THE IMPACT OF HUMAN RESOURCE INFORMATION SYSTEM (HRIS) ON ORGANIZATIONAL PERFORMANCE: A STUDY ON IT & ITES SECTOR IN GUJARAT

A Thesis Submitted to Gujarat Technological University

For the Award of

Doctor of Philosophy

In

MANAGEMENT

By

SALUJA HARLEENKAUR JASBIRSINGH

209999903006

Under the Supervision of

Dr. NEHA PATEL

GUJARAT TECHNOLOGICAL UNIVERSITY

AHMEDABAD

January - 2026

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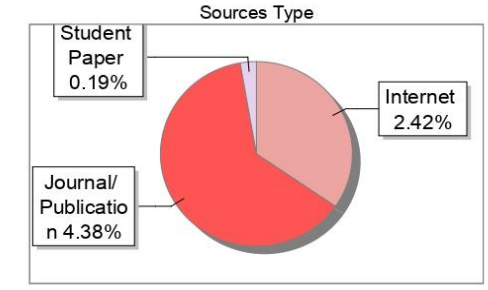

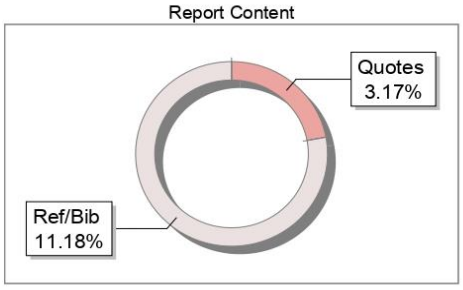

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ABSTRACT

In today's organizations, Human Resources Information Systems (HRIS) are playing an increasingly crucial role in the effective management of Human Resource outcomes. It has become an essential tool in the organization that supports organizations to facilitate and assist management and streamline the Human Resource functions within the organization. The use and implementation of HRIS are cost-efficient and time-saving, which is often vital for achieving the goals of the organization promptly. HRIS is implemented and utilized across diverse sectors, including MSMEs, the Hospital sector, the Education sector, the BFSI sector, the Textile sector, and Information technologies and information technologies-enabled services. This study aims to understand the impact of the Human Resource Information System (HRIS) on Organizational performance in the IT & ITES sector.

Based on the earlier studies, a survey was created and distributed to employees in the Indian IT & ITES sector. The research objectives were established using a conceptual model. The sample consisted of 515 employees from the IT & ITES sector in Gujarat state, sourced from four different cities, including Ahmedabad, Rajkot, Surat, and Vadodara. According to the *Times of India* (2023), Gujarat state has over 5000 small, medium, and large information and communication companies clustered mainly in Ahmedabad, Rajkot, Surat, and Vadodara. Non-probability convenience sampling technique was applied, and the data was examined by using Statistical Package for Social Science (SPSS) and Analysis of Moment Structures (AMOS) software Analytical techniques such as Regression, Mean, Standard deviation, Mann-Whitney U, Kruskal Wallis, and Exploratory factor analysis, Confirmatory Factor Analysis and Structural equation modeling.

The conceptualized framework is developed by the model of the T-O-E framework and the HOT-FIT model (Tornatzky & Fleischer, 1990), which determines

Technological context, Organizational Context, environmental context, and Human Context (Alam et al., 2016) to know the Organizational performance (Delaney, 1996) for contemporary research.

The purpose of this study is to determine the impact of HRIS on Organizational Performance. In the present technological environment, there is a growing trend among organizations to adopt a Human Resource Information System (HRIS). The research applied regression analysis to explore the impact of HRIS on Organizational performance. The study's results highlighted a significant positive impact, showing that the adoption of HRIS plays a role in improving Organizational performance among employees of the IT and ITES sector.

The Further Objective of the study was to find out the factors contributing to HRIS adoption and organizational performance in the IT & ITES sector. The researcher has conducted descriptive statistics and performed Exploratory Factor Analysis (EFA) using principal component analysis and the varimax rotation. Five factors have been identified from the EFA: Job Satisfaction, Workflow Integration, IT Adoption, Organizational Benefits, and System Alignment. The researcher has applied Confirmatory Factor Analysis (CFA) through AMOS to determine the important relationship between the various factors. It has been found that there is a significant Model fit for HRIS adoption and organizational performance.

According to the research, the implementation of the recommendations proposed in this research, based on the study's findings, will facilitate the IT & ITES sector in adopting HRIS in a more effective and easier way. The overall findings drawn from this study are likely to benefit to IT & ITES sector by improving the adoption of the Human Resource information system in Organizations.

Keywords: Information system, Human Resource Information System, Organizational Performance, IT& ITES Sector.

ACKNOWLEDGEMENT

I, **Harleen Kaur Saluja**, wish to express my heartfelt gratitude to all who have supported and guided me throughout the journey of completing my doctoral degree. I humbly bow before **Sri Guru Granth Sahib Ji**, the eternal Guru of the Sikh faith, whose divine wisdom, grace, and blessings have been a constant source of strength, peace, and perseverance at every stage. It is through His guidance, and through the virtues of **sabar (patience) and shukar (gratitude)**, that I found the courage, clarity, and determination to undertake and successfully complete this research.

With sincere appreciation and deep respect, I express my heartfelt gratitude to my research supervisor, **Dr. Neha Patel**, for her invaluable mentorship and expert guidance throughout the course of this research work. Her dedication, constructive insights, critical thinking, and consistent motivation served as a guiding light during every phase of the research process. It has truly been an honor and privilege to work under her guidance.

I also extend my sincere thanks to **Dr. Kinjal Bhatt** and **Dr. Anu Gupta**, esteemed members of my **Doctoral Progress Committee (DPC)**, for their thoughtful recommendations and academic guidance, which have significantly enriched the quality of this research. Their feedback not only strengthened the depth of my study but also encouraged me to refine my scholarly perspective.

I express my sincere and special gratitude to **Dr. Abhinava Singh**, under whose leadership I spent a major part of my research journey. His guidance, encouragement, and continuous support played a significant role in shaping my academic outlook and professional growth. I also extend my heartfelt thanks to **Dr. Prakash Khuman**, my current Director, for his understanding, motivation, and constant support during the later phase of my doctoral work. I further acknowledge **Dr. Pranav Saraswat** and **Dr. Kumar Aashish**, who have been invaluable not only as mentors but also as close friends, offering constant encouragement, moral support, and timely guidance that helped me remain focused and confident throughout my research journey.

I am deeply indebted to my beloved family, my father, **Sardar Jasbir Singh Saluja**; my mother, **Sardarni Charanjeet Kaur Saluja**; and my brothers, **Gurvansh Singh Saluja** and **Gurleen Singh Saluja,** for their unwavering love, endless encouragement, and unshakeable support. Their patience and understanding, especially during the demanding phases of this academic pursuit, have been a constant source of strength. I owe them immense gratitude for their sacrifices and unconditional faith in me.

Furthermore, I express my heartfelt appreciation to the **PhD Department at Gujarat Technological University (GTU)** for their continuous administrative and academic support. The well-structured Doctoral Progress Committees and Research Weeks organized by the department played a vital role in keeping my work focused and methodologically sound. Their dedicated coordination made the research process seamless and well managed.

To each individual who played a role in this academic milestone—whether through words of encouragement, prayers, or actions—I am truly thankful.

Saluja Harleen Kaur Jasbirsingh

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LIST OF ABBREVIATIONS

Abbreviations	Full forms
HRM	Human Resource Management
HRIS	Human Resource Information System
e-HRM	Electronic Human Resource Management
KPO	knowledge Process Outsourcing
BPO	Business Process Outsourcing
NASSCOM	National Association of Software and Services Companies
MoSPI	Ministry of Statistics and Programme Implementation
GDP	Gross Domestic Product
IT	Information Technology
ITES	Information Technology Enabled Services
GSDC	Gujarat State Data Centre
AI	Artificial Intelligence
ML	Machine learning
HOT-fit	Human Organization and Technology
TOE	Technological-Organizational-Environmental
IoT	Internet of Things
TAM	Technology Acceptance Model
TAM2	Extended Technology Acceptance Model
UTAUT	Unified Theory of Acceptance and Use of Technology
TTF	Task-Technology Fit
IaaS	Infrastructure-as-a-Service
IPO	Input–Process–Output
ESI	Employee State Insurance
EPF	Employee Provident Funds
LMS	Learning Management System
HPWS	High Performance Work Systems
TOEP	Technology, Organization, Environment, and Pressure

BFSI	Banking, financial Services and Insurance
ESM	Enterprise Social Media
ERP	Enterprise Resource Planning
TQM	Total Quality Management
SMEs	Small and Medium Enterprises
SCM	Supply Chain Management
OCB	Organizational Citizenship Behaviour
HIS	Health Information System
AMS	Academic Management System
OL	Organizational Leadership
SQM	Supplier Quality Management
KMO	Kaiser-Meyer-Olkin
ANOVA	Analysis of Variance
CFA	Confirmatory Factor Analysis
SEM	Structural Equation Model
SPSS	Statistical package for Social Science

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Chapter - 1
Introduction

1. Introduction

1.1 Overview of IT & ITES industry

The industry of Information Technology (IT) and Information Technology Enabled services (ITES) have emerged as a key generator of innovation, digital transformation, and worldwide economic expansion. The IT & ITES sector, which includes a broad range of services like infrastructure management, software development, system integration, cloud computing, cybersecurity, and AI solutions, customer support, business process outsourcing (BPO), and knowledge process outsourcing (KPO), are essential for an industry's ability to operate more efficiently and compete.

India's competitive advantage is derived from its highly qualified labor force, affordability, and advantageous government initiatives like Make in India, Startup India, and Digital India. These programs seek to advance digital literacy, strengthen digital infrastructure, and encourage tech-related entrepreneurship.

India's IT industry has rapidly established an international hub for outsourcing, and many Western businesses now work with Indian businesses to handle business process operations, software development, and maintenance. India, therefore, became a global leader in the export of software services and gained notoriety for developing top-tier IT talent. Major MNCs set up R&D facilities in Bengaluru, Hyderabad, Pune, Chennai, and increasingly in Gujarat. These advancements show how the industry has spread geographically beyond traditional metro areas and further solidify India's place in the global tech ecosystem.

1.1.1 India’s IT Industry and Its Contribution to GDP: A Growth Perspective

The Indian information technology (IT) sector has grown steadily over the past three decades and today contributes to a significant percentage of the nation's GDP. The IT and ITES industry has grown from a small beginning in the early 1990s to a major force in the global economy due to software exports, IT-enabled services (ITES), and domestic digital projects. The industry generated over US$245 billion in revenue during the fiscal year 2022-23, with the revenues from exports generating nearly US$194 billion. Additionally, the sector also contributes to employment, offering jobs to more than 5.4 million professionals. Overall, the

digital economy in India, which encompasses IT/ITES and other digital industries, made up about 11.7% of India's GDP in 2022–2023 and is expected to grow about 20% by 2029–2030 (NASSCOM, 2023b). This demonstrates the importance of the IT industry to India's transformation and reshaping of its services economy, as well as its enhancement of standing as a major player in the global information technology sector.

Table: 1.1 Growth of India's IT industry: A Longitudinal Analysis (1994–2025)

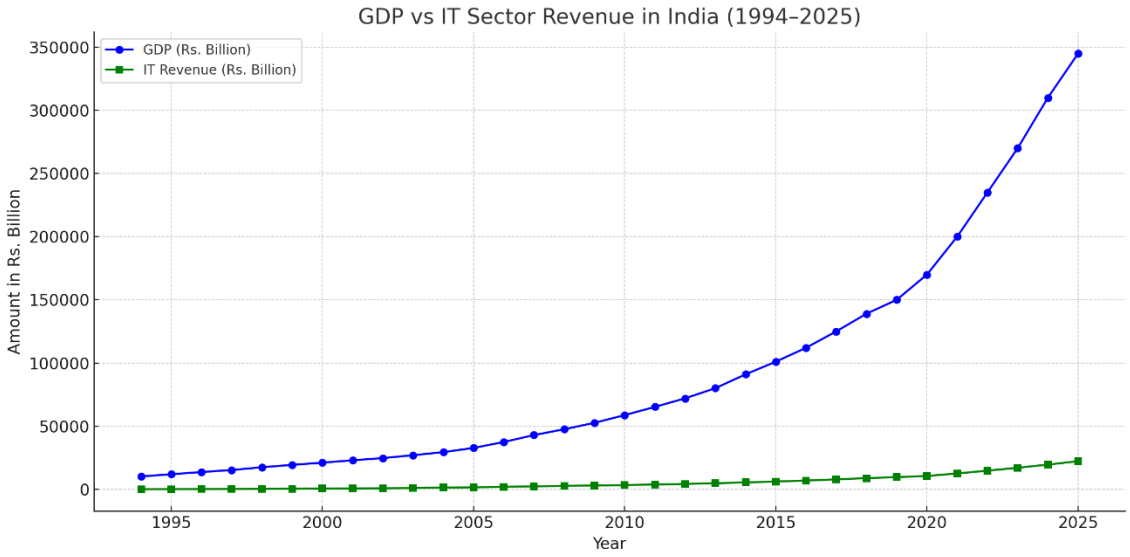
Year	GDP at current prices (in Rs. Billion)	IT sector revenue (in Rs. Billion)	IT revenue to GDP ratio (in %)
2005-06	32700	1560	4.77
2006-07	37400	1880	5.03
2007-08	42900	2280	5.31
2008-09	47500	2660	5.60
2009-10	52600	2950	5.61
2010-11	58700	3300	5.62
2011-12	65200	3740	5.74
2012-13	72000	4200	5.83
2013-14	80000	4750	5.94
2014-15	91000	5400	5.93
2015-16	101000	6100	6.04
2016-17	112000	6900	6.16
2017-18	125000	7800	6.24
2018-19	139000	8800	6.33
2019-20	150000	9600	6.40
2020-21	170000	10500	6.18

2021-22	200000	12500	6.25
2022-23	235000	14700	6.25
2023-24	270000	17000	6.29
2024-25	310000	19500	6.29
2025-26	345000	22200	6.43

Sources: http://mospi.nic.in, http://www.nasscom.org

According to the report of (Ministry of Statistics and Programme Implementation (MoSPI), 2023; NASSCOM, 2024),India's IT sector is expected to reach $350 billion in revenue by 2030, with a sustained CAGR of around 10–12%. At this level, India's IT sector can create 20 million jobs along with generating nearly 10% of the national GDP, thus setting itself up as the foundation of the Indian economy.

Figure: 1.1 India's overall GDP and IT revenue (1994–2025)



Sources: http://mospi.nic.in, http://www.nasscom.org

The figure shows the comparison between India's overall GDP and IT revenue from the year 1995 to 2005. The India IT sector revenue rose from ₹63 billion in 1995 to ₹22,200 billion in 2025, while the GDP growth was recorded from ₹10,128 billion to ₹345,000 billion in the same period. Although the GDP has increased dramatically, the proportional growth rate of IT revenue has been higher. The rising gap between IT income and GDP suggests that IT is playing a significant role in

boosting India's economy. It has a major effect on foreign direct investment (FDI), employment, exports, and innovation. This highlights India's overall economic growth, which has been strengthened by the rise of technology and industrial diversification.

1.1.2 A Scenario of the Gujarat IT & ITES Industry

Gujarat is growing into one of India's major centers for the IT and ITES industries. Despite having a long history of manufacturing and industry, the state has recently strategically refocused its attention on knowledge-based sectors and digital transformation. According to (ANI News, 2025) The metropolitan areas of Gujarat, including Ahmedabad, Gandhinagar, Vadodara, Rajkot, and Surat, are rapidly growing and developing into significant digital centers of innovation, with a skilled workforce, connections to academic institutions, driven by private sector investments, government-led infrastructure development, and an increasing demand for tech-driven services. These cities are leading the state's IT and ITES shift, with a range of IT-specific zones, smart cities, and industrial clusters. As per the Gujarat State Data Centre (GSDC), and several Software Technology Parks of India facilities spread throughout these cities (Department of Science and Technology, 2023; Software Technology Parks of India, 2023).

Gujarat's two significant IT/ITES policies, the Electronics Policy (2022–2028) and the IT/ITES Policy (2022–2027), aim to establish Gujarat as one of India's leading IT hubs by setting the ambitious goal of increasing exports to ₹25,000 crore in five years and strengthen its digital and electronics ecosystem. With this policy and guideline, Gujarat will become a major center for cloud computing, data centers, cybersecurity, and AI-based advancements (Government of Gujarat, 2022).

India's first operational smart city, Gujarat International Finance Tec-City (GIFT City), is situated in Gandhinagar, Gujarat, and is home to the sole International Financial Services Center (IFSC) in the nation. This development offers a compelling opportunity for IT/ITES, fintech, BPO companies, and smart city development due to its modern infrastructure, favorable regulatory environment, and strong connections. Furthermore, Ahmedabad i-Hub (Innovation Hub) acts like a major innovation facilitator, offering infrastructure and incubation support for up to 500 entrepreneurs and startups. Particularly in the IT industry, this program is

essential to strengthening Gujarat's entrepreneurial and startup ecosystem (GIFT IFSC, 2023; Government of Gujarat, 2022; i-Hub Gujarat, 2023). Overall, Gujarat's IT/ITES industry is expanding at a rapid pace due to proactive government policies, expanding infrastructure, and a vibrant startup scenario, placing the state as one of India's emerging technological hubs.

1.1.3 Recent Landscape of IT & ITES sector in India

India's Information Technology (IT) and Information Technology Enabled Services (ITES) industries are changing rapidly, with several new trends transforming the country's structure. The rapid pace of digitization is one of the most noticeable trends, with businesses increasingly adopting advanced technologies such as cloud computing, blockchain, Artificial Intelligence (AI), and Machine Learning (ML) to enhance client engagement, optimize operations, and improve service delivery (Business Standard Staff, 2024; ET CFO Bureau, 2025). Another major advancement that is significantly accelerating the adoption of the Internet of Things (IoT) and blockchain, while enabling the creation of smart infrastructure, is the implementation of 5G networks (ET Telecom Bureau, 2024; Voice & Data Bureau, 2025).

The adoption and expansion of cloud-native development and DevOps approaches, which are facilitating quicker deployment cycles and better adaptability, are another significant trend influencing the IT-ITES industry in India. Increasing the adoption of agile methodology ensures adaptability and responsiveness to changing client requirements. Ensure adaptability and responsiveness to changing client requirements (Deloitte Touche Tohmatsu India LLP, 2023; International Data Corporation (IDC), 2023). As per (Bandlamudi, 2024) the global demand for digital-first strategies, cloud services, particularly Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS), are gaining widespread acceptance among startups and organizations.

Indian IT companies are heavily investing in cloud transformation services to satisfy the rising demand for digital services worldwide, including TCS, Infosys, and Wipro (Infosys Knowledge Institute, 2023; NASSCOM, 2024).

Finally, the use of chatbots, virtual assistants, and intelligent automation driven by AI is transforming customer service across the ITES domain, especially in the BPO and KPO industries. Along with minimizing operational load, these advances

improve client experience. Finally, customer service tasks are being revolutionized throughout the ITES domain, especially in the BPO and KPO sectors, by the integration of AI-powered chatbots, virtual assistants, and intelligent automation. These developments lessen the operational strain while improving client experience. To remain competitive, Indian ITES providers are incorporating natural language processing (NLP) technologies in response to global clients' need for multilingual services and quicker response times(Deloitte Touche Tohmatsu India LLP, 2022; Gartner, 2023; McKinsey & Company, 2022; NASSCOM, 2023a).

Overall, the development of new technology and changing global business dynamics are driving the rapid evolution of the Indian IT-ITES sector. The industry increasingly accepts the change in many ways, from the increasing use of chatbots, automation, and artificial intelligence to the growth of cloud-based services and digital platforms. The key to long-term success in industry will be the ability to shift as the environment gets progressively more technology centric.

1.1.4 HRIS practices in the Indian IT & ITES Sector

The IT & ITES sector depends largely on Human Resource Information Systems (HRIS) to handle and maintain HR functions. Through the centralization and automation of HR procedures, HRIS benefits organizations in increasing productivity, accuracy, and employee satisfaction. The following are some of the main HRIS initiatives in this field:

1. **Recruitment and onboarding**

The entire recruitment and onboarding process is streamlined using HRIS, from posting jobs and screening resumes to onboarding. HRIS helps improve efficiency in IT&ITES organizations where mass hiring is common by reducing manual interventions and speeding up the candidate processing process. As per the study (R. ; Arora & Chauhan, 2020) noted that by providing centralized tracking and automated communication, including HRIS in the hiring process, clear and effective communication greatly shortened the time-to-hire and enhanced the applicant experience.

2. **Performance management**

In the IT-ITES, performance evaluation is crucial due to its outcome-oriented culture. HRIS facilitates a transparent tracking process using 360-degree reviews, regular check-ins, training, development tracking, KPIs, and real-time dashboards. A study was carried out by (R. Singh & Gupta, 2021) stated that organizations that used HRIS for performance reviews witnessed improvements in employee satisfaction and fairness in the evaluation system, thus fostering a culture of accountability and continuous feedback.

3. **Attendance and Leave Management**

HRIS facilitates the automation of attendance recording, shift administration, and leave tracking, which ensures the accuracy of payroll data and compliance with legal requirements.(Iyer & Rao, 2020) Emphasized that IT companies were able to improve workforce visibility in real time and lower absenteeism through automated reports and alerts when HRIS technologies connected with biometric and mobile devices.

4. **Payroll and Compliance Management**

It is crucial and challenging for IT & ITES organizations to manage payroll and legal compliance, operating in a variety of regulatory scenarios on a manual basis. HRIS payroll functions make it easy for organizations to automate and streamline salary-related processes, which include salary calculation, Employee Provident Funds (EPF), Employee State Insurance (ESI), digital pay slip, payroll report, and audit. To centralize these procedures and ensure accuracy, efficiency, and compliance with legal requirements, Human Resource Information Systems (HRIS) are essential**.** (Mishra & Bhardwaj, 2019) shown how HRIS helped Indian IT companies comply with EPF, ESI, and income tax laws on time and drastically cut down on payroll errors.

5. **HR Analytics and Strategic Decision-Making**

HRIS technologies offer predictive insights about attrition risks, skill gaps, and personnel trends. This analytical skill encourages proactive human resource planning in an organization, which includes employee turnover, retention analysis, and workforce planning. As noted, (H. P.; Singh & Jindal, 2020) An organization using HR analytics was able to predict employee shortages, evaluate the return on investment of training, and create successful retention plans by utilizing HR data via HRIS.

HRIS is more than a tool for automating HR functions in the IT-ITES industry; it also promotes strategic decision-making and employee empowerment. HRIS enhances operational effectiveness and boosts employee engagement by digitizing recruitment, performance management, Payroll, and Compliance Management, and HR analytics.

1.2 Human Resource Information System (HRIS)

Information systems hold a strategic importance in enhancing management effectiveness, and information systems are structured processes designed to gather, process, and deliver data that aid in planning and decision-making in organizations. Over the past two decades, significant transformations have occurred and advancements in information technology, such as upgrades in hardware, software development, data and Analytics, Artificial Intelligence, the Internet, and Networking have greatly enhanced the capacity to provide accurate and timely information. Technological progress has led to the emergence of human resource information systems (HRIS). Human Resource Information Systems (HRIS) were created to streamline fundamental HR related functions such as employee information systems, employee relation, talent development, employee performance evaluation, payroll management, and attendance tracking.

1.2.1 Evolution of HRIS

The evolution of the Human Resource Information System (HRIS) has progressed through different phases aligned with technological advancement and the evolution of organizational needs. Before the 1960s, Human Resource activities like talent acquisition, payroll, and employee data were recorded manually using a paper file and a register-based system. In the 1960s, computerization in HR began when many organizations started adopting a mainframe system for basic HR functions like payroll and employee data. During the 1970s, basic HRIS software was introduced, automating tasks through batch processing. In the 1980s, the HR function was integrated with the Management Information System (MIS), facilitating the digital processes in the HR department such as recruitment, performance evaluation, payroll, and training.(Lengnick-Hall & Moritz, 2003).

The 1990s marked a significant transformation of HRIS with the development of client-server architecture, Leaning Management system (LMS), Job boards and the

adoption of relational database technology, making it more efficient, accessible, and strategically important for organizations during this phase popular enterprise HR software such as SAP HR and Oracle HRMS began to dominate, delivering centralized HR related task such as recruitment, payroll, attendance management and performance evaluation within a single platform. (Kavanagh et al., 2015). During the 2020s, web-based technology marked an advancement through self-service portals for employees and managers and significantly enhanced the autonomy in HR functions (Bondarouk Tanya & Huub Ruël, 2009).

The rise of big data in the 2010s, where HRIS technology marked a major transformation with the rapid adoption and expansion of cloud-based and mobile accessibility. Applications and systems like Workday, Bamboo HR, and the commercialization of Hadoop and other management technologies made it possible for other industries to begin analyzing massive quantities of data. These cloud-based platforms offer real-time access to HR data and applications from any location, enabling employees and managers to perform HR tasks independently through self-service functionalities (Troshani et al., 2011). In the 2020s, HRIS continues to evolve by integrating artificial intelligence (AI), machine learning, and predictive analytics, supporting more intelligent, data-driven decision-making in human resource management (Kavanagh et al., 2015). The addition of Artificial Intelligence (AI) to HRIS software has improved decision-making, operational efficiency, and HR department procedures, and has proven to organizations with workforce analytics for strategic planning. These advancements in technology have enabled businesses to make data-driven HR choices, automate compliance, and tailor employee experiences. AI is becoming a crucial component of modern human resource information systems (HRIS), providing organizations with predictive workforce analytics for strategic planning, AI-powered chatbots for employee support, and intelligent recruitment tools (Mohlala et al., 2024).

1.2.2 Concept and Definitions of Human Resource Information System (HRIS)

Human Resources (HR) plays a vital role in determining and structuring an organization's success by attracting, developing, and retaining the best talent, fostering a positive and favorable workplace environment, and enforcing compliance management and organizational policies. The demands for HR

professionals have grown dramatically as market conditions continue to evolve rapidly and grow more competitive. Traditional HR strategies cannot effectively meet the fast-paced, large-scale, and complex needs of current organizations.

HRIS contributes a positive role in an organization for enhancing efficiency and quality of performance (Khashman & Khashman, 2016). By automating various HR processes, HRIS can save time, decrease errors, improve data management, performance evaluation, and employee development. HRIS plays a transformative role in HR operations. The benefits of adopting an information system ultimately led to improved efficiency and quality of performance in core HR responsibilities, including hiring processes, employee data management, training and development, payroll, and benefit administration. This allows HR professionals to prioritize strategic initiatives and contribute to the organization's overall success (Pandey & Singh, 2023).The implementation and process involved in HRIS can be successful if proper data preparation, effective communication, and process analysis are identified as key success factors (Tursunbayeva et al., 2020). To realize the full potential of HRIS, the organization should invest in employee training and implement a management strategy, which is crucial for effective information system usage and enhancing overall organizational performance (R. & A., 2024).

HRIS has become widespread in organizations, identifying three unique zones: recruitment, training and development, and payroll. The role of HRIS in enhancing job performance is that it saves time. The effectiveness of HRIS is spread in HR functions such as HR planning, time saving in recruitment and selection, time saving in training, time saving in record keeping, data sharing, and methods of HR. (Anupa, 2021) Human Resource Information Systems (HRIS) have emerged as a key information system for managing core HR functions efficiently. As organizations increasingly adopt HRIS, its successful implementation largely depends on how well employees embrace and utilize the system. While HRIS is often integrated into daily HR operations, its effective use requires proper guidance and training from coworkers and supervisors to ensure smooth adoption and improve employee experience for adopting HRIS (Hakim & Madyatmadja, 2023). The implementation and use of automated HRIS enhances the core HR functions of recruitment, performance appraisal, and management support (Prasad et al., 2023) Moreover, HRIS supports project documentation, centralizes HR processes,

maintains important applicants and employment data, and assists in the handling of terminations in the organization (Tamrakar & Shrestha, 2022).

According to a report from (Deloitte Insights, 2021) digital tools such as Human Resource Information Systems (HRIS) played a crucial role during the COVID-19 pandemic by enabling organizations to support remote work, enhance employee experience, and monitor well-being. The report highlights that companies that effectively leveraged HRIS platforms were better positioned to implement flexible work arrangements, track employee mental health, and foster engagement initiatives.

A Human Resource Information System (HRIS) is a useful tool of technology that greatly improves an organization's human resource management functions. It acts as a centralized platform in an organization for all HR-related data and operations, making it a tool to handle personnel records, hiring, payroll, training, attendance, performance reviews, and benefits administration effectively. By standardizing processes and automating repetitive tasks, HRIS lowers administrative workload, minimizes human error, and guarantees data consistency and correctness across department.

The present study highlights the importance of empirical research concerning the underlying factors impacting Human Resource Information System (HRIS) within the IT & ITES sector. The result of the study will contribute valuable insights into enhancing professional standards and practices concerning the Human Resource Information System (HRIS) in the IT & ITES sector. To establish conceptual clarity of the concept definition of Human Resource Information System (HRIS), are outlined as proposed by various scholars.

Table: 1.2 Definition of Human Resource Information System

Author	**Definition**
(Walker & A. J., 1982)	"HRIS is a computer-based method for collecting, storing, maintaining, and retrieving data required by an organization about its human resources, personnel activities, and organizational characteristics."

(Tannenbaum & Scott I., 1990)	"A Human Resource Information System is a technology-based system used to acquire, store, manipulate, analyze, retrieve, and distribute pertinent information about an organization's human resources."
(Hendrickson & A. R., 2003)	"HRIS is the composite of databases, computer applications, and hardware and software necessary to collect, record, store, manage, deliver, present, and manipulate data for human resources."
(Beadles et al., 2005)	"HRIS is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources."
(Kavanagh et al., 2012)	"A Human Resource Information System (HRIS) is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities, and organizational unit characteristics."
(Laudon & Laudon, 2015)	"A Human Resource Information System (HRIS) is a system that combines human resource management as a discipline and in particular its basic HR activities and processes with the information technology field."
(Raymond A. Noe et al., 2024)	"An HRIS is a computer system used to acquire, store, manipulate, analyze, retrieve, and distribute information related to an organization's human resources."

1.2.3 Integrating Technology into HR Functions

The move from manual, paper-based tasks to efficient and successful, tech-enabled practices is included in the digital transformation of Human Resource Management. This evolution involves more than just implementing new digital tools; it also includes radically redefining HR's function in providing value through increased creativity, responsiveness, and employee-centered procedures. Implementing HR technology is not an option, but a strategic necessity for long-term success in today's digitally driven company environment.

HRIS offers a wide range of tools to manage HR functions and activities, but it is an organization's responsibility to adopt and implement HRIS properly (Arnav, 2020). The most important feature of HRIS is that it creates a quick response, gives accurate information, creates less paperwork, tracks and controls HR information, such as attendance, payroll, and employee records. These advantages of HRIS enhance the effectiveness of HR functions and review the impact of HRIS in positive ways (Al-Dmour& Al-Zu'bi, 2014)(Selvaraj et al., 2018). The human resource information system is crafted to support planning, administration, and decision making, which helps to achieve the organization's goal (Patcha et al., 2015). Thus, the Human Resource information system has a positive impact on human resource management as the information system improves the recruitment process, the attendance management process, communication process, which reduces administrative burden and the cost and time of the HR department (Sulochana &Sajeewanie, 2015).

One of the most integral parts of the ERP system is the Human Resource Management System (HRMS), which is also known as the Human Resource Information System (HRIS), which is utilized to acquire, store, manipulate, and retrieve data that helps to distribute data (Meenalochani, 2020) Which can help and improve the communication and capacity of both managers and employees to make quick decisions (Papia et al., 2015)The organization that recognizes the importance and use of HRIS tends to achieve more success. An information system that is strategically integrated into Human Resource Management (HRM) serves as a powerful tool for achieving organizational goals easily (Buzkan, 2016).

Adoption of Human Resource Information Systems (HRIS) has changed the framework of Human Resource Management (HRM), influencing its responsibilities at various levels of information systems, such as operational, functional, and strategic levels (Saleem, 2012). Implementing an HRIS leads to marked improvements in the operational effectiveness and efficiency of human resources (Salehf, 2020). Thus, HRIS applications help to improve decision-making and create an impactful strategy that will enhance HR management in a time when technology is continuously changing the environment.

1.2.4 Factors Influencing HRIS

The success of Human Resource Information System (HRIS) is determined by several key factors. However, adoption of HRIS is not solely a technological factor. These include the technological, organizational, environmental, and human factors of an organization. Every factor is important in deciding how well HRIS is accepted and used. These factors are listed in the table below, along with detailed descriptions and relevant examples.

1. **Technology Factor**

Technological factors play a significant contribution in the adoption and use of HRIS. It refers to the availability and compatibility of IT infrastructure, software, hardware, and security systems of an organization. The utilization and adoption of modern technologies such as Artificial Intelligence (AI), cloud computing, Robotic Process Automation (RPA), and HR analytics have greatly enhanced the strategic importance of HRIS. This innovative technology helps organizations to make data-driven decisions and provides more proactive human resource services, integrating technology with broader organization performance (Kavanagh et al., 2012; Troshani et al., 2011). The success of HRIS adoption largely depends on the organization's level of technology capabilities and IT infrastructure to support its functionality for long-term success. Organizations that are not technologically advanced can face challenges in transferring data, software incompatibility, and security vulnerabilities, which can impact the overall success of implementing HRIS. Organizations that are not technologically equipped may encounter challenges such as data migration problems, system incompatibility, and security flaws, which can hinder the overall success of implementing HRIS. Thus, maintaining an efficient

technological base is crucial to ensure that the HRIS provides the desired advantages securely and effectively.

Numerous studies suggested that perceived usefulness and perceived ease of use are two key technological variables that strongly influence the usage and acceptance of Information systems in organizations. The Technology Acceptance Model (TAM) emphasizes that users' intention to accept technology is greatly increased by systems that are easy to use and seen as advantageous. According to the Technology Acceptance Model (TAM), user-friendly and perceived as beneficial greatly increases users' desire to adopt new technology. Thus, it is crucial to make sure that HRIS systems are both effective and user-friendly to increase user acceptability and optimize system advantages for organizations (Horton et al., 2001; Jan & Contreras, 2011).

2. Organizational Factor

The organizational factor refers to the traits of the organizations and their resources, infrastructure, and size. It also includes various internal factors of an organization, like top management support, cost, organization size, structure, available resources, and cultural readiness. These factors are essential in determining the effectiveness of organization planning, implementing, and utilizing HRIS (Setiyani & Rostiani, 2021; Zhu et al., 2003). An organization with prior adoption and implementation of an enterprise system can have a better understanding and readiness of the information system. The structure of the HR department further influences adoption, as strategic HR functions tend to drive system integration to support data-driven decision-making (Lengnick-Hall & Moritz, 2003). A successful adoption and implementation of cloud-based technologies addresses the organizational factor. By enhancing top-level management support, organizational readiness, and staff training in the organization can better adopt and take advantage of information systems and technological advancements (Masana & Muriithi, 2018). Additionally, Organizational factors play a crucial role in determining overall readiness to adopt an HRIS. The absence of this factor may result in organizational resistance, implementation delays, and the anticipated advantages of HRIS implementation. Therefore, fostering collaboration across department and developing internal technical expertise among employees are critical measures that organizations must undertake to improve their preparedness for achieving system interoperability.

These organizational enhancements not only support more seamless technological integration but also significantly contribute to the long-term effectiveness of the organization (Nguyen Van Thanh et al., 2018).

3. **Environmental Factor**

Environmental factors refer to external variables that influence an organization's decision to acquire, implement, and effectively utilize HRIS within the organization. All these factors have a significant impact on an organization's technological strategies and HR operations and activities, even though they are outside its direct control. The implementation of HRIS may be assisted or hampered by factors such as governmental laws, economic circumstances, technology advancements, and competitive pressures. In this regard, integrating capabilities such as employee record keeping and secure and protected data management in HRIS platforms is necessary for keeping up with labor laws and data protection standards. Furthermore, to stay competitive, businesses are being compelled to implement advanced and customizable HR systems due to developments in cloud computing, AI, and data analytics (Kavanagh et al., 2017; Ngai & Wat, 2006). In order to attract and retain the top employees, companies must also implement advanced HRIS due to competitive pressure in fast-paced industries like IT and ITES. Additionally, how HRIS is viewed and used in various corporate contexts is greatly influenced by sociocultural attitudes about technology, vendor availability, and economic stability (Becker et al., 2001) Thus, for HRIS implementation to be successful and for strategic alignment with organizational goals, it is essential to understand the external environmental backdrop.

4. **Human Factor**

The human factor involves the psychological, behavioral, and social dimensions of individuals that influence their engagement with information systems in an organization. The key components of human factors in technology adoption are based on the user's attitude towards technology (Davis, 1989; Venkatesh & Davis, 2000), Technology readiness (Parasuraman, 2000), computer self-efficacy (Compeau & Higgins, 1995), social influence (Jan & Contreras, 2011), and resistance to change (Kim & Kankanhalli, 2009).

The Extended Technology Acceptance Model (TAM2) focuses on the importance of human perception in the successful adoption of HRIS. Key components, including

social influence, perceived job relevance, and output quality, directly impact on how employees assess and interact with HRIS platforms (Venkatesh & Davis, 2000). The study suggested that HR professionals spend more time on IT-based activities, maintaining HR applications, and resolving technical glitches in these systems. HR professionals should increase their skills and knowledge regarding IT systems, or they need to seek support from the IT department, or the organization needs to hire properly qualified staff who have proper skills and knowledge regarding IT systems (Gardner et al., 2003).

