Hypothesis-3 - Chi-square

Observation: $\chi^2 (12) = 207.636, p\text{-value} < 0.05$

Findings:

Since the p-value is less than the level of significance (0.05), we reject the null hypothesis hence the alternate hypothesis suggests that there is an association between the imbalance of personal vis-à-vis professionals and the stress the managers are experiencing due to the digital transformation of HR.

To see the association the below-mentioned figure will help us to understand it:

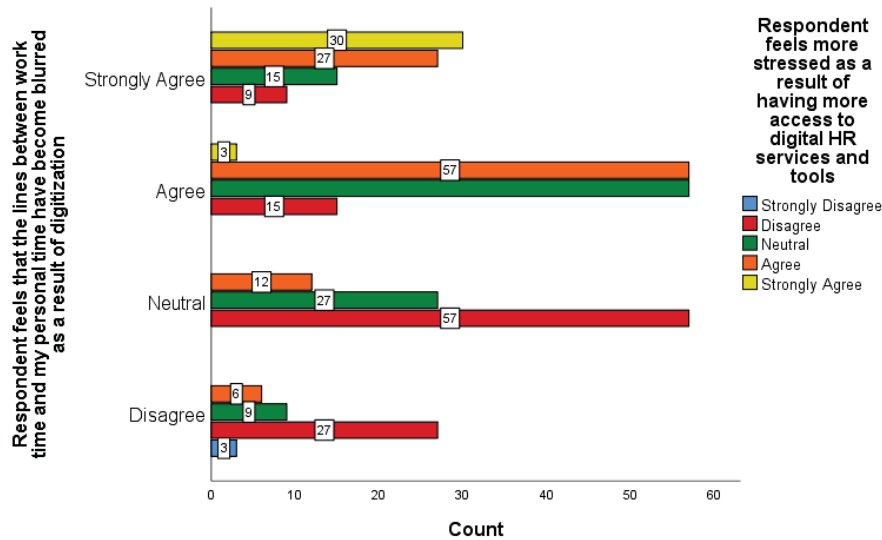


Figure 80: Bar chart-Blur lines between work time and personal time and stress

From the above bar chart, it’s evident that the imbalance of personal vis-à-vis professional life causes stress to the managers due to the digital transformation of HR.

Research Question-4: Whether there is a difference in the perception of managers about the impact of digital HR services on various functions of the HR department?

Statistical Test: Friedman Chi-square Test

Hypothesis

H0: There is no difference in the perception of managers about the impact of digital HR services on various functions of the HR department.

H1: There is a difference in the perception of managers about the impact of digital HR services on various functions of the HR department.

Level of Significance (α) = 0.05

Test Statistics Table

N	354
Chi-Square	106.222
df	9
Asymp. Sig.	.000

Table 73: Test statistics for Friedman - Hypothesis-4

Observation: $\chi^2(9)=106.222$, $p\text{-value}<0.05$

Findings:

After the testing of the hypothesis, we arrived at the finding that we fail to accept the null hypothesis as the p-value is below the definitions point (0.05). The perception of managers differs regarding the impact of digital HR services on various functions of the HR department.

To evaluate where the differences lie, we refer to the following table of ranks:

Rating by Managers to various HR functions based on Digital HR	Mean Rank
Employee Onboarding	6.34
Performance Management	5.89
Recruitment	5.81
Learning & Development	5.60
Compensation & Benefits	5.42
Administration	5.41
Employee engagement with the HR function	5.23
HR Planning	5.15
Salary Planning	5.10
Employee satisfaction with the HR function	5.04

Table 74: Mean Rank Table for Impact of Digital HR on various HR functions- Manager's Perception

From the ranks table, it can be seen that there is a high variation in the employee onboarding process whereas the least variation is observed in employee satisfaction. Hence we can say that impact of digital HR is more on employee satisfaction and HR planning.

Research Question-5: Whether there is a difference in the perception of managers about the financial impact of digital HR services?

Statistical Test: Friedman Chi-square Test

Hypothesis

H0: There is no difference in the perception of managers about the financial impact of digital HR services.