As per (Erlirianto et al., 2015a) Focus on the human factors of user satisfaction, system use, training, and user engagement. The study reveals that the users may be satisfied with the quality of information it delivers. This satisfaction alone does not guarantee benefits for the organization. To achieve a positive impact on the operations of the organizations, it is imperative to focus on effective training and skill development, as well as to encourage active user engagement among professionals.

1.2.5 Models of Information Systems

1. Technology Acceptance Model (TAM)

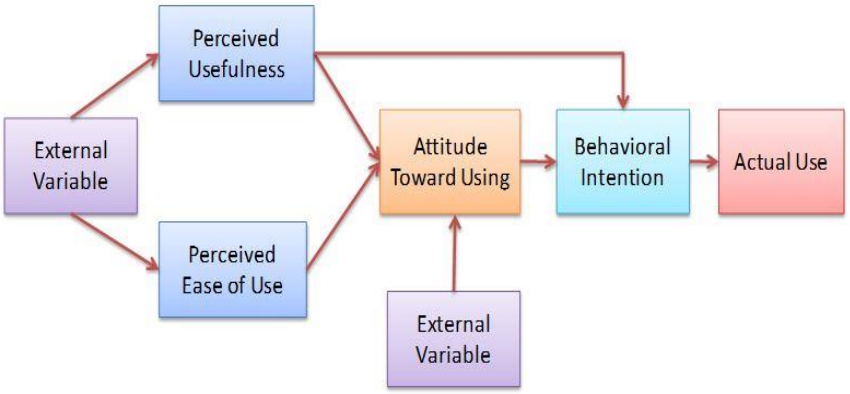
The Technology Acceptance Model is based on the Theory of Reasoned Action (TRA), (Davis, 1989) which focuses on technology adoption. This model was tested to consider user reactions to different technologies in organizational settings, specifically workplace software systems. The model consists of five main variables.

1. Perceived Usefulness (PU)
2. Perceived Ease of Use (PEOU)
3. Attitude Toward Use (ATU)
4. Behavioral Intention to Use (BI)
5. Actual System Use (AU)

The relationship among the core variables is set up to clarify how users form intentions to use technology.

- **PEOU**→ influences **PU** and **ATU**
- **PU** → influences **ATU** and **BI**
- **ATU** → influences **BI**
- **BI** → leads to **Actual System Use**

Figure 1.2 Technology Acceptance Model (TAM)

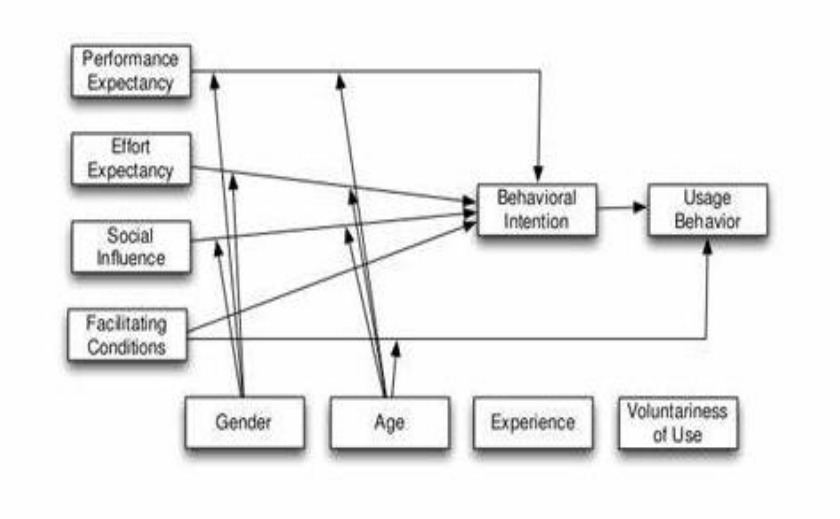


Adopted from: (Davis, 1989)

2. **Unified Theory of Acceptance and Use of Technology (UTAUT)**

The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) is based on a comprehensive framework for technology adoption and usage behavior by consolidating multiple influential factors that affect individuals' decisions to use new technologies. This framework is based on understanding and predicting technology acceptance and use.

Figure 1.3 Unified Theory of Acceptance and Use of Technology (UTAUT)



Adopted from: (Venkatesh et al., 2003)

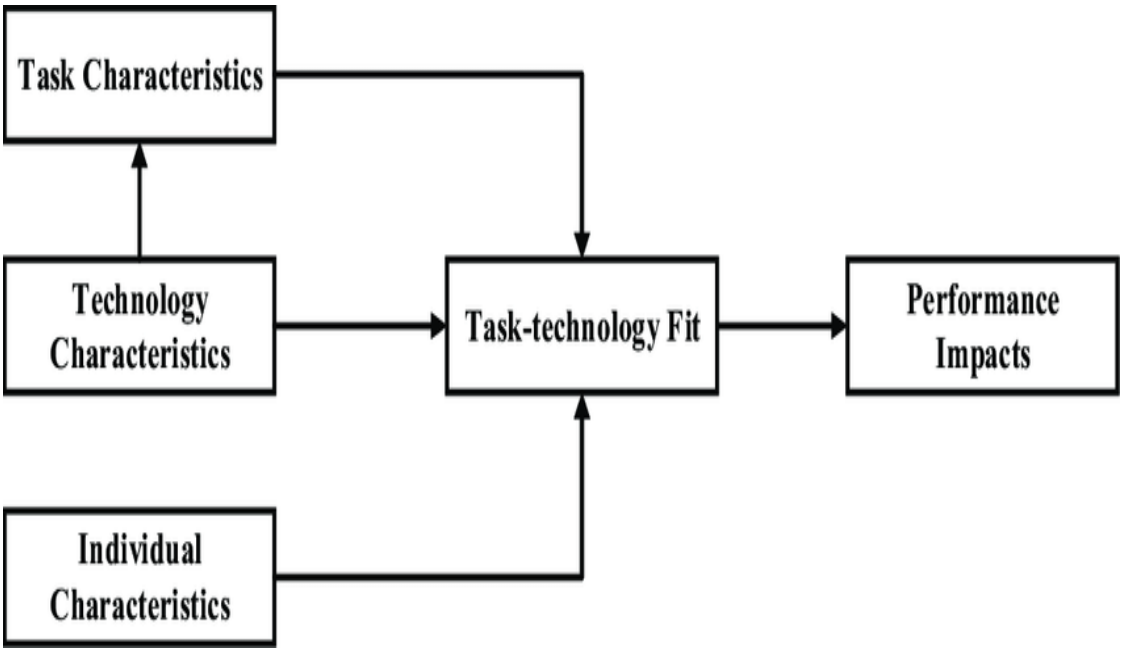
3. Task-Technology Fit (TTF) Model

The Task-Technology Fit (TTF) Model (Goodhue & Thompson, 1995) is based on technology's effectiveness and how well it fits the specific tasks it is intended to support. TTF is applied in the areas of information systems, user adoption, and organizational technology implementation. This model gives insights into the success or failure of technologies based on how effectively they align with the task at hand.

The key elements of TTF are:

1. Task Characteristics
2. Technology Characteristics
3. Individual characteristics
4. Task-technology fit
5. Performance impacts

Figure 1.4 Task-Technology Fit (TTF) Model

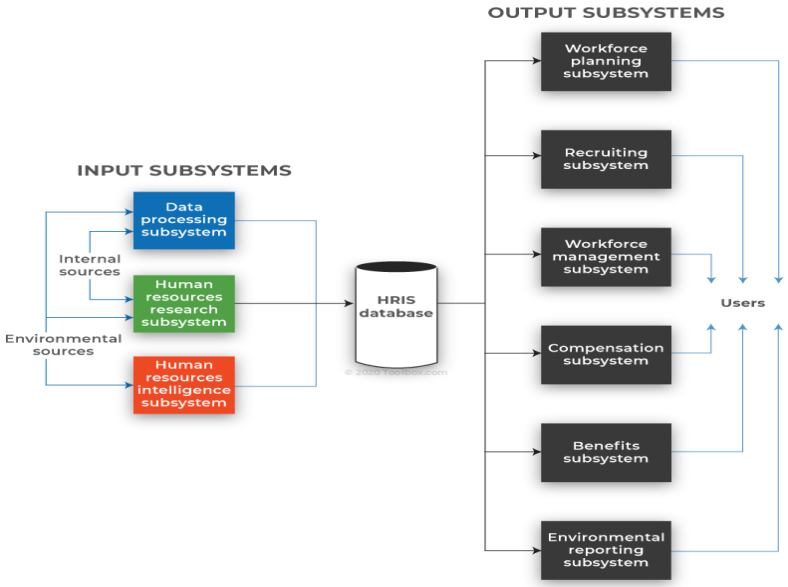


Adopted from : (Goodhue & Thompson, 1995)

4. IPO Model for HRIS

This model is based on the system processes inputs (data) to produce meaningful outputs (information) through a defined process. The principles of systems theory were applied to integrate the Input–Process–Output (IPO) (Kavanagh et al., 2015) model into Human Resource Information Systems (HRIS) within the context of human resource management. The IPO model is structured in three main components: input, process, and output.

Figure 1.5 IPO Model for HRIS

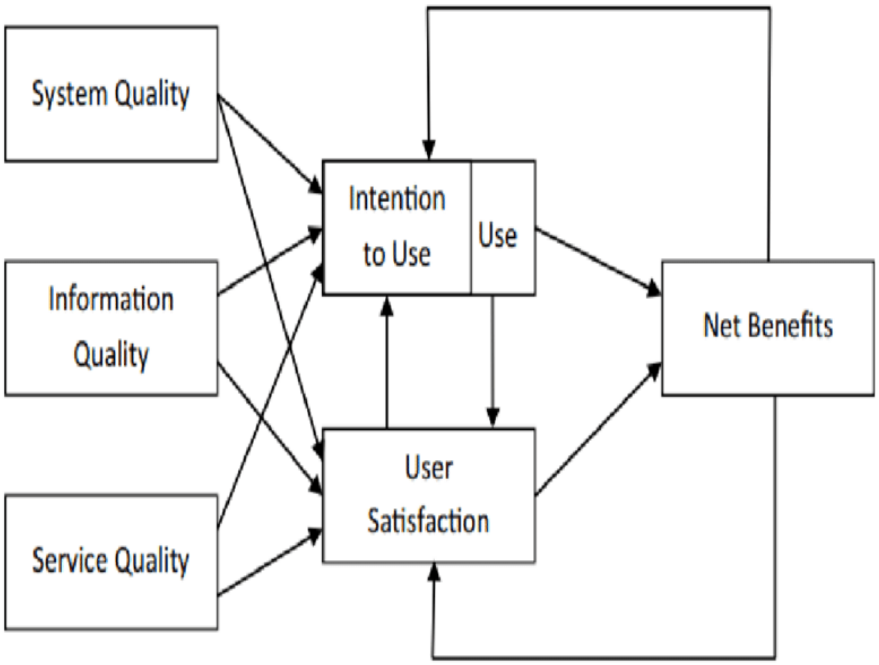


Adopted from: (Kavanagh et al., 2015)

5. **Information System Success Model**

The model is based on DeLone and McLean IS Success Model: (DeLone & McLean, 1992) . It is a framework used to evaluate the success of information systems in an organization, including Human Resource Information Systems (HRIS). This model evaluates HRIS effectiveness by measuring the adoption of technical performance, user satisfaction, and benefit to HR and the organization. The model consists of six variables that contribute to the success of an information system: System Quality, Information Quality, Service Quality, Intention to Use / Use, User Satisfaction, and Net Benefits.

Figure: 1.6 Information System Success Model



Adopted from: (DeLone & McLean, 1992)

Table: 1.3 Theoretical Insights from the Models

Theoretical Model of Human Resource Information System	**Theoretical Insights**
Technology Acceptance Model (TAM)	When the organization creates a useful tool for learning platforms, ERP, SAP, HRIS, or other systems, throughout the adoption phase. By addressing this strategy through education, communication, and value demonstration, the employees may better comprehend how the company adopts technology. Furthermore, a favourable outlook results in a strong behavioural intention to utilize the technology, which in turn leads to actual system usage and performance

	enhancement.
Unified Theory of Acceptance and Use of Technology (UTAUT)	When an organization supports infrastructure, such as training, access to new resources, updated technology system, it can positively affect the acceptance and use of new technology. This holistic approach is more favorable for the organization looking for maximum technology acceptance.
Task-Technology Fit (TTF) Model	To increase the possibility of technology acceptance and effective use within businesses, organizations can implement several strategies that ensure the technology is appropriately linked with the task. Tasks, technology, and users should all be continuously evaluated by the organization, and any necessary adjustments should be made.
IPO Model for HRIS	Organizations can boost decision-making, support strategic goals, and increase overall HR effectiveness by carefully analysing inputs, processes, and outcome in organization. There is a strong link between this approach and aims to achieve organization goal and adopt to the dynamic business environment.
Information System Success Model	Adopting of Information system in the organization will helps to improve decision-making, support strategic goals, and increase overall effectiveness by methodically. By taking this approach, the information system is guaranteed to continue being a useful instrument

	for achieving organizations' goals.

1.2.6 Categories of HRIS

HRIS, as explained by (Kavanagh et al., 2015) can be broadly classified into 3 categories: operational, tactical, and strategic

1. **Operational HRIS**

Operational HRIS focuses on routine HR tasks and the routine functioning of the administrative tasks of the HR department. By automating HR processes, organizations can streamline the management of employee information, payroll processing, attendance and timekeeping, and benefits administration. By consolidating employee information into a unified system, organizations can maintain consistent and up-to-date records, reducing the risk of errors and discrepancies.

2. **Tactical HRIS**

Tactical HRIS is particularly beneficial for mid-sized growing organizations that need to manage complex HR functions efficiently. It bridges the gap between daily operational tasks and long-term strategy goals. It helps with recruitment and application tracking, performance management, training and development, and compensation planning. By accepting this system organization can reduce the HR processes and enhance organizational performance.

3. **Strategic HRIS**

Strategic Human Resource Information Systems (HRIS) are particularly advantageous and beneficial for large, well-established organizations. This system focuses on succession planning, learning and development, workforce analytics, and organizational performance. This system ensures that HR strategies are aligned with and actively contributes to the long-term goals of the organizations.

1.2.7 Implementation of HRIS in Organizations

Adopting a Human Resource Information System (HRIS) encompasses various HR functionalities such as recruitment and selection, training, performance management, and payroll. This system reduces human errors, enhances data accuracy, and reduces administrative burdens in the organization. In addition to increasing employee satisfaction and operational transparency, the introduction of employee self-service portals, where employees may manage their details, ask for leave, or view payroll information, has made HRIS an invaluable tool for modern businesses.

The successful implementation of Human Resource Information System (HRIS) requires a well-defined strategy and a clear implementation plan. It makes it easy for the organization to have an accurate and proper record of all its resources and existing employees. It also includes system customization, data migration, process reengineering, and integration with existing IT infrastructure. The organization's ability to function depends on its ability to pool resources.

Successful establishment of a Human Resource Information System (HRIS) requires more than just technical deployment; it requires effective user training, change management techniques, and participation of stakeholders at all organizational levels. These key elements are important to ensure information system acceptance and smooth integration into existing workflows. Furthermore, protecting sensitive employee data requires establishing data governance procedures and making sure that security and regulatory requirements are met. Through the proper implementation of HRIS with other systems, an organization can guarantee improved departmental coordination, higher data accuracy, and quicker decision-making. Whereas the HR managers depend on accurate data and information for support decision making, monitoring activities, and maintaining accurate tracking reports.

1.3 Overview of Organizational Performance

Organizational performance has emerged as an essential area of study and implementation in the challenging business environment of today. It indicates an organization's capacity to add value to customers, employees, and other stakeholders in addition to its profitability. Organizational culture, strategy alignment, staff competencies, and leadership are some of the aspects that affect how well an organization performs. Organizations that succeed in these areas are more likely to achieve goals, maintain high standards of operation, and drive long-term, sustained expansion.

The top-level management and HR department play an important role in enhancing organizational performance by developing and executing strategies, policies, and practices that drive better overall organizational outcomes effectively.

Organizational performance is defined by (Venkatraman & Ramanujam, 1986) as "Organizational performance can be seen as a multidimensional construct that includes financial performance, business performance, and organizational effectiveness."

Organizational performance refers to how well an organization fulfills its goals through the efficient and effective utilization of its available resources. It's an approach that includes customer satisfaction, employee productivity, innovative capability, operational efficiency, financial achievement, and flexibility in response to external changes. To evaluate the effectiveness of initiatives and highlight areas in need of development, measuring organizational performance is necessary.

In today's technologically advanced and competitive world, performance outcomes are strongly impacted by factors such as organizational culture, information systems, human resource management, organizational change, and leadership. Nowadays, organizations are more likely to maintain high performance and long-term success if they prioritize data-driven decision-making, strategic alignment, and long-term improvement. Additionally, Effective organizational performance fosters dedication and employee engagement, which feed back into the process of employee innovation and productivity.

Organizational performance is complex and greatly impacted by leadership and human resource management. These factors are interdependent and have a mutual impact on job satisfaction, employee motivation, and overall organizational performance. It highlights that the success and achievement of an organization are closely linked to employee-centric factors, including job satisfaction, leadership approaches, competency assessment, and systematic job analysis (Sarma, 2021).

The software industry serves as a key driver in determining organizational outcomes across various sectors. As businesses increasingly rely on technology for operational efficiency, decision-making, and innovation, the effectiveness of software solutions directly impacts overall organizational outcomes. High-performing software companies focus on continuous improvement and customer-centric approaches, which translate into enhanced productivity, quality, and competitiveness for the organizations they serve. Moreover, the adoption of advanced software systems, such as Enterprise Resource Planning (ERP) and Human Resource Information Systems (HRIS), enables organizations to streamline processes, optimize resource management, and make data-driven decisions, thereby significantly boosting organizational performance. In this dynamic environment, organizational success is often linked to how well companies leverage software technologies to align business goals with technological capabilities.

1.3.1 Importance of Organizational Performance in IT & ITES industry

Across the IT and ITES landscape, organizational performance plays a crucial role due to the industry's fast-paced, technologically advanced, and highly competitive global nature. Fast innovation and rapid innovation are important to this industry, which continually experiences advancements in automation, cloud computing, Robotic Process Automation (RPA), Industrial Internet of Things (IIOT), artificial intelligence, and data analytics. Effective organizational performance enables companies to rapidly adopt and integrate new technology, enabling them to maintain their competitiveness in the global market. Furthermore, as the industry is service-intensive, maintaining business relationships depends on timely project completion, client satisfaction, quality and innovation, frequent updates and transparency, and adherence to service-level agreements (SLAs); for this reason, performance is an important factor in customer retention. This industry also depends on human

resources, and good performance management lowers employee attrition, increases worker productivity, employee engagement, and promotes a continuous improvement culture. Overall, Organizational performance is crucial for maintaining long-term profitability, utilizing the potential of its human resources, promoting innovation, and guaranteeing service quality. It serves as a benchmark for both operational performance as well as a strategic advantage that promotes expansion in the ever-evolving IT and ITES sectors.

1.3.2 Contribution of Human Resource Information Systems to Organizational Performance

Human Resource Information System (HRIS) describes an integrated software system that automates and streamlines Human Resource Management (HRM) and information technology. With the adoption of HRIS in the IT & ITES industry, organizations can collect, store, and analysis the employees' data effectively, which leads to better organizational performance through decision-making, workforce productivity, and resource management across organizations (Kavanagh et al., 2015).

Recruitment and Selection: HRIS automates the recruitment and selection process by automating the screening of resumes, the scheduling of interviews, and the posting of job openings. Making data-driven decisions helps HR managers to minimize the time to hire and enhance the quality of the workforce (Ball, 2001). HRIS facilitates resume filtering, automation of scheduling interviews, helps in onboarding, and improves role-fit alignment, which lowers the initial attrition rate in the IT and ITES sectors, where there is a considerable demand for highly qualified talent.

Performance Management: HRIS supports performance management by facilitating the formulation and creation of clear performance metrics, providing ongoing feedback, transparent communication, and enabling real-time tracking of employee performance. An evaluation procedure that is more visible and uniform is made possible by tools such as digital appraisal modules, KPI dashboards, and 360-degree assessments. These systems enhance responsibilities and ensure that individual goals align with organizational goals. According to (Lengnick-Hall & Moritz, 2003) the role of the e-HR system transforms traditional performance

management practices by enabling faster access to performance-related data. This system significantly cuts down on administrative process time by allowing managers to make decisions about promotions, generate an appraisal report, merit pay, and performance challenges in real time. In practice, Human Resource Information Systems (HRIS), as a key technological application of e-HR, serve as the backbone for this transformation.

Training and Development: To improve employee capabilities and organizational effectiveness, training and development tools within HRIS are essential. Effective skill gap assessment, organization of training schedule, employee progress tracking, and training outcome evaluation are made possible by these systems. HRIS ensures that employees remain up to date with the latest competencies by coordinating training programs with business objectives. This helps organizations maintain a competitive edge and enhance overall performance (Shiyaa&Shyaa, 2019).

Payroll and compensation management: HRIS-enabled payroll and compensation management shows clarity, accuracy, compliance, and transparency. Automated payroll systems increase employee satisfaction and trust by lowering manual errors and guaranteeing compliance with tax laws (Beadles et al., 2005). Additionally, HR managers can allocate more time to strategic objectives, such as workforce planning and talent development, by utilizing HRIS to automate repetitive administrative tasks.

HR analytics and workforce planning: Another key contribution of HRIS is HR analytics and workforce planning. Data from HRIS systems is used to find trends in talent shortages, employee engagement, absenteeism, and turnover. The effectiveness and performance of the organization and employees are immediately shown by these insights, which support proactive decision-making and the distribution of resources in a proper way (Hendrickson & A. R., 2003).

In the field of information technology and IT-enabled services, where rapid onboarding of employees, extensive workforce management, and international client needs are common, HRIS is essential for aligning human resources with strategic goals. HRIS solutions like SAP SuccessFactors and Oracle HCM Cloud have been implemented by TCS, Infosys, and Wipro, among other companies, to

boost productivity, track key performance indicators, and promote digital HR transformation.

This chapter presents a summary of HRIS and Organizational performance. HRIS is recognized as a vital tool for enhancing efficiency, effectiveness, data accuracy, and strategic impact of the integration of HRM and IT in Organizations. As the organization is considering digital solutions for managing employee data, payroll, recruitment, performance, training, and regulatory compliance, implementing HRIS has transformed from a technological improvement to a strategic requirement for every organization.

This insight lays the several critical factors that have been examined that influence the successful adoption of HRIS within organizations. Among these, the Technology Factor, Organizational Factor, Environment Factor, and Human Factor all these factors ensuring a smooth, effective, and sustainable adoption of HRIS within the organization. Together, these elements form the foundation for understanding how HRIS can be effectively implemented and integrated to support strategic human resource management. This comprehensive perspective sets the stage for further exploration into the frameworks and practices that shape HRIS adoption and use.

The present study aims to explore the adoption, utilization, and impact of Human Resource Information Systems (HRIS) on organizational performance. It aims to highlight the outcomes associated with HRIS implementation and usage, offering valuable insights for both HR professionals and top-level management to enhance strategic decision-making and operational efficiency. The next chapter will focus on the theoretical frameworks and evaluate the literature that has been published regarding HRIS.

Chapter - 2

Literature Review

2. Literature Review

2.1 Human Resource Information System

(Khera & Gulati, 2012) The authors noted in the research that Information technology has undergone a major shift in the human resources role over the past ten years. Although a lot of software and applications are used in IT companies, the organization keeps its data correct and organized. Applications tracking, payroll, succession planning, recruitment and retention, performance management, and leave tracking are just a few of the features that HRIS offers to assist businesses.

This study was empirical, where the primary data was collected from 7 top IT companies involving a sample size of 127 HR Managers and IT Professionals. Secondary data were gathered from various online sources, including the official websites of IT companies. The data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). The findings revealed that HR managers utilize HRIS for multiple functions such as training and development, succession planning, recruitment tracking, and the selection process. HRIS maintains a comprehensive repository of employee-related information. This research primarily focuses on the current status and utilization of HRIS. Consequently, future studies could explore how the system evolves and whether its effectiveness improves over time. One key limitation of the present study is its emphasis on the current usage level of HRIS, indicating a need for further research to examine changes and advancements in HRIS functionalities over time.

(H. P. Singh et al., 2011) Studies have shown that HRIS can be used in organizations for multiple purposes, including training, development of HR plans, and Performance evaluation. Before adopting an Information System (IS), the organization should acknowledge the utilization and implementation of HRIS. Further, the study's findings suggest that emerging nations' banking sectors need to enhance their HRIS practices. An organization's IT department must be properly set up to maintain its information systems.

(Sadiq & Khan, 2012) In their study titled "The Impact of Information Systems on the Performance of Human Resources Department," this research aims to find out how extensively HRIS is being utilized to enhance the HR department's strategic and administrative tasks. This study utilized both primary and secondary sources for data collection, with primary data being obtained through the use of a structured questionnaire. Five-point Likert scales were used to measure a set of factors. The data were collected from HR directors working in private banks in Lahore.

Based on the department's added value, the results demonstrated that HRIS was a useful tool for increasing the effectiveness of administration. It's challenging to measure all its advantages, though. The HRIS system cannot be utilized to its greatest extent since its value as a strategic instrument was still partially understood.

(Gitari Muriithi Ag et al., 2014) This study aimed to determine whether information system utilization for HR procedures was associated with improved firm performance. Both quantitative and qualitative methods were used in the study. The data was collected through primary and secondary sources. Secondary data for the research was sourced from the Capital Markets Authority. Primary data was collected through interviews and structured questionnaires. The analysis of the data was conducted using SPSS (Statistical Package for the Social Sciences). The study employed both descriptive and inferential statistical methods to interpret the findings.

The findings of the research indicate that training included in HR information systems (HRIS) has a bigger impact because employees can access it whenever it's convenient for them. This ensures employees can always acquire new skills to further their development. The results showed that training and development in organizations listed on the Nairobi Securities Exchange (NSE) have a significant linear link with HR Information Systems.

(Tadić & Pivac, 2013) The researcher aimed to explore the Human Resource Information System and Electronic Recruitment as tools for the company's success. The study considers human resources to be the most valuable assets in the organization and makes ongoing investments in their growth. Research has been done, both primary and secondary. All Croatian public companies listed on the Croatian Stock Exchange Market were given questionnaires as part of the primary

study. A survey was sent to HR managers to find out their opinions on the progress of HRIS operations in their organization. The data collected from the company websites was one aspect of secondary data collection. The research consists of four variables: record-keeping and administration tasks, HR planning, training, and HR development and performance management. Moreover, the empirical findings of the study showed that companies with a higher level of HRIS development yield better financial outcomes, particularly in the service sector. As a result, HR expenditure should not be seen as temporary business expenses but rather as large investments in future development and sustainable competitive advantage of organizations.

(Khashman & Khashman, 2016) conducted a study on the impact of the Human Resource Information System (HRIS) Application on Organizational Performance (Efficiency and Effectiveness) in Jordanian Private Hospitals. The objective of this research was to explore the effectiveness of different HR functions within HRIS in enhancing organizational performance. Data for the study were collected using a questionnaire method. The population of the research included all private hospitals found in Amman city. The findings of this study revealed a positive effect of the HRMS applications on organizational execution, more particularly, it was observed that employees working in the Human Resources department of private hospitals held a favourable attitude toward all Human Resource Information System (HRIS) software. Nowadays, every organization considers HRIS as an important software in the organization. More and more organizations are implementing information systems in their organizations, which aid in their timely goal-achieving. Through the Human Resource Information System (HRIS), the organization can achieve positive outcomes and organizational performance (Al Mamun, 2016).The study discusses the perception of management on outcomes of the Human Resource Information System (HRIS). This study describes the HRIS outcome from three perspectives, i.e., Operational Efficiency, Managerial Effectiveness, and Strategic Finesse. The study concludes that an organization can benefit from the usage of HRIS in the area associated with commitment, decision, and action of Management. Therefore, management support is crucial for the creation and execution of HRIS in an Organization. HRIS improves operational effectiveness through creating customized, safe, and cost-effective information that reaches the appropriate stakeholders in the proper way and at the appropriate time.

(Kundu & Kadian, 2012) This research aimed to evaluate how HRIS is used in human resource management (HRM) in Indian businesses. According to the results of the study, "technical and strategic HRM" and "performance and reward management" are the two key areas in which HRIS was most widely used. Results revealed that, among indian organizations, "employee record" and "payroll" were the most often used HRIS applications. This pattern held for both manufacturing and service-oriented organizations and organization types (both Indian and multinational). This research aligns with previous studies showing that the most common use of HRIS is for payroll procedures, then employee record maintenance. This may be because HRIS has been used for these purposes since HRM's inception.

(Laumer et al., 2014) the results assist IS research by showing how BPM and IS may be implemented together in secondary service processes and by demonstrating the benefits of BPM and HRIS in these kinds of operations. Additionally, organizations may reduce the expenses of the hiring process by 50% using BPM and HRIS, which lowers the costs associated with the process, personnel marketing, and costs per incoming applicant. Additionally, it raised customer satisfaction to the point where candidates and internal managers of various business units were more pleased with the hiring process and the recruitment department itself. Because the process is clear due to the BPM and HRIS implementation, it was recorded and tracked, and it produces better-qualified personnel, and internal managers are happier.

(Al-Dmour, 2020) This research study aims “The Influence of HRIS Usage on Employee Performance and Mediating Effects of Employee Engagement in Five Stars Hotels in Jordan.” A conceptual framework was designed using content analysis of related earlier works and social exchange theory. Convenience sampling was used as the primary data source for the study, which was used to gather data from 45 users of the HRIS via questionnaire responses.

The result of the study showed that HR employees should be more responsive, provide solutions to queries quickly, and give more accurate information if they use HRIS software. The finding suggested that work engagement served as a partial mediator between HRIS utilization and employee performance; using an HRIS had a considerable positive impact on both in the organization.

(Vijaya Bhaskar & Krishna, 2015) This study seeks to examined the benefits and support functions delivered by HRIS within medium-scale textile industries. Primary information for this study was gathered from HR Managers, HR Coordinators, and HR Assistants of textile companies from Hyderabad. The study also examined how HRIS increases the performance of their organizations. Industries must understand the importance of information systems before making improvements and modifications to the systems. The study recommended that to make full use of the HRIS, the support levels need to be raised in the industry. Furthermore, the researcher addressed that to increase the performance of their organizations, companies must understand the importance of HRIS before making modifications and improvements to the systems.

(Gupta, 2013) The researcher aimed to study the important elements of the Human resource information system in the current scenario. The study focuses on different parts of Human Resource Information Systems, such as payroll, labor productivity, and benefits management. Through HRIS, valuable information about the skills and requirements of human resources can be easily obtained. Further, this information will help the management team formulate the company's mission and create goals and objectives for the future. The study found that using a computer-based HRIS was quicker, easier, and more effective than adopting a manual system since it allows for more effective, more accurate maintenance of the data. HRIS not only includes the technical aspects of the system, such as computer hardware and software, but also the people, policies, processes, and data needed to manage human resources in the organization. Furthermore, HRIS features indeed improve HRM for both analytical and administrative purposes.

(K. Arora, 2013) This study focused on the Importance of HRIS: A Critical Study on the Service Sector. The study investigated the various HR functions like HR planning, training and development, and performance appraisal. The study determined that HRIS has several kinds of benefits. Specifically, it may be used as a database for numerous kinds of HR tasks, including performance appraisal, training and development, and human resource planning. Moreover, the overall contribution of HRIS was that it makes it easier for the HR department to handle its numerous strategic initiatives effectively and efficiently.

(Abadiano, 2012) This study aimed to analyze and design a Human Resource Information System (HRIS) specifically for the University of Cebu. The research was based on primary data collection sources through a questionnaire where the respondents were teaching and non-teaching staff of four universities, namely UC main, UC-Banilad, UC-METC, and UC-LM whereas the interview was also conducted with employees working in the University of Cebu. The findings from the study highlighted that responses from faculty and staff across all campuses signify the University of Cebu's need for a computer-based Human Resources Information System.

(Kaygusuz et al., 2016) The study explored the outcomes resulting from these factors on management understanding and the HRM process in the significant information era. The study discussed factors like the growing importance of information and the information management systems used to process it, as well as the way HRM information is utilized more and more in HRM and how efficient HRM information is becoming in HRM processes. It also ensures that a fair and equitable scale of justice was fully integrated into all business processes and operations and that there was constant communication. It can be stated that organizations equipped with an HRIS integrated into the management information system and human resources that would use the system efficiently would be able to ensure employees' efficiency at work in long-term and stressful posts without losing their enthusiasm and keeping their loyalty to the organization.

(M. S. Hosain et al., 2020) The purpose of this research is to determine how HRIS affects Operational Efficiency for MNCs that do business in Bangladesh. The theoretical framework of the study was based on five components: job analysis, e-recruitment & selection, e-compensation & benefits, e-performance appraisal, and e-communication. The authors surveyed 564 HR executives working in MNCs. Convenience sampling was adopted for participant selection from Chittagong and Dhaka, the two largest cities in Bangladesh. The sample respondents' beliefs reflect their positive reviews of using HRIS. Adopting and implementing HRIS can improve firm operations by offering a clear image of efficiency and can be used with various

additional computerized applications to enhance performance in the organization. Further, the results of this study will be useful for academics looking into the additional contributions of HRIS as well as for HR managers who are implementing and using the conductive benefits of HRIS applications at organizations.

(Al-Azzam, 2016) The paper analyzed HRIS in Jordan's banking sector and its influence on HR roles and operations. This paper highlighted the usefulness of HRIS for various human resource management roles. The study focused on the execution of HRIS in the Jordanian banking business. The study was conducted using a quota-based sampling technique. Where the data was collected from 22 banks operating in Jordan. According to the study, the banking sector in Jordan has obstacles that prevent HRIS from operating efficiently. The effectiveness of HRIS used in Jordan's banking sector is significantly impacted by bank size, branch count, and the date of bank issuance. In conclusion, the study emphasized that a transformative leader needs to be highly competent and skilled in managing the shortcomings and problems of HRIS to fully use the benefits of the Information System in Jordan's banking sector.

(Ferdous et al., 2015) This paper discussed the barriers to the implementation of Human Resource Information Systems. In this study, primary and secondary data have been used. A semi-structured questionnaire was distributed to HR executives working in the manufacturing and service sectors in various industries in Bangladesh. To utilize the effective advantages of HRIS, companies should be aware of the challenges, interruptions, and obstacles that may occur. The research concluded regarding the problems preventing this technology from being used effectively in HRM activities may be useful to HR executives in the manufacturing and service sectors.

(Manivannan & Jayasakthivel Rajkumar, 2016) The primary goal of this research paper was to examine the state of HRIS in various HRM domains and the expectations of HR professionals regarding HRIS use in Tamil Nadu's private hospitals. This research also seeks to understand the causes of the discrepancy between the intended and actual uses of HRIS in HRM. A random sample of 30 hospitals has been selected to study the role of HRIS in HRM. According to the research, HRIS plays a major role in payroll administration, training and

development, and recruiting and selection in Tamil Nadu's private hospitals. It has determined the causes of this conflict, which include inadequate training, excessive expense, and a lack of supportive infrastructure development between the planned and actual implementation of HRIS in Tamil Nadu's private hospitals.

(Troshani et al., 2011) This paper talks about "Exploring the public sector adoption of HRIS." The study found that public sector organizations must demonstrate HRIS benefits before integrating, as standardization trends may hinder organizations in many ways. Post-adoption vendor support is crucial for cost-effective customizations. Furthermore, the study suggested that the positive adoption experiences were also seen as a motivator, suggesting that public sector companies that have not yet adopted HRIS may be motivated to do so by showcasing their adoption experiences in adoption campaigns. Second, management commitment was essential to the success of adoption initiatives as well as the maintenance of adoption efforts. This includes the development of human capability, which is defined by the integration of technical IT/IS, communications, and HR domain knowledge. Before decisions on HRIS adoption can be made, a great deal of input must be gathered through organization-wide HRIS user involvement to inform HRIS selection criteria, given the degree of centralization that is characteristic of public sector organizations.

(Maier et al., 2013) Conducted a study on "Analysing the impact of HRIS implementations on HR personnel's job satisfaction and turnover intention." The researcher has evaluated a model that combines a belief and attitude part of the literature on technology acceptance with implications for the workplace. The data for the research was gathered through employees working in the HR department. All 150 employees are regular users of the new HRIS since they must use it every day to complete their work assignments. The questionnaire was circulated to HR staff about their opinions and attitudes regarding the HRIS's utility and use, as well as their degree of satisfaction at the job and plans to leave. The study indicated that an organization may increase satisfaction with the job and turnover intention by making sure the system is beneficial and simple to use. Furthermore, not everyone supported the quality control measures put in place for the sharing of job advertisements. Therefore, to boost acceptance during the post-implementation period, the organization focused on those aspects of the new HRIS's utility and ease of use. Additionally, the

result demonstrated that system adoption does not directly lead to employee turnover. Because satisfaction with work acts as a mediator, organizations can reduce the likelihood of employee turnover by implementing various strategies to ensure job satisfaction, such as balancing work and personal lives and reward programs. Second, findings suggested that project managers must inform HR staff members about the new HRIS's usability and ease of use in addition to encouraging them of its benefits to encourage a positive attitude towards the department (Sharma, 2011). It was more likely that job satisfaction would rise and employees' intention to leave will decrease when they can be informed about these HRIS features, and the HR identity will be successfully changed.