H1: There is a difference in the perception of managers about the financial impact of digital HR services.

Level of Significance (α) = 0.05

Test Statistics Table

N	354
Chi-Square	159.944
df	2
Asymp. Sig.	.000

Table 75: Test statistics for Friedman - Hypothesis-5

Observation: $\chi^2(2)=159.944$, p-value<0.05

Findings:

After the testing of the hypothesis, we arrived at the finding that we fail to accept the null hypothesis as the p-value is below the definitions point (0.05). The perception of managers differs regarding the financial impact of digital HR services.

To evaluate where the differences lie, we refer to the following table of ranks:

Financial Impact Post Digitization	Mean Rank
Change in cost of running the HR function	2.32
Change in FTE headcount in HR	2.11
Measurable return on investment seen from the implementation	1.56

Table 76: Perception of managers differs regarding the financial impact of digital HR services.

From the ranks table, it can be seen that there is a high variation in considering the cost involved in running the HR function post-digitization whereas it's the least in overall Return on Investment when it comes to seeing the benefit of post-digitalization of HR services.

Research Question-6: Whether there is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers?

Statistical Test: Chi-Square test of contingency

H0: There is no association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

H1: There is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

Level of Significance (α) = 0.05

Test Statistics Table

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.211	4	.003
Likelihood Ratio	16.343	4	.003
Linear-by-Linear Association	1.287	1	0.257
N of Valid Cases	354		

Table 77: Test Statistics for Hypothesis-6 - Chi-square

Observation: $\chi^2 (4) = 16.211, p\text{-value} < 0.05$

Findings:

Since the p-value is less than the level of significance (0.05), we reject the null hypothesis hence the alternate hypothesis suggests that there is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

To see the association the below-mentioned figure will help us to understand it:

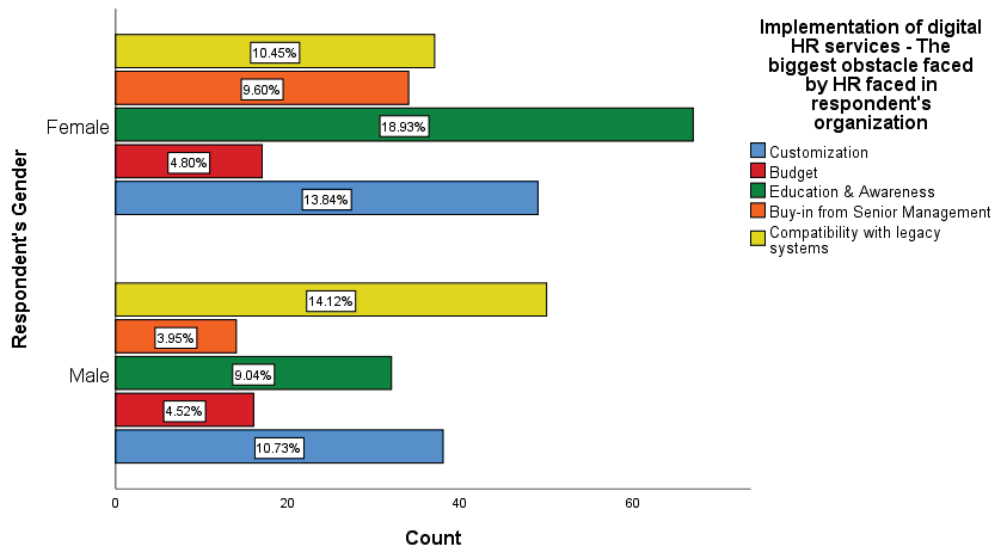


Figure 81: There is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers

From the above bar chart, it's evident that female HR managers see education and awareness, customization as key obstacles whereas male HR managers see Compatibility with legacy systems and customization as the key obstacles in the implementation of digital HR services.

Chapter-5: Conclusion, Recommendation and Scope for Future Research

The conclusions of the research study are discussed below. The chapter will see the conclusion from data analysis and hypothesis point of view. Secondly, the researcher will mention the recommendations. Finally, several directions for future study are proposed.