(Nagendra & Deshpande, 2014) This study aimed to investigate how often mid to large-sized firms use Human Resource Information Systems (HRIS) and what benefits they receive from integrating the system into the human resources planning subfunctions. HRIS explains that information technology and human resource management (HRM) are connected. Most organizations have access to e-recruiting, but they rarely use it because they place a greater value on traditional hiring practices. Only a small percentage of senior HR executives use the HRIS e-recruiting tool for hiring. Firms are mainly avoiding HRIS due to a lack of funding, HR expertise in information systems, and financial constraints. According to the study, efficiency of HR planning and HRIS job analysis has a significant positive relationship. Through HRIS skill inventory, HRIS TNA, HRIS training program assessment, HRIS succession planning, and HRIS labor demand and supply analysis and decision-making, most companies have seen how effective HRIS is for HR planning. The results of this study showed the necessity of providing HRIS with sophisticated functions to improve HR planning efficiency. The study indicates that the use of the HRIS recruiting subsystem in mid to large organizations improves workforce planning, training needs analysis, and predictability. However, it does not accurately predict or reduce training costs. Despite this, HRIS significantly contributes to recruitment and planning functions in mid to large-sized firms.

(Beulen, 2009) This paper examines the impact of a global IT service provider's HR Information System on staff retention in emerging markets, comparing six developing countries and suggesting local adaptations for optimal retention management. Research points to the need for some level of local adaptation to best

support retention management. The study concluded that a few HRIS features can help in employee retention. Staffing levels, scheduling, and training provide extra resources that help keep employee satisfaction high and lower turnover rates. Even though such a system appears to be worldwide, there may be small local adjustments, and, in certain situations, the addition of certain functionalities is needed to better align the firm's global strategy with certain local needs of the company.

(Obeidat, 2012) This study investigated the correlation between HRIS functions and HRM functionalities. To support hypothesis testing, data were gathered through a structured and standardized questionnaire. The questionnaire comprised fifty-six questions, aimed at assessing multiple variables that signify the functions of both HRM and HRIS. The study's population was restricted to the HR department of each bank's headquarters in Jordan's capital, which included all fifteen commercial banks that were involved in the country's banking industry. Results showed that in Jordan, knowledge management is the most significant or persistent factor of HRM. Banks should ensure that aspects of HR department that are essential to them include communication and integration, human resources analysis, forecasting and planning, and strategic integration. These elements enhance the efficiency of human resource department, which ultimately benefits the company. The result was consistent with the theory that one of the key elements of a human resource management system is knowledge management. The study's findings indicated that Jordan banks need to be more active with and get more out of their HR information systems. These elements enhance the efficiency of human resource department, which ultimately benefits the company. In conclusion, this study's only quantitative data collection tool was a questionnaire. If interviews or other qualitative techniques were used, the study's findings might have higher validity.

(Bal et al., 2012) HRIS was an integrated system designed to record, maintain, and analyze data related to the Human resources of the organization, consisting of databases, computer programs, hardware, and software required for data collection, recording, storing, managing, delivering, and presenting, and manipulating to perform the human resource’s role. Managers can benefit from using HRIS in businesses in several ways, particularly when making decisions. The outcomes of the research demonstrated that HR staff members find HRIS to be helpful, feel

satisfied, and are content with the information system software. It was found that there are differences in employees' HRIS satisfaction and perception based on position. The outcomes of the research show that HR staff members find HRIS to be helpful, feel satisfied, and are content with the information system software. It was found that there are differences in employees' HRIS satisfaction and perception based on position. The restricted access to some HRIS functionalities based on employee position could be the cause of this discovery.

(Nagendra & Deshpande, 2014) The study's findings highlighted that HR staff members find HRIS to be helpful and are content with the platform. It was discovered that there are differences in employees' HRIS satisfaction and perception based on position. Restricted access to some HRIS functionalities based on employee position could be the cause of this discovery. Future research should therefore consider the connections between user satisfaction and access restrictions to HRIS capabilities and information content. In general, the current research offers insightful information about the analysis of HRIS success.

(Razali & Vrontis, 2010) This study's primary goal was to investigate the main elements that affected employees' adoption of the new HRIS integrated into the Malaysian Airlines System (MAS). The results highlighted that organizational commitment and top management engagement were the two major coefficients for the influence on employees' degree of acceptance of the proposed transformation attempt. A study goal for the future and certain managerial implications was suggested, considering the findings.

(Davarpanah & Mohamed, 2013) This research focuses on academic and non-academic users of performance management systems in Malaysia's public higher education. Based on existing research, this study proposes combining trust with the DeLone and McLean (2003) model, acknowledging that trust plays a crucial role in effective human resource management and information technology use. The variables used for the research are Information Quality, System Quality, Service Quality, Structural Assurance, Situational Normality, user satisfaction, and HRIS benefit. The research was based on convenience sampling and a survey questionnaire. This study has a sample size of 103 academic and non-academic users from Malaysia. Data was analysed using SPSS Version 20 and factor analysis.

The human information system success factors in a public higher education institution include information quality, system quality, service quality, structural assurance, and user satisfaction.

(Ahmer, 2013) An organization that has implemented HRIS has made use of its advantages and recognized its effectiveness. Most of the employees believed that HRIS did not increase the quality of work, and most employees were confident that HRIS did improve the quality of work produced by human resource staff. Many employees thought that using HRIS made HR activities easier to handle. The technology-driven HRIS efficiently managed information, automated tasks, and saved time. A study also discovered the link between HRIS and Job effectiveness. It was found that HRIS adoption significantly enhances job effectiveness and job enhancement, providing necessary information for decision-making, particularly targeting individuals in need, and supporting HR personnel's decision-making. The study found that in Pakistani culture, there was a lack of awareness and knowledge about HRIS, leading to concerns about its complexity and employee resistance to adoption. However, almost half of the respondents were convinced of its ease of integration, with all personnel being computer literate. It was further seen that Top management significantly influenced the adoption of HRIS, allocating resources, time, and commitment. Employee training was also influenced by top management. HRIS was seen as strategically important, but adoption was driven by internal and external competitive pressure.

(Bagga, 2014) The key goal of the research study is to examine how HRIS was used in three main domains: manufacturing companies, IT/ITES, and services. It also aimed to determine whether there were any variations in HRIS usage between SMEs and large organizations in these sectors. To accomplish these objectives, data from the IT and HR managers at companies in the Delhi/NCR area was gathered using a questionnaire. The data was collected from 269 employees. Descriptive and inferential analyses were applied to the data using the LSD post-hoc test, ANOVA, t-test, and cross-tabulation. The findings of the study indicated that the use of HRIS features varies significantly between large companies and SMEs. Further, SMEs were utilizing HRIS, but they were only employing administrative functions, such as leave tracking, attendance monitoring, and pay. On the other hand, large

corporations were utilizing HRIS's advanced features. HRIS software providers can take advantage of this enormous utilization gap to grow their businesses.

(Agrawal & Parmar, 2020) In this paper, the researcher states that the successful implementation of HRIS needs redesign and re-engineering of processes, a task that many banks find challenging to adopt. The study implemented the survey questionnaire technique to collect data from the private and public banking sectors in Gwalior. The findings of the study state that most of the data in the banking sector is stored in electronic files. Secondly, it also helps senior management and the HR Team with decision-making, and data related to HR activities such as payroll, disease statistics, etc, can be maintained easily and further for implementation, and HRIS training should be given to employees appropriately.

(Shiri, 2012) The study suggested that although HRIS can be complicated to use, it has been useful in identifying areas for development, ensuring that HR practices are current, and coordinating HR practices with organizational strategy. HRIS enhances HR efficiency, contributes to organizational growth, and improves various aspects of HR functions. It reduces HR costs, increases motivation, and provides the best performance appraisal systems. HRIS also helps a company identify and analyse shortcomings or risk factors and strengthens HR experts' dedication to ongoing development. A follow-up study can determine if more organizations adopt HRIS and if it's used for strategic purposes, transforming the HR department into a strategic business partner.

(Cheema et al., 2016) The study was based on the small and medium manufacturing sector. This paper demonstrated the increasing benefit and use of Human Resource Information Systems and the viewpoint of High-Performance Work Systems. The respondents for the study were HRM department employees and HR managers from SMEs of manufacturing firms. The study focused on how HPWS affects employee performance, HRIS processes, HR systems, techniques, and decision-making strategies. To validate the hypothesis, the researcher developed two sets of questionnaires for Human Resource Information Systems (HRIS) and the viewpoint of High-Performance Work Systems (HPWS) on the performance of individual employees. The study concluded that HPWS and HRIS can boost employee performance more effectively and efficiently. Lack of understanding and

mixed responses were studied in this open-ended question survey. The requirement was to enhance the HRIS and HPWS in small and medium firms. Employees reported higher levels of satisfaction and performance. The study shows that the benefits of HRIS are difficult to measure and cannot be measured in monetary terms.

(Gardner et al., 2003) The research focuses on virtual HR for Human resource professionals. The study shows that HR professionals can improve their information responsiveness, autonomy, and external professional networks. By automating and informing activities, HR professionals may focus on important information, work independently, and collaborate with other specialists. The study focused on the expectations put on HR professionals because of more dependence on IT and how they manage HR information in the organization. These findings indicated that IT enables HR professionals to contribute value to their work. HR professionals may use IT to offer value to their businesses. It helps HR professionals' access and communicate information more efficiently while influencing work expectations. The findings of the study suggested that HR professionals may need to learn new IT skills to support these activities.IT can minimize time spent on basic duties, prompting HR workers to master new skills.

(N. A. Kumar & Parumasur, 2013) The impact of the recently implemented HRIS on organizational efficiency was evaluated in this study by examining how the system affected four important variables: managerial satisfaction, time management, cost management, and HR functions. Through cluster sampling, 101 managers were selected as the sample from South Africa. Data was gathered using a self-created, 28-item, closed-ended questionnaire. Factor analysis and Cronbach's Coefficient Alpha were used to evaluate the psychometric properties of the questionnaire statistically. To interpret the data, the study made use of descriptive as well as inferential statistical techniques. Organizational efficiency, or return on investment, is a basic metric that measures how successfully a business uses its financial resources. This study found that more administrative duties are still being carried out via the HRIS. Managers also stated that the HRIS should be better used because it hasn't been utilized to its full potential and isn't being used to its maximum capacity now. According to the findings, an HRIS that was properly set up and maintained allows the HR department to easily access data, knowledge transfer, and

information exchange. Creating appropriate HRIS software in the organization can ensure efficiency by enhancing operational effectiveness and the realization of HR and company objectives.

(Quaosar, 2018) To evaluate the adoption of the HRIS, this study employed the Unified Theory of Acceptance and Use of Technology (UTAUT). The HR executives and professionals of various private and public organizations located in Bangladesh's commercial metropolis, Chittagong, and the capital city of Dhaka provided the data. The researcher used the partial least squares method, which is based on structural equation modeling, to analyze the data. The research variables, performance expectancy (PE), effort expectancy (SE), social influence (SI), facilitating condition (FC), and the extended UTAUT model aspects of employee involvement and training support were found to have a significant impact on HRIS adoption. According to the study's findings, the extended UTAUT is a reliable predictor of HRIS adoption. The findings indicated that the elements of the expanded UTAUT model, EITS, as well as PE, EE, SI, and FC, had a substantial impact on the adoption of HRIS about UTAUT-related variables. The study's findings revealed the critical factors influencing the adoption of HRIS, which are crucial for the formulation of policies and strategies to implement HRIS in developing nations. Before implementing any technologies, such as HRIS, the decision makers of an organization should take into consideration the involvement of the employees and the assistance for training. The increased use of HRIS by organizations in developing nations has created a huge opportunity for the HR department to utilize technology. Policymakers in government and organizations can use the study's findings to encourage the public sector to embrace more HRIS in developing nations. Furthermore, users with no prior knowledge of HRIS should receive additional attention.

(N. Nawaz, 2020) Several studies have discussed HRIS as a decision-making tool and have demonstrated how HRIS supports software companies in the decision-making process. Empirical research conducted among 350 IT professionals from various designations indicates that the decision-making process has been considered the dependent variable, while professional roles and positional levels are considered independent factors. Both primary and secondary data sources have been utilized for data collection, and statistical techniques such as one-way ANOVA, *t*-tests, and

descriptive statistics have commonly been applied for analysis. Decision-making has been examined across multiple domains, including human resource planning, employee training and development, employment benefits and labor laws, product quality decisions, need assessment, leadership development, and the evaluation of alternatives. Additionally, the literature highlights decision-making related to choosing optimal alternatives, weighting criteria, hiring new employees, position and classification, goal-oriented training and skill development, compensation management, job evaluation and downsizing, legal labor–management relations, agenda setting, and the development of competitive and strategic orientation. Overall, synthesized findings suggest that HRIS enables decision-makers to access relevant information at appropriate times, thereby improving the effectiveness and efficiency of decision-making processes and contributing to enhanced organizational effectiveness. (Salehadeh & Ziaeian, 2024).

(Bamel et al., 2014) This study focused on understanding the views of university teaching staff regarding the features, advantages, and drawbacks of the human resource information system (HRIS). It also seeks to investigate, using specific HRIS characteristics, the significance of attitudinal and demographic diversity. A questionnaire consisting of 26 items was created based on related study investigations. 90 faculty members from seven Indian state universities sent responses by email. To analyze the research issues, descriptive statistics, the t-test, and analysis of variance were applied. According to the study's findings, HRIS is mainly used for administrative purposes rather than being viewed as a strategic requirement. The findings also showed that there are no group-specific differences in the perceived uses, advantages, and adoption barriers of HRIS. Another noteworthy conclusion drawn from the study is that there is no correlation between demographic characteristics and variations in the opinions of HRIS users, which rejects the significance of demographic diversity.

(Rangriz et al., 2011) This research study aims to investigate how strategic decisions are affected by human resource information systems. Based on recent literature, the study creates a research model, tested in Mellat and Parsian banks, chosen from 19 banks with 18,000 branches in Iran's public and private sectors. Based on the "Cohan- Morgan-Korjsay" study, a sample size of 108 people was determined using descriptive methods. The analysis of the study was based on

Kendall's tau-b, Binomial, and Chi-square tests. There are two major contributions to the literature that this study makes. The study first shows how banks might use the HRIS to inform strategic choices. In particular, the study's conclusions highlight the critical role that HRIS plays in strategic assignments. Researchers in this field will find the study's theoretical justifications and empirical conclusions interesting and helpful. Second, this study addresses an area that has not received much attention: how banks might create commercial value from Information systems-enabled culture, both conceptually and experimentally. Therefore, researchers who research the business value of HRIS will find value in the findings in this area as well.

(Altarawneh & Al-Shqairat, 2010) Previous studies have examined the extended to which public Jordanian universities have implemented the Human Resource Information System (HRIS) and have explored to look at the benefits, drawbacks, and current applications of HRIS in these universities. Drawing on earlier research, a systematic questionnaire was created, pre-tested, adjusted, and translated to collect data from Jordanian university HRIS users. The literature suggests that such studies assist managers in planning and executing HRIS initiatives, emphasizing the need to focus on HRIS applications that support decision-making rather than limiting their use to administrative functions. Scholars further highlight that HR managers play a proactive role in facilitating HRIS implementation by convincing top management and line managers of the system’s usefulness to secure the required time and financial resources. In addition, the literature emphasizes the importance of allocating sufficient resources for employee training related to HRIS utilization, optimization, and competitive advantage. Research also indicates that top management support is critical for providing both financial and non-financial resources, as well as for recognizing the strategic value of HRIS. Empirical findings across studies reveal that universities encounter several challenges in HRIS implementation, including inadequate IT knowledge, lack of top management commitment, unsuitable HRIS software, resistance to organizational change, employee fear of adopting new methods, and limited perceived benefits. At the same time, prior studies report notable benefits such as improved data control, reduced data entry, immediate data usage, fewer errors, standardized programs and procedures, and enhanced tracking and management of HR activities. However, the

literature consistently notes that high implementation costs result in insufficient funding, along with limited managerial and employee involvement, which constrains effective HRIS adoption.

(Shani & Tesone, 2010) This paper aims to discuss how technology has affected human resources departments across the board for businesses, particularly in the hospitality sector. The study makes it clear that HRIS technology has advanced beyond administrative databases to comprehensive communication systems that have similarities to e-commerce initiatives. Using online platforms that have been integrated with intranets (such as customer relationship management), traditional e-commerce technology offers strategic efforts related to product/service, promotion, placement, and pricing to external constituents. Through the usage of intranets combined with extranet platforms (such as recruitment), HRIS technology offers the same ambitions. Therefore, internal e-commerce systems, which are essential to the alignment of HR operations within strategic initiatives targeted at sustained competitive advantages, can be thought of as being represented by HRIS technology. Evidence from both current and past studies suggests proactive HRIS techniques are being put into practice that are being implemented globally and seem to be producing positive results.

(Sulochana & Sajeewanie, 2015) In the study titled "The Impact of HRIS on HRM Effectiveness: A Study in Large-Scale Group of Companies in Sri Lanka," Employees in the HR department believe that the impact was positively associated with the effectiveness of HRM. The findings of the study indicate that web-based HRM modules, such as e-HRM, HRIS, and others, can improve HR operations' efficacy and efficiency, enhance HR service delivery, and modify the HR function's position into a more strategic one. Secondly, it was also found that the impact of HRIS is beneficial in large-scale groups of companies in Sri Lanka.

(Sánchez & Aguayo, 2007) This paper's specific goal is to generate knowledge about the primary representative construct in HRIS success. This study suggested duplication following the organizational context's HRIS adjustment. The study demonstrated that it was possible to analyze the information systems used for the primary business functions. As a result, studies of a similar nature can be conducted focusing on the information systems used for trade, production, accounting, and

finance that are not covered in this work. The variable of user satisfaction generated by the information systems was the study of their performance or success. If the users are subject to internal fiscalization, the design becomes much more appropriate, if that is even possible.

(Ngai & Wat, 2006) The use and implementation of HRIS in Hong Kong have been examined and studied in this research. The purpose of the study was to give an overview of HRIS and to examine how HRIS was being implemented and utilized in organizations. A structured questionnaire was developed, established, adjusted, and administered to gather information from various Hong Kong HRIS users. A random sample of 500 firm addresses was selected from the 250 public companies on the Hong Kong Stock Exchange and the 250 others carefully chosen organizations listed in the Hong Kong Business Directory. According to most Hong Kong organizations, the fastest response time and easier access to information were the biggest advantages of implementing HRIS, while the lack of finance was seen as the biggest hurdle. Additionally, a statistically significant difference was seen concerning certain possible advantages and obstacles to installing HRIS between non-adopters and adopters, as well as between small, medium, and large organizations.

(M. N. Nawaz, 2013) This paper discusses the uses, capabilities, and different ideas of HRIS with a focus on its possible role in a firm. HRIS is a crucial tool for gaining a competitive advantage in HR processes, particularly for software companies. The researcher, in this study, has examined the views of IT professionals, thought leaders in management, industry leaders, and other individuals. Furthermore, the result of the study reveals that there has been a major advancement in Human Resource Information Systems (HRIS), aiming to align the right talent with the right job at the right time. Implementing this process systematically will improve individual competency and provide an advantage for the organization. HRIS is a crucial tool for gaining an advantage in HR processes, particularly for software companies.

(Rahman et al., 2016) This study adopted the UTAUT model to identify major variables influencing HRIS adoption in Bangladesh's banking and financial industry. A model-based structured questionnaire served as the method for gathering data from 300 participants in Bangladesh's banking and financial organizations. The

research found that the social impact of the market leader, as well as the behavioural intention of the organization's management, has an important effect on the intent to use HRIS. Social impact has a domino effect on new technology and service acceptance in Bangladesh's banking and financial industry. Moreover, Market leaders and role models indirectly impact intentions to adopt HRIS and other technologies like e-governance and e-commerce. The research conducted indicated that social impact had both direct and indirect effects on HRIS adoption. The indirect effect comes from the mediation variable of behavioural goals. The study approved a model based on the UTAUT and framework to assess employee attitudes towards HRIS implementation in Bangladesh's banking and financial sectors. This study can help improve banking and financial services in Bangladesh through effective strategy formulation.

(Alshibly, 2017) This study validated a multidimensional model of HRIS success, including six success measures: perceived system quality, information quality, ease of use, usefulness, satisfaction, and HRIS success. To explain the success of HRIS, the study adopted factors from three major sources of IS success (a) the technological acceptance model (TAM) (Davis, 1989), (b) user satisfaction, and (c) the DeLone and McLean information systems success model (DeLone & McLean, 1992, 2003).The questionnaire was distributed to all HR employees who utilize the municipality's newly implemented HRIS. This study found that higher perceived system quality of an HRIS leads to higher user satisfaction. User satisfaction is linked to the ease with which information is accessible, the ease with which a user can access information for the first time, and the HRIS's ability to adapt to new situations. This study found a strong relationship between perceived HRIS information quality and HRIS satisfaction. Further, findings indicate that in HRIS systems where job execution is highly dependent on the system, beliefs about its usefulness have a greater impact on user satisfaction than beliefs about ease of use.

(Bradley, 2019) The study focused on the role of the Human Resource Information System. The study examined how HRIS professionals support HR functions and transform HR operations within organizations. The research focused on understanding how HRIS professionals perceive and describe their duties and competencies in data analytics, in addition to their broader professional outlook. Ten semi-structured interviews were conducted with HRIS specialists with progressive

experience in U.S. organizations. HRIS professionals interviewed have an extensive understanding of processes, organizational data, and technology developments. Professionals using HRIS shared their experiences investigating and implementing HRIS apps and systems in organizations. They spent a significant amount of time talking with end users to find effective ways to improve their daily tasks. Secondly, HRIS professionals and analysts ensure data integrity and employee information security. HRIS helps organizations manage complex personnel categories and data. The study concludes that HRIS professionals include technology to improve workplace processes, manage data integrity, and provide reports to influence workforce and business decisions. They have also taken on emerging responsibilities related to system design and coding.

(Munir & Glorino Rumambo Pandin, 2020) Conditions on employee attitudes towards digital HRM and willingness to apply HRIS in the workplace. The study found that the independent variables (clear purpose of HRIS, benefits of using HRIS, ease of use, and company HRIS condition) have a significant impact on the dependent variable (employee attitudes towards digital HRM). Proper and timely implementation of HRIS can assist organizations in the management of their human resources, improve service quality, and save time and money on various activities.

(Ankrah & Sokro, 2012) This study aims to assess the strategic significance of utilizing Human Resource Information Systems (HRIS) in the workplace and to identify specific ways in which HRIS use increases the effectiveness of strategic HRM. The study results indicated that insurance companies should develop a strategic plan before the implementation of an information system. An evaluation of resources and finances to determine the capacity to begin and maintain HRIS use was essential. HR professionals and supervisors may effectively plan and manage complex information entities with the help of HRIS. Organizations planning to use HRIS should ensure that all their employees, not just HR staff, are well-informed so that internal knowledge can help with system acceptance.

(Ankrah & Sokro, 2016) The advancement and innovation of information technology are instrumental in solving several challenges within human resource management, such as the attraction, retention, and motivation of employees, meeting the expectations for a more strategic HR function, and managing the human

aspects of technological advancements. Additionally, a well-implemented human resource information system (HRIS) positively impacts organizational performance. According to the research findings, it is evident that most Human Resource departments make use of Human Resource Information Systems (HRIS), and additionally, those utilizing HRIS achieve better performance than those who do not implement these systems in their organizations.

(Kaur & Patel, 2025) This research seeks to assess user satisfaction regarding the adoption of Human Resource Information Systems (HRIS) and its impact on organizational performance within the IT sector. The study is based on primary data from the IT sector gathered from a total of 205 participants. Data analysis in this research study was carried out using mean, standard deviation, ANOVA, and Pearson correlation techniques. The independent variable, Human Resource Information System (HRIS), is aligned with the Technology Acceptance Model (TAM) and consists of perceived ease of use and perceived usefulness, while organizational performance is treated as the dependent variable in the study. The research findings indicate compelling evidence of strong and statistically significant positive correlations among critical variables, including perceived ease of use, perceived usefulness, and user satisfaction. Additionally, there was a significant link between user satisfaction and organizational performance, highlighting that satisfied users contribute positively to the overall effectiveness and success of the organization.

(Kaur & Patel, 2024) The purpose of this research paper is to assess the usage and effectiveness of HRIS and its effects on HR policies and practices. The result of the study indicated that Generation Y has a positive interaction and usage with the Human Resource Information System (HRIS). It was found that the HRIS positively facilitates performing job-related responsibilities for this generation. The data further indicated that the HR function was seen as a supportive resource in the effective use of the HRIS, allowing for quicker task completion. Many researchers agree that the organization has the necessary resources to implement an information system successfully.

The literature on Human Resource Information System presents strong evidence that HRIS enhances the efficiency of the organization. Implementing and adopting a

Human Resource Information System (HRIS) in a proper time and systematic manner can help organizations effectively manage their human resources, improve service quality, and save both time and money on various functions. Numerous research studies have indicated that the HRIS practices being adopted and accepted globally seem to be delivering encouraging results. By utilizing an HRIS, an organization can study and evaluate areas of concern or risk factors, thereby strengthening the resolve of HR professionals toward continuous development.(Shiri, 2012) HR managers benefit positively from adopting HRIS in many ways, such as Training and development, Succession planning, recruitment tracking, selection, and performance evaluation (Gupta, 2013; Khera & Gulati, 2012).

On the other hand, it is more likely to increase job satisfaction in organizations where HRIS practices are adopted appropriately. HR staff members find HRIS to be helpful, feel satisfied are content with the information system software (Bal et al., 2012). Thus, it can be concluded that when HRIS is adopted and utilized at an appropriate time and in a systematic way, it can lead to positive results in the organization.

2.1.1 Technology, Organizational, and Environment

(Rahman & Aydin, 2019) This research paper aims to broaden the organizational framework of the Technology-Organization-Environment (TOE) model by examining the challenges and advantages associated with implementing electronic Human Resource Management (e-HRM) in governmental institutions in Bangladesh. The present study concentrates on elements associated with the organizational context, which is a fundamental component of the Technology-Organizational-Environment (TOE) Model. The study aims to examine how the concept of organizational context can be expanded by analyzing the implementation of e-HRM in government organizations. The present research adopts a qualitative framework to enable a thorough exploration of the influence of organizations on the implementation of e-HRM, focusing on the perspectives of employees engaged in governmental organizations in Bangladesh.

For this research, the researcher has carried out 30 semi-structured qualitative interviews with 15 interviews in each of two organizations: the Ministry of Foreign

Affairs and the Ministry of Public Administration in Bangladesh. The research findings highlighted key macro-organizational contexts, namely 'IT (Information Technologies) Knowledge and Skills', 'Change Process', 'Employees' Satisfaction and Motivation', and 'Emerging Role Conflict'. These were analyzed in conjunction with macro-organizational contexts, which encompass 'Formal and Informal Linking Structures', 'Communication Process', 'Size', and 'Slack'. Thus, findings contribute theoretically to the existing Technology-Organization-Environment (TOE) model, which has been further developed considering contemporary technological and organizational environments.

(N. A. Ahmad et al., 2019) The focus of this research is to investigate the factors that influence the adoption of Enterprise Architecture (EA) from Technology, Organization, Environment, and pressure (TOEP) perception and develop a model for its implementation within the organization. This study highlighted the importance of both individual and organizational levels of analysis in exploring the factors that affect the adoption of enterprise architecture (EA) in organizations. The study concluded that the integrative adoption model may be employed as a guiding framework that significantly enhances the understanding of the various organizational factors and the interrelated dynamics involved in the adoption of enterprise architecture or individuals in decision-making roles. This model serves as a valuable tool for analysing the complexities of enterprise architecture adoption. By illuminating the connections between different organizational elements, decision-makers can better assess the implications of their choices and develop more effective strategies for implementation.

(Ahmad Khan et al., 2024) Existing literature highlights the increasing role of artificial intelligence (AI) in enhancing human resource management (HRM) practices, particularly in improving efficiency, decision-making, and strategic outcomes. Prior studies commonly employ integrated theoretical perspectives such as the Technology–Organization–Environment (TOE) framework and the Technology Acceptance Model (TAM) to explain HR professionals' intentions to adopt AI technologies. These frameworks collectively emphasize that AI adoption is influenced by technological characteristics, organizational conditions, and individual perceptions.

Research consistently identifies relative advantage and compatibility as key technological drivers, while organizational factors such as top management support, HR readiness, competitive pressure, and vendor support significantly facilitate AI implementation. At the individual level, perceived usefulness and perceived ease of use emerge as strong predictors of intention to adopt AI in HR functions. Empirical studies in this domain predominantly rely on structured survey instruments using Likert scales, with measurement items adapted from validated prior research, particularly in emerging contexts such as India.

Recent studies suggest that employee skills, digital literacy, and openness to technological change play a crucial role in fostering AI acceptance within HR departments. Moreover, ethical concerns, data privacy, and trust in AI systems are increasingly recognized as influential factors that may either enable or hinder adoption decisions.

Methodologically, structural equation modeling techniques, frequently implemented using tools like Smart PLS, are widely applied to assess measurement reliability, validity, and hypothesized relationships. Overall, the synthesized evidence demonstrates that integrating TOE and TAM provides a robust framework for understanding AI adoption in HRM, offering valuable insights for both researchers and practitioners seeking effective and sustainable AI integration in HR practices

(Setiyani & Rostiani, 2021) This study aims to explore the implementation of e-commerce among small and medium-sized enterprises (SMEs) in Karawang Regency, Indonesia. The study employs the technology-organization-environment (TOE) framework as a metric for assessing e-commerce adoption. A total of 301 data were gathered via a questionnaire survey distributed to SMEs in the Karawang Regency. The data analysis was conducted using Smart. The result of the study indicates that small and medium-sized enterprises (SMEs) in Karawang Regency recognize that technology, organization, and the environment play a supportive role in the implementation of e-commerce.

(Nguyen Van Thanh et al., 2018) This research evaluates the factors influencing e-government Information Systems' interoperability in Vietnam. The data for the study was collected via a survey, utilizing questionnaires distributed among employees in the IT department of public organizations across Vietnam. The

analysis employed Structural Equation Modelling (SEM) as the primary technique. The theoretical framework used in the study is primarily based on the Technological-Organizational-Environmental (TOE) theory and the Technology Acceptance Model (TAM). The findings indicate that Risk Management, Collaboration and Coordination, and Technical Expertise significantly impact the adoption of interoperability within Government Information Systems in Vietnam.

(Subawa & Mimaki, 2019) The literature on technology acceptance in micro, small, and medium-sized enterprises (MSMEs) emphasizes the multidimensional nature of adoption decisions, which are shaped by behavioral intention alongside technological, organizational, and environmental factors. Prior studies suggest that while behavioral intention remains a key predictor of adoption, external environmental conditions and internal organizational capabilities often exert a stronger influence on technology acceptance than technological characteristics alone, particularly in resource-constrained MSME settings.

Empirical research conducted in emerging economies commonly employs quantitative survey-based designs to examine these relationships. Structured questionnaires using 5-point Likert scales are widely utilized to capture entrepreneurs' perceptions and intentions toward digital technologies. Data analysis approaches typically combine descriptive statistical techniques, implemented through software such as IBM SPSS, with hypothesis testing using structural equation modeling tools like SmartPLS. The validation of research instruments before hypothesis testing is consistently highlighted to ensure measurement reliability and construct validity.

Findings across these studies indicate that organizational and environmental factors such as institutional support, regulatory frameworks, and competitive pressure play a significant positive role in influencing the adoption of e-marketplaces in MSMEs. In contrast, technological factors are often found to have a limited or insignificant direct impact. This pattern underscores the importance of supportive government policies and targeted development programs in fostering e-marketplace adoption by creating an enabling environment that addresses contextual and organizational constraints faced by MSMEs.

(M. Y. Bhuiyan et al., 2019) This research paper studies cloud security objectives to determine the influential factors that drive cloud adoption in small and medium-sized enterprises (SMEs). The study proposes an enhancement to the Technology-Organization-Environment (TOE) model, focusing on positive factors such as cloud security, relative advantages, and cost savings (Kovach et al., 2002) availability, SLA, capability, top management, organizational readiness, IS knowledge, malicious insiders, government regulatory support, competitive pressure, and size and type.

It also discusses negative factors that impede adoption, such as technological readiness, trust in cloud services, and the lack of standardized cloud security measures. Technology, Organization, and Environmental factors play crucial roles in influencing cloud security for small and medium-sized enterprises (SMEs). The study indicates that enhancing the TOE model to address SMEs' specific challenges can effectively reduce security threats related to cloud services and address the indecision issues prevalent among these businesses.

(Adade & de Vries, 2024) This study focuses on understanding and knowing the various influences that affect the timing, approach, and context in which local governments adopt digital technologies to foster collaboration with citizens. The present research employs a systematic literature review-based methodology, aligned with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria, to collect and evaluate the evidence necessary for addressing the research questions. The research applies the technology–organization–environment (TOE) framework and suggests an additional dimension, identified as "stakeholders," within the analytical framework. The findings of the study indicated that significant factors of the framework influencing the situation can be categorized into various dimensions: the technology dimension, which addresses security and privacy concerns; the organizational dimension, highlighting the role of top management support; the environmental dimension, influenced by political factors; and the stakeholders' dimension, which relates to their level of technological experience.

(Hassan N Rawash, 2021) The research study aims to examine the technological, organizational, and environmental frameworks that impact e-commerce SMEs in

Jordan. This study is motivated by the observation that e-commerce has not yet achieved widespread acceptance among major companies, especially in developing nations like Jordan. While e-commerce has transformed the business landscape in many developed countries, its potential is still largely untapped and unused in Jordanian organizations.

A quantitative methodology was used for the collection of data, which included individual interviews from SMEs organizations, and data was collected from 121 respondents. The respondents targeted for this research are company owners, senior administrators, managers, or individuals authorized to make decisions within SMEs organizations. The researchers used SPSS as a key tool to analyze the model and its related hypotheses. This evaluation was framed within the theoretical context of the Technology, Organization, and Environment (TOE) framework, which examines a guiding structure for their analysis. Findings from this analysis indicate that there is a strong and positive relationship between relative benefit and e-commerce adoption, suggesting that the perceived advantages of adopting electronic commerce are a crucial factor influencing the decision-making process of SMEs in Jordan. This relationship underscores the importance of highlighting the benefits of e-commerce, such as cost savings, improved operational efficiency, and competitive advantage, to encourage more SMEs to transition to digital platforms.

(Bhuyan & Anusandhan, 2018) A study was conducted in private hospitals across India, aiming to gather detailed information on their operational practices, patient care standards, and overall healthcare delivery. The data was collected by a two-stage methodology, the first stage involved evaluating reliability and validity, and the second stage focused on testing the research hypothesis and the structural model. The findings suggested that an organization's size and support from top-level management play an important role in adopting cloud computing. Larger organizations usually have budgetary resources to invest in cloud technologies, including hiring specialized personnel, engaging with cloud service providers, and implementing necessary changes to existing IT infrastructure.

(Olfat, 2024) This study aimed to established the validity of enterprise social media (ESM) as a marketing tool, focused on how organizations can leverage and strengthen their marketing initiatives using these platforms. Additionally, it aimed to

investigate the role of ESM in fostering and enhancing relationships, as well as improving marketing practices, within various organizations and among stakeholders. This study focused on the technology-organization-environment (TOE) framework to know technological competence, top management support, coercive pressures, normative pressures, and mimetic pressures in the adoption of enterprise social media (ESM). The online survey, which included five organizations using Enterprise social media (ESM) for marketing purposes in Iran, yielded 452 responses. Upon thorough review and evaluation, it was determined that 400 of these responses were valid and suitable for analysis. These valid data points were then analyzed using partial least squares structural equation modeling (PLS-SEM), which enabled a detailed exploration of the underlying relationships and effects within the data. The study's results indicated that technological skills, backing from top management, and mimetic pressures positively affect the implementation of Enterprise social media (ESM) for marketing purposes. However, coercive and normative pressures were shown to have no significant impact on adopting ESM for these practices. Moreover, the study confirmed that ESM implementation for marketing significantly affects all facets of relationship marketing practices.

(Nikmah et al., 2021) This investigation seeks to analyze the adoption of information technology in small and medium-sized enterprises (SMEs) by applying the Technology-Organization-Environment (TOE) model, specifically in the era of the 4.0 industrial revolution. This study has focused on identifying the key drivers and barriers that SMEs face when integrating new technologies into their operations. The study highlighted that small and medium-sized enterprises (SMEs) that embrace technology, even in its most elementary form, can compete and adapt to unforeseen business changes. SMEs, despite their limitations, are encouraged to adopt creative and innovative strategies and make the best use of technological advancements in the organization.

(Awa & Ojiabo, 2016) This research adds to the understanding of adoption dynamics by presenting a 12-factor model for ERP adoption based on the Technology-Organization-Environment (T-O-E) framework. It also explores the impact of each factor on the adoption process within small and medium-sized enterprises (SMEs) utilizing logistic regression techniques. Data collection for the

study was conducted through a questionnaire survey targeting executives from small and medium-sized enterprises (SMEs) associated with six prominent fast-service companies operating in Port Harcourt. The research adopted a sampling framework that utilized both purposive and snowball methods. The analysis for the study involves a logistic regression test; the likelihood ratios, Hosmer and Lemeshow's goodness of fit, and Nagelkerke's R2 were utilized to provide a comprehensive understanding of the data for the study. The analysis of the coefficients for the 12 factors reveals their importance as essential determinants of adoption, with statistical significance at p-values of < 0.01 or 0.05, even though some are negative values. This suggests that Information System innovations represent highly advanced and specific technologies, indicating that no comprehensive adoption model exists; the adoption process necessitates a thorough evaluation of numerous factors, including those that may initially seem advantageous. Thus, the decision to adopt ERP among small and medium-sized enterprises is more closely associated with technological factors rather than organizational and environmental factors.