5.1 Conclusions

After testing of hypotheses, the below are proved as their p-value is less than the level of significance (i.e. 0.05)

H1 : There is a difference in the perception of managers about HR services after the digitization of HR

H2 : There is an association between the availability of HR services on mobile devices and the ease of access to HR managers

H3 : There is an association between the imbalance of personal vis-à-vis professional life and the stress the managers are experiencing due to the digital transformation of HR.

H4 : There is a difference in the perception of managers about the impact of digital HR services on various functions of the HR department.

H 5: There is a difference in the perception of managers about the financial impact of digital HR services.

H 6: There is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

Other Conclusions:

From the demographic data analysis, we conclude that nearly 73% of the sample HR managers are Millennials, which indicates that they have the unique characteristic which is being digital. This is a positive finding for this study because millennials are more likely to understand the implications of digital transformation.

Given that the responding manager has offices outside of India and does work with teams outside of India, it follows that cross-border communication is required, and it is in this context that the digital transformation of HR services makes the most sense.

Researchers have concluded that over 60% of HR professionals, regardless of their job, operate in hybrid mode, and nearly 10% of HR professionals work remotely. This suggests that digital transformation is warranted in the new work culture, which is optimistic about the hybrid culture mode at large.

After examining the data for post-digitization HR services from a number of angles, the researchers concluded that employees benefited from the introduction of fair performance appraisal systems, clear communication policies, and a streamlined internal job application process thanks to the introduction of digitization.

The availability of HR systems and procedures anytime anywhere has led to an increase in the quality of HR services, which in turn has made HR functions more responsive and ultimately delivered an effective solution.

It has also been observed that, in comparison to older systems, the digital transformation has added complexity to leave management, making it more difficult to administer.

Thus, we may conclude that the period of digitization has brought both positive and negative changes, but has generally been regarded as a positive.

The research also reveals that most HR managers were well-versed in the training they needed to properly utilise the digital transformation at their disposal since they were aware of the changes this transformation would bring.

Managers are adapting to the new mobile-based HR processes as a result of the digital transformation, which has given them more time to utilise the system and allowed them to get more familiar with the HR processes and systems in play. Now that they have first-hand experience with digital HR services, and a mobile device to add, managers will be better prepared to swiftly adapt to any future changes. Do your job whenever and wherever works best for you.

Because HR services may be accessed at any time, employees and managers are finding it more challenging to delineate between their personal and professional lives, which is a major contributor to stress and burnout. It follows that digital change has contributed to managerial and employee burnout.

The researcher has concluded that some respondents have mentioned the complexity of digital HR, and this has been evident from the rating where employee onboarding and recruitment along with managing the performance of employees got more distributed rating; as a result, we can say that complexity in certain areas of the HR function exists, which is creating hurdles to harness the full potential of HR technology.

Because millennials are involved, the researcher concludes that the generation's familiarity with technology means that compatibility and integration with their legacy software, as well as customization, are the biggest obstacles to implementing digital transformation in HR. In light of what we know about digital systems, the aforementioned considerations are even more crucial than getting buy-in from upper management and securing funding. Based on their frequent discussions on topics like backwards compatibility with older systems and programme modifications, men HR managers appear to have a deeper awareness of technology than their female counterparts.

With over half of the samples reporting that the organization's investment in digital transformation was the greatest it could have made, it's no surprise that these savings in both time and money have led to a reduction in staff. Therefore, we draw the conclusion that periodic monitoring of HR processes and systems adds to the cost of operating the HR function.

We learned some fascinating information by examining the responses of HR leaders to a survey about their thoughts on the impact of digital technology on human resource management after doing an in-depth analysis of their survey data.

When it comes to management, women have traditionally held more managerial positions than men have, but the reverse is true when looking at the gender of leaders.

From the perspective of a leader, financial constraints are one of the reasons that prevent such massive digital transformation initiatives from being put into action; yet, this budget problem comes to the fore in terms of managers who claim that budget is believed to be a hurdle.