(Zhong & Moon, 2023) This study developed an innovation model grounded in the TOE (technology-organization-environment) framework. This model connects product innovation, process innovation, and organizational performance to explore the implications of Industry 4.0. This study applied the Partial Least Squares Structural Equation Modeling (PLS-SEM) framework to evaluate the proposed hypotheses. Data analysis was carried out using Structural Equation Modeling (SEM) implemented in SmartPLS software, specifically version 3.2.8. The results suggested that the industry's nature and global trade dynamics can moderate the technology adoption process. In contrast to the manufacturing sector, employee capabilities are more critical in influencing technology adoption within the service industry. Although global trade activities do not significantly affect the technology adoption process, firms involved in trade are more likely to experience greater process innovation post-adoption.

(Zheng et al., 2024) This research explained a substantial factor model based on the TOE framework to explore the transformative trends within the service industry of Guangxi. This research adopts the technology-organization-environment (TOE) framework as its conceptual framework for the study. The application and implementation of fuzzy set qualitative comparative analysis (fsQCA) demonstrate

that technology, organization, and environment are all TOE factors that contribute uniquely to the digital transformation of the service industry in Guangxi. This study identifies five key driving factors that influence transformation through digital technologies in the service-oriented industry. These factors include the level of economic development level, information infrastructure construction level, government support, organization construction, and public demand. A substitution relationship exists among the three realization paths, suggesting that, given specific conditions, public demand and the level of economic development can effectively replace one another, while also facilitating the digital transformation of the service sector. The digital transformation of the service industry cannot be achieved solely by technology, organization, or environment. Rather, it is the integration of these three elements that generates the necessary pathways for successful transformation.

(Effendi et al., 2020) The analysis presented in this study is informed by data from 250 SME respondents. Data was collected from SMEs engaged in handicrafts, diverse business activities, and trade sectors. In-depth interviews were collected from respondents using Google Meet and Zoom calls. The process of data collection for the study was conducted online using Google Forms. The research applied Structural Equation Modeling with AMOS as a framework for data analysis. The independent variables considered for the study are technology variable, organizational variable, and environmental variable. The study claims that the Technology-Organization-Environment (T-O-E) elements that impact social media awareness are validated. This research established models of behavioral intention for the use of social media. The results of this study found that social media platforms are accessible and simpler to use than many alternative digital marketing applications.

This research indicated that social media platforms are more user-friendly and accessible to many other digital marketing tools. This user-friendliness can be attributed to several factors, including intuitive interfaces, straightforward navigation, and the widespread familiarity that users have with these platforms. Additionally, social media platforms offer a range of features that facilitate engagement, such as likes, shares, comments, and direct messaging, which can foster a sense of community and interaction between brands and consumers. Unlike many digital marketing tools that may require specialized knowledge or training to

operate effectively, social media platforms often allow users to engage with their audiences with minimal technical expertise.

(Aligarh et al., 2023) Utilizing the Technology-Organization-Environment (TOE) framework, a unified model was developed that integrates the dimensions of cloud computing adoption and the performance of micro and small business enterprises into one singular analytical framework system. Data for the research was collected via a structured survey questionnaire distributed to 197 owners and managers of micro, small, and medium enterprises (MSMEs) in Indonesia. The study applied statistical descriptive analysis for the demographic characteristics of the individuals surveyed. The methodology adopted for the study is Partial Least Squares (PLS), a form of variance-based Structural Equation Modeling (SEM). The research findings reveal that, apart from the support for complexity and top management, all proposed hypotheses for the study have received validation. MSMEs regard cloud computing as very accessible and user-friendly. In contrast, the hesitance of MSMEs in Indonesia to adopt such technologies stems from the vagueness surrounding their roles and organizational hierarchies. This study enriches the Technology-Organization-Environment (TOE) framework by incorporating individual characteristics.

(Awa et al., 2017) This study seeks to introduce and evaluate a comprehensive ten-factor framework derived from two prominent theoretical model: the Technology-Organization-Environment (T-O-E) theory (Tornatzky & Fleischer, 1990) and the Unified Theory of Acceptance and Use of Technology (UTAUT)(Venkatesh & Davis, 2000). The methodology adopted in this study was a non-probability sampling technique, which included both purposive sampling and snowball sampling. This framework is designed to capture the multifaceted nature of technology adoption by considering various influences from technological, organizational, and environmental perspectives. The relationship between TOE contexts and adoption is both direct and statistically significant, indicating that the factors associated with TOE play a more pivotal role in adoption than individual factors. The results demonstrate that the variables of technological, organizational, and environmental contexts possess a direct and statistically significant relationship with the adoption process. This suggests that T-O-E factors are more influential in driving adoption than individual factors.

(Awa et al., 2016) This research paper contributed valuable insight into information systems adoption by exploring the role of twelve factors within the technology-organization-environment (T-O-E) framework in explaining the adoption of enterprise resource planning (ERP) software by small and medium-sized enterprises (SMEs).Data collection for the research was obtained from executives of small and medium-sized enterprises (SMEs) selected from six fast service companies with robust operations in Port Harcourt, Nigeria. The sampling frame consists of 373 owners and executives of SMEs. Furthermore, the presence of federal and state ministries, parastatals, and substantial oil deposits, combined with vibrant commercial activities in Port Harcourt, position the city as a hub for expatriates and diverse Nigerian tribes. The study adopted a purposive and snowball sampling method, and the proposed framework was evaluated through logistic regression analysis, utilizing likelihood ratios, Hosmer and Lemeshow's goodness-of-fit test, and Nagelkerke R^2. The research findings reveal that technological factors are the main catalysts for ERP adoption systems and integrated operations in small and medium-sized enterprises (SMEs). This indicates that the availability of advanced technological solutions significantly drives SMEs to implement ERP systems. The research also examines the key factors in the T-O-E framework that set apart adopters of ERP software from their non-adopting counterparts. This underscores the notion that SMEs are primarily motivated by the potential for technological enhancement when considering ERP adoption.

(I. B. Ahmad et al., 2023) The research study aims to identify earlier studies to determine the impact of the Technology, Organization, and Environment (T-O-E) framework on Organizational Performance. The analysis encompasses multiple theories of technological innovation, particularly highlighting the TOE framework. This research has adopted a qualitative methodology approach. The findings of this study draw attention to the gap in the adoption of new Web 2.0 technologies by small and medium-sized enterprises (SMEs) and assess how their adoption patterns integrate with established frameworks of technological innovation adaptation, such as the TOE framework, within the timeframe analyzed in the literature review. Additionally, this study could have significant resonate with SMEs managers, and the research community providers of information and communication technology by providing insights into the current state of research in the field and aiding in the

development of more effective and enhanced frameworks and strategies for the adoption of new information systems in Small and Medium Enterprises.

(Jerram, 2010) The objective of this paper is to examine and identified the various elements that impact the adoption of HRIS in public sector organizations. The study utilized the technology-organization-environment (T-O-E) framework as a methodological approach. The research identifies technology-organization-environment (T-O-E) factors that contribute to HRIS adoption in public sector organizations, which are generally noted for their high levels of complexity. According to the research outcomes, the integration of HRIS in the public sector is contingent upon three key contextual sets: environmental, organizational, and technological. The public sector organization should focus on elucidating and showcasing the potential benefits of such systems. Key benefits, which include integration, accessibility, and operational efficiency, must be assessed to their capacity to validate the costs of adoption and the complexities that HRIS may entail.

(Phahlane & Kekwaletswe, 2017) The university identified TOE factors for the adoption of HRIS, and some of these elements have antecedents related to pressures that apply to institutional theory in this context. The study seeks to add information on the impact of IS on organizational performance, as well as IS adoption and application in companies. The concept paper attempts to provide in-depth knowledge of an IS in an organization by examining its adoption and use continuously. This highlights the importance of understanding the adoption and application of these methods in organizations. Secondly, the researcher focuses on Adoption and usage, as well as how adoption impacts use, which are examined continuously to offer a current, holistic insight into IS in companies.

(Chakraborty & Mansor, 2013) This study conducted an in-depth examination of the key influences on the integration of HRIS in the workplace. The study focused on three sets of variables: organizational, technological environmental. Organizational factors like commitment to management and size have a significant effect on the system integration. The study's conclusions identify the variables influencing HRIS adoption to help organizations implement HRIS precisely and successfully.

2.1.2 Human, Organization, and Technology

(Erlirianto et al., 2015) The study mentioned the HOT-fit framework (Human, Organization, and Technology) to evaluate the effectiveness of an Electronic Medical Record (EMR) system in a hospital. Which was characterized by three key main aspects, each with its own set of dimensions. The technology aspect includes three dimensions that are (1) system quality, (2) information quality, and (3) service quality. The human aspect is defined by two dimensions, that is, (1) system use and (2) user satisfaction. The organizational aspect also contains two dimensions: (1) structure and (2) environment. These dimensions are critical for assessing the net benefits generated by the system. The environment significantly contributes to net benefits in a positive manner. There is a strong and positive association between the technological aspect and the human aspect. There is a significant relationship between information quality and service quality, which affects user satisfaction. However, this research does not conform to demonstrate a connection between the technological and human aspects. Moreover, neither the human nor the technological dimensions has a measurable effect on net benefits.

(Weka et al., 2021) This research focuses on evaluating the usability and acceptance of the Hospital Information System (HIS) by applying the Human Organization Technology-Fit (Hot-Fit) Model. An analysis of the research data was conducted using multiple linear regression techniques. The research population consisted of all users of the Health Information System (HIS), categorized into three hierarchical levels: top-level management, which includes directors and vice directors; middle-level management, which involves supervisors; and lower-level management, which involves operational staff. A total of 144 respondents were selected as samples based on the Slovin formula. The findings of the study indicated that, as per the HOT-Fit Model, system quality (P = 0.037), information quality (P = 0.000), and service quality (P = 0.002) significantly influence user satisfaction. Additionally, system quality (P = 0.019) has contributed positively to organizational structure, whereas user satisfaction and human factors mutually affect the organization (P = 0.000 for both relationships). Lastly, the organization structure significantly impacts the environment (P = 0.000), and this relationship is reciprocal (P = 0.000). Both user satisfaction (P = 0.000) and organizational structure (P = 0.000) are critical in determining net benefits in the Hospital Information System.

Hence, the three components contribute to a holistic evaluation through the specific variables of the HOT-fit model, which assesses health information systems (HIS). The comprehensive nature of the HOT-fit model is expected to be relevant not only to hospital information systems but also to the wider spectrum of health information systems.

(Kosasi et al., 2022) The management of IT services is crucial and inherently linked to various elements in the process of establishing e-learning readiness via the HOT-Fit model. This management must align with the capabilities and support provided by third-party entities responsible for delivering content through IT service applications. The three variables of the HOT-Fit model organization, human, and technology are identified as the most influential determinants and significant of e-learning readiness, supported by the highest path coefficient. This finding implies that technology is not the single factor of success, particularly as internet infrastructure is no longer a hindrance for some users of the e-learning system. Institutions of higher education have largely overlooked the influence of IT service management on the effective execution of e-learning readiness.

(Permadi et al., 2018) In this research, the researcher has developed an information system that utilizes the RSA algorithm to improve the security of the email transmission process. The system output generates a mail status report indicating whether the email has been opened and forwarded. The usability and adoption of the system are assessed using the HOT fit model, which is based on user feedback collected through a questionnaire. The study focuses on the HOT FIT model, particularly in the aspect of the Technology dimension, which is evaluated by system quality, information quality, and service quality in contrast the Human aspect is evaluated based on system user and user satisfaction (Yusof et al., 2008). The organizational aspect is judged by structure and environment, exploring how these variables influence net benefit. The result of the study demonstrates that the system has been effectively implemented within the Faculty of Physics at Diponegoro University.

(Anugrawan & Rahadian, 2023) This study examined the performance of the Follow-Up Monitoring Information System established by the Supreme Audit Agency of the Republic of Indonesia (BPK RI) based on the HOT Fit model. A

structured approach to data collection was adopted in this study in-depth interviews. This research also adopts a qualitative approach based on a case study approach. Evaluations are conducted on Technology, Organization, and Environment. The result from the study, based on the HOT Fit Model, suggests that the external Follow-Up Monitoring Information System at the Majene Regency Inspectorate has achieved a degree of success. However, there are notable drawbacks and shortcomings, including the insufficient frequency of user training, lack of communication with users, irregular password updates for the system, and the absence of consistent program improvements.

(Nasution et al., 2023) This research utilized the HOT-FIT methodology, a theoretical framework designed to assess the success of information systems within health services. To know the successful context and implementation of Health Information Management Systems (HIMS), various models and frameworks have been established, including the HOT-FIT model. This study aims to know the implementation and usage of the hospital management information system at Langsa General Hospital in Aceh, Indonesia. The research framework was conducted using the HOT-Fit model, which includes nine variables: system quality, information quality, service quality, organization structure, facility situations, support from leadership, system usage, user satisfaction, and net. The data analysis was executed using SEM-PLS analysis in the SmartPLS software (version 3.2.9).

The findings indicated that support from human resources, organizational structures, and technology is our critical factor affecting the successful implementation of Health Information Management Systems (HIMS). Secondly, the importance of the HOT-FIT model serves as a valuable tool for identifying the determinants that impact the effective deployment of HIMS, thereby guiding enhancements in hospital operations that subsequently lead to improvements in quality systems, information management, service quality, and user satisfaction.

(Sala & Subriadi, 2022) The research study aims to evaluate the effectiveness and efficiency of information systems in the public sector. To achieve this, the study utilized a modified version of the Human Organization Technology-Fit (HOT-Fit) model as a framework for evaluating these dimensions. Each component of the HOT-Fit model was categorized into two distinct areas: effectiveness and efficiency.

Data collection for the study was done through interviews with individuals utilizing the Population Administration Information System (SIAK) and observation methods of operations at the public office. Qualitative analysis was performed on the data by evaluating each effectiveness and efficiency performance indicator identified during the interviews and observations. The study findings indicated that the implementation of SIAK in Ende District has achieved a commendable level of effectiveness. The finding suggested that the objectives associated with the establishment of this system and technologies have been successfully achieved. Additionally, the implementation is segmented as very good in terms of efficiency. These results demonstrate that SIAK has significantly enhanced the efficiency of document processing, particularly regarding time and resource utilization in public sector organizations.

(Ken Rifarsih et al., 2022) This study utilized the HOT-Fit model, which includes variables about human factors (system utilization and user satisfaction), organizational factors (organizational structure and environment), technological factors (system quality, information quality, and service quality), and Net benefits. The study uses a survey methodology incorporating qualitative methods, and the sampling technique used in the study was stratified random sampling. Initially, quantitative research was conducted with a sample size of 165 respondents. The primary and secondary data sources were gathered in the study through various sources, including findings from questionnaires, interviews, observations, and research journals and Articles. The analysis of the data was performed using PLS-SEM, utilizing SmartPLS tools.

This study's findings highlighted the system's positive effect on hospital operations, particularly concerning user satisfaction and increased efficiency in the organization. Although some areas need improvement, such as the quality of information and the need for a more supportive organizational environment, the study confirms that the Hospital Information Management System (SIMRS) has successfully advanced multiple components of hospital management.

(Elmayati et al., 2022) This research aims to assess the success and important factors in implementing the Academic Management System (AMS) at the University of Bina Insan Lubuklinggau by utilizing the Hot-Fit Model, the variable

in the study includes Human dimensional which involves system use and user satisfaction, The Organization dimensional involves structure and environment, and Technology dimensional as independent variables while the dependent is Net Benefits. The researcher has selected this model for the study for its ability to evaluate the multiple factors influencing system implementation across these aspects. Additionally, the successful implementation of the AMS is influenced by the support and encouragement from universities towards AMS adoption, as well as the availability of proper and effective system implementation.

A quantitative analysis was conducted in this study, using statistical tools to determine the influence of the examined variables. The analysis framework for this research study is based on statistical inference. The hypothesis test was conducted using correlation analysis, through Pearson correlation analysis. This statistical test is designed for interval-scaled variables, where the alternative responses from the questionnaires completed by participants are assigned weights using a Likert scale from 1 to 5 scale range where 1 indicates “strongly disagree”, 2 reflects “disagree” 3 denotes “quite agree”, 4 “agree” and 5 signify “strongly agree”. Data analysis is carried out using SPSS 22 software.

The findings in the study derived from the analysis realigned with the research objectives. Validity and reliability tests on the variables concerning human, organizational, technology, and net benefits. The reliability test, indicated by a Cronbach's alpha of 0.926 for the study, exceeds the r table for 32 questions and 80 respondents, confirming that the study is reliable. Additionally, the hypothesis testing resulted in an F value of 13.334 with a significance of 0.000, which is significant below 0.05 ($0.000 < 0.05$).

(Alam et al., 2016) This study integrates the HOT-fit model and the TOE framework, two popular adoption theories, to analyze technology adoption in the hospital sector of Bangladesh. To determine their impact on hospital adoption decisions of HRIS, thirteen factors, distributed across four dimensions. Based on the initial implementation of the HRIS, researchers divided the sample into three main groups: adopters, prospectors, and laggards. Furthermore, among the four proposed categories, the technology dimension is the most important, followed by the organizational, human, and environmental dimensions. Data for the study was

collected using a structured questionnaire administered to HR professionals across 92 private hospitals in Bangladesh. Adoption of the Human Resources Information System has proven challenging in developing nations due to financial and infrastructure constraints. Hospital management is embracing the HRIS clearly to ensure the efficient provision of healthcare. The HRIS's well-drawn academic, practical, and social significations direct hospital IT infrastructure development and inspire hiring practices for personnel with strong IT backgrounds. In addition, the HRIS assists management authorities in assessing the perceived expenses associated with implementing a modern hospital management information system and in assessing external competitive pressures to achieve strategic economic advantages.

The literature review using the HOT-Fit model indicates how complex HRIS adoption is and how it affects organizational effectiveness and performance. Many researchers constantly highlight that to fully benefit from HRIS, through technological aspects, while essential, must be complemented by institutional awareness (an organizational aspect) and user involvement (a human aspect). The overall efficiency of system implementation is determined by how these three dimensions interact, not by how strong they are individually.

This model broadly highlights the holistic approach an information system's effectiveness depends on the organizational aspect and human aspect, like skills, attitudes, and organizational culture, in addition to the technology's functionality and compatibility. Thus, the HOT-Fit model helps academics and practitioners pinpoint important areas that need work, make technology integration easier, and eventually improve organizational results.

2.2 Organizational Performance

(Mohammed et al., 2010) In their study "Impact of HR Practices on Organizational Performance in Bangladesh." Data for the study was collected from fifty Bangladeshi manufacturing companies demonstrates the strong correlation between HR procedures and organizational success. The data for the study was collected through primary and secondary sources. A survey questionnaire was administered which had some general questions regarding HR professional users and consisted of 23 items based on a five-point Likert scale (Strongly Agree – 5 to Strongly Disagree – 1) The conclusion of the study showed that the management of manufacturing companies must place a special focus on Performance appraisal to achieve excellent organizational performance, According to the study there is the strongest positive correlation value between performance appraisal and organizational performance.

(Agarwal, 2018) This research examined how talent management strategies and organizational performance impact employee retention within the Indian IT industry. Data was gathered from 33 information technology companies, resulting in a total of 68 replies. Through the utilization of SPSS 21.0 for statistical examination, relationships among the factors were analyzed. Furthermore, regression analysis was carried out to explore the association between the dependent and independent variables. In the survey, a combined total of 31 items were utilized to assess factors related to Organizational performance, Employee retention, and Talent Management. The research results suggested that implementing talent management strategies, specifically monitoring employee performance and development, is closely associated with lower employee turnover rates. This, in turn, demonstrates a favorable impact on the overall performance of the company. These findings suggest two key points. Firstly, IT companies should focus on talent management strategies like succession planning, employee development, and innovative recruitment to improve employee retention. Secondly, retaining talent is essential for company growth and providing high-quality service in the long term. Therefore, IT firms should consider implementing additional HR practices, in conjunction with improving customer service and reducing product-to-market time, to better attract and retain talent within the organization, as no significant association was found between firm performance and employee retention.

(Wu & Lin, 2013) The present research assesses “the impact of business strategies on organizational performance within the tourism sector.” The study involved owners, managers, and employees from Taiwan's ten leading travel agencies, with 600 questionnaires distributed. Out of the 438 responses received, 43 were deemed incomplete and discarded, resulting in 395 valid questionnaires for further analysis. The study's findings indicated that business strategies significantly correlate with job satisfaction, organizational objectives, and job performance. Additionally, organizational culture demonstrates a partial moderating role in the connection between business strategies and organizational performance.

(Bijak Prestasi Supriadi & Saragih, 2020) This study is conducted to explore how integrity and compensation impact organizational performance, with a particular focus on job satisfaction within PT Puji Bijak Prestasi. The study adopted an explanatory analysis technique. The causal linkages between independent and dependent variables are tested to examine each variable identified in the hypothesis Altogether 122 employees were included in the study, utilizing a saturated sampling technique. Data was analyzed through path analysis. The results of the study reveal that integrity has a partial effect on organizational performance. Similarly, the compensation variable also demonstrates a partial influence on organizational performance. Job satisfaction is found to affect organizational performance partially as well. Additionally, there is a partial relationship where integrity influences job satisfaction, and the compensation variable similarly affects job satisfaction.

(Asghar Afshar Jahanshahi, 2012) The primary aim of this research is to examine the effects of electronic commerce (e-commerce) applications on the organizational performance of small and medium enterprises (SMEs) in India. Different categories of e-commerce applications can impact organizational performance; this study categorizes them into five distinct groups: electronic advertising, electronic payment systems, electronic marketing, electronic customer support services, and electronic order and delivery. In this study, organizational performance includes financial or accounting performance, operational performance, and market-based performance. Data obtained from questionnaires was analyzed using structural equation modeling, with techniques such as goodness of fit tests and path analysis, utilizing LISREL 8.54 and SPSS as analytical software.

The study indicates that many small and medium-sized enterprises (SMEs) and e-commerce applications are still in the initial stage of implementation and adoption. Many SME organizations expressed uncertainty regarding the benefits and challenges associated with electronic commerce applications. Many SMEs did not recognize the potential benefit of adopting Internet technologies to improve their business operations, leading to the use of electronic commerce primarily for basic functions of organizations such as marketing and advertising. The findings of this study highlighted the critical role of e-commerce applications in organizations, regardless of their size, particularly in small and medium enterprises. These applications facilitate improvements in market processes, optimize payment systems, and contribute to increased efficiency among Organizations, thereby enhancing overall profitability. Additionally, the research introduces a model that shows the connections between five e-commerce applications and three aspects of organizational performance in small and medium enterprises.

(V. Singh et al., 2018) This study focuses on adopting and implementing Total Quality Management (TQM) in Indian Industries and its effect on Organizational Performance. The investigation has been conducted across five manufacturing firms and three service providers in northern India. The data for this research were derived from a combination of primary and secondary sources, focusing on evaluating Total Quality Management (TQM) implementation within Indian industries. Total Quality Management (TQM) consists of several factors in the study: Organizational Leadership (OL), Customer Satisfaction and Relationship (CSR), Human Resource Focus (HRF), Strategic Planning and Development (SPD), and Supplier Quality Management (SQM). In contrast, the factors of Operational Performance (OP) in the study are defined by Satisfaction Results (SR) and Business Results (BR). All the questions in the survey were framed using a five-point Likert scale from strongly disagree to strongly agree. A stratified random sampling technique was used for the study.

The hypotheses and conceptual framework were designed to align with the specific context of India. A total of 236 valid samples were collected from eight small and medium-sized enterprises (SMEs) operating in the manufacturing and service sectors. The data was classified into two distinct categories: Managers and Workers. The analysis of the collected data was performed using SPSS-AMOS 24. All

hypotheses demonstrated a positive alignment with the conceptual model, indicating a positive impact of TQM on organizational performance (OP). The findings of the study were statistically significant and corroborated with previous research findings. It was observed that there was no notable difference in TQM literacy between the two groups, and the elements of TQM were positively correlated with the Organizational performance factors of Indian organizations. Ultimately, the insights derived from this study contributed valuable knowledge regarding TQM practices from the perspective of the Indian manufacturing and service sectors.

(S. Singh et al., 2016) In this study, researchers have integrated objective and subjective criteria in assessing operational performance (OP). Objective criteria are derived from accounting data, while subjective criteria are based on the perceptions of managers regarding their firm's performance. Organizational performance is measured under Probability (After Tax), Sales revenue, Market share, and Innovation. An elaborate analysis of the subjective measures of organizational performance, as reported by managers from four different companies across four countries, namely Jordan, Brunei, Saudi Arabia, and India, was conducted. Moreover, the finding of the study indicated that the subjective measure of organizational performance (OP) was liable and valid method to measure OP across each of the countries studied.

(Al-Tit, 2017) This research intends to analyze the effects of Organizational Culture (OC) and Supply Chain Management (SCM) on Organizational Performance (OP). The sample consisted of 93 manufacturing companies in Jordan. The theoretical model includes three key variables for the study: Organizational Commitment (OC), Supply Chain Management (SCM), and Operational Performance (OP). Data was collected from employees and managers across different divisions using a reliable and valid measurement tool. The findings indicated that both OC and SCM practices favorably influence OP. This study is significant in its reliable examination of the relationship between SCM practices and OP; however, it is crucial to consider cultural assumptions, values, and beliefs, as the impact of OC on OP is greater than that of SCM practices. Future findings suggested that research should focus on moderating and mediating the roles of OC in the relationship between SCM practices and OP.

(Saxena & Gupta, 2017) This research aims to study the concept of organizational performance and evaluate the performance factors related to the banking, insurance, and IT service sectors in India. The service sector should improve its performance by boosting its human resources, reorganizing processes, encouraging innovation, effectively mobilizing resources, and offering customers more advantageous opportunities than those available from competitors. The performance in this study is fundamentally characterized by two key components: efficiency and effectiveness.

The study's findings indicated that the service sector should direct its efforts toward product development and sales growth by building strong relationships with significant customers and uncovering insights for marketing development. The research also suggests that in the changing conditions of the service sector, marketers are compelled to adapt to the competitive conditions of both local and global markets, utilizing innovative strategies to secure a profitable position. Additionally, it was essential to recognize that in the service arena, the emphasis should not be limited to performance; it should also involve addressing a range of managerial and regulatory choices to improve internal and external frameworks.

(Sun et al., 2007) The implementation and adoption of a system or configurational perspective on human resources is beneficial. However, the outcomes of the moderated hypothesis tests reveal that the performance outcome of service-oriented organizational citizenship behaviour (OCB) is influenced by specific environmental and organizational context factors. Thus, service sector organizations may need to customize their relational patterns and corresponding behaviours to their specific environmental and organizational contexts to optimize the benefits of high-performance human resource practices as a strategy for managing employee-organization relationships.

(Ghafoor Khan et al., 2011) On-the-job training is an effective approach that not only saves time but also reduces costs. In this study, the researcher classified training and development as the independent variable and organizational performance as the dependent variable. The framework of Training and development is evaluated based on Training design, On-the-job training, and Delivery style. The selection of this variable in the study is to analyze the

relationship between these two variables. The research sample involves 100 employees from different organizations situated in Islamabad, the capital of Pakistan. Data for the research was collected through a structured questionnaire containing 15 closed-ended questions. The question was framed using a five-point Likert scale with the response options ranging from Strongly disagree as “1” to strongly agree as “5”. The elements of Training and Development, particularly On-the-Job Training and the methods of Training Design and Delivery style, have a substantial impact on Organizational Performance. Collectively, these factors contribute positively to the enhancement of overall organizational performance.

(Almatrooshi et al., 2016) This paper aims to propose a framework that identifies the key determinants of organizational performance. The study framework integrates leadership competencies with cognitive intelligence, social intelligence, and emotional intelligence, establishing a connection between employee performance and the overall organization's performance. The study concludes that leadership competency is a critical variable in the success of any organization. Based on the proposed framework, improvements in leadership competency can be achieved through the application of cognitive, social, and emotional intelligence skills. These elements, when combined, determine the effectiveness of leaders and provide criteria for the easier identification of effective leadership.

In this study, the researcher has presented the conceptualization and operationalization of organizational performance that can be applied in various settings, including nonprofit and public organizations. The multi-dimensional framework identified constructs that are relevant across different policy contexts, permitting the measurement of some constructs to be influenced by the specific program environment. By emphasizing this adaptability, the framework encourages a more comprehensive understanding of how organizational performance can be effectively measured and improved across various sectors.

(Jacks et al., 2011) The author performed a meta-analysis encompassing 76 articles published over nine years from 2001 to 2009, focusing on the effects of information technology on organizational performance within the information systems literature. The findings of this analysis framework include three primary dependent variables: profitability, productivity, and intangible benefit, along with a fourth independent variable: business alignment, resources, capabilities, and external factors. Literature

continues to be characterized by a lack of cohesion in performance measures, which often leads to inconsistencies in the findings and interpretations of a researcher for their study.

(Suthar et al., 2014) This researcher aims to explore the connection between organizational performance and employee job analysis within the context of Bharat Sanchar Nigam Limited, specifically in the Vadodara Telecom District of Gujarat. A survey questionnaire was distributed to Bharat Sanchar Nigam Limited employees in the Vadodara Telecom District, utilizing both email and in-person methods. The response rate was 417 out of 1361. The sample size was established based on demographic variables like population size, confidence level, and confidence interval. The questionnaire included variables such as organizational performance, job design, job description, organizational policies and practices, job specification, and job evaluation. All 417 respondents are considered eligible for further analysis. This research adopts a quantitative approach, with the collected data subjected to scale reliability testing for questionnaire validity, descriptive statistics, item measurement, correlation, regression analysis, and other relevant tests to ascertain the extent of the relationship between job analysis and organizational performance. The statistical software IBMSPSS.20 was utilized for data analysis. The findings indicate a positive association between Organizational performance and Job analysis, implying that conducting effective job analyses for employees can greatly boost performance. By clearly defining job roles and expectations, organizations can ensure that employees are well-equipped to meet their responsibilities, leading to increased job satisfaction, reduced turnover rates, and a more engaged workforce. As a result, organizations that value job analysis are in a stronger position to secure the right talent, implement targeted training and development strategies, and establish a culture of accountability and high performance.

(Khalique et al., 2013) This study focuses on three variables of intellectual capital: human capital, customer capital, and structural capital, which are classified as independent variables, whereas organizational performance was the dependent variable in the study. Data was gathered from 140 participants at the headquarters of four Islamic banks in Kuala Lumpur Malaysia. The participants were selected through a convenience sampling method, and a five-point Likert scale was used for

the research instrument. A total of 35 items were used, consisting of 9 items for the human capital variable, 8 items for the customer capital variable, 8 items for the structural capital variable, and 10 items focused on organizational performance. The dependability and internal consistency of every item are examined using reliability analysis (Cronbach's Alpha). The study's data were analyzed through correlation and multiple regression to explore the relationship and effect of independent variables on the dependent variable. In the study, a total of 35 items were involved, consisting of 9 items for the human capital variable, 8 items for the customer capital variable, 8 items for the structural capital variable, and 10 items focused on organizational performance. The results demonstrated that all three elements of intellectual capital i.e., human capital, customer capital, and structural capital, play a significant role in improving the organizational performance of Islamic banks in Malaysia.

(Mohammed et al., 2010) has conducted a study in Bangladesh the key objective of this paper is to know the impact of HR practices on organization performance in Bangladesh manufacturing firms. The research model consists of a set of independent variables such as Recruitment and selection, training and Development, performance appraisal, and compensation, and the Dependent variable in the study was Organizational performance. Primary Data was collected from fifty manufacturing firms in Bangladesh secondary data was gathered through the websites of manufacturing companies. The research concluded that HR procedures and organizational performance have been strongly correlated. Only performance appraisal is determined to have a major impact on organizational performance among HR activities.

(Azlan Mohamad, 2009) This study focused on the incentives' impact on manufacturing companies in Malaysia as well as HR practices. This study focuses on three different types of HR practices: information technology, training, and performance appraisal. The impact of incentives on organizational performance will be examined as a moderator. A sample of eighty-five Sarawak, Malaysian companies that easily contributed to the questionnaire survey was utilized in the research. To collect data, a convenient sampling method was used in the study. It was found that while incentives did not reduce the relationship between HR

practices and organizational performance, they had a positive relationship with each other.

2.3 HRIS and Organizational Performance

(Bhuiyan et al., 2013) Conducted a study on the Impact of Human Resources Information Systems (HRIS) on the Performance of Firms: A Study on Some Selected Bangladeshi Banks. The research was based on HRIS practices performed in the banking sector of Bangladesh. The study focused on three major areas where HRIS is used – Recruitment & Selection, Training & Development, and Payroll. The study concluded that the Banking sector now has important knowledge and information about the benefits of HRIS in minimizing expenses associated with HRM processes such as payroll, training and development, and Recruitment and selection. Banks that have adopted the HRIS system will be able to cut down both the time and expenses of the HRM process.

(Maxwell & Yadav, 2019) The study demonstrated how the HRIS application influences organizational performance by providing employees of the organization access to accurate information that helps them to make decisions that improve the performance of the organization. According to the study's findings, the usage of HRIS has a direct effect on an organization's effectiveness and significantly boosts overall organizational performance. Furthermore, HRIS operations need to be leveraged to materialize technologies that would eliminate cheating in the system and enhance the existing system to one that can investigate further HRIS operations and broaden certain system services.

(Noutsa et al., 2017) This paper talks about the “Acceptance and Use of HRIS and its Influence on the Organizational Performance of SMEs in a Developing Economy: The Case of Cameroon.” The study was based on a mixed approach. Data was collected from 258 respondents through a questionnaire from Cameroonian cities, namely Yaounde and Douala. The only factor that the study could find to predict HRIS adoption was the quality of the system. Moreover, it seemed that performance is highly influenced by the acceptability and use of information systems. The findings of the study ignored previous research conclusions by showing that HRIS is not adequately deployed in businesses. These unexpected results point to the necessity for practitioners, SMEs in particular, to create this

system if they truly want to face and benefit from the global competition. Future researchers should integrate the perspectives of "business/functional managers" and "end users" in addition to moderating characteristics like age, gender, and education to better explain organizational effectiveness. However, HR specialists need to have the necessary training. The HR department must align with the organization's strategy to optimize employee performance. The organization's top management should set aside substantial funds for the implementation of HRIS, focus on employee training, and actively supervise, mentor, and assist staff members daily.

(Siengthai & Udomphol, 2016) According to the study results, the sample respondents believed that HRIS improved organizational effectiveness in terms of human resource practices and procedures, cost and time savings, information effects, decision-making, and the strategic importance of the HR function. All six HRIS dimensions are related to one another. The findings demonstrated that the sample respondents believe HRIS gradually affects the effectiveness of organizations. Furthermore, for every item on the scale measuring the perceived impact of HRIS, the mean value of HRIS users is higher than the mean value of HRIS non-users. Thus, there is some confirmation of the actual impact of HRIS among companies that have already used it. The six HRIS dimensions are related to one another.

(Shiyaa & Shyaa, 2019) This study examines the importance of using HRIS in hotel performance in Iraq, focusing on the significance of HRIS for customers' well-being and satisfaction. An information system can help an HR manager cut expenses associated with the administrative department, increase productivity, and, most importantly, shorten response times, enhancing decision-making and the standard of client service. The study concluded that even though HRIS technologies promise to improve a hotel's organizational performance, hotels and human resource managers must utilize them responsibly, particularly when it comes to customer-related information and data. Also, A hotel using a human management information system (HRIS) can gain a sustainable competitive advantage by developing and utilizing knowledge-based resources therefore, striking a balance between innovation and prediction is essential.

(S. Hosain, 2017) A study was conducted to determine whether there exists a relationship between HRM activities (independent variables) and organizational performance (financial and strategic). The study involved 299 mid- and supervisor-level managers and 228 top-level managers from 46 private and public firms across 8 service sectors in Bangladesh. Convenience sampling was utilized to select participants, and data was gathered through a comprehensive, structured questionnaire. Results demonstrated a positive link between e-application tracking, e-selection, e-learning, e-performance management, e-compensation and benefit, HRIS, and e-communication, e-personal profile, and e-leave with financial performance. According to the study's conclusions, neither financial performance nor strategic performance can be predicted by a single factor or set of factors. Instead, other factors differ from business to business, sector to sector, and cultural background to cultural background.

(Mjomba & Oyagi, 2021) The study aims to evaluated "The Influence of Human Resource Information System on Organizational Performance in Tanzania; A case of Zanzibar Ports Corporation." A case study approach was designed, integrating both quantitative and qualitative research methodologies. A total of 266 sample population was selected based on a combination of purposive and basic random sample methods. to collect the data, these respondents were distributed Structured questionnaires. The collected data was analyzed using IBM SPSS version. Additionally, the insights obtained from the interviews were also interpreted and summarized using content analysis. The study revealed that the human resource information system positively impacts organizational performance by supporting strategic decision-making, evaluating programs and policies, and addressing daily operational needs. Furthermore, it provides essential information on employment and retention strategies, empowering management to make informed choices. Moreover, the system enhances competitiveness by optimizing HR operations, expediting information dissemination, and streamlining administrative tasks through automation.