Leaders in today's digitally changed world claim that Microsoft Teams facilitates communication and collaboration among staff members, while SAP HR allows them to digitally and in real-time touch base with key HR functions across the enterprise.

leaders in today's digitally transformed world still see the "pain point," and they're pointing to the most dated and complex software that their organisations are still using. this is because both: (1) employees prefer to use the old one, so they don't have to learn the new technology, and (2) too many software are sitting on legacy software, which creates a mental roadblock to do something new out of this clutter.

Upon questioning leaders about their perspective on HR software systems, the researcher concludes that HR leaders take a macro and strategic approach, favouring solutions that are both effective and essential but also subject to frequent or ad hoc upgrades.

The leader's outlook on digital transformation in human resources predicts that, despite the loss of employment or creation of new opportunities, the need for human input into the system would persist.

Since leaders are generally supportive of digital transformation, it's no surprise that their opinions diverge when asked when the cloud solution for the human resource function should be implemented. However, researchers have concluded that leaders who favour a rapid rollout of HR cloud systems understand the benefits such a system will bring.

The researcher draws the conclusion that the emerging advantage is also built on collaboration and performance management since leaders say these are the areas, they are most interested in when the topic of HR cloud solutions emerges. Together, these key performance indicators (KPIs) will help the company reach its full potential.

Although employees are given the authority to conduct their own performance reviews and provide their own feedback, leaders have concluded that ongoing performance evaluation and feedback mechanisms are necessary.

5.2 Recommendations

The following recommendations researcher wants to be made here based on the findings and conclusion of the study:

1. Since cross-border communication is happening between the global offices and team companies should develop smooth communication channels which will be upheld the motivation of employees to collaborate.
2. The hybrid mode of work culture is going to stay here hence companies should make sure the technology should support both work from home and work from an office in a more agile way since the collaboration of teams and data in both modes can create systems access issues should be taken care off.
3. It has been observed that digital transformation has paved the way to a new way of working at the same time respondents of this research say that digital HR services are complex to use hence companies should work on delivering a more user-friendly interface of digital HR and also should focus on training activities aligning to users requirement rather than giving one type of training to all.
4. As the line between personal and professional life is getting blurred and employees are experiencing burnout despite digital transformation. Companies should come up with Adhoc work structures and also should arrange digital wellness programs in their organizational culture and make it a routine exercise rather than a one-time activity.
5. As millennials are more tech-savvy, the leaders of the organization should take into consideration the viewpoints of the employees too while defining the digital transformation roadmap for the future actions of the company.
6. As we have seen in our research that staff turnover has increased due to digital transformation and at the same time leaders believe that human intervention cannot be given away hence a balanced strategy of using technology and the workforce should develop for the long-term sustainability of the organizations.

7. As female managers are not seen much in leadership positions, companies should focus critically to create a roadmap for the elevation of female managers to leadership positions this can bring new ideas and hope to the workforce restructuring and development.
8. Companies should develop education and awareness programs on using digital technology to understand its potential and at the same time how to leverage it to complete their task in more profound ways rather than considering it as an obstacle.
9. It's time to say goodbye to old-age legacy software since the integration of new technologies with the legacy systems becoming a daunting task and also not much cost-effective this will create a shift in the workforce mindset to adapt to new technology at a rapid pace.
10. Digital HR has seen new ways of performance reviews and monitoring hence companies should build a strategy to create a career roadmap using this new-age digital HR transformation considering diversity, exclusivity and inclusion at the same time.
11. The companies should focus on creating an ideal digital workplace which will facilitate constant two-way feedback loops, allowing employees to feel heard and improving their performance over time.

5.3 Scope for Future Research Study

After giving much thought to the findings and conclusion of the study the researcher has decided to give certain suggestions for future researchers which are given below:

1. The research study can be conducted for MSMEs to understand whether the challenges and opportunities perceived by multinationals are the same or different for them.
2. The study can be replaced with the industry since now a day all industries are embracing the digital transformation culture.
3. The study can also focus on the gender-based study on digital transformation impediments and how they differentiate between the genders.
4. The longitudinal study of HR leaders can reveal more insights about the digital transformation in their respective organizations to deliver more sustainable solutions.

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Annexure-1: Invitation Letter

Dear Survey Participant,

I am Sunil Deshpande, and I am a doctoral (PhD) student in Business Management discipline at Tilak Maharashtra Vidyapeeth, Pune. As a part of the research study, all candidates are required to undertake a research project which will examine an issue relating to business environment. With this letter, I would like to invite you to participate in this research.

The objective of this research is to investigate the perception of HR managers about the digital transformation happening in the organization especially in the HR function in Pune based IT MNC's.

In particular, the research this research is expected to provide a better understanding of digital transformation landscape for the IT hub of Pune. My intended respondents are HR managers of the IT firms and also the Leaders of HR function.

In this regard, I have attached a survey questionnaire. Completion of survey is voluntary and should take approximately 30 minutes to complete. Please answer all questions based on your experience and knowledge. Surveys are anonymous and all are private and confidential. Only my research guide and I will have access to information you give and it will be kept secure.

Your assistance in completing the survey is highly appreciated and participants may withdraw at any point of time.

Kind Regards,

Sunil Deshpande

PhD Student, Tilak Maharashtra Vidyapeeth, Pune.

Annexure-2: Questionnaire for HR Managers

Research Questionnaire – HR Managers

Section 1 - Demographics

Q_1

	Male	Female	Others
Please mention your gender			

Q_2

Please mention your age in years _____.

Q_3

Please mention which industry you work in _____.

Q_4

Please mention your work experience in years _____.

Q_5

Please mention your work location category (metro / non-metro) _____.

Q_6

Statements	Less than 500	500 - 2000	2000 - 5000	Above 5000
Please mention your organization size in terms of number of employees				

Q_7 Does your company has an office outside India (Yes / No) _____.

Q_8 Does the company work with teams outside India? (Yes / No) _____.

Q_9

Statements	Executive	Managerial	Leadership
Please mention the role you are performing in HR			

Section 2 - Digitization of HR Services - HR Managers Perspective

Q_10

Statements	Field Based	Office Based	Remotely Working (working from home)	Hybrid Mode (Office and Home / On-Off)
Would you consider yourself to be -				

Q_11

Statements	Entry level Employee	Professional having 5-10 years of experience	Middle Management	Senior Management	C-Level / Executive Level
In relation to your level within your organization, would you consider yourself to be -					

Q_12

Statements	Baby Boomers (Born 1946)	Generation X (Born 1965)	Millennial (Born 1977 to 1995)	iGen / Generation Z (Born 1996)
Which age category are you in?				

Q_13

Statements	1 to 99 employees	100 to 249 employees	250 to 999 employees	1000 + employees
What size company do you work in?				

Q_14 Since the digitization of HR services and processes in your organization please state how you would say the following has changed -

Sr. No.	Statements	Greatly Disimproved	Disimproved	No Change	Improved	Greatly Improved

Q_14_1	Access to HR team members for advice and assistance					
Q_14_2	The range of services offered by the HR function					
Q_14_3	The effectiveness of the services received from the HR function					
Q_14_4	The responsiveness of the HR function in dealing with your questions and queries					
Q_14_5	Quality of the service offered by the HR function					

Q_15 Since the digitization of HR services and processes in your organization please state how you would say the following has changed in relation to HR policies and procedures -

Sr. No.	Statements	Greatly Disimproved	Disimproved	No Change	Improved	Greatly Improved
Q_15_1	Ease of access to HR policies and procedures					
Q_15_2	Communication about policies and procedures affecting my work					
Q_15_3	Ability to book annual leave online					
Q_15_4	Ability to record other leave such as sick absence or statutory leave (e.g., Maternity Leave, Paternity Leave)					
Q_15_5	Ability to update my personal details such as address and civil status					

Q_16 Since the digitization of HR services and processes in your organisation please state how you would say the following has changed in relation to recruitment and job vacancies -

Sr. No.	Statements	Greatly Disimproved	Disimproved	No Change	Improved	Greatly Improved
Q_16_1	Access to internal job vacancies					
Q_16_2	Ability to apply online for internal job vacancies.					
Q_16_3	Responsiveness to internal job applications.					