(Suleman, 2017) The study aims to explore the effect of utilizing Human Resource Information Systems (HRIS) on organizational performance by analyzing whether the usage of HRIS (Time, Resources, Accuracy, & Productivity) has a substantial and positive effect on organizational or firm performance. HRIS serves as a productive

and efficient tool for storing information and data related to everyone within an organization, aiding in planning, decision-making, and report submission (Nisha Bamel et al., 2014). The implementation of the HRIS has proven advantageous for the organization, serving as a methodical approach to collecting, storing, maintaining, and retrieving data related to its Human Resources, staff activities, and organizational unit characteristics (Das & Barman, 2019). This system ensures the availability of precise information to support the formulation and implementation of HR-related strategies and decisions. Secondly, the utilization of HRIS has resulted in improved productivity, efficient management of privacy, and time-saving benefits for both the HR and IT departments in organizations. These benefits are evident in various work activities, including worker information management, performance assessment, career development, hiring, and compensation administration. In addition, several challenges like inadequate financial support, limited expertise in HRIS operation, challenges with shifting organizational culture, and the extensive manual labor required to automate processes have hindered the successful implementation of HRIS.

(Mehmood et al., 2017) This study aims to examine the impact of human resource management practices on organizational performance. A total of 90 employees from public and private universities, comprising academicians and supporting staff, responded to the questionnaire. The process of data collection was carried out from the educational institutions in the Gujranwala region, specifically from PUGC (Punjab University Gujranwala Campus), UCP (University of Central Punjab), and Gift University. The survey questionnaire of 49 items was designed to capture insights into the perceptions and experiences of employees regarding the HRM practices at their respective universities. In this research, ANOVA, T-Test, and Regression was the statistical techniques applied to analyse. Variables are hypothesized to influence the mediating variable, employee job satisfaction, which is then assumed to have an impact on the dependent variable, organizational performance.

The study findings showed that management has the potential to boost organizational commitment by enhancing employee satisfaction with compensation, policies, and working conditions. It is advisable for companies to actively engage their employees, recognizing them as a key driver of competitive success. Furthermore, open communication and information sharing can have a significant

impact on employee commitment and job satisfaction. When employees feel that they are kept informed about important matters and are encouraged to share their thoughts and ideas, they are more likely to feel valued and engaged in their work. A transparent and inclusive approach can help build a supportive work environment and elevate employees' job satisfaction. By empowering employees with knowledge about the organization's environment and objectives, companies can create a culture of productivity and efficiency. When employees are made aware of important organizational matters and engaged in the decision-making processes, they are more likely to take ownership of their roles and work towards achieving the organization's goals. This collaborative approach not only enhances productivity but also strengthens the organization's overall efficiency and ability to compete in the industry.

(Qaisar et al., 2018) This study focused on the relationship between an organization's performance and the extent of HRIS adoption in a sample of 63 HR managers from different private companies in the capital city of Pakistan who use the digitized system in their HR department. A model was created to understand the adoption of HRIS and its impact on organizational performance. The study also investigated the moderating influence of HR staff expertise in the relationship. Organizations that completely integrate HR functions into their HRIS are likely to gain the most from using it. Any HRIS function that is not implemented fully or at all may have a damaging impact on the organization's performance and fail to produce the expected results. The study additionally found a clear correlation between the effectiveness of the organization and the skills of its HR staff. The results indicate that an organization's performance is enhanced by HRIS.

(Adelekan & Ojo, 2018) This study examines the link between Human Resource Information Systems (HRIS) and the efficiency and success of organizations in the banking sector. The current study focused on three competitive banks located in Lagos state, known as the commercial hub of Nigeria. The study targeted a population of 503 management-level employees at the head offices of three randomly chosen banks: Access Bank, First Bank, and Guaranty Trust Bank. Through the utilization of convenience sampling, 194 questionnaires were equally allocated among the three banks involved. Primary data was used to gather information from key participants, such as HR managers and employees within the

banking industry, regarding the evolution, adoption, advantages gained, and impacts on an organization's performance. A researcher applied a 6-point Likert-type scale to evaluate the main aspects under investigation, which were organizational performance, operational functionality, information management system, decision support system, and organizational culture, using a structured questionnaire. The study identified that Human resource information systems have been instrumental in enhancing the functions of a company's human resources department, especially in today's information and computer era. Implementing an effective and efficient human resource information system can undoubtedly help the department remain competitive and provide better and more effective services. Human resources information systems play a crucial role in enhancing HRM through both administrative and analytical functions. A well-functioning HRIS is essential for providing valuable insights into the organization's human resources requirements and capacities, enabling the management team to define the organizational mission and initiate goal-setting processes. It is important to note that HRIS encompasses more than just the technical aspects of computer hardware and software applications. The researcher recommended that to maximize the advantages of ICT-based procedures, the organization needs to conduct comprehensive training and development programs for both internal and external employees. Stakeholders need to possess a proper understanding of these processes to fully realize their benefits.

(Hena et al., 2019) developed a framework utilizing four independent factors (performance appraisal, communication, recruitment & selection, and job analysis) and one dependent variable, Performance (Profitability), to evaluate the effect of HRIS implementation on overall organizational performance. A detailed questionnaire was utilized to conduct interviews with all members of a single organization. The convenience sample approach was used to select respondents from two major Bangladeshi cities: Dhaka and Chittagong. A total of 464 HR executives were drawn from pharmaceutical firms. The study found that respondents have a favorable attitude toward using the HRIS Application. HRIS should be accepted and applied to promote improvements in business operations since it offers a clear picture of operational performance and may be utilized in tandem with other computerized applications to boost performance.

(Barisic et al., 2019) The primary goal was to enhance how HRIS is used within firms. To optimize the impact of HRIS on organizational performance. The study examined the influence of HRIS usage intensity on organizational performance using four metrics: service quality perception, productivity level, profitability, and innovation rate. Companies with HRIS with more HR functions are more productive, innovative, and produce better service quality, leading to higher profitability, especially in larger, growing, or stagnant markets.

A review of the literature indicates a positive impact of Human Resource Information Systems (HRIS) on organizational performance. Several research studies have consistently shown that the successful use of HRIS results in enhanced profitability, improved service quality, creates better operational efficiency, effective strategy decision-making, integration of strategic HR, and improved execution of HR functions. However, a few studies indicated that a poorly managed, ineffective, or incomplete HRIS adoption can poorly affect organizational performance by leading to fragmented data systems, operational inefficiencies, and an absence of HR strategies with wider organizational objectives.

The extensive review of existing literature has been instrumental in determining the key variables relevant to the present study. An in-depth analysis of earlier research revealed three significant constructs that are vital for understanding the impact of Human Resource Information Systems (HRIS) on organizational performance. In this study, HRIS, categorized within the Technology-Organization-Environment (T-O-E) framework, is identified as the independent variable, whereas the Human dimension of the HOT-fit model is recognized as a moderating variable that might influence the strength of this relationship. Organizational Performance has been selected as the dependent variable to analyze the results associated with HRIS implementation in the organizations.

2.4 Factor Identification

Table 2.1 Factor Identification

Author and Year	Title of Research Paper	Variables	Findings of the Study
(Siengthai& Udomphol, 2016)	"The Impact of Human Resource Information System (HRIS) on Organizational Effectiveness: A Case Study of the Textile Industry in Thailand"	1. Human resource process 2. Time-saving 3. Cost saving 4. Information effects 5. Decision making 6. Strategic impact and HR's role	An empirical study shows that, to fully capitalize on HRIS's benefits, businesses that now use it need to be aware of how it affects other business operations. To improve workers' job effectiveness, organizations should also teach all relevant staff in HRIS. On the other hand, businesses that have not yet implemented HRIS ought to give it careful thought as a means of enhancing organizational effectiveness.
(ElNakib et al., 2021)	"The Effect of HRIS Adoption on Vodafone Egypt Firm's Performance"	**Human resource information system (HRIS)** 1. Quality of "HRIS System and Information" 2. HRIS "Perceived Ease of Use and Usefulness" 3. HRIS Satisfaction 4. HRIS Success **Organizational Performance**	The execution of the information system found that, instead of strategic uses like succession planning, HRIS can be primarily utilized for administrative tasks like payroll and personnel record keeping, so that human resource department has a proper database of employees. To improve the effectiveness of their human resources processes, managers and decision-makers in the organization should make the adoption and implement HRIS.

(Ms. kamini teotia,2012)	"Role of HRIS in performance evaluation & Decision making"	1. payroll 2. labor productivity 3. Benefit management	The research indicates that through the adoption and application of HRIS with ERP and CRM systems, the organization has gained the comprehensive benefits of a unified system that reduces mistakes, reduces cycle times, and supports effective management decisions. Additionally, HRIS manages and maintains all important human resources data, covering the joining date of employees, training requirements, and the exit workforce.
(Al Mamun, 2016)	"Perception of Management on Outcomes of Human Resource Information System (HRIS)"	1. Operational Effectiveness 2. Managerial Effectiveness 3. Strategic Finesse	The study focuses on the timely delivery through various factors, including the timely and accurate delivery of relevant information to the right employees in an appropriate format. These capabilities contribute significantly to improving the organization's operational efficiency. Furthermore, HRIS supports management functions, strengthens leadership effectiveness, and strongly supports strategic decision-making processes.
(F. Bhuiyan et al., 2013)	"Impact of Human Resources Information System (HRIS) on the Performance of	1. Recruitment & Selection 2. Training & Development 3. Payroll	It has been found that banks use Human Resource Information Systems (HRIS) in three core HR functions. Furthermore, HRIS is extensively utilized in the payroll process. Further,

	Firms: A Study on Some Selected Bangladeshi Banks"		research has found that the time-saving capabilities of HRIS in the banking sector have a neutral outlook. The study has found a significant contribution to HRIS in minimizing record-keeping costs in the banks of Bangladesh.
(Barisic et al., 2019)	"The intensity of human resources information systems usage and organizational performance"	**Dependent variable** Service Quality Level of productivity Profitability Rate of innovation **Independent variable** HRIS usage HRIS types HRIS Outsourcing HRIS Manager self-service HRIS Employee self-service HRIS purposes Number of HRIS usages	The research findings suggest that organizations are improving their efficiency in changing human resource practices through information systems. Adopting information system improvement in the organization was becoming more significant in larger enterprises that function in larger markets, which are either taking place in a positive way or at least stagnantly. Therefore, organizations can make more substantial efforts in improving their HR practices within HRIS.
(Shahreki, 2020)	"The effect of Human Resource Information System application on employee satisfaction and turnover intention"	Ease of Use Usefulness Attitude Employee Satisfaction Turnover Intention Employee	This study reveals that employee satisfaction mediates the indirect association between how HRIS is perceived and employees' turnover intentions. Moreover, the research enriches insights into system adoption and technology acceptance by introducing work-related

		satisfaction Turnover intention	performance indicators as complementary success metrics.
(Ankrah & Sokro, 2012)	"Human Resource Information System as a strategic tool in Human Resource Management"	Cost & Times Savings (CTS) Decision-Making Contribution (DMC) Quality Information Effects (QIE) Employment Development Commitment (EDC) HRIS Use	Organizations that commit to HRIS adoption are likely to achieve reductions in costs and time savings; secondly, it also improves strategic decision-making outcomes in the organization.
(Lowery & Johns, 2005)	"The Impact of Human Resource Information Systems: An Exploratory Study in the Public Sector"	1. Satisfaction with the HRIS 2. HR Processes 3. Time Savings 4. Cost Savings 5. Information Effects 6. Decision Making	The findings regarding the influence of Human Resource Information Systems (HRIS) within a public sector context are promising yet varied. The method of recruitment, selection, and training may differ for public sector organizations compared to their private sector organizations. Overall, the public sector directors are satisfied with the use of information systems. Observations for the study suggest that, although HRIS was important in organizations, it has not fully benefited from its potential within this environment in the public sector.
(Abutayeh et al., 2012)	"The Effect of the Implementatio	1. HR planning 2. Recruitment 3. Training	The finding of the study states that the Human Resource Information System (HRIS)

	n of Human Resource Information Systems on Job-Related Decisions in Commercial Banks in Jordan"	4. Compensation 5. Performance Appraisal	offered positive qualitative and quantitative insights regarding human resource strategies, alterations in job characteristics, and career development within commercial banks in Jordan.
(Kumar & Parumasur, n.d, 2013)	"The impact of HRIS on organizational efficiency: random or integrated and holistic?"	1. Impact of HRIS on HR functions (HRF) 2. Impact of HRIS on time management (TM) 3. Impact of HRIS on cost management (CM) 4. Managerial satisfaction with the HRIS (MS) 5. Impact of HRIS on overall organizational efficiency (OE)	The Human Resource Information System (HRIS) significantly enhances the overall performance of HR functions. For optimal results, it must be effectively aligned with the core functions of HR lik employee performance evaluation and remuneration planning. The impact of HRIS on cost management can be further enhanced by giving proper training on the usage and adoption of the system.
(Arz Bhutto, 2016)	"Employee Motivation and Acceptance of Human Resource Information Systems in Pakistan"	1. Motivation 2. Training 3. HRIS Acceptance	The research highlights the benefits associated with implementing HRIS in Jordanian organizations. Additionally, providing training can enhance employee motivation and promote greater acceptance of the HRIS.
(Razali & Vrontis, 2010)	"The Reactions of Employees Toward the Implementation of Human Resources	1. Core Administration 2. Training 3. Recruitment	The key findings of the research study show that the involvement and support of top management and organizational commitment emerged as the two most

	Information Systems (HRIS) as a Planned Change Program: A Case Study in Malaysia"		positive factors influencing employees' acceptance of the proposed change initiative.
(Teo et al., 2007)	"The adoption and diffusion of human resources information systems in Singapore"	**Innovation characteristics** • Relative advantage • Compatibility • Complexity **Organizational characteristics** • Top management support • Size • HRIS expertise **Environmental characteristics** • Competition **The decision to adopt HRIS** **Extent of HRIS adoption**	The findings of this study provide initial evidence that the factors influencing the decision to implement Human Resource Information Systems (HRIS) differ from those affecting the degree of their adoption. The decision to adopt is positively influenced by perceived innovation characteristics, such as relative advantage and compatibility within department; however, all these factors do not impact the extent of HRIS adoption.
(Rubel et al., 2015)	"Factors Affecting Organizations Adopting Human Resource Information Systems: A Study in	1. Technological Factor 2. Organizational Factor 3. Environmental Factor 4. Innovative Factor	The researcher found that HRIS is crucial for effective planning, administration, decision-making, and control, facilitating applications such as employee selection, placement, payroll management, pension management, training projections, and performance

	Bangladesh"		evaluations. Human Resource information systems enhance administrative efficiency and produce reports that support improved decision-making. The positive mark of technology and the environment is critical to the adoption of HRIS.
(Göktaş & Akgül, 2019)	"The Investigation of Employer Adoption of Human Resource Information Systems at University Using TAM"	1. Attitude Towards Use 2. Intention to Use 3. Perceived Ease of Use 4. Perceived Usefulness	The main focus of this research study is to assess the adoption of human resource information systems (HRIS) in the higher education sector, utilizing the technology acceptance model (TAM) as a theoretical framework. The results suggest that perceived usefulness and perceived ease of use are critical in shaping employers' attitudes, their intentions to use the system, and the actual usage of HRIS.
(Acar & Acar, 2014)	"Organizational Culture Types and Their Effects on Organizational Performance in Turkish Hospitals"	Organizational Cultural scale Business performance scale	The findings of the research indicate that private hospitals in Turkey have not yet developed an innovative framework that aligns with the dynamic conditions of the market. Furthermore, the study could not determine a positive difference in the role of organizational culture in shaping organizational performance across public and private hospitals.
(Agha et al.,	"Effect of Core	**Core Competence**	The study's analysis reveals

2011)	Competence on Competitive Advantage and Organizational Performance"	• Shared Vision • Cooperation • Empowerment **Competitive Advantage** • flexibility • responsiveness **Organizational performance** • Growth • Profitability	that core competencies significantly and positively influence both competitive advantage and organizational performance. Moreover, competitive advantage itself positively contributes to enhancing organizational performance. The findings confirm the differing significance of the dimensions of core competence regarding competitive advantage and organizational performance. To remain competitive and achieve competitive advantages, managers should focus on boosting organizational performance by managing each factor of core competence, including shared vision, cooperation, and empowerment.
(Palacios-Marqués et al., 2019)	"Social entrepreneurship and organizational performance: A study of the mediating role of distinctive competencies in marketing"	Social entrepreneurship scale distinctive competencies in marketing Organizational Performance	The results show a beneficial relationship between the extent of social entrepreneurship and Organizational performance outcomes. There is also a positive connection between social entrepreneurship and distinctive competencies in marketing. Furthermore, the relationship between social entrepreneurship implementation and overall organizational performance. is mediated by marketing competencies.
(Jan &	"Technology	- Perceived	The study's results highlight

Contreras, 2011)	acceptance model for the use of information technology in universities"	compatibility - Perceived usefulness (PU) - Perceived ease of use (PEOU) - Subjective norm (SN) - Attitude toward use (A) - Behaviour intention - Real Use	positive relationships between the identified variables. In conclusion, actionable recommendations are made regarding the key variables that contribute to the decision to adopt of information technology within universities.
(Horton et al., 2001)	"Explaining intranet use with the technology acceptance model"	Variables for Technology Acceptance Model (TAM) - Perceived usefulness - Perceived ease of use - Intention to use - Self-reported usage	The Technology Acceptance Model (TAM) is perfectly and positively suited for organizations that have structured operations with limited informational demands. The Technology acceptance model exhibited a stronger relationship when relying on self-reported usage data, in contrast to a weaker relationship with actual usage data. Despite the complexities associated with intranet technology, TAM serves as an effective and valuable framework for understanding its adoption.
(Yusoff et al., 2010)	"E-HRM: A proposed model based on the technology acceptance model"	- Role of the HR Department - Perceived Usefulness - Perceived Ease of Use - Attitude Towards E-	This research study provides an overview of E-HRM and the Technology Acceptance Model (TAM). A research model is outlined to investigate the relationships between these HR roles and E-HRM perceptions. The paper focused on the increasing prevalence of

		HRM	E-HRM worldwide. The finding highlighted the execution of well-structured research to examine these relationships, with the expectation that future outcomes will offer critical insights for the design of E-HR systems for both individuals and organizations to achieve significant results.
(Hani Al-Dmour et al., 2015)	"The Practice of HRIS Applications in Business Organizations in Jordan: An Empirical Study"	-Employee recordkeeping - Recruitment and selection - Payroll service - Benefits management - Training and development - Performance appraisal - Compensation management - Turnover tracking/analysis - Internal and external communication - Succession HR planning.	The findings drawn from the research concluded that the advancement of HRIS use in Jordan is moderately accepted. The most utilized HRIS applications used in the organization are Employee records, payroll, and recruitment and selection. Secondly, Succession planning, Employee performance evaluation, Employee reward system, and Learning and development (L&D) have also been implemented in the organization of Jordan.
(Suharti & Sulistyo, 2018)	"The implementation of human resources information	- Time Efficiency - Cost efficiency - Quality of	The result indicated that the implementation and adoption of HRIS have a notable influence on time efficiency. Whereas HRIS implementation

	system and its benefit for organizations"	Information - Managerial satisfaction	is not a determining factor for cost efficiency and does not influence the quality of information. Lastly, HRIS implementation favourably affects managerial satisfaction.
(Mounika & Kamesh, 2017)	"Employee Perception on the impact of HRIS on Productivity: A Study of select IT organizations in Hyderabad"	Independent variable (i)Software (ii)Age of Software (iii)Access to information (iv)Accurate information **Dependent Variable** (i) Employee Productivity (ii)Cost Reduction (iii)Timely decision-making	The result of the study suggested that the implementation of HRIS leads to lower costs related to hiring, training, and salaries. Moreover, HRIS serves as a valuable tool, exerting a notable influence on work-related activities, efficiency decision-making, and employee productivity.
(Hena et al., 2019)	"The Role of Human Resource Information Systems on Organizational Performance: Evidence from the Bangladeshi Pharmaceutical Industry"	**Independent variable** - Job Analysis - Recruitment & Selection - Performance Appraisal - Communication **Organizational Performance: Dependent variable** -Performance (Profitability)	The results show that Human Resource Information Systems (HRIS) can greatly enhance organizational performance. Job Analysis, Recruitment and selection, Performance Appraisal, and communication have positive associations with organizational performance. However, it is essential to understand that HRIS can only deliver the essential information; the decision to utilize this information effectively rests with HR managers or executives in an organization.

(Selvaraj et al., 2018)	"A study on the role of Human Resource Information System in Human Resource Planning in India"	- Role of HR Information System in Recruitment - Forecasting of HRP - Role of HRIS in HRP	The study demonstrates that HRIS facilitates more effective and efficient execution of modern HR planning strategies. It focuses on cost tracking, recruitment, and aligning HR functions with the organization's goals. Adopting HRIS into HR planning has become a strategic necessity in India

2.5 Research Gap

A comprehensive examination of the existing literature on HRIS and organizational performance reveals that considerable research has focused on HRIS applications in core HR functions such as recruitment and selection, performance appraisal, training, job analysis, and compensation. (Talent acquisition and hiring, Performance Appraisal, training, Job Analysis, and Rewards and benefits management*)*

The literature on HRIS and its impact on organizational performance indicate significant emphasis on its role in fundamental HR functions, including talent acquisition, appraisal systems, employee training, job analysis, and compensation as well as implementation, adoption, and barriers to HRIS affecting profitability and employee perception. However, a detailed analysis of the Literature reveals certain areas that have been uncovered and that have not been explored, which highlight a significant gap in this area. It has been noted that there is limited information available, and no comprehensive studies have specifically examined the impact of HRIS on organizational performance within the IT-ITES sector in Gujarat.

- The research done till now is focused on employee perception, and none of the researchers have compared it with organizational performance.
- There were a few studies in the IT-ITES sector in India, but there is no such study found covering specifically the IT-ITES sector in Gujarat.
- The integration of the T-O-E framework and the HOT-Fit model in assessing HRIS's impact on organizational performance remains relatively underexplored in the existing literature.
- Additionally, the T-O-E framework and HOT-Fit model, which assess the impact of HRIS across organizational, technological, environmental, and human dimensions, have been underutilized in this sector.
- Therefore, there is an extensive and sufficient scope for researching the impact of the HRIS on organizational performance concerning the specified IT & ITES sector performance in Gujarat state. By conducting this study, a significant contribution was made to bridge the research gaps in this specific area.

2.6 Proposed Research Model

Figure 2.1 Conceptual framework derived from a Literature Review based on the T-O-E framework and the HOT-fit model

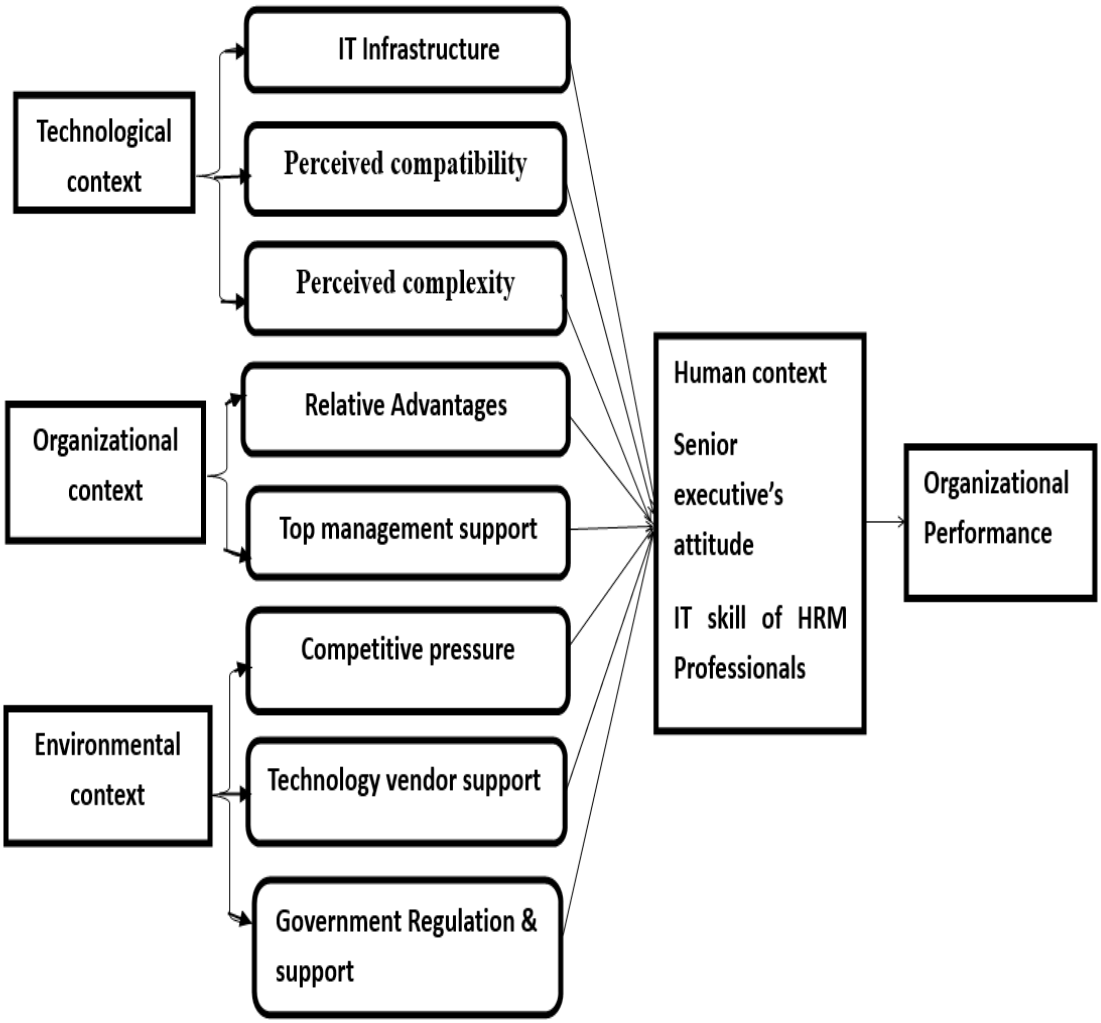


Table: 2.2 Factor Development

Name of the Author	Development
(Alam et al., 2016)	(TOE and HOT Fit model) Technology, Organizational, Environment, and Human
(Delaney, 1996)	Organizational Performance.

A questionnaire was developed to know the impact of the Human Resource Information system (HRIS) on Organizational performance based on the review of the existing literature in this area.

Table: 2.3 Variables Development - Adapted from: (Alam et al., 2016; Delaney, 1996)

Name of the Author	Questionnaire/ Variables
(Alam et al., 2016)	**<u>Technology (Independent Variable)</u>** IT Infrastructure Perceived compatibility Perceived complexity
	<u>Organisation (Independent Variable)</u> Relative advantage Top management support
	<u>Environment (Independent Variable)</u> Competitive pressure Technology vendor support Government regulations and support
	<u>Human (Moderating variable)</u>

	Senior executive's attitude IT skill of HRM Professionals
(Delaney, 1996)	**<u>Organizational Performance (Dependent Variable)</u>** Employee Skills Employee Motivation Structure of Job & work.

Table 2.3 summarizes the variables selected from existing literature, along with the authors responsible for contributing to their theoretical framework. The variables of the study have been categorized as per the constructs defined in the T-O-E framework and the HOT-Fit model. These variables were selected with careful consideration since they are important, frequently selected, and in line with the goals of the present research. Each construct is measured using a 5-point Likert scale and taken from an established scale.

Chapter – 3
Research Methodology

3.1 Introduction

Research can be defined as a systematic scientific approach to inquiry aimed at discovering reliable solutions to specific problems. This involves the systematic selection, collection, evaluation, and interpretation of relevant data and information, and a thorough exploration of systematic methods for generating new knowledge. The chapter focusing on research methodology explains the framework through which the study's outcome can be achieved, while also detailing the research methods and techniques implemented during the investigative process. This chapter highlights the research approaches adopted throughout the research process.

Furthermore, the research methodology chapter is crucial in guiding future researchers by providing a clear blueprint of the procedures followed. This chapter enhances the transparency of the research methodology, along with providing clearer insight into the study's research design.

3.2 Problem Statement

In the competitive IT and ITES sector, organizations increasingly rely on Human Resource Information Systems (HRIS) to streamline HR processes, support decision-making, and improve organizational performance (Abadiano, 2012; Abutayeh et al., 2012). The problem addressed in this study is the impact of Human Resource Information Systems (HRIS) on organizational performance in IT and ITES companies. While HRIS offers benefits such as enhanced operational efficiency and better decision-making in organizations (Adelekan & Ojo, 2018) Adoption remains inconsistent due to technological, organizational, and human factors (Al-Dmour, 2020).

Particularly in the Indian context, and more specifically in the IT–ITES sector of Gujarat, there is a lack of comprehensive empirical research examining the impact of HRIS adoption on organizational performance. This research aims to address this gap by examining HRIS benefits, adoption determinants, and its impact on organizational performance in the IT and ITES sector, providing actionable insights for effective HR management (Arora & Chauhan, 2020; Bhuiyan et al., 2013).

Therefore, the problem addressed in this study is the absence of an integrated empirical examination of HRIS adoption and benefit determinants and their impact on organizational performance in the IT and ITES sector of Gujarat, using the TOE and HOT-Fit frameworks, which limits the ability of industry practitioners and researchers to develop evidence-based strategies for improving HR processes, decision making, enhancing employee satisfaction, and optimizing organizational outcomes.

3.3 Research Questions

Based on the review of existing literature, the following research questions have been identified for examination in the present study.

1. What is the level of acceptance and perceived benefits of HRIS in the IT & ITES sector?
2. What is the impact of HRIS on organizational performance in the IT & ITES sector of Gujarat?
3. What factors contribute to HRIS adoption and organizational performance in the IT & ITES sector?
4. Is there a significant difference in HRIS adoption based on various demographic profiles?
5. Is there a significant difference in perceived organizational performance based on various demographic profiles?
6. How do workflow integration, IT adoption, organizational benefits, and system alignment influence job satisfaction?

3.4 Research Objectives

1. To study the acceptance and benefit of HRIS in the IT & ITES sector.
2. To know the impact of HRIS on organizational performance with a specific reference to the IT & ITES sector of Gujarat.
3. To study the factors contributing to HRIS adoption and organizational performance.
4. To study the difference in HRIS adoption based on various demographic profiles.
5. To study the differences in perceived organizational performance based on various demographic profiles.

6. To examine the effect of Workflow Integration, IT adoption, Organizational Benefits, and system alignment on Job satisfaction.

3.5 Research hypothesis for the study

Hypothesis for Objective - 2 To know the impact of HRIS on organizational Performance with specific reference to the IT & ITES sector of Gujarat.

H_0 - There is no significant impact of HRIS on Organizational Performance.

H_1 - There is a significant impact of HRIS on Organizational Performance

Hypothesis for Objective: 4 To study the difference in HRIS adoption based on various demographic profiles.

There is no significant difference in HRIS adoption based on various demographic profiles.

(Demographics in the questionnaire consist of: Gender, Age, Marital Status, Working location, Annual Income, Qualification, Department, Position, and Work Experience)

Adoption of HRIS between two gender groups

$H_0 1a$ - There is no significant difference in the adoption of HRIS between two gender groups.

$H_1 1a$ - There is a significant difference in the adoption of HRIS between two gender groups.

Adoption of HRIS among Age

$H_0 1b$: There is no significant difference in the adoption of HRIS among Age.

$H_1 1b$: There is a significant difference in the adoption of HRIS among Age.

Adoption of HRIS among Marital Status

$H_0 1c$: There is no significant difference in the adoption of HRIS among Marital Status.

$H_1 1c$: There is a significant difference in the adoption of HRIS among Marital Status.

Adoption of HRIS among working location

$H_0 1d$: There is no significant difference in the adoption of HRIS among working location.

$H_1 1d$: There is a significant difference in the adoption of HRIS among working location.

Adoption of HRIS among Annual Income

$H_0 1e$: There is no significant difference in the adoption of HRIS among Annual Income.

$H_1 1e$: There is a significant difference in the adoption of HRIS among Annual Income.

Adoption of HRIS among qualification

$H_0 1f$: There is no significant difference in the adoption of HRIS among qualification.

$H_1 1f$: There is a significant difference in the adoption of HRIS among qualification.

Adoption of HRIS among department

$H_0 1g$: There is no significant difference in the adoption of HRIS among department.

$H_1 1g$: There is a significant difference in the adoption of HRIS among department.

Adoption of HRIS among position

$H_0 1h$: There is no significant difference in the adoption of HRIS among position.

$H_1 1h$: There is a significant difference in the adoption of HRIS among position.

Adoption of HRIS among work experience

$H_0 1i$: There is no significant difference in the adoption of HRIS among work experience.

$H_1 1i$: There is a significant difference in the adoption of HRIS among work experience.

Hypothesis for Objective: 5 To study the difference in perceived organizational performance based on various demographic profiles.

There is no significant difference in perceived Organizational Performance based on various demographic profiles.

(Demographics in the questionnaire consist of: Gender, Age, Marital Status, Working Location, Annual Income, Qualification, Department, Position, and Work Experience)

Perceived Organizational Performance between two gender groups

$H_0 2a$: There is no significant difference in the perceived Organizational Performance between two gender groups.

$H_1 2a$: There is a significant difference in the perceived Organizational Performance between two gender groups.

Perceived Organizational Performance among Age

$H_0 2b$: There is no significant difference in the perceived Organizational Performance among Age.

$H_1 2b$: There is a significant difference in the perceived Organizational Performance among Age.

Perceived Organizational Performance among Marital Status

$H_0 2c$: There is no significant difference in the perceived Organizational Performance among Marital Status.

$H_1 2c$: There is a significant difference in the perceived Organizational Performance among Marital Status.

Perceived Organizational Performance among working location

$H_0 2d$: There is no significant difference in the perceived Organizational Performance among working locations.

$H_1 2d$: There is a significant difference in the perceived Organizational Performance among working locations.

Perceived Organizational Performance among Annual Income

$H_0 2e$: There is no significant difference in the perceived Organizational Performance among Annual Income.

$H_1 2e$: There is a significant difference in the perceived Organizational Performance among Annual Income.

Perceived Organizational Performance among Qualification

$H_0 2f$: There is no significant difference in the perceived Organizational Performance among Qualification.

$H_1 2f$: There is a significant difference in the perceived Organizational Performance among Qualification.

Perceived Organizational Performance among department

$H_0 2g$: There is no significant difference in the perceived Organizational Performance among department.

$H_1 2g$: There is a significant difference in the perceived Organizational Performance among department.

Perceived Organizational Performance among position

$H_0 2h$: There is no significant difference in the perceived Organizational Performance among position.

$H_1 2h$: There is a significant difference in the perceived Organizational Performance among position.

Perceived Organizational Performance among work experience

$H_0 2i$: There is no significant difference in the perceived Organizational Performance among work experience.

$H_0 2i$: There is a significant difference in the perceived Organizational Performance among work experience.

Hypothesis for Objective – 6 To examine the effect of Workflow Integration, IT adoption, Organizational Benefits, and system alignment on Job satisfaction.

Impact of Workflow integration on Job satisfaction

$H_0 3a$: There is no significant impact of Workflow integration on job satisfaction among employees in the IT & ITES sector.

$H_1 3a$: There is a significant impact of Workflow integration on job satisfaction among employees in the IT & ITES sector.

Impact of IT Adoption on Job Satisfaction

$H_0 3b$: There is no significant impact of IT Adoption on Job satisfaction among employees in the IT & ITES sector.

$H_1 3b$: There is a significant impact of IT Adoption on Job satisfaction among employees in the IT & ITES sector.

Impact of Organizational Benefit on Job Satisfaction

$H_0 3c$: There is no significant impact of Organizational Benefit on job satisfaction among employees in the IT & ITES sector.

$H_1 3c$: There is a significant impact of Organizational Benefit on job satisfaction among employees in the IT & ITES sector.

Impact of System Alignment on Job Satisfaction

$H_0 3d$: There is no significant impact of System Alignment on job satisfaction among employees in the IT & ITES sector.

$H_1 3d$: There is a significant impact of System Alignment on job satisfaction among employees in the IT & ITES sector.

3.6 Scope of the study

The adoption and use of the Human Resource Information system (HRIS) is one of the foremost systems in the IT & ITES sector. The scope of the study is restricted to employees working in IT & ITES companies in four main cities of Gujarat i.e., Ahmedabad, Rajkot, Surat, and Vadodara. The data analyzed involved 515 employees working in the IT & ITES sector and the analysis was performed using SPSS and AMOS software. The research would provide insight into the IT & ITES Sector to focus on the Adoption of HRIS software and recognizing its impact on Organizational performance.

3.7 Research Design

Research designs are mostly classified into exploratory, descriptive, and causal based on the purpose of the study (Malhotra, 2010). It can be understood as the structured and comprehensive strategy that aligns the various dimensions of the study coherently and logically, ensuring that the researcher effectively addresses the research problem (De Vaus, 2001). It provides a structured blueprint or a roadmap for methodologies of data collection, measurement, and analysis (Kothari, 2004). Research design is crucial for identifying cause-and-effect relationships among variables, particularly how the impact of the independent variable on the dependent variable is very similar to true experimental designs (William R. Shadish et al., 2002). In this model, Technology, Organizational, and Environmental contexts are treated as independent variables, while Organizational Performance is the dependent variable. The Human context, derived from the HOT-Fit model, is introduced as a moderating variable to assess its influence on the association between the independent variables and the dependent variable.