Q_17 Since the digitization of HR services and processes in your organisation please state how you would say the following has changed in relation to performance management -

Sr. No.	Statements	Greatly Disimproved	Disimproved	No Change	Improved	Greatly Improved
Q_17_1	Ability to create performance goals and objectives.					
Q_17_2	Ability to review, amend or update performance goals and objectives throughout the year.					
Q_17_3	Ability to complete performance appraisals.					

Q_18 In relation to the introduction of digital HR services in your organisation please indicate your level of agreement or disagreement with the following statements -

Sr. No.	Statements	Greatly Disimproved	Disimproved	No Change	Improved	Greatly Improved
Q_18_1	Before the introduction of digital HR services, I was well informed of the upcoming changes					
Q_18_2	I received adequate training on digital HR services so I can use them correctly.					

Q_18_3	Digital HR services and processes are easy to use.					
Q_18_4	Digital HR services and processes are available on mobile devices.					

Q_19 In relation to the introduction of digital HR services in your organisation please indicate your level or agreement or disagreement with the following statements -

Sr. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q_19_1	I access work related HR systems from home					
Q_19_2	I feel more connected to my workplace.					
Q_19_3	I feel that the lines between my work time and my personal time have become blurred as a result of digitization					
Q_19_4	I feel more stressed as a result of having more access to digital HR services and tools.					

Q_20

Statements	Yes	No	Don't Know
Does your organization have a formal HR technology roadmap?			

Q_21

Statements	CEO	Finance	HR	IT	Don't Know
Who is responsible for HR technology within your organisation?					

Q_22 How would you rate the positive impact that digital HR has had in your organisation on the following -

Sr. No.	Statements	No Positive Impact	Low Impact	Neutral	Moderate Impact	High Impact

Q 22 1	Recruitment					
Q 22 2	Compensation & Benefits					
Q 22 3	Administration					
Q 22 4	HR Planning					
Q 22 5	Employee Onboarding					
Q_22_6	Performance Management					
Q 22 7	Salary Planning					
Q 22 8	Learning & Development					
Q_22_9	Employee engagement with HR function					
Q_22_10	Employee satisfaction with the HR function					

Q 23

Statements	Customization	Budget	Education & Awareness	Buy-in from Senior Management	Compatibility with legacy systems
What was the biggest obstacle HR faced in your organization when implementing digital HR services?					

Q 24

Statements	Yes	No	Don't Know
Have you seen a measurable return on investment from the implementation costs of digital HR services and processes?			

Q 25

Statements	Remained the same	Increased	Decreased	Don't Know
Since the introduction of digital HR services and processes has the FTE headcount in HR				

Q_26

Statements	Remained the same	Increased	Decreased	Don't Know
Since the introduction of digital HR services and processes has the cost of running the HR function				

Q_27

Statements	Actively Disengaged	Disengaged	Engaged	Highly Engaged
How engaged are employees with the digital HR services and processes				

Q_28

Statements	Self-Service	System Integration	Next generation upgrades	Mobile Apps	Don't Know
Would you say the primary objective of your HR technology spend over the next two years is for self-service, system integration, next generation upgrades or mobile apps?					

Annexure-3: Questionnaire for HR Leaders

Research Questionnaire – HR Leaders

Section 1 - Demographics

Q_1

	Male	Female	Others
Please mention your gender			

Q_2

Please mention your age in years _____.

Q_3

Please mention which industry you work in _____.

Q_4

Please mention your work experience in years _____.

Q_5

Please mention your work location category (Metro / Non-metro) _____.

Q_6

Statements	Less than 500	500 - 2000	2000 - 5000	Above 5000
Please mention your organization size in terms of number of employees				

Q_7

Does your company have an office outside India (Yes / No) _____?

Q_8

Does the company work with teams outside India? (Yes / No) _____.

Q_9

Statements	Executive	Managerial	Leadership

Please mention the role you are performing in HR			
--	--	--	--

Section 2 - Digitization of HR Services - HR Tools and Processes

Q_10

Statements	Budgetary Constraints	Team Size	Lack of Training	Phobia	Other
Reason for not automating HR functions in the organization					

Q_11

In your day-to-day operations, which productivity tools are being used? E.g., Slack, MS Teams, Zoom, Google Drive.

Q_12

Statements	Not at all Comfortable	Not Very Comfortable	Neutral	Comfortable	Very Comfortable
To what extent are you comfortable with using those tools?					

Q_13

Which are the HR tools being used on a day today basis? E.g., Workday, SAP HR, ADP Payroll, Lattice HR, Any other

Q_14

Are there any tools used by your organization for Benefits Admin, Career & Succession Planning?

Q_15

Statements	Not confident at all	Not very Confident	Neutral	Confident	Very Confident
How confident do you feel while using these HR tools?					

Q_16

Statements	Not often at all	Not very often	Neutral	Often	Very Often
How often these HR tools are changing in your company?					

Q_17

Statements	Too many software	Loss of contacts	Too frequent changes	Complicated Software	Outdated Software	Outdated Software	Redundant software	Fragmented software	No single source of truth	Too much automation
What are the current pain points in your HR tools from the following?										

Q_18

Being an HR professional, how do you look at your HR softwares?

Q_19

Is there any human interaction /intervention of HR professionals in spite of HR automation?
(Yes / No) _____.

Q_20

Are you happy / satisfied with your HR tools? Are they meeting the objectives?
(Yes / No) _____.

Q_21

Which functions of HR are you finding challenging?

Q_22

When was the last time did you learn new software related to HR?

Q_23

What would make you use / enable you in your job?

Q_24

Which software tools you would like to suggest?

Section 3 - HR process digitization in general

Q_25

Which HR digitization strategy does your company pursue?

Q_26

Who is the driver for HR digitization?

Q_27

Which criterion are used to decide and prioritize which HR processes are to be digitized?

Q_28

What were the stumbling blocks / obstacles in the implementation of digitization?

Section 4 - HR processes in the HR Cloud

Q_29

Which HR processes (recruiting, learning, G&P, C&B, profiles, succession planning, reporting) are currently already digitized and on which basis (on-premise, cloud)?

Q_30

Which HR processes will be digitized in the future and where (on-premise vs. cloud)?

Q_31

Which HR cloud solution is currently in use with them and for how long?

Q_32

Why did you choose this solution?

Q_33

What is the timeframe for the implementation project?

Q_34

Has the introduction of the HR Cloud changed the way they work and if so, how?

Q_35

Statement	Discontent	Partially Discontent	Neutral	Partially Content	Content
How do you rate the way you work after the introduction of the cloud?					

Section 5 - Stage 2: Cross-domain HR KPIs – currently in use

Q_36

Have you even considered the topic of HR KPIs in the context of cloud migration and, if so, to what extent?

Q_37

Who provides them with these KPIs?

Q_38

Where do the KPIs come from?

Q_39

What do they use these HR metrics for?

Q_40

Which key figures/evaluations are passed on to which distributor?

Q_41

Have these KPIs had an influence on their quality of work and if so, which?

Q_42

Do they also receive technical KPIs (availabilities) or purely technical HR KPIs?

Q_43

Do they also receive cross-process domain KPIs and/or do they correlate these data later? If so, which KPIs are they?

Section 6 – Stage 2: Cross-domain HR KPIs - HR TARGET KPI - Definition of new cross-domain HR KPIs

Q_44

What advantages do you see from a consistent cross-domain KPI?

Q_45

How do you know that you have done a good job and how would you measure that? Imagine you could get quantitative evaluations of your work at any frequency - what would that be?

Q_46

In which format (everything in the cloud vs. download: Excel, Word, PPT, Mail, PDF, Online Report, Dashboard) and frequency (how often) do you need these KPIs?

Q_47

Would these new cross process KPIs have an influence on a solution and if so, which one?