This study is based on a descriptive research design to examine the impact of HRIS on organizational performance. It consists of surveys and fact-finding investigations focused on the current situation (Kothari, 2004). The research design applies quantitative techniques to analyze the constructs that are intended to be identified (Cavana et al., 2001). The researcher analyzed the implications of HRIS adoption in the IT & ITES sector and explored the effects of this innovative technology on the performance of organizations operating within the IT & ITES sector in Gujarat state. The pilot study survey, along with the development of the scales and data collection, was conducted using a descriptive study design.

Analytical Framework

This research study focuses on individual employees, holding the various position in the IT & ITES sector. The data have been collected at one point in time, thus categorizing this study as cross-sectional (Creswell, 2014).

This study examined the IT & ITES industry within selected cities of Gujarat, including Ahmedabad, Rajkot, Surat, and Vadodara (Government of Gujarat, 2021). The researcher was directed to relevant team members of the IT & ITES sector through internal coordination and the organization’s hierarchical structure. The study's

respondents were comprised of employees working in the IT & ITES industry, including web developers, software developers and engineers, IT department, the HR department, the Marketing & sales department, and the project department.

3.8 Sample Design

3.8.1 Sample Profile

The study gives a brief overview of the respondent profile, which consists of 515 employees holding position in the IT & ITES sector in Gujarat state.

3.8.2 Population

The target population refers to the specific group of individuals upon whom the intervention aims to conduct research and from whom conclusions of the study will be derived (Creswell, 2014).

Data used in the study were collected from the organizations adopting and using HRIS software, and these organizations were considered the respondents for this study. The target population for the study was the four major cities of Gujarat, i.e., Ahmedabad, Rajkot, Surat, and Vadodara(Government of Gujarat, 2021) . The most populated cities in Gujarat were selected for the study by using the criteria of having a large population of IT& IT& ITES employees, which was utilized as the basis for the selection of these cities.

3.8.3 Sample Population:

The data was gathered through a combination of two methodologies. First, interactions were held with managing heads and HR managers, followed by the distribution of a questionnaire via mail and through LinkedIn to the previously identified sample. Secondaly, this research focuses on the IT & ITES sector in various cities of Gujarat, including Ahmedabad, Vadodara, Surat, and Rajkot. Ultimately, the study involved 515 employees from the IT & ITES sector to examine the HRIS on Organizational Performance.

3.8.4 Sample size

A total of 515 employees from the four major cities of Gujarat state, i.e., Ahmedabad, Rajkot, Surat, and Vadodara, were considered for this study due to their significance

as key economic and metropolitan centers in Gujarat (Government of Gujarat, 2021). The table below shows the number of employees from each city.

Table 3.1 Sample Size

Region	Number of Respondents
Ahmedabad	160
Rajkot	120
Surat	120
Vadodara	115

Sample Size Calculation

To identify the sample size from a population. The Cochran formula (Cochran, 1977) outline below is utilized.

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

- Where η_o is the sample size.
- Z 2 is the abscissa of the normal curve that cuts off an area α at the tails.
- (1 – α) equals the desired confidence level, e.g., 95%.
- e is the desired level of precision or sampling error.
- p denotes the estimated proportion of the attribute in the population. Whereas q is equal to 1-p.
- In this study, a confidence level of 95% has been utilized with a variability of 0.5 and a standard error of 0.05.

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

$$= \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2}$$

$$= 384.16$$

Level of significance

Management research is an integral component of social sciences, where researchers adopt a 5% confidence level when addressing research inquiries (Fisher, 1925). In this scenario, Z is equivalent to a 5% confidence level. A normal distribution value of Z at

a 5% significance level suggests that the population is sufficiently large to fulfil the research objectives(Ghasemi & Zahediasl, 2012). The model prescribed that a sample size of 515 is required to achieve a 95% confidence level, with a confidence interval of 5% (Gravetter & Wallnau, 2017), considering a percentage error of 50%, which is viewed as the most conservative estimate.

3.8.5 Area of the study:

The sample area in the present study encompassed IT & ITES organizations from the state of Gujarat, specifically Ahmedabad, Rajkot, Surat, and Vadodara.

3.8.6 Sample Technique

For our research study, we have selected a non-probability convenience sampling technique. Convenience sampling was adopted as the researcher had access to participants' contact details, allowing for smooth distribution of the questionnaire, and the respondents were accessible at the designated time and location.

Convenience sampling is a non-probability sampling approach where researchers choose participants who are readily accessible and who readily consent to participate in the study (Creswell, 2014). This method involves identifying participants in a readily available location, without imposing specific criteria for inclusion.

Identification of Respondents

The researchers analyzed multiple sources to collect and acquire the population's fundamental contact information for the target population.

- IT conferences in Gujarat
- Alumni contact from colleges
- LinkedIn connects
- Consultancy firm
- IT Networking and Community Groups in Gujarat (IT sales communities, HR Professional Communities)

3.9 Data Source

Data sources refer to the specific places or origins from which data is collected or gathered for research purposes. This study intends to cover both primary and secondary data sources (R. Kumar, 2019; Saunders et al., 2016).

3.9.1 Primary data

Primary sources refer to data and information that are collected directly by a researcher for the first time, which is also known as original data (Bryman & Bell, 2015; Creswell, 2014). Primary data for the research were gathered by employees of the IT & ITES sector in the state of Gujarat. A structured questionnaire was used to gather the primary data, which comprised a closed-ended questionnaire and a five-point Likert scale (Kothari, 2004; Saunders et al., 2016).

The questionnaire was distributed to IT & ITES employees through Google Forms. The Google form link was shared with employees of the IT & ITES sector through personal e-mail, LinkedIn, personal visits to the company, and various IT associations in Gujarat state. The respondents, who are engaged in the IT & ITES sectors, were provided with the measuring instrument. The process of gathering responses through technological means was more accessible and convenient compared to the traditional method of delivering printed questionnaires for respondents to fill out (Denscombe, 2010; J. R. Evans & Mathur, 2005).

A period of seven months, spanning from January 1, 2024, to August 31, 2024, was used to gather data from IT & ITES employees in Gujarat state. An email survey was issued to employees in the IT & ITES sector, who were then asked to circulate the survey to their peers in the same or different organizations.

3.9.2 Secondary data

Secondary data refers to information that has been gathered, analyzed, and released by others, rather than being obtained directly by the researcher through original data collection methods (Saunders et al., 2016).

Here are some secondary sources of methods that have been applied in this study

- Academic sources (Journals, Thesis, Books).
- Magazines and newspapers.
- Secondary information regarding the industry profile and additional details was obtained from the company's website.

Various online data sources, including EBSCO, HR, Google Scholar, and Web of Science, were reviewed in this research. In addition, journals published by notable entities such as Emerald, Routledge, Science Direct, Elsevier, and Springer were

reviewed (Tranfield et al., 2003). The analysis also covered research articles from distinguished national and international journals (Saunders et al., 2016).

3.10 Statistical techniques and tools used for Analysis

The data that was collected underwent a thorough process of organization, classification, and analysis, utilizing various statistical techniques such as descriptive statistics, Mean Score, Standard Deviation, Reliability test, Regression, Mann-Whitney U test, Kruskal Wallis test, and Correlation, implemented through Structural Equation Modelling in the AMOS software based on the variance and the Statistical Package for Social Sciences (SPSS 20)(Gravetter & Wallnau, 2017; Kothari, 2004). Before being processed in SPSS, the data were first organized in an Excel spreadsheet with a coding sheet (Punch, 2014).

1. **Descriptive Summary**

The analysis of results was conducted utilizing a frequency table and a percentage analysis of the data collected. This method allowed for a clear understanding of the distribution of responses within the dataset (Gravetter & Wallnau, 2017). The combination of numerical data with percentages provided a comprehensive overview of the results, facilitating a more in-depth interpretation of the data.

2. **Reliability test**

Reliability analysis of the primary data was performed using Cronbach's Alpha, a standard approach for determining the consistency of responses. If the Alpha value is determined below 0.70 (Cronbach, 1951)The questionnaire is unreliable for the study, and specific statements contributing to the low reliability are eliminated from the instrument. It is essential to evaluate the reliability of each variable of the questionnaire. In the present study, reliability testing was first conducted for the pilot survey, as well as on the final data gathered from 515 IT & ITES employees from Gujarat.

3. **Mean**

The mean is the most commonly used measure of central tendency, calculated by dividing the sum of all values in a dataset by the total number of values (Gravetter & Wallnau, 2017).

4. **Standard deviation**

It represents how far an item or value deviates from the data set's mean. The square root of the square of the item's departures from the mean divided by the total number of observations is the standard deviation (Gravetter & Wallnau, 2017)

5. **Regression**

This method is a crucial tool in statistical analysis and is used to examine how strongly and in what manner one or more independent variables influence or are associated with a dependent variable. It allows researchers to estimate the outcome of the dependent variable from the independent variables and to analyze how strongly the predictors affect the outcome variable (Hair et al., 2010) .

6. **Mann-Whitney U test**

The Mann-Whitney U test is a non-parametric statistical test used to compare differences between two independent groups on an ordinal variable (Field, 2013; Pallant, 2020). It is applied to examine whether there is a statistically significant difference between the distributions of two independent groups(Nachar, 2008). It evaluates the null hypothesis, which assumes that both groups are drawn from populations with similar distributions. A p-value less than 0.05 indicates that the researcher may reject the null hypothesis at the 5% level of significance, suggesting that a meaningful difference exists between the two groups (Nachar, 2008).

7. **Kruskal Wallis test**

It is a non-parametric statistical test. The Kruskal Wallis test is used to determine the significant differences in the medians of three or more independent groups(McKight & Najab, 2010). It is used when the scale data is not normally distributed or when the variances are unequal across the group. It is an alternative to one-way ANOVA. The null hypothesis assumes there are no differences in the average ranks. If the p-value is below 0.05, the result is considered statistically significant, and the researcher may reject the null hypothesis at a 5% significance level (Kruskal, 1952). This implies that at least one group differs from the others in terms of central tendency, prompting further comparison to identify the source of the difference.

8. Exploratory Factor Analysis (EFA)

An Exploratory Factor Analysis (EFA) was used as a dimension-reduction technique to identify the underlying factor structure of the data (Fabrigar et al., 1999). EFA is particularly useful when the relationships among variables are not yet established, and the aim is to explore how observed items group together to form latent constructs (Hair et al., 2010; Tabachnick & Fidell, 2007) In this analysis, the data obtained from 515 IT & ITES sectors to determine the impact of the Human Resource Information System on Organizational performance.

9. Structural Equation Model

Structural Equation Modeling (SEM) is a statistical analysis tool that enables the testing and estimation of causal relationships between variables, integrating both statistical data and a theoretical framework (Kline, 2016a). Its method allows researchers to both test existing theory validation and create a new theory framework (Byrne, 2010). This flexibility of SEM is where both modeling can be performed, confirmatory factor analysis, where established hypotheses are aimed to be evaluated, and exploratory factor analysis, where new theories or variables can be derived from the data. After the model has been implemented, it undergoes testing through a comparison with the collected data. The evaluation of the model's fit is conducted to determine the extent to which the proposed relationships align with the observed data (Hair et al., 2010).

3.11 Research Instrument Design

3.11.1 The design and development of the final questionnaire.

The questionnaire was evaluated for reliability and validity, which led to the formulation of the final questionnaire for the survey of the final population. The study identifies 48 items that collectively understand the impact of the Human Resource Information System (HRIS) on Organizational performance. The total count of variables is classified as follows: Technology Context (3 variables), Organizational Context (2 variables), Environment Context (3 variables), Human Context (2 variables), and Organizational Performance (3 variables). The finalized questionnaire consists of the following sections.

Section A: This section includes the questionnaire to obtain details about the demographic profiles of IT & ITES employees, including Gender, Age, Marital Status, Working location, Annual Income, Qualification, Department, Position, and Work Experience. Each of the questionnaires on demographic variables was formulated in a closed-ended format, with respondents instructed to select the option that applied to them.

Section B: This section includes the statements based on the Technology context

Section C: This section includes the statements based on the Organizational context

Section D: This section includes the statements based on the Environment context

Section E: This section includes the statements based on the Human Context

Section F This section includes the statements based on the Organizational Performance

The questionnaire involves the identification and labelling of the variables related to the study. Each statement was rated using a five-point Likert scale (Likert, 1932). Whereas 1 represents Strongly Disagree, 2 represents Disagree, 3 represents Neutral, 4 represents Agree, and 5 represents Strongly Agree.

The design of the questionnaire was outlined as follows:

Table 3.2 Structure of the questionnaire

The structure of the questionnaire can be outlined as follows

Variables	**Number of Items**
Section A	
Gender	
Age	
Marital status	
Annual Income	
Education Qualification	
Working Location	
Work Experience	

Position	
Department	
Section B	
Technology context	12 Items
Section C	
Organizational context	07 Items
Section D	
Environment context	08 Items
Section E	
Human Context	07 Items
Section F	
Organizational Performance	14 Items

The nominal scale first measured the demographic profile of employees in section A, while section B- Technology context, section C- Organizational context, section D - Environment context, and section F - Organizational Performance were measured using a 5-point Likert scale (Likert, 1932). The survey used a 5-point Likert scale to respond to various items that measure the impact of Human Resource Information System on Organizational performance. A 5-point scale may be used for rating, and individual scores can be combined to produce an overall score.

All the statements in the questionnaire were structured as a closed-ended questionnaire, as this format is generally more acceptable to respondents and permits quicker and more efficient completion.(Cavana et al., 2001). According to (Lavrakas, 2008) Closed-ended questions give respondents a fixed number of predefined response options, which enhances consistency in data collection.

The main types of questionnaires can be determined by self-administered questionnaires, face-to-face interviews, and telephone-administered questionnaires. (Blumberg et al., 2008). Among these, self-administered questionnaires, which can be

shared by electronic mode to respondents (which include web-based questionnaires and e-mail questionnaires), are widely preferred due to their ability to reach many respondents efficiently. (R. Kumar, 2019) Additionally, the adoption of professional networking platforms, including LinkedIn, has become a significant platform for survey distribution, especially when aiming at targeted professional populations (J. R. , Evans & Mathur, 2005; Wright, 2005).

The present study utilized a self-administered questionnaire, which was distributed through electronic means and retrieved after a designated response period. To maximize the reach and participation, the questionnaire was circulated via email and shared on professional networking platforms such as LinkedIn. This method was selected to ensure broader accessibility, enabling individuals to respond regardless of their geographic location or availability (Blumberg et al., 2008; J. R. , Evans & Mathur, 2005; R. Kumar, 2019; Wright, 2005).

Table 3.3 The design of the questionnaire

Variables	**Number of Items**
Demographic variables	09 Items
Human Resource Information System	
Technology context	12 Items
Organizational context	07 Items
Environment context	08 Items
Human Context	07 Items
Organizational Performance	14 Items

The scaling of the questionnaire was implemented as follows:

In this study, each item was measured on a structured scale from 1 (Strongly Disagree) to 5 (Strongly Agree) (Likert, 1932). The Likert scale was selected due to its clarity and effectiveness in determining respondents' level of agreement or disagreement.

Table 3.4 Scale Technique

Rating	**"1"**	**"2"**	**"3"**	**"4"**	**"5"**
Scaling Technique	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Scale development of HRIS using T-O-E Framework and HOT-FIT Model

Table 3.5 Scale Development of HRIS

Variables	**Questionnaire**	**Author**
Technology context		
IT infrastructure	The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations.	(Alam et al., 2016)
	The Organization maintains sufficient technological resources, including software and data management resources for HRIS support.	
	The Organization facilities efficient internet connectivity.	
	The organization follows a resilient backup plan to address network connectivity problems.	
Perceived compatibility	The adoption of HRIS applications is well suited to the organization's existing operating methods.	(Alam et al., 2016)
	HRIS applications are aligned with the organization's core mission and principles.	
	HRIS may not be fully supported by the organization's current hardware and network systems.	
	Implementation of the updated and new	

	system may require significant adjustments to existing software and data systems.	
Perceived complexity	HRIS is complex to use.	(Alam et al., 2016)
	HRIS application development involves a complex and multi-layered process.	
	HRIS is hard to learn.	
	HRIS integration is expected to disrupt existing work practices.	
Organizational context		
Relative Advantages	HRIS will enable me to improve efficiency in my job responsibilities.	(Alam et al., 2016)
	Adopting HRIS will enhance more productivity across the organization.	
	HRIS can lead to cost savings in day-to-day operations.	
	HRIS integration is likely to contribute to greater organizational profitability.	
Top Management Support	Top-level management encourages and supports the adoption of HRIS.	(Alam et al., 2016)
	Top-level management has provided appropriate and sufficient resources to support HRIS implementation.	
	Top-level management understands the potential benefits offered by HRIS.	
Environment context		
Competitive pressure	The adoption of HRIS by our competitors influences our decision to implement it.	(Alam et al., 2016)
	Adopting HRIS is necessary to align with prevailing industry practices.	
	Our organization keeps itself updated on competitors' emerging technological	

	developments.	
Technology vendor support	Adequate training support for HRIS is offered by the vendors.	(Alam et al., 2016)
	Availability of reliable technical assistance during HRIS adoption.	
	Technical Support is provided after HRIS has been implemented.	
Government regulations and support	The government promoted the use of IT enable/ HRIS software for organisations.	(Alam et al., 2016)
	Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF,ESIC)	
<u>Human context</u>		
Senior executives attitude	Senior executives are open to adopting and experimenting with innovative information systems.	(Alam et al., 2016)
	Senior executives demonstrate a willingness to adopt updated information systems.	
	Senior executives prefer developing new solutions over improving existing processes.	
	Senior executives are willing to take risks by trying new approaches.	
IT skills of HRM professionals.	The HR team has adequate knowledge of information technology to handle HR function effectively.	(Alam et al., 2016)
	HR team possess specialized IT skills required to operate HR-specific systems.	
	HR team is relied on at least one expert in	

	computer systems and applications.	

Scale development of Organizational Performance

Table 3.6 Scale Development of Organizational Performance

Organizational Performance		
Employee Skill		
Staffing selectivity	Recruitment and selection ratio is unpaired adoption of HRIS.	(Delaney, 1996)
	Effectiveness of selection is increased by adoption of HRIS.	
Training Effectively	Flexibility in training is possible from HRIS.	(Delaney, 1996)
	Training needs are specified easily through HRIS.	
Employee Motivation		
Incentives Compensation	Internal and external equity is ensured through adoption of HRIS.	(Delaney, 1996)
	Transparency is possible through HRIS system.	
	Market Rate Analysis is easier through HRIS adoption.	
Grievance procedure	Mechanism has become easier and quick through HRIS.	(Delaney, 1996)
	Communication in upward and downward is effectively done through HRIS.	
Structure of Job and Work		
Internal Labour Market	Succession Planning is done through	(Delaney,

	HRIS.	1996)
	Carrier planning is effectively done through HRIS.	
	Performance Appraisal Mapping of employee's performance is effectively done through HRIS.	
Work Performance	KRA's and KPI's are easy to manage through HRIS	(Delaney, 1996)
	KRA's and KPI's are easy to manage through HRIS	

3.11.2 Pilot study

The purpose of the pilot study was to collect information on the topic of study to enhance the accuracy of the final data collection process, and the questionnaire was clear, reliable, and suitable for the target population (Creswell, 2014; van Teijlingen & Hundley, 2001). The pilot study was carried out for 56 employees working in the IT & ITES sector organizations in Gujarat. The reliability of the questionnaire was tested through Cronbach's Alpha test (Cronbach, 1951).

Result of the Pilot Study

Table 3.7 Reliability for Pilot Study

Factor	No of items	Reliability (Cronbach's Alpha)	Number of Respondents
Human Resource Information System (HRIS) Independent Variable			
<u>Technology context</u>			
IT Infrastructure	04	.736	56
Perceived compatibility	04	.915	56

Perceived complexity	04	.906	56
Organizational context			
Relative Advantages	04	.757	56
Top Management support	03	.724	56
Environment context			
Competitive pressure	03	.750	56
Technology vendor support	03	.752	56
Government regulations and support	02	.939	56
Human context (Moderating Variable)			
Senior executives attitude	04	.835	56
IT skills of HRM professionals	03	.758	56
Organizational Performance (Dependent Variable)			
Employee Skill	04	.785	56
Employee motivation	05	.829	56
Structure of Job and Work	05	.835	56

(Source: Research Result)

The above table shows the reliability coefficient, commonly referred to as Cronbach's alpha, for the responses obtained from the survey. Cronbach's alpha is used as a statistical tool to determine the internal consistency of a scale by examining the correlation among its items. The reliability coefficient (alpha) should ideally be 0.70 or higher (Cronbach, 1951). A reliability test was executed on the Likert Scale items using SPSS 20. The scale used in the questionnaire resulted in a Cronbach's Alpha value of 0.7, thereby confirming the reliability of the research instrument.

A pilot study was carried out to validate the research instrument in the following stages:

Stage 1 – In the first stage, a questionnaire was developed based on the literature review and research objective (Creswell, 2014; Kothari, 2004). A total of 56 respondents were selected from the target population through convenience sampling to participate in the pilot study.

Stage 2 – In the second stage, reliability tests for all the factors of the questionnaire developed were tested. The factors were measured using Cronbach's Alpha. All the factors were more than 0.70 (Cronbach, 1951), which is reliable for the questionnaire, as the result indicated a satisfactory level of internal consistency.

Stage 3 - In the last third of pilot study, the questionnaire demonstrated both clarity and reliability. it was retained in its original form for the final data collection.

Chapter – 4
Data Analysis and Interpretation

4.1 Introduction

This chapter provides an overview of data analysis and its interpretation, focusing on the study's primary objective of examining the impact of Human Resource Information System (HRIS) on Organizational performance in the IT-ITES sector in Gujarat state. The findings are presented in this chapter through a frequency table. According to (Hair et al., 2010) data analysis involves using statistical methods to investigate correlations between variables, test theories, and validate theoretical frameworks. The analysis phase helps researchers transform a massive volume of data into understandable descriptions and interpretations that create an empirical basis for the study.

The methodology of analyzing data through established procedures and predetermined techniques to extract significance and formulate appropriate conclusions is specified as data interpretation. In this chapter, data for the research is collected from a field survey, which was conducted using personal e-mail, LinkedIn, personal visits to the company, and various IT associations in Gujarat state. The data collection period extended from January 2024 to August 2024, and the analysis was carried out in line with the specified protocol. Data for the research was collected from 515 employees working in the IT-ITES sector in Gujarat state.

The researcher utilized various statistical approaches to examine the data in this chapter, employing IBM AMOS and IBM SPSS for the analysis. Initially, an Excel spreadsheet was created for data coding, which was subsequently exported to statistical software (SPSS) for further analysis. The methods applied include reliability analysis, validity analysis, construct correlation, Normality test, Mann-Whitney U, Kruskal Wallis Test, factor analysis, structural equation modeling, and regression analysis. These statistical methods help to validate the suggested conceptual framework, identify underlying constructions, and analyze interrelationships.

An analysis of the relationships among the impact of Human Resource Information System and Organizational performance, which was validated through

Confirmatory Factor Analysis and Structural equation modeling using the correlation method.

4.2 Demographic Analysis

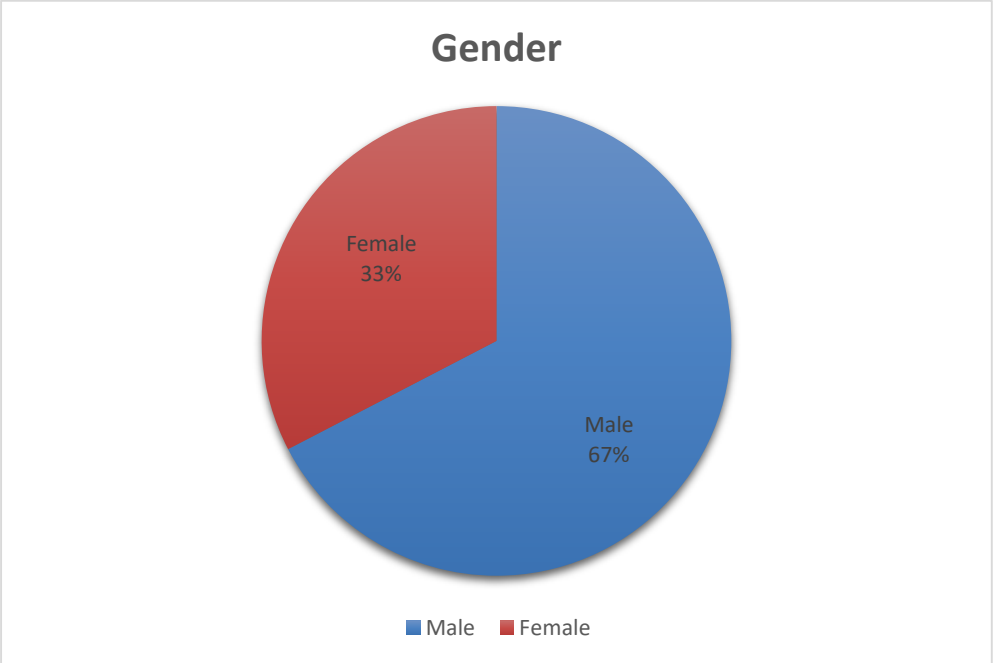
4.2.1 Gender of IT-ITES Employees

Table: 4.1 Gender of IT-ITES Employees

Gender of IT-ITES Employees				
Gender	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Male	347	67.4	67.4	67.4
Female	168	32.6	32.6	100.0
Total	515	100.0	100.0	

(Sources: Research Result)

Figure: 4.1 Gender of IT-ITES Employees



Interpretation:

The data presented in the table and figure shows the demographic profile by gender indicates that many employees of IT-ITES falling under the category of

male with 347 (67.4%) of the total 515 responses. In comparison, Female employees are fewer in number i.e., 168 (32.6%) of the total 515 responses.

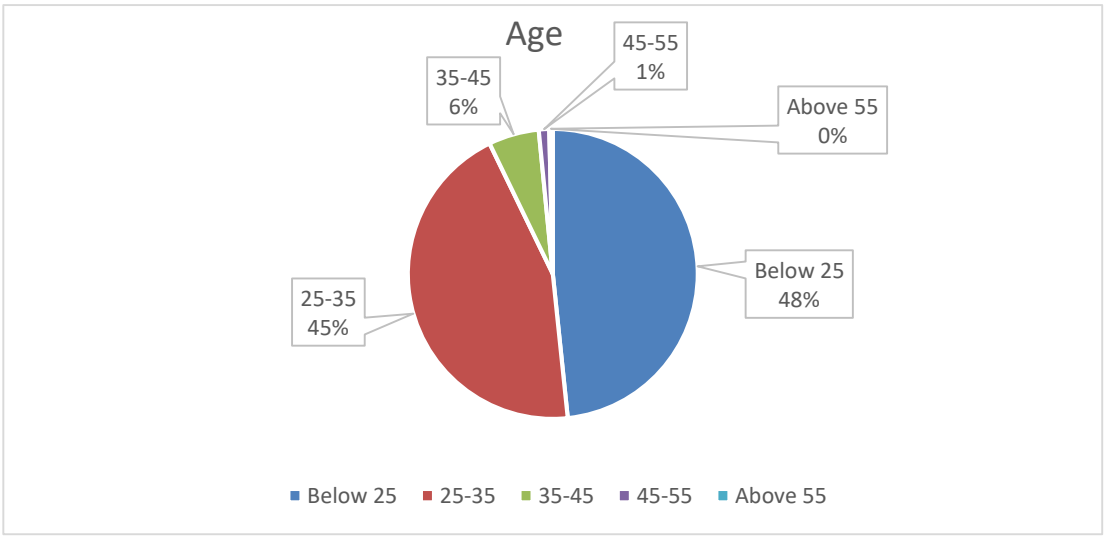
4.2.2 Age of IT-ITES employees

Table: 4.2 Age of IT-ITES employees

Age of IT-ITES employees				
Age	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Below 25	249	48.3	48.3	48.3
25-35	229	44.5	44.5	92.8
35-45	29	5.6	5.6	98.4
45-55	6	1.2	1.2	99.6
Above 55	2	0.4	0.4	100
Total	515	100	100	

(Sources: Research Result)

Figure: 4.2 Age of IT-ITES employees



Interpretation:

The data presented in the table and the figure shows that most IT-ITES employees fall within the age category of below 25 years, comprising 249 (48.3%), followed closely by the 25–35 age group with 229(44.5%) out of the total 515 responses. Employees in the 35–45 age group account for 29(5.6%), while those in the 45–55 age group and above 55 age group are represented by 6 (1.2%) and 2 (0.4%), respectively out of the total 515 responses.

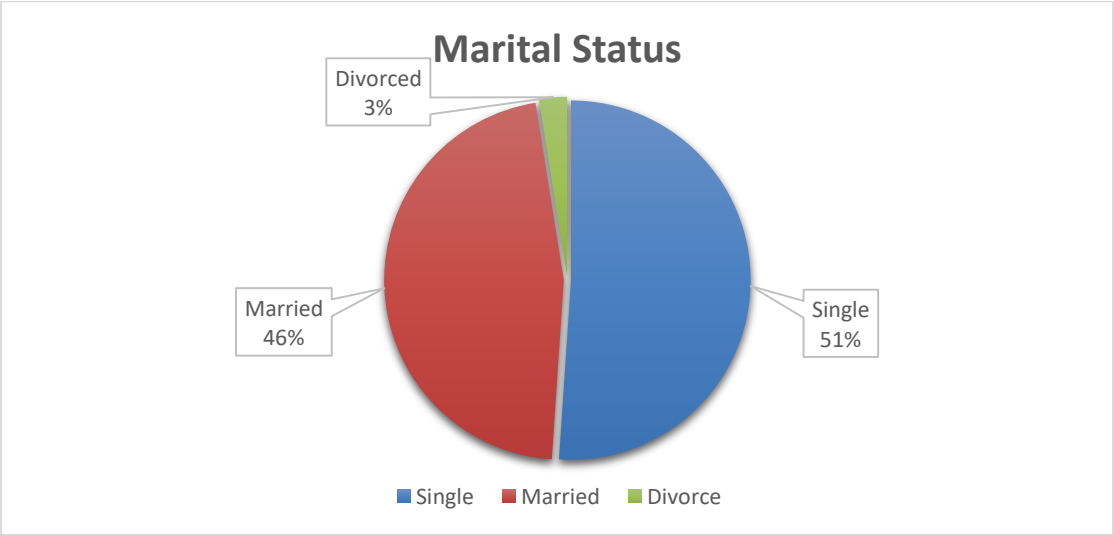
4.2.3 Marital status of IT-ITES employees

Table: 4.3 Marital status of IT-ITES employees

Marital status of IT-ITES employees				
Marital status	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Single	263	51.1	51.1	51.5
Married	239	46.4	46.4	97.5
Divorced	13	2.5	2.5	100
Total	515	100	100	

(Sources: Research Result)

Figure: 4.3 Marital status of IT-ITES employees



Interpretation:

The data presented in the table and the figures show the marital status of IT-ITES employees. It has been noticed that 263 (51.1%) are single, 239(46.4%) are married, and 13 (2.5%) are divorced out of the 515 responses.

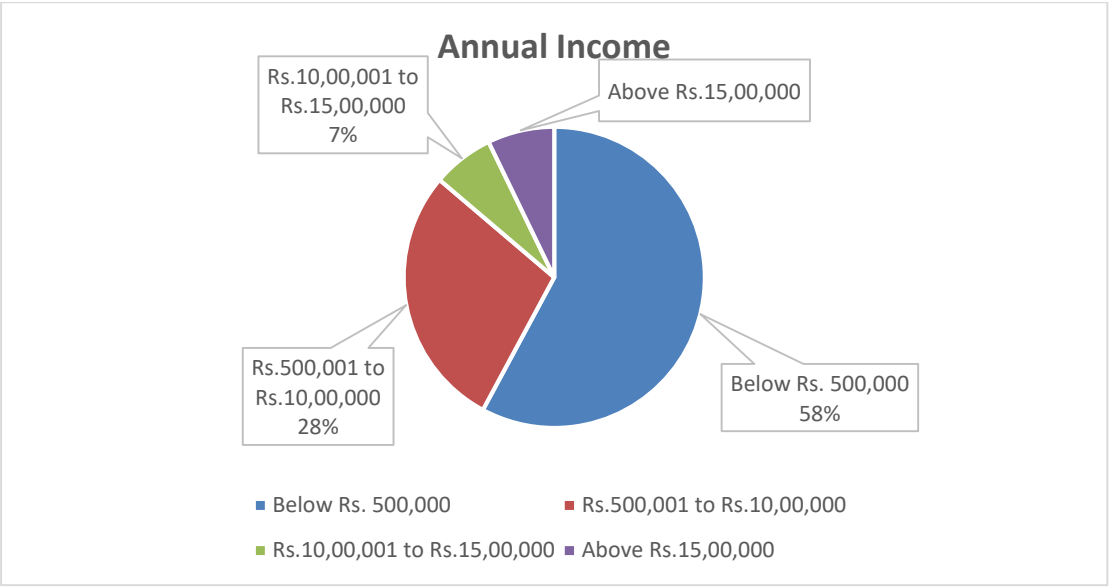
4.2.4 Annual Income (in Rs. Lacs) of IT-ITES employees

Table: 4.4 Annual Income (in Rs. Lacs) of IT-ITES employees

Annual Income of IT-ITES employees				
Annual Income	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Below Rs. 500,000	298	57.9	57.9	57.9
Rs. 500,001 to Rs. 10,0. 0,000	146	28.3	28.3	86.2
Rs.10,00,001 to Rs.15,00,000	34	6.6	6.6	92.2
Above Rs.15,00,000	37	7.2	7.2	100
Total	515	100	100	

(Sources: Research Result)

Figure: 4.4 Annual Income of IT-ITES employees



Interpretation:

The data presented in the table and the figure show the Annual Income of IT-ITES employees. It has been observed that most employees fall under the category of below Rs. 5,00,000, i.e., 298 (57.9%), whereas 146 employees (28.3%) fall under the category of Rs. 500,001 to Rs. 10,00,000. The IT-ITES employees with an annual income of Rs. 10,00,001 to Rs. 1500,000 are 34 (6.6%), and those with an annual income above 1500,000 are 37 (7.2%) out of the 515 responses.

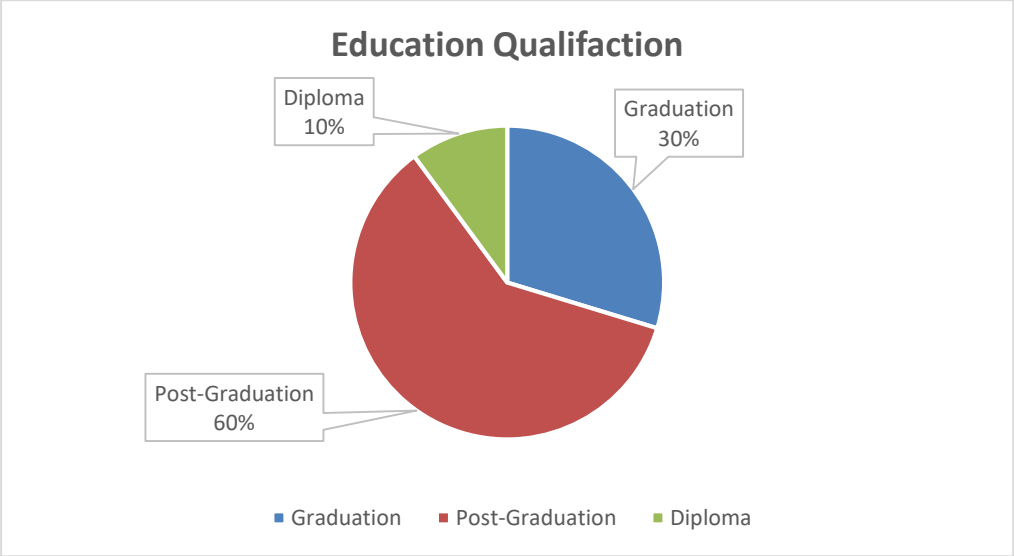
4.2.5 Education Qualification of IT-ITES Employees

Table: 4.5 Education Qualification of IT-ITES Employees

Education Qualification of IT-ITES Employees				
Education Qualification	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Graduation	153	29.7	29.7	29.7
Post-Graduation	310	60.2	60.2	89.9
Diploma	52	10.1	10.1	100
Total	515	100	100	

(Sources: Research Result)

Figure: 4.5 Education Qualification of IT-ITES employees



Interpretation:

The data presented in the table and figure shows the Education qualification of IT-ITES employees. It has been noticed that most of the employees fall under the category of post-graduation i.e., 310 (60.2%) while graduation employees are 153 (29.7%). The IT-ITES employees who have Qualification for diploma courses are 52 (10.1%) out of the 515 responses.

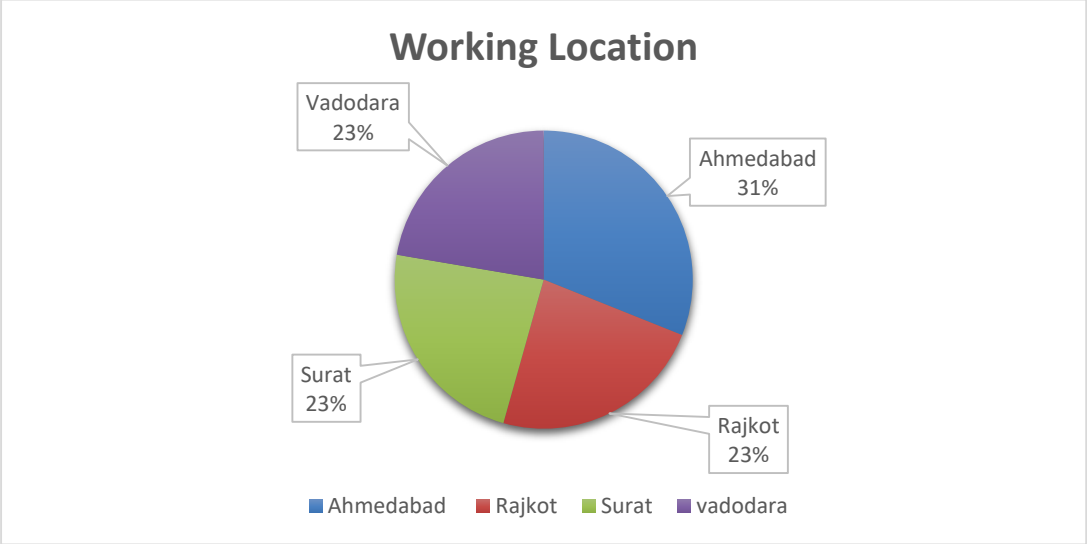
4.2.6 Working Location of IT-ITES employees

Table: 4.6 Working Location of IT-ITES employees

Working Location of IT-ITES employees				
Working Location	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Ahmedabad	160	31.1	31.1	31.1
Rajkot	120	23.3	23.3	54.4
Surat	120	23.3	23.3	77.7
Vadodara	115	22.3	22.3	100
Total	515	100	100	

(Sources: Research Result)

Figure: 4.6 Working Location of IT-ITES employees



Interpretation:

The data presented in the table and figure show the working location of IT-ITES employees. It has been noticed that most of the employees fall under the city of Ahmedabad, i.e., 160 (31.1%), whereas Rajkot and Surat each have 120 (23.3%) employees and Vadodara has 115 (22.3%) out of the 515 responses.

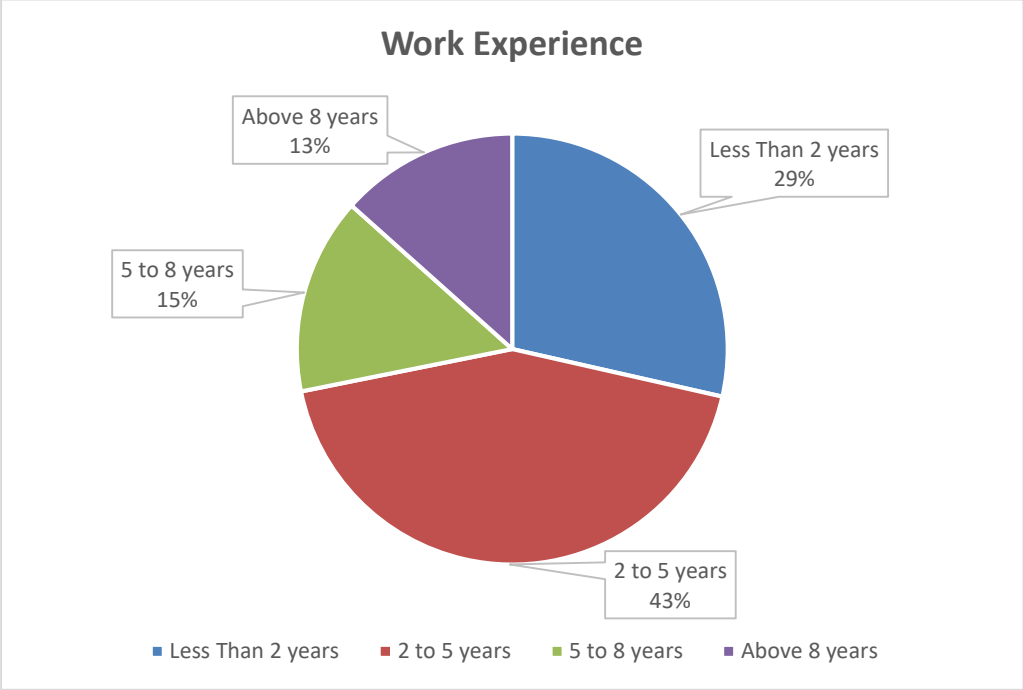
4.2.7 Work Experience of IT-ITES employees

Table: 4.7 Work Experience of IT-ITES employees

Work Experience of IT-ITES employees				
Work Experience	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Less than 2 years	147	28.5	28.5	28.5
2 to 5 years	223	43.3	43.3	71.3
5 to 8 years	76	14.8	14.8	86.6
Above 8 years	69	13.4	13.4	100
	515	100	100	

(Sources: Research Result)

Figure: 4.7 Work Experience of IT-ITES employees



Interpretation:

From the above table and figure regarding the demographic profile in terms of Work Experience of the IT-ITES Employees, it has been noted that most of the IT-ITES Employees are falling into the category of Below 5 years i.e., 192 (48.0%) out of the total responses of 515 followed by 5-15 years i.e., 168 (42.0%). The IT-ITES Employees who have work experience of 16-25 years are 38 (9.5%), and those who have experience above 25 years are 2 (0.5%).

4.2.8 Position of IT- ITES employees

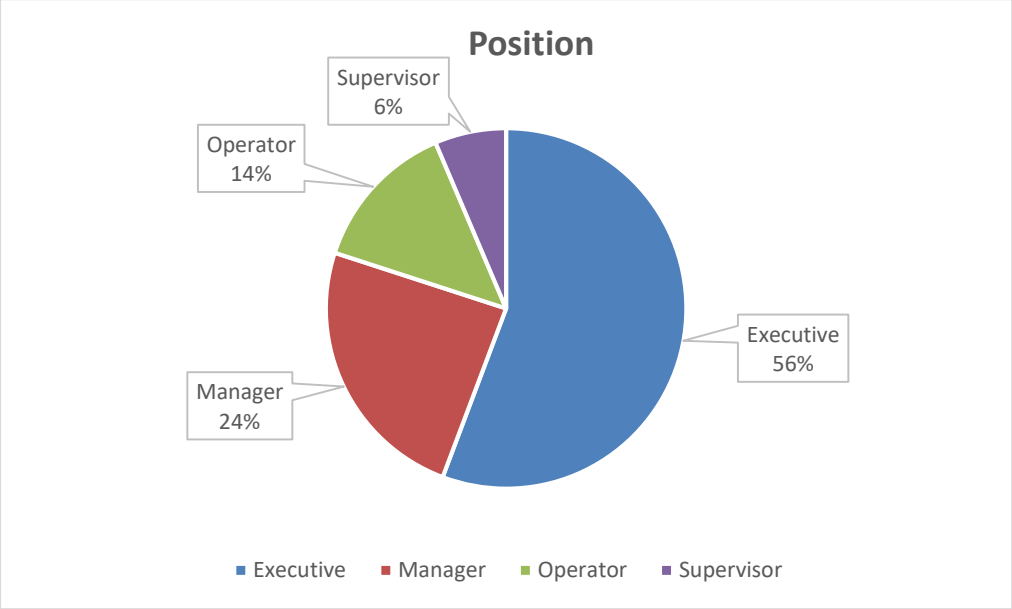
Table: 4.8 Position of IT- ITES employees

Position of IT- ITES employees				
Position	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Executive	287	55.7	55.7	55.7
Manager	125	24.3	24.3	80
Operator	70	13.6	13.6	93.6

Supervisor	33	6.4	6.4	100
	515	100	100	

(Sources: Research Result)

Figure: 4.8 Position of IT- ITES employees



Interpretation:

From the above table and figure regarding the demographic profile in terms of position IT-ITES employees, it has been noted that most of the IT-ITES Employees fall in the category of executive 287 (55.7%) out of a total of 515 employees. There are 125 (24.3%) managers of the total respondent. While 70 employees (13.6%) are operators. Whereas only 33 (6.4%) employees hold supervisor position out of total 515 respondents.

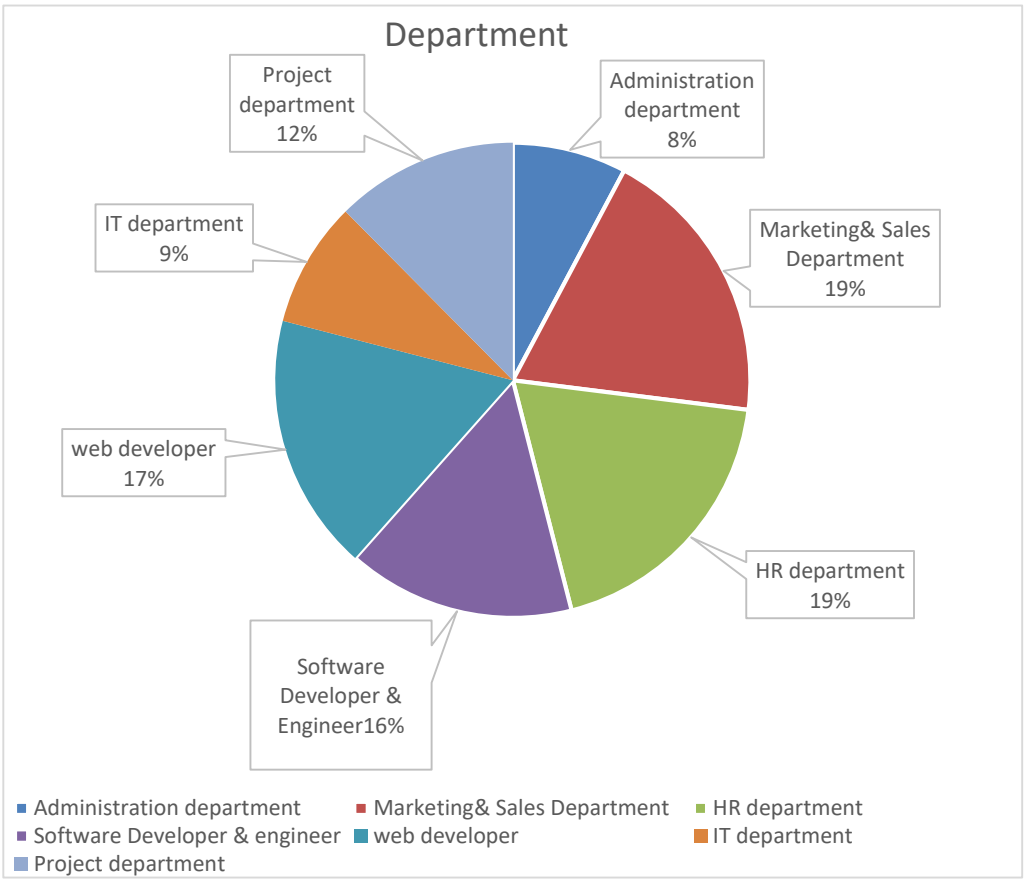
4.2.9 Department of IT-ITES employees

Table: 4.9 Department of IT-ITES employees

Department of IT-ITES employees				
Department	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Administration Department	40	7.8	7.8	7.8
Marketing & Sales Department	99	19.2	19.2	27
HR Department	98	19.0	19.0	46
Software Developer & Engineer	80	15.5	15.5	61.5
Web developer	90	17.5	17.5	79
IT Department	44	8.6	8.6	87.6
Project Department	64	12.4	12.4	100
Total	515	100	100	

(Sources: Research Result)

Figure: 4.9 Department of IT-ITES employees



Interpretation

The data presented in the table and figures show the Department of IT-ITES employees. It has been noticed that most of the employees fall under Marketing & Sales department i.e., 99 (19.2%), and HR department i.e., 98 (19%), Web developer i.e., 90 (17.5%) Whereas Administration department consist of 40 (7.8%) employees, while the software developer department consist of 80 (15.5%) employees, IT Department i.e., 44 (8.6%) and Project Department 64 (12.4%)out of the 515 responses.

Objective: 1 To Study the acceptance and benefit of HRIS in IT - ITES sector

4.3 Descriptive Summary

Table: 4.10 Descriptive Summary of statements for the factors impacting HRIS on Organizational Performance

Items	Statements for impact of HRIS on Organizational Performance	SD	D	N	A	SA
1.	The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations.	5	6	94	190	220
	Proportionate percentage of total IT-ITES employees.	1%	1.1%	18.3%	36.9%	42.7%
2.	The Organization maintains sufficient technological resources, including software and data management resources for HRIS support.	4	12	91	237	171
	Proportionate percentage of total IT-ITES employees.	0.8%	2.3%	17.7%	46%	33.2%
3.	The Organization facilities efficient internet connectivity.	5	8	92	163	247
	Proportionate percentage of total IT-ITES employees.	1%	1.5%	17.9%	31.6%	48%
4.	The organization follows a resilient backup plan to address network connectivity problems.	10	20	108	176	201

	Proportionate percentage of total IT-ITES employees.	1.9%	3.9%	21%	34.2%	39%
5.	The adoption of HRIS applications is well suited to the organization's existing operating methods.	5	12	95	245	158
	Proportionate percentage of total IT-ITES employees.	1%	2.3%	18.4%	47.6%	30.7%
6.	HRIS applications are aligned with the organization’s core mission and principles	6	10	113	253	133
	Proportionate percentage of total IT-ITES employees.	1.2%	1.9%	21.9%	49.1%	25.9%
7.	HRIS may not be fully supported by the organization’s current hardware and network systems.	21	46	132	207	109
	Proportionate percentage of total IT-ITES employees.	4.1%	8.9%	25.6%	40.2%	21.2%
8.	Implementation of the updated and new system may require significant adjustments to existing software and data systems.	21	52	137	183	122
	Proportionate percentage of total IT-ITES employees.	4.1%	10.1%	26.6%	35.5%	23.7%
9.	HRIS is complex to use.	30	66	165	161	93
	Proportionate percentage of total IT-ITES employees.	5.8%	12.8%	32%	31.3%	18.1%
10.	HRIS application development involves a complex and multi-	20	62	180	173	80

	layered process.					
	Proportionate percentage of total IT-ITES employees.	3.9%	12%	35%	33.6%	15.5%
11.	HRIS is hard to learn.	28	96	166	147	78
	Proportionate percentage of total IT-ITES employees.	5.5%	18.6%	32.2%	28.6%	15.1%
12.	HRIS integration is expected to disrupt existing work practices.	30	96	174	134	81
	Proportionate percentage of total IT-ITES employees.	5.8%	18.6%	33.8%	26%	15.8%
13.	HRIS will enable me to improve efficiency in my job responsibilities.	4	12	105	215	179
	Proportionate percentage of total IT-ITES employees.	0.8%	2.3%	20.4%	41.7%	34.8%
14.	Adopting HRIS will enhance more productivity across the organization.	4	11	95	254	151
	Proportionate percentage of total IT-ITES employees.	0.8%	2.2%	18.4%	49.3%	29.3%
15.	HRIS can lead to cost savings in day-to-day operations.	5	19	153	195	143
	Proportionate percentage of total IT-ITES employees.	1%	3.7%	29.7%	37.9%	27.7%
16.	HRIS integration is likely to contribute to greater organizational profitability.	6	20	138	208	143
	Proportionate percentage of total IT-ITES employees.	1.2%	3.9%	26.8%	40.4%	27.7%

17.	Top-level management encourages and supports the adoption of HRIS.	3	16	93	222	181
	Proportionate percentage of total IT-ITES employees.	0.6%	3.1%	18.1%	43.1%	35.1%
18.	Top-level management has provided appropriate and sufficient resources to support HRIS implementation.	6	19	120	250	120
	Proportionate percentage of total IT-ITES employees.	1.2%	3.7%	23.3%	48.5%	23.3%
19.	Top-level management understands the potential benefits offered by HRIS.	5	18	118	215	159
	Proportionate percentage of total IT-ITES employees.	1%	3.5%	22.9%	41.7%	30.9%
20.	The adoption of HRIS by our competitors influences our decision to implement it.	12	56	139	177	131
	Proportionate percentage of total IT-ITES employees.	2.3%	10.9%	27%	34.4%	25.4%
21.	HRIS is necessary to align with prevailing industry practices	10	54	148	212	91
	Proportionate percentage of total IT-ITES employees.	1.9%	10.5%	28.7%	41.2%	17.7%
22.	Our organization keeps itself updated on competitors' emerging technological developments.	13	24	156	191	131
	Proportionate percentage of total IT-	2.5%	4.7%	30.3%	37.1%	25.4%

	ITES employees.					
23.	Adequate training support for HRIS is offered by the vendors	6	16	120	234	139
	Proportionate percentage of total IT-ITES employees.	1.2%	3.1%	23.3%	45.4%	27%
24.	Availability of reliable technical assistance during HRIS adoption.	4	16	134	240	121
	Proportionate percentage of total IT-ITES employees.	0.8%	3.1%	26%	46.6%	23.5%
25.	Technical Support is provided after HRIS has been implemented.	6	12	141	214	142
	Proportionate percentage of total IT-ITES employees.	1.2%	2.3%	27.4%	41.5%	27.6%
26.	Government promoted the use of IT enable/ HRIS software for Organization.	10	22	141	208	134
	Proportionate percentage of total IT-ITES employees.	1.9%	4.3%	27.4%	40.4%	26%
27.	Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF, ESIC).	8	21	135	225	126
	Proportionate percentage of total IT-ITES employees.	1.5%	4.1%	26.2%	43.7%	24.5%
28.	Senior executives are open to adopting and experiment with innovative information systems.	7	20	121	205	162

	Proportionate percentage of total IT-ITES employees.	1.3%	3.9%	23.5%	39.8%	31.5%
29.	Senior executives demonstrate a willingness to adopt updated information systems.	10	32	161	224	88
	Proportionate percentage of total IT-ITES employees.	1.9%	6.2%	31.3%	43.5%	17.1%
30.	Senior executives prefer developing new solutions over improving existing processes.	7	30	162	205	111
	Proportionate percentage of total IT-ITES employees.	1.4%	5.8%	31.5%	39.8%	21.5%
31.	Senior executives are willing to take risks by trying new approaches.	5	41	167	199	103
	Proportionate percentage of total IT-ITES employees.	1%	8%	32.4%	38.6%	20%
32.	The HR team has adequate knowledge of information technology to handle HR function effectively.	5	18	121	219	152
	Proportionate percentage of total IT-ITES employees.	1%	3.5%	23.5%	42.5%	29.5%
33.	HR team possess specialized IT skills required to operate HR-specific systems.	4	17	134	216	144
	Proportionate percentage of total IT-ITES employees.	0.8%	3.3%	26%	41.9%	28%
34.	HR team is relied on at least one expert in computer systems and	6	18	136	210	145

	applications.					
	Proportionate percentage of total IT-ITES employees.	1.2%	3.5%	26.4%	40.8%	28.1%
35.	Recruitment and selection ratio is unpaired adoption of HRIS.	5	21	126	205	158
	Proportionate percentage of total IT-ITES employees.	1%	4.1%	24.5%	39.8%	30.6%
36.	Effectiveness of selection is increased by adoption of HRIS.	5	15	131	230	134
	Proportionate percentage of total IT-ITES employees.	1%	2.9%	25.4%	44.7%	26%
37.	Flexibility in training is possible from HRIS.	4	12	119	239	141
	Proportionate percentage of total IT-ITES employees.	0.8%	2.3%	23.1%	46.4%	27.4%
38.	Training needs are specified easily through HRIS.	3	13	139	225	135
	Proportionate percentage of total IT-ITES employees.	0.6%	2.5%	27%	43.7%	26.2%
39.	Internal and external equity is ensured through adoption of HRIS.	7	10	122	212	164
	Proportionate percentage of total IT-ITES employees.	1.4%	1.9%	23.7%	41.2%	31.8%
40.	Transparency is possible through HRIS system.	4	8	108	263	132
	Proportionate percentage of total IT-ITES employees.	0.8%	1.6%	21%	51%	25.6%

41.	Market Rate Analysis is easier through HRIS adoption.	7	12	150	208	138
	Proportionate percentage of total IT-ITES employees.	1.4%	2.3%	29.1%	40.4%	26.8%
42.	Mechanism has become easier and quick through HRIS.	3	7	111	241	153
	Proportionate percentage of total IT-ITES employees.	0.6%	1.4%	21.5%	46.8%	29.7%
43.	Communication in upward and downward is effectively done through HRIS.	2	12	115	239	147
	Proportionate percentage of total IT-ITES employees.	0.4%	2.3%	22.4%	46.4%	28.5%
44.	Succession planning is done through HRIS.	4	14	123	228	146
	Proportionate percentage of total IT-ITES employees.	0.8%	2.7%	23.9%	44.3%	28.3%
45.	Carrier planning is effectively done through HRIS.	4	18	143	231	119
	Proportionate percentage of total IT-ITES employees.	0.8%	3.5%	27.8%	44.8%	23.1%
46.	Performance Appraisal Mapping of employee's performance is effectively done through HRIS.	6	13	122	217	157
	Proportionate percentage of total IT-ITES employees.	1.2%	2.5%	23.7%	42.1%	30.5%
47.	KRA's and KPI's are easy to manage	4	22	132	217	140

	through HRIS.					
	Proportionate percentage of total IT-ITES employees.	0.8%	4.3%	25.6%	42.1%	27.2%
48.	Work Job fit is possible through HRIS Adoption.	5	22	135	218	135
	Proportionate percentage of total IT-ITES employees.	1%	4.3%	26.2%	42.3%	26.2%

(Sources: Research Result)

1. Regarding the statement, "The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations." The data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 6 (1.1%), for the Neutral is 94 (18.3%), for the Agree is 190 (36.9%) and for the Strongly Agree is 220 (42.7%).

2. Regarding the statement, "The Organization maintains sufficient technological resources, including software and data management resources for HRIS support." the data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 12 (2.3%), for the Neutral is 91 (17.7%), for the Agree is 237 (46%) and for the Strongly Agree is 171 (33.2%)

3. Regarding the statement, "The Organization facilities efficient internet connectivity." the data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 8 (1.5%), for the Neutral is 92 (17.9%), for the Agree is 163 (31.6%) and for the Strongly Agree is 247 (48%).

4. Regarding the statement, "The organization follows a resilient backup plan to address network connectivity problems." the data collected from the segment of Strongly Disagree is 10 (1.9%), for the Disagree is 20 (3.9%), for the Neutral is 108 (21%), for the Agree is 176 (34.2%) and for the Strongly Agree is 201 (39%).

5. Regarding the statement, “The adoption of HRIS applications is well suited to the organization's existing operating methods.” The data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 12 (2.3%), for the Neutral is 95 (18.4%), for the Agree is 245 (47.6%) and for the Strongly Agree is 158 (30.7%).

6. Regarding the statement, “HRIS applications are aligned with the organization’s core mission and principles.” The data collected from the segment of Strongly Disagree is 6 (1.2%), for the Disagree is 10 (1.9%), for the Neutral is 113 (21.9%), for the Agree is 253 (49.1%) and for the Strongly Agree is 133 (25.9%).

7. Regarding the statement, “HRIS may not be fully supported by the organization’s current hardware and network systems.” The data collected from the segment of Strongly Disagree is 21 (4.1%), for the Disagree is 46 (8.9%), for the Neutral is 132 (25.6%), for the Agree is 207 (40.2%) and for the Strongly Agree is 109 (21.2%).

8. Regarding the statement, “Implementation of the updated and new system may require significant adjustments to existing software and data systems.” the data collected from the segment of Strongly Disagree is 21 (4.1%), for the Disagree is 52 (10.1%), for the Neutral is 137 (26.6%), for the Agree is 183 (35.5%) and for the Strongly Agree is 122 (23.7%).

9. Regarding the statement, “HRIS is complex to use.” the data collected from the segment of Strongly Disagree is 30 (5.8%), for the Disagree is 66 (12.8%), for the Neutral is 165 (32%), for the Agree is 161 (31.3%) and for the Strongly Agree is 93 (18.1%).

10. Regarding the statement, “HRIS application development involves a complex and multi-layered process.” The data collected from the segment of Strongly Disagree is 20 (3.9%), for the Disagree is 62 (12%), for the Neutral is 180 (35%), for the Agree is 173 (33.6%) and for the Strongly Agree is 80 (15.5%).

11. Regarding the statement, “HRIS is hard to learn” the data collected from the segment of Strongly Disagree is 28 (5.5%), for the Disagree is 96 (18.6%), for the Neutral is 166 (32.2%), for the Agree is 147 (28.6%) and for the Strongly Agree is 78 (15.1%).

12. Regarding the statement, “HRIS integration is expected to disrupt existing work practices.” the data collected from the segment of Strongly Disagree is30 (5.8%), for the Disagree is 96 (18.6%), for the Neutral is 174 (33.8%), for the Agree is 134 (26%) and for the Strongly Agree is 81 (15.8%).

13. Regarding the statement, “HRIS will enable me to improve efficiency in my job responsibilities.” the data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 12 (2.3%), for the Neutral is 105 (20.4%), for the Agree is 215 (41.7%) and for the Strongly Agree is 179 (34.8%).

14. Regarding the statement, “Adopting HRIS will enhance more productivity across the organization.” The data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 11(2.2%), for the Neutral is 95 (18.4%), for the Agree is 254 (49.3%) and for the Strongly Agree is 151(29.3%).

15. Regarding the statement, “HRIS can lead to cost savings in day-to-day operations.” The data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 19 (3.7%), for the Neutral is 153 (29.7%), for the Agree is 195 (37.9%) and for the Strongly Agree is 143(27.7%).

16. Regarding the statement, “HRIS integration is likely to contribute to greater organizational profitability.” the data collected from the segment of Strongly Disagree is 6(1.2%), for the Disagree is 20 (3.9%), for the Neutral is 138 (26.8%), for the Agree is 208 (40.4%) and for the Strongly Agree is 143 (27.7%).

17. Regarding the statement, “Top-level management encourages and supports the adoption of HRIS.” the data collected from the segment of Strongly

Disagree is 3 (0.6%), for the Disagree is 16 (3.1%), for the Neutral is 93 (18.1%), for the Agree is 222 (43.1%) and for the Strongly Agree is 181 (35.1%).

18. Regarding the statement, “Top-level management has provided appropriate and sufficient resources to support HRIS implementation.” The data collected from the segment of Strongly Disagree is 6 (1.2%), for the Disagree is 19 (3.7%), for the Neutral is 120 (23.3%), for the Agree is 250 (48.5%) and for the Strongly Agree is 120 (23.3%).

19. Regarding the statement, “Top-level management understands the potential benefits offered by HRIS.” The data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 18 (3.5%), for the Neutral is 118 (22.9%), for the Agree is 215 (41.7%) and for the Strongly Agree is 159 (30.9%).

20. Regarding the statement, “The adoption of HRIS by our competitors influences our decision to implement it.” The data collected from the segment of Strongly Disagree is 12 (2.3%), for the Disagree is 56 (10.9%), for the Neutral is 139 (27%), for the Agree is 177 (34.4%) and for the Strongly Agree is 131 (25.4%).

21. Regarding the statement, “HRIS is necessary to align with prevailing industry practices.” The data collected from the segment of Strongly Disagree is 10 (1.9%), for the Disagree is 54 (10.5%), for the Neutral is 148 (28.7%), for the Agree is 212 (41.2%) and for the Strongly Agree is 91 (17.7%).

22. Regarding the statement, “Our organization keeps itself updated on competitors’ emerging technological developments.” The data collected from the segment of Strongly Disagree is 13(2.5%), for the Disagree is 24(4.7%), for the Neutral is 56 (30.3%), for the Agree is 191 (37.1%) and for the Strongly Agree is 131 (25.4%).

23. Regarding the statement, “Adequate training support for HRIS is offered by the vendors.” The data collected from the segment of Strongly Disagree is 6 (1.2%), for the Disagree is 16 (3.1%), for the Neutral is 120 (23.3%), for the Agree is 234 (45.4%) and for the Strongly Agree is 139 (27%).

24. Regarding the statement, “Availability of reliable technical assistance during HRIS adoption.” The data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 16 (3.1%), for the Neutral is 134 (26%), for the Agree is 240 (46.6%) and for the Strongly Agree is 121 (23.5%).

25. Regarding the statement, “Technical Support is provided after HRIS has been implemented..” The data collected from the segment of Strongly Disagree is 6 (1.2%), for the Disagree is 12 (2.3%), for the Neutral is 141 (27.4%), for the Agree is 214 (41.5%) and for the Strongly Agree is 142 (27.6%).

26. Regarding the statement, “Government promoted the use of IT enable/ HRIS software for Organization.” the data collected from the segment of Strongly Disagree is 10 (1.9%), for the Disagree is 22 (4.3%), for the Neutral is 141 (27.4%), for the Agree is 208 (40.4%) and for the Strongly Agree is 134 (26%).

27. Regarding the statement, “Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF, ESIC)” the data collected from the segment of Strongly Disagree is 8 (1.5%), for the Disagree is 21(4.1%), for the Neutral is 135 (26.2%), for the Agree is 225 (43.7%) and for the Strongly Agree is 126 (24.5%).

28. Regarding the statement, “Senior executives are enthusiastic to experiment with a new information system.” The data collected from the segment of Strongly Disagree is 7 (1.3%), for the Disagree is 20 (3.9%), for the Neutral is 121 (23.5%), for the Agree is 205 (39.8%) and for the Strongly Agree is 162 (31.5%).

29. Regarding the statement, “Senior executives demonstrate a willingness to adopt updated information systems.” The data collected from the segment of Strongly Disagree is 10 (1.9%), for the Disagree is 32 (6.2%), for the Neutral is 161 (31.3%), for the Agree is 224 (43.5%) and for the Strongly Agree is 88 (17.1%).

30. Regarding the statement, “Senior executives prefer developing new solutions over improving existing processes.” The data collected from the segment of Strongly Disagree is 7 (1.4%), for the Disagree is 30 (5.8%), for the Neutral is 162 (31.5%), for the Agree is 205 (39.8%) and for the Strongly Agree is 111 (21.5%).

31. Regarding the statement, “Senior executives are willing to take risks by trying new approaches.” the data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 41 (8%), for the Neutral is 167 (32.4%), for the Agree is 199 (38.6%) and for the Strongly Agree is 103 (20%).

32. Regarding the statement, “The HR team has adequate knowledge of information technology to handle HR function effectively.” the data collected from the segment of Strongly Disagree is 5(1%), for the Disagree is 18 (3.5%), for the Neutral is 121 (23.5%), for the Agree is 219 (42.5%) and for the Strongly Agree is 152 (29.5%).

33. Regarding the statement, “HR team possess specialized IT skills required to operate HR-specific systems.” The data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 17 (3.3%), for the Neutral is 134 (26%), for the Agree is 216 (41.9%) and for the Strongly Agree is 144 (28%).

34. Regarding the statement, “HR team is relied on at least one expert in computer systems and applications.” the data collected from the segment of Strongly Disagree is 6 (1.2%), for the Disagree is 18 (3.5%), for the Neutral

is 136 (26.4%), for the Agree is 210 (40.8%) and for the Strongly Agree is 145 (28.1%).

35. Regarding the statement, "Recruitment and selection ratio is unpaired adoption of HRIS." The data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 21 (4.1%), for the Neutral is 126 (24.5%), for the Agree is 205 (39.8%) and for the Strongly Agree is 158 (30.6%).

36. Regarding the statement, "Effectiveness of selection is increased by adoption of HRIS." the data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 15 (2.9%), for the Neutral is 131 (25.4%), for the Agree is 230 (44.7%) and for the Strongly Agree is 134 (26%).

37. Regarding the statement, "Flexibility in training is possible from HRIS." The data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 12 (2.3%), for the Neutral is 119 (23.1%), for the Agree is 239 (46.4%) and for the Strongly Agree is 141 (27.4%).

38. Regarding the statement, "Training needs are specified easily through HRIS." The data collected from the segment of Strongly Disagree is 3 (0.6%), for the Disagree is 13 (2.5%), for the Neutral is 139 (27%), for the Agree is 225(43.7%) and for the Strongly Agree is 135 (26.2%).

39. Regarding the statement, "Internal and external equity is ensured through adoption of HRIS." the data collected from the segment of Strongly Disagree is 7(1.4%), for the Disagree is 10 (1.9%), for the Neutral is 122 (23.7%), for the Agree is 212 (41.2%) and for the Strongly Agree is 164 (31.8%).

40. Regarding the statement, "Transparency is possible through HRIS system." the data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 8 (1.6%), for the Neutral is 108 (21%), for the Agree is 263 (51%) and for the Strongly Agree is 132 (25.6%).

41. Regarding the statement, “Market Rate Analysis is easier through HRIS adoption.” the segment of Strongly Disagree is 7 (1.4%), for the Disagree is 12 (2.3%), for the Neutral is 150 (29.1%), for the Agree is 208 (40.4%) and for the Strongly Agree is 138 (26.8%).

42. Regarding the statement, “Mechanism has become easier and quick through HRIS.” the data collected from the segment of Strongly Disagree is 3 (0.6%), for the Disagree is 7 (1.4%), for the Neutral is 111 (21.5%), for the Agree is 241 (46.8%) and for the Strongly Agree is 153 (29.7%).

43. Regarding the statement, “Communication in upward and downward is effectively done through HRIS.” the data collected from the segment of Strongly Disagree is 2 (0.4%), for the Disagree is 12 (2.3%), for the Neutral is 115 (22.4%), for the Agree is 239 (46.4%) and for the Strongly Agree is 147 (28.5%).

44. Regarding the statement, “Succession planning is done through HRIS.” the data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 14 (2.7%), for the Neutral is 123 (23.9%), for the Agree is 228 (44.3%) and for the Strongly Agree is 146 (28.3%).

45. Regarding the statement, “Carrier planning is effectively done through HRIS.” the data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 18 (3.5%), for the Neutral is 143 (27.8%), for the Agree is 231 (44.8%) and for the Strongly Agree is 119 (23.1%).

46. Regarding the statement, “Performance Appraisal Mapping of employee’s performance is effectively done through HRIS.” the data collected from the segment of Strongly Disagree is 6 (1.2%), for the Disagree is 13 (2.5%), for the Neutral is 122 (23.7%), for the Agree is 217 (42.1%) and for the Strongly Agree is 157 (30.5%).

47. Regarding the statement, “KRA’s and KPI’s are easy to manage through HRIS.” The data collected from the segment of Strongly Disagree is 4 (0.8%), for the Disagree is 22 (4.3%), for the Neutral is 132 (25.6%), for the Agree is 217 (42.1%) and for the Strongly Agree is 140 (27.2%).

48. Regarding the statement, “Work Job fit is possible through HRIS Adoption.” the data collected from the segment of Strongly Disagree is 5 (1%), for the Disagree is 22 (4.3%), for the Neutral is 135 (26.2%), for the Agree is 218 (42.3%) and for the Strongly Agree is 135 (26.2%).

4.4 Reliability statistics

Table: 4.11 Reliability statistics of the factor using Cronbach’s Alpha

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.952	48

(Sources: Research Result)

The table above presents the reliability analysis of statements assessing “the impact of Human Resource Information Systems on Organizational Performance.” The obtained reliability coefficient of 0.952 demonstrates a high degree of internal consistency among the measured items. This suggests that the statements consistently reflect the construct of HRIS and its influence on organizational performance.

Table: 4.12 Reliability Analysis for variable using Cronbach’s Alpha

Factor	**No of items**	**Reliability (Cronbach’s Alpha)**	**Reliable/nonreliable**
Human Resource Information System (HRIS) Independent Variable			
Technology context			
IT Infrastructure	04	.790	Reliable

Perceived compatibility	04	.766	Reliable
Perceived complexity	04	.887	Reliable
Organizational context			
Relative Advantages	04	.795	Reliable
Top Management support	03	.795	Reliable
Environmental context			
Competitive pressure	03	.773	Reliable
Technology vendor support	03	.820	Reliable
Government regulations and support	02	.772	Reliable
Human context (Moderating Variable)			
Senior executives attitude	04	.802	Reliable
IT skills of HRM professionals	03	.747	Reliable
Organizational Performance (Dependent Variable)			
Employee Skill	04	.759	Reliable
Employee motivation	05	.836	Reliable
Structure of Job and Work	05	.866	Reliable

(Sources: Research Result)

The above table provides an overview of the Cronbach's alpha values associated with the variables presented to IT-ITES employees regarding the impact of Human Resource Information System on Organizational Performance. The total item statistics indicate that all statements evaluated by the researcher have a Cronbach's alpha greater than 0.7 (Cronbach, 1951). This outcome confirms that the statements used in each variable in this study are highly reliable.