Annexure-4: List of IT Companies

Sr. No.	Name of IT Company
1	TCS
2	Accenture
3	Infosys Technologies
4	Birlasoft
5	Wipro Technologies
6	Tech Mahindra
7	Capgemini
8	Persistent Systems
9	Synechron Technologies
10	Zensar Technologies
11	IBM India
12	Syntel
13	BMC Software
14	LTIMindtree
15	Tieto Software
16	Harbinger Systems
17	e-Zest Solutions
18	Cognizant Technology Solutions
19	Amdocs
20	Cybage Software
21	Talentica Software
22	YASH Technologies
23	HSBC Technologies
24	NVIDIA
25	YARDI Software
26	Intelligent Technologies
27	Fendahl Technologies
28	Dassault Systems

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IN MANAGEMENT

UNDER THE BOARD OF MANAGEMENT STUDIES



BY

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DEPARTMENT OF MANAGEMENT

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80_ Recommendations

Conclusions:

After testing of hypotheses, the below are proved as their p-value is less than the level of significance (i.e. 0.05)

H1 : There is a difference in the perception of managers about HR services after the digitization of HR

H2 : There is an association between the availability of HR services on mobile devices and the ease of access to HR managers

H3 : There is an association between the imbalance of personal vis-à-vis professional life and the stress the managers are experiencing due to the digital transformation of HR.

H4 : There is a difference in the perception of managers about the impact of digital HR services on various functions of the HR department.

H 5: There is a difference in the perception of managers about the financial impact of digital HR services.

H 6: There is an association between the obstacles faced by HR managers in the implementation of Digital HR services and the gender of HR managers.

Recommendations:

The following recommendations researcher wants to be made here based on the findings and conclusion of the study:

1. Since cross-border communication is happening between the global offices and team companies should develop smooth communication channels which will be upheld the motivation of employees to collaborate.
2. The hybrid mode of work culture is going to stay here hence companies should make sure the technology should support both work from home and work from an office in a more agile way since the collaboration of teams and data in both modes can create systems access issues should be taken care off.
3. It has been observed that digital transformation has paved the way to a new way of working at the same time respondents of this research say that digital HR services are complex to use hence companies should work on delivering a more user-friendly interface of digital HR and also should focus on training activities aligning to users requirement rather than giving one type of training to all.
4. As the line between personal and professional life is getting blurred and employees are experiencing burnout despite digital transformation. Companies should come up with Adhoc work structures and also should arrange digital wellness programs in their organizational culture and make it a routine exercise rather than a one-time activity.
5. As millennials are more tech-savvy, the leaders of the organization should take into consideration the viewpoints of the employees too while defining the digital transformation roadmap for the future actions of the company.
6. As we have seen in our research that staff turnover has increased due to digital transformation and at the same time leaders believe that human intervention cannot be given away hence a balanced strategy of using technology and the workforce should develop for the long-term sustainability of the organizations.

7. As female managers are not seen much in leadership positions, companies should focus critically to create a roadmap for the elevation of female managers to leadership positions this can bring new ideas and hope to the workforce restructuring and development.
8. Companies should develop education and awareness programs on using digital technology to understand its potential and at the same time how to leverage it to complete their task in more profound ways rather than considering it as an obstacle.
9. It's time to say goodbye to old-age legacy software since the integration of new technologies with the legacy systems becoming a daunting task and also not much cost-effective this will create a shift in the workforce mindset to adapt to new technology at a rapid pace.
10. Digital HR has seen new ways of performance reviews and monitoring hence companies should build a strategy to create a career roadmap using this new-age digital HR transformation considering diversity, exclusivity and inclusion at the same time.
11. The companies should focus on creating an ideal digital workplace which will facilitate constant two-way feedback loops, allowing employees to feel heard and improving their performance over time.

Scope for Future Research Study:

After giving much thought to the findings and conclusion of the study the researcher has decided to give certain suggestions for future researchers which are given below:

12. The research study can be conducted for MSMEs to understand whether the challenges and opportunities perceived by multinationals are the same or different for them.
13. The study can be replaced with the industry since now a day all industries are embracing the digital transformation culture.
14. The study can also focus on the gender-based study on digital transformation impediments and how they differentiate between the genders.
15. The longitudinal study of HR leaders can reveal more insights about the digital transformation in their respective organizations to deliver more sustainable solutions.