Table: 4.13 Mean and std. deviation ranking for important factor related to Human Resource Information System on Organizational Performance (Item wise)

Item statistics				
Items	**Statements**	**Mean**	**Std. Deviation**	**N**
1.	The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations.	4.19	.841	515
2.	The Organization maintains sufficient technological resources, including software and data management resources for HRIS support.	4.09	.816	515
3.	The Organization facilities efficient internet connectivity.	4.24	.867	515
4.	The organization follows a resilient backup plan to address network connectivity problems.	4.04	.964	515
5.	The adoption of HRIS applications is well suited to the organization's existing operating methods.	4.05	.819	515
6.	HRIS applications are aligned with the organization’s core mission and principles	3.97	.813	515
7.	HRIS may not be fully supported by the organization’s current hardware and network systems.	3.65	1.037	515
8.	Implementation of the updated and new system may require significant adjustments to existing software and data systems.	3.65	1.073	515
9.	HRIS is complex to use.	3.43	1.102	515
10.	HRIS application development involves a complex and multi-layered process.	3.45	1.017	515

11.	HRIS is hard to learn.	3.29	1.101	515
12.	HRIS integration is expected to disrupt existing work practices.	3.27	1.112	515
13.	HRIS will enable me to improve efficiency in my job responsibilities.	4.07	.843	515
14.	Adopting HRIS will enhance more productivity across the organization.	4.04	.795	515
15.	HRIS can lead to cost savings in day-to-day operations.	3.88	.892	515
16.	HRIS integration is likely to contribute to greater organizational profitability.	3.90	.893	515
17.	Top-level management encourages and supports the adoption of HRIS.	4.09	.838	515
18.	Top-level management has provided appropriate and sufficient resources to support HRIS implementation.	3.89	.841	515
19.	Top-level management understands the potential benefits offered by HRIS.	3.98	.875	515
20.	The adoption of HRIS by our competitors influences our decision to implement it.	3.70	1.039	515
21.	Adopting HRIS is necessary to align with prevailing industry practices.	3.62	.957	515
22.	Our organization keeps itself updated on competitors' emerging technological developments.	3.78	.962	515
23.	Adequate training support for HRIS is offered by the vendors.	3.94	.854	515
24.	Availability of reliable technical assistance during HRIS adoption.	3.89	.824	515
25.	Technical Support is provided after HRIS has been implemented.	3.92	.862	515

26.	Government promoted the use of IT enable/ HRIS software for Organization.	3.84	.925	515
27.	Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF, ESIC).	3.85	.889	515
28.	Senior executives are open to adopting and experiment with innovative information systems.	3.96	.910	515
29.	Senior executives demonstrate a willingness to adopt updated information systems.	3.68	.896	515
30.	Senior executives prefer developing new solutions over improving existing processes.	3.74	.906	515
31.	Senior executives are willing to take risks by trying new approaches.	3.69	.913	515
32.	The HR team has adequate knowledge of information technology to handle HR function effectively.	3.96	.870	515
33.	HR team possess specialized IT skills required to operate HR-specific systems.	3.93	.859	515
34.	HR team is relied on at least one expert in computer systems and applications.	3.91	.886	515
35.	Recruitment and selection ratio is unpaired adoption of HRIS.	3.95	.895	515
36.	Effectiveness of selection is increased by adoption of HRIS.	3.92	.845	515
37.	Flexibility in training is possible from HRIS.	3.97	.818	515
38.	Training needs are specified easily through HRIS.	3.92	.825	515
39.	Internal and external equity is ensured through adoption of HRIS.	4.00	.870	515
40.	Transparency is possible through HRIS system.	3.99	.774	515

41.	Market Rate Analysis is easier through HRIS adoption.	3.89	.874	515
42.	Mechanism has become easier and quick through HRIS.	4.04	.787	515
43.	Communication in upward and downward is effectively done through HRIS.	4.00	.809	515
44.	Succession planning is done through HRIS.	3.97	.837	515
45.	Carrier planning is effectively done through HRIS.	3.86	.837	515
46.	Performance Appraisal Mapping of employee's performance is effectively done through HRIS.	3.98	.865	515
47.	KRA's and KPI's are easy to manage through HRIS.	3.91	.873	515
48.	Work Job fit is possible through HRIS Adoption.	3.89	.878	515

(Sources: Research Result)

Interpretation

This research is to determine the impact of the Human Resource Information System (HRIS) on Organizational performance. The above table presents item statistics that show the mean of respondents, while the standard deviation indicates the variability in the respondents' perceptions. A sample of 515 responses was collected from employees working in IT-ITES sector across various cities in Gujarat i.e., Ahmedabad, Rajkot, Surat and Vadodara A 5-point Likert scale was utilized in the research, offering response options on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

Descriptive statistics like mean and standard deviation are used to summarize data variability and average response, respectively. These metrics offer a clear picture of the distribution of responses within the sample (Gravetter & Wallnau, 2016). The mean and standard deviation ranking of the impact of the Human Resource Information System (HRIS) on organizational performance is shown in the above table. The study shows the maximum mean value occurring by the statement "The

Organization facilities efficient internet connectivity" i.e., 4.24 while the lowest mean value can be seen in "HRIS integration is expected to disrupt existing work practices." i.e., 3.27. Additionally, the highest standard deviation is observed in the statement "HRIS integration is expected to disrupt existing work practices." The value recorded is 1.112, whereas the statement "Transparency is possible through HRIS shows the lowest standard deviation at 0.774."

Table: 4.14 Item total statistics for the important factor related to Human Resource Information on Organizational Performance (Item wise)

	Statements	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.	The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations.	181.69	549.492	.426	.951
2.	The Organization maintains sufficient technological resources, including software and data management resources for HRIS support.	181.79	549.717	.435	.951
3.	The Organization facilities efficient internet connectivity.	181.64	549.169	.421	.951
4.	The organization follows a resilient backup plan to address network connectivity problems.	181.83	547.237	.418	.951
5.	The adoption of HRIS applications is well suited to the organization's existing operating methods.	181.83	546.008	.531	.951
6.	HRIS applications are aligned with the organization's core mission and principles	181.91	544.885	.566	.951

7.	HRIS may not be fully supported by the organization's current hardware and network systems.	182.22	541.831	.500	.951
8.	Implementation of the updated and new system may require significant adjustments to existing software and data systems.	182.23	541.583	.486	.951
9.	HRIS is complex to use.	182.45	548.785	.330	.952
10.	HRIS application development involves a complex and multi-layered process.	182.43	548.755	.362	.952
11.	HRIS is hard to learn.	182.58	547.236	.361	.952
12.	HRIS integration is expected to disrupt existing work practices.	182.61	547.874	.344	.952
13.	HRIS will enable me to improve efficiency in my job responsibilities.	181.80	546.734	.497	.951
14.	Adopting HRIS will enhance more productivity across the organization.	181.83	546.823	.526	.951
15.	HRIS can lead to cost savings in day-to-day operations.	182.00	543.949	.535	.951
16.	HRIS integration is likely to contribute to greater organizational profitability.	181.98	542.933	.560	.951
17.	Top-level management encourages and supports the adoption of HRIS.	181.79	545.090	.543	.951
18.	Top-level management has provided appropriate and sufficient resources to support HRIS implementation.	181.99	542.414	.610	.950
19.	Top-level management understands the potential benefits offered by HRIS.	181.90	542.093	.593	.950
20.	The adoption of HRIS by our competitors influences our decision to implement it.	182.18	540.876	.519	.951
21.	Adopting HRIS is necessary to align with prevailing industry practices.	182.26	542.366	.532	.951

22.	Our organization keeps itself updated on competitors' emerging technological developments.	182.10	538.884	.609	.950
23.	Adequate training support for HRIS is offered by the vendors.	181.94	542.693	.593	.950
24.	Availability of reliable technical assistance during HRIS adoption.	181.99	542.556	.620	.950
25.	Technical Support is provided after HRIS has been implemented.	181.96	541.566	.616	.950
26.	Government promoted the use of IT enable/ HRIS software for Organization.	182.03	542.018	.560	.951
27.	Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF, ESIC).	182.02	540.073	.633	.950
28.	Senior executives are open to adopting and experiment with innovative information systems.	181.92	541.800	.576	.950
29.	Senior executives demonstrate a willingness to adopt updated information systems.	182.20	543.566	.542	.951
30.	Senior executives prefer developing new solutions over improving existing processes.	182.13	541.579	.584	.950
31.	Senior executives are willing to take risks by trying new approaches.	182.19	541.835	.573	.950
32.	The HR team has adequate knowledge of information technology to handle HR function effectively.	181.92	541.703	.606	.950
33.	HR team possess specialized IT skills required to operate HR-specific systems.	181.95	544.139	.552	.951

34.	HR team is relied on at least one expert in computer systems and applications.	181.97	542.182	.583	.950
35.	Recruitment and selection ratio is unpaired adoption of HRIS.	181.93	545.407	.498	.951
36.	Effectiveness of selection is increased by adoption of HRIS.	181.96	545.105	.538	.951
37.	Flexibility in training is possible from HRIS.	181.90	543.596	.597	.950
38.	Training needs are specified easily through HRIS.	181.95	545.317	.545	.951
39.	Internal and external equity is ensured through adoption of HRIS.	181.88	544.588	.534	.951
40.	Transparency is possible through HRIS system.	181.89	546.417	.553	.951
41.	Market Rate Analysis is easier through HRIS adoption.	181.99	541.704	.603	.950
42.	Mechanism has become easier and quick through HRIS.	181.84	547.052	.526	.951
43.	Communication in upward and downward is effectively done through HRIS.	181.88	546.455	.527	.951
44.	Succession planning is done through HRIS.	181.91	543.350	.588	.950
45.	Carrier planning is effectively done through HRIS.	182.02	542.083	.622	.950
46.	Performance Appraisal Mapping of employee's performance is effectively done through HRIS.	181.90	542.440	.591	.950
47.	KRA's and KPI's are easy to manage through HRIS.	181.97	545.382	.512	.951
48.	Work Job fit is possible through HRIS Adoption.	181.99	542.132	.590	.950

Item-total statistics are utilized to evaluate each item's internal consistency within the construct. The corrected item-total correlation reflects how strongly each individual item is associated with the total score of the remaining items on the scale. An item is generally seen as contributing significantly to the scale's overall reliability if its value is more than 0.30 (Nunnally & Bernstein, 1994).

All the items in this study had corrected item-total correlation values exceeding the minimum threshold of 0.30, confirming that all were positively correlated with the total score and closely related to the construct being measured.

Objective: 2 To know the impact of HRIS on organizational Performance with a specific reference to the IT-ITES sector of Gujarat

H_0 – There is no significant impact of HRIS on Organizational Performance.

H_1 - There is a significant impact of HRIS on Organizational Performance.

4.5 Regression

To know the impact of HRIS on organizational performance, regression analysis was applied by using the mean score derived from the measured variable. The mean score of HRIS (which includes Technology context, Organizational context, Environment context, and Human context) and Organizational performance was calculated using survey responses, and these values were utilized to determine if higher integration of HRIS aligns with improved organizational performance.

The following table displays the results of the regression analysis, outlining the model summary, beta coefficients (β), R-square (R^2), and p-values. These indicators collectively highlight the strength and statistical significance of the relationship between Human Resource Information Systems (HRIS) and organizational performance.

Table: 4.15 Model Summary of regression for the impact of Human Resource Information System (HRIS) on Organizational performance

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.680[a]	.462	.461	.4276938	.462	441.178	1	513	.000	1.919

a. Predictors: (Constant), Mean Human Resource Information System (HRIS)

b. Dependent Variable: Mean Organizational Performance

(Sources: Research Result)

The model summary table illustrates the influence of Human Resource Information Systems (HRIS) on organizational performance in the IT-ITES sector of Gujarat. An R-value of 0.680 suggests a strong positive correlation between the two variables. Moreover, the coefficient of determination (R^2) stands at 0.462, implying that HRIS accounts for approximately 46.2% of the variance observed in organizational performance.

In this model, the Adjusted R Square value is 0.461, indicating that approximately 46.1% of the variation in the dependent variable is explained after accounting for the number of predictors. The standard error of the estimate, reported as 0.462, indicates the average deviation of the observed values from those predicted by the regression model. An F-value of 441.178 and a p-value of 0.000 demonstrate that the regression model is statistically significant, as the p-value is well below the 0.05 threshold. This result supports the rejection of the null hypothesis H0. This means HRIS plays a beneficial role in improving organizational performance. The Durbin-Watson statistical value is recorded at 1.919 and is nearly equivalent to 2. The model does not experience autocorrelation (correlation between successive residuals); therefore, regression results can be considered statistically reliable.

Table: 4.16 ANOVA Test for Regression for impact of HRIS on Organizational Performance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	80.701	1	80.701	441.178	.000[b]
	Residual	93.839	513	.183		
	Total	174.540	514			
a. Dependent Variable: Mean Organizational Performance						
b. Predictors: (Constant), Mean Human Resource Information System (HRIS)						

The ANOVA table shows the adequacy of the model and the significance of the regression analysis, which investigates the impact of HRIS on Organizational performance in the IT-ITES sector. The sum of squares of the regression model is recorded at 80.701, which creates important information about the model's validity. The F value is 441.178 and significance value (p-value) is recorded as 0.000, which is below the standard significance level of 0.05, the model is statistically significant, thus affirming there is a meaningful impact of HRIS on Organizational Performance.

Table: 4.17 Coefficients for Regression for impact of HRIS on Organizational Performance

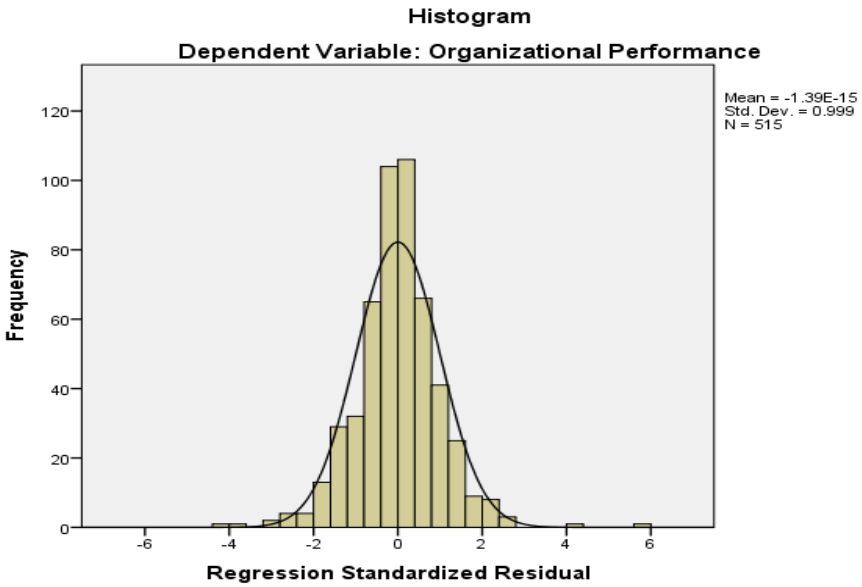
Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.992	.142		6.989	.000	.713	1.271
	Human Resource Information System	.770	.037	.680	21.004	.000	.698	.842

a. Dependent Variable: Organizational Performance

(Sources: Research Result)

The coefficients table presents a comprehensive overview of the regression output, including both unstandardized and standardized values (Beta), along with corresponding t-statistics and significance levels. In this model, the coefficient for the average HRIS score is 0.770, which is statistically significant at $p < .001$. This indicates a strong and positive influence of HRIS on organizational performance. The result highlights the critical role of HRIS in driving performance improvements within organizations.

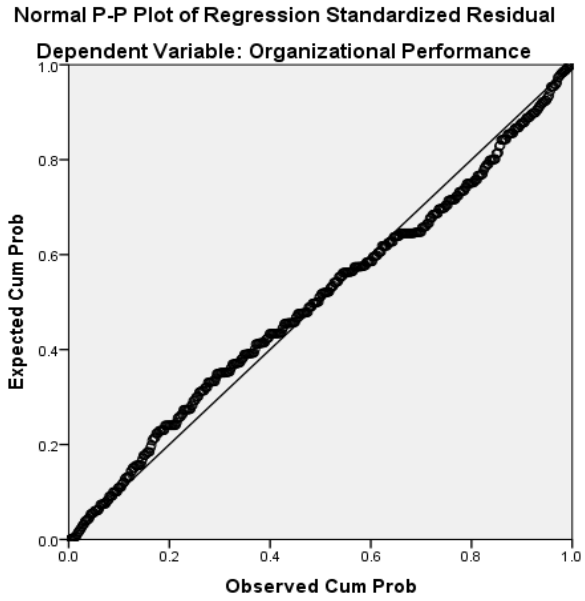
Figure: 4.10 Distribution of standard residual for the impact of HRIS on organizational Performance



(Sources: Research Result)

To assess the reliability of the key regression analysis assumptions, especially the assumption of normality, the standardized residuals of organizational performance were analyzed. It was determined that the standardized residuals' mean was 1.39E-15, which is effectively zero. It is confirmed by this result that the regression model is neither consistently overpredicting nor underpredicting values because the residuals are symmetrically distributed around zero. In addition, the residuals' standard deviation was 0.999, very similar to the standardized residuals' suggested value of 1. According to this, the residuals' dispersion is within the standard range.

Figure: 4.11 Normal P–P Plot of Standardized Residuals for Organizational performance



(Sources: Research Result)

Objective: 3 To study the factors contributing to HRIS adoption and organizational **performance.**

4.6 Exploratory Factor Analysis

Exploratory factor analysis is a multivariate statistical method used to find the underlying structure in a collection of observed variables (Hair et al., 2010). In the initial stages of research, this method is commonly employed to identify the number and nature of underlying factors that explain the observed relationships among variables.

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were used to evaluate the dataset's appropriateness before factor extraction (Bartlett, 1950; Kaiser, 1974). These tests are necessary to determine whether the variables are sufficiently correlated for factor analysis. (Field, 2013).

Table: 4.18 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	5137.883
	Df	210
	Sig.	.000

(Sources: Research Result)

The Kaiser-Meyer-Olkin (KMO) test is applied to evaluate the adequacy of the sample respondents and the number of variables, which is suitable for data factor analysis or not (Pallant, 2020). The minimum KMO value of 0.6 or above is generally accepted to determine the adequacy of sample data for factor analysis (Tabachnick & Fidell, 2007). The KMO value was found to be 0.870, indicating a strong measure of sampling adequacy, as it is relatively high and close to 1. This represents good value for conducting factor analysis on the variable associated with IT-ITES sector employees, aiming to examine how Human Resource Information Systems (HRIS) influence organizational performance.

The Bartlett Test of Sphericity is utilized to evaluate the multivariate normality of a comprehensive set of distributions concerning sphericity during component analysis (Hair et al., 2010). It is widely recognized that if the data yields a value below 0.05 (Field, 2013), the research factors should be analyzed under the acceptable criteria established by the Bartlett test. The analysis highlights the necessity for further investigation into the variables relevant to IT-ITES sector employees to determine the impact of Human Resource Information Systems (HRIS) on Organizational performance, as indicated by the Bartlett test of sphericity value of 0.000, which is below the 0.05 threshold. Furthermore, Bartlett’s test of Sphericity substantiated the data's appropriateness for factor analysis, yielding a significant chi-square value of 5137.883 ($p = 0.000$).

Table 4.19 Communalities value for the Human Resource Information System statements

Communalities		
	Initial	Extraction
IT 1	1.000	.611
IT 2	1.000	.665
IT 3	1.000	.644
IT 4	1.000	.632
PC 3	1.000	.827
PC 4	1.000	.809
P COM 1	1.000	.727
P COM 2	1.000	.774
P COM 3	1.000	.762
P COM 4	1.000	.751
RA 2	1.000	.704
RA 3	1.000	.602
RA 4	1.000	.697
EM 1	1.000	.619
EM 2	1.000	.600
EM 3	1.000	.580
EM 4	1.000	.552
EM 5	1.000	.555
SJW 1	1.000	.663
SJW 2	1.000	.588

SJW 3	1.000	.584
Extraction Method: Principal Component Analysis.		

(Sources: Research Result)

Communalities are a significant result in factor analysis, reflecting the degree to which the variance associated with each variable is explained by the derived factors or components. The communalities table presents the value related to the impact of HRIS on organizational performance factors among IT-ITES employees.

High Communalities: Communalities greater than 0.70 (Hair et al., 2010) are categories as high Communalities items such as PC 3 (.827), PC 4 (0.809), P COM 1 (0.727), P COM 2 (0.774), P COM 3 (0.762), P COM 4 (0.751), RA 2 (0.704). This item makes an important contribution to the overall factors that were extracted.

Moderate Communalities: Communalities values between 0.40 to 0.70 (Hair et al., 2010) they are categorized as moderate communalities. IT 1 (0.611), IT 2 (0.665), IT 3 (0.644), IT 4 (0.632), RA 3 (.602), RA 4 (0.697), EM 1 (0.619), EM 2 (0.600), EM 3 (0.580), EM 4 (0.552), EM 5 (0.555), SJW 1 (0.663), SJW 2 (0.588)**,** SJW 3 (0.584). These items are well explained by the factor and show acceptable communalities, but the portion of their variance remains unexplained.

Low Communalities: Values below 0.40 (Hair et al., 2010) are considered low communalities. But all the items demonstrate moderate to high communalities.

Table: 4.20 Total Variance Explained for the impact of Human Resource Information System on Organizational Performance for IT-ITES employees

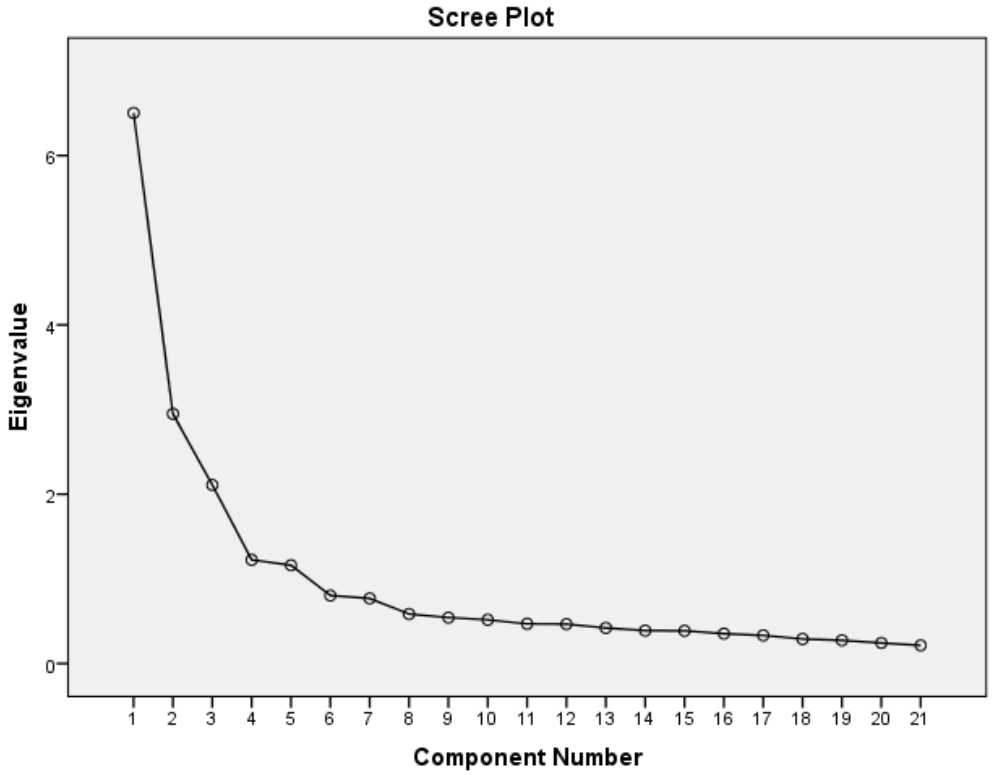
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.502	30.964	30.964	6.502	30.964	30.964	4.494	21.402	21.402
2	2.950	14.046	45.010	2.950	14.046	45.010	3.062	14.580	35.982
3	2.109	10.041	55.051	2.109	10.041	55.051	2.538	12.087	48.069
4	1.225	5.833	60.883	1.225	5.833	60.883	2.170	10.333	58.402
5	1.161	5.530	66.414	1.161	5.530	66.414	1.682	8.012	**66.414**
6	.803	3.825	70.239						
7	.769	3.660	73.899						
8	.585	2.785	76.684						
9	.543	2.584	79.269						
10	.517	2.460	81.729						
11	.469	2.231	83.960						
12	.465	2.216	86.176						
13	.421	2.003	88.179						
14	.390	1.855	90.034						
15	.386	1.838	91.871						
16	.353	1.682	93.553						
17	.332	1.583	95.136						
18	.289	1.378	96.514						

19	.274	1.305	97.819						
20	.243	1.159	98.978						
21	.215	1.022	100.000						
Extraction Method: Principal Component Analysis.									

(Sources: Research Result)

The cumulative variance identified through factor analysis in the present study, which investigates IT-ITES employees' perceptions of their Human Resource Information System and its influence on Organizational Performance, is summarized. The analysis identified statements, of which five had Eigenvalues greater than 1, while the remaining 16 components had eigenvalues less than value 1. Consequently, only five factors can be extracted from the 21 statements. The 21 statements can be effectively grouped into five heterogeneous factors, yet the statements within each factor are homogeneous. After conducting the rotation over the data, the rotated finding provides that the total explained variance by these five factors was 66.414 percent, and the remaining 33.586 percent was termed as unexplained. The first factor accounts for the highest variance at 21.402 percent, while the fifth factor is the least, contributing only 8.012 percent.

Figure: 4.12 Scree Plot



(Sources: Research Result)

The scree plot graph shows the identification of factors to be retained in the analysis (Cattell, 1966), a scree plot visual representation of eigenvalues, which are shown on the y-axis, and the number of components is shown on the x-axis. It is essential to retain components whose values are greater than one, and those components whose values are less than one are to be excluded. The point at which the Eigenvalues begin to decline, the value of one, indicating the presence of an elbow, signifying the total number of components that contribute to the factors. In the above scree plot, the elbow appears from the sixth component, which indicates that a total of five components should be retained for the analysis.

Table: 4.21 Component Matrix[a]

	Component				
	1	2	3	4	5
EM 3	.701				
SJW 2	.697				
SJW 3	.697				
SJW 1	.673				
EM 2	.659				
EM 5	.653				
EM 4	.630				
EM 1	.614				
RA 4					
RA 2					
RA 3					
P COM 3		.774			
P COM 1		.767			
P COM 4		.761			
P COM 2		.746			
IT 3					
IT 2					
IT 4					
IT 1					
PC 3					

PC 4					
Extraction Method: Principal Component Analysis.					
a. 5 components extracted.					

(Sources: Research Result)

The above table outlines the Component Matrix values generated through analysis of employee of the IT-ITES sector towards the Human Resource Information System (HRIS) on Organizational performance, in which five components were extracted. A component matrix is utilized to reveal data, minimize dimensionality, and summarize the variance of limited components. The components Matrix gives a detailed interpretation of the output based on the factor loading associated with each component. To clarify factors contributing to the Human Resource Information System, the researcher adopts the Rotational method specified by applying varimax with Kaiser Normalization and Equamax. This method will yield the precise identification of factors along with the statements that are important for understanding Human Resource Information Systems among IT-ITES sector employees.

Table 4.22 Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
SJW 1	.792				
EM 1	.758				
EM 4	.728				
SJW 2	.724				
EM 2	.721				
EM 3	.704				
EM 5	.681				
SJW 3	.668				

P COM 2		.870			
P COM 3		.855			
P COM 4		.855			
P COM 1		.833			
IT 2			.786		
IT 4			.765		
IT 3			.745		
IT 1			.719		
RA 2				.780	
RA 4				.762	
RA 3				.703	
PC 3					.847
PC 4					.837
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 6 iterations.					

(Sources: Research Result)

The rotated factor analysis identified five major components that play a significant role in explaining how Human Resource Information Systems influence organizational performance within the IT-ITES sector. All 21 statements have been assigned to these five factors. A threshold factor value of greater than 0.7 is recommended according to (Hair et al., 2010; Nunnally & Bernstein, 1994). In the present analysis, the factor loading greater than 0.70 has been utilized and considered for future interpretation. where a higher loading factor indicates a stronger relationship with the relevant factor. The rotation method shown within the factor loadings is systematically sorted.

Table: 4.23 Factors for Human Resource Information System IT-ITES employees with the statements

Rotated Component Matrix					
	Component				
	1	2	3	4	5
SJW 1	**Factor 1 Job satisfaction**				
EM 1					
EM 4					
SJW 2					
EM 2					
EM 3					
EM 5					
SJW 3					
P COM 2		**Factor 2 Workflow Integration**			
P COM 3					
P COM 4					
P COM 1					
IT 2			**Factor 3 IT Adoption**		
IT 4					
IT 3					
IT 1					
RA 2				**Factor 4 Organizati**	
RA 4					

RA 3				**onal Benefit**	
PC 3					**Factor 5**
PC 4					**System Alignment**
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 6 iterations.					

(Sources: Research Result)

The identification of the first factor "Job satisfaction" comprises the statements: "Succession planning is done through HRIS", "Internal and External equity is ensured through adoption of HRIS", "Mechanism has become easier and quick through HRIS." "career planning is effectively done through HRIS.", "Transparency is possible through HRIS system", "Market rate analysis is easier through HRIS Adoption", "Communication in upward and downward is effectively done through HRIS", "Performance Appraisal Mapping of employee's performance is effectively done through HRIS."

The identification of the second factor "Workflow Integration" comprises the statements: "HRIS application development involves a complex and multi-layered process.", "HRIS is hard to learn", "HRIS integration is expected to disrupt existing work practices.", "HRIS is complex to use."

The identification of the third factor "IT adoption" comprises the statements; "The Organization maintains sufficient technological resources, including software and data management resources for HRIS support." , "The organization follows a resilient backup plan to address network connectivity problems.", "The Organization facilities efficient internet connectivity.", "The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations."

The identification of the fourth factor “Organizational Benefit” comprises the statements: “Adopting HRIS will enhance more productivity across the organization.”, “HRIS integration is likely to contribute to greater organizational profitability.”, “HRIS can lead to cost savings in day-to-day operations.”

The identification of the fifth factor “System Alignment” comprises the statements: “HRIS may not be fully supported by the organization’s current hardware and network systems.”, “Implementation of the updated and new system may require significant adjustments to existing software and data systems.”

Table: 4.24 Component Transformation Matrix

Components	1	2	3	4	5
1	.733	.285	.391	.403	.255
2	-.303	.899	-.077	-.172	.253
3	-.559	-.137	.748	.250	.216
4	.200	.120	.530	-.663	-.475
5	-.136	.276	-.012	.554	-.773

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

(Sources: Research Result)

Table: 4.25 Factors for HRIS for IT-ITES sector

Factors	Name of the Factor
Factor 1	Job satisfaction
Factor 2	Workflow Integration
Factor 3	IT Adoption
Factor 4	Organizational Benefit
Factor 5	System Alignment

(Sources: Research Result)

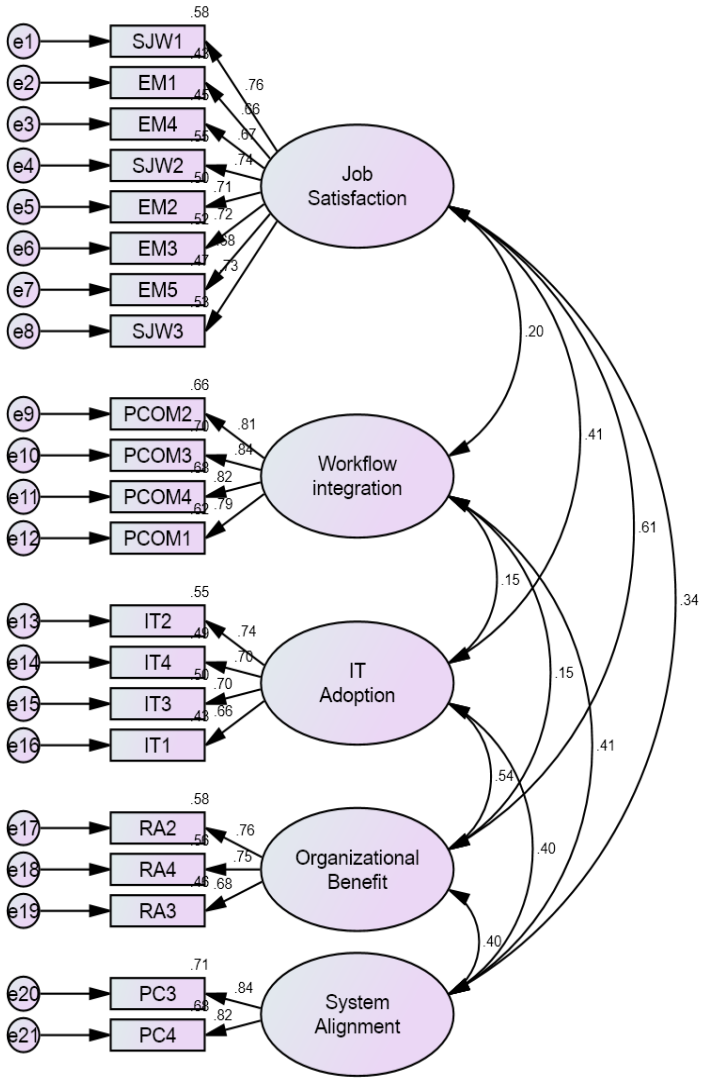
The table above presents the extracted factors based on responses from IT-ITES employees concerning their perceptions of the Human Resource Information System implemented in their organizations. A total of five distinct factors were identified through the analysis and are displayed in the table.

4.6.1 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a statistical technique used to test how well measured variables represent specific underlying constructs. It is applied to validate the factor structure of a group of observed variables. This method helps in confirming the validity of constructs and how well variables adequately represent the specified latent factors (Brown, 2015). This approach helps establish the reliability and validity of the measurement model, including convergent and discriminant validity of the model, before the analysis of structural relationships (Hair et al., 2019).

The model to be tested is a five-factor measurement model derived based on the theoretical framework. This model is composed of Job satisfaction, workflow Integration, IT Adoption, organizational Benefit, and System Alignment and the findings are shown with standardized factor loadings in the accompanying picture.

Figure: 4.13 Confirmatory factory analysis model for impact of Human Resoure Information System (HRIS) on Organizational Performance in IT-ITES sector.



(Sources: AMOS Result)

Table : 4.26 Model Fit Measure

Fit Indicator	Authors	Threshold	Estimate	Actual value
CMIN	---	---	572.798	---
DF	---	---	179	---
CMIN/DF	(Marsh & Hocevar, 1985)	< 5.0	3.200	Excellent
	(Bentler, 1990)	< 5.0 Reported if n>200		
	(Hair et al., 2009)	< 3.0 Good; < 5.0 sometimes permissible		
CFI	(Bentler, 1990)	> 0.9	0.921	Excellent
	(Hatcher, 1994)	> 0.9		
NFI	(Bentler & Bonett, 1980)	> 0.9	0.890	Acceptable
GFI	(Chau,1998)	> 0.9	0.900	Excellent
	(Segars & Grover, 1993)	> 0.9		
AGFI	(Hair et al., 2009)	> 0.8	0.871	Excellent
IFI	(Meyers et al., 2005)	> 0.9	0.922	Excellent
RFI	(Meyers et al., 2005)	> 0.9	0.871	Acceptable
SRMR	(Hair et al., 2009)	< 0.08	0.043	Excellent
RMSEA	(Byrne, 2001)	< 0.08	0.065	Excellent

	(Hu & Bentler, 1999)	< 0.05		
	(Meyers et al., 2005)	< 0.08		
PCFI	(Meyers et al., 2005)	> 0.5	0.789	Excellent
PCLOSE	(Hair et al., 2009)	> 0.05	0.852	Excellent

The values presented in the table include the Chi-Square (X^2=572.798), normed chi-square (CMIN/DF=3.200), Comparative Fit Index (CFI=0.921), considered excellent fit, and Root Mean Square Error of Approximation (RMSEA=0.065), which, in this case, indicates excellent fit. The values of the Normed Fit Index (NFI=0.890), which is considered excellent fit, Relative Fit Index (RFI=0.871), Incremental Fit Index (IFI=0.922), Parsimony Normed Fit Index (PNFI=0.759), Parsimony Comparative Fit Index (PCFI=0.789), and Standardized Root Mean Squared Residual (SRMR=0.043) indicate an excellent fit.

Model fit refers to the process of assessing how well a proposed model aligns with the actual data. In this research, AMOS software was used to validate the model and confirm its alignment with the observed data (Kline, 2016). The confirmatory factor analysis, carried out through maximum likelihood estimation, is summarized in Table 4.26. It indicates that all the fit indicators are within the acceptable threshold value defined by statistical standards.Thus, the findings suggest that the model shows remarkable relative adequacy, showcasingn a good model fit.

Table:4.27 Regression Weights

			Estimate	S.E.	C.R.	P	Label
SJW1	<---	Job_Satisfaction	1.000				
EM1	<---	Job_Satisfaction	.900	.061	14.841	***	

EM4	<---	Job_Satisfaction	.827	.055	15.092	***
SJW2	<---	Job_Satisfaction	.974	.058	16.894	***
EM2	<---	Job_Satisfaction	.857	.054	15.990	***
EM3	<---	Job_Satisfaction	.990	.060	16.396	***
EM5	<---	Job_Satisfaction	.869	.056	15.461	***
SJW3	<---	Job_Satisfaction	.990	.060	16.580	***
PCOM2	<---	Workflow_integration	1.000			
PCOM3	<---	Workflow_integration	1.114	.053	20.954	***
PCOM4	<---	Workflow_integration	1.106	.054	20.517	***
PCOM1	<---	Workflow_integration	1.046	.054	19.364	***
IT2	<---	ITAdoption	1.000			
IT4	<---	ITAdoption	1.111	.081	13.685	***
IT3	<---	ITAdoption	1.009	.073	13.795	***
IT1	<---	ITAdoption	.914	.070	13.020	***
RA2	<---	Organizational_Benefit	1.000			
RA4	<---	Organizational_Benefit	1.106	.076	14.612	***
RA3	<---	Organizational_Benefit	1.004	.074	13.629	***
PC3	<---	System_Alignment	1.000			
PC4	<---	System_Alignment	1.011	.077	13.196	***

(Sources: AMOS Result)

Table: 4.28 Standardized Regression weights

			Estimate
SJW1	<---	Job_Satisfaction	.760

			Estimate
EM1	<---	Job_Satisfaction	.659
EM4	<---	Job_Satisfaction	.669
SJW2	<---	Job_Satisfaction	.741
EM2	<---	Job_Satisfaction	.705
EM3	<---	Job_Satisfaction	.721
EM5	<---	Job_Satisfaction	.684
SJW3	<---	Job_Satisfaction	.729
PCOM2	<---	Workflow_integration	.814
PCOM3	<---	Workflow_integration	.838
PCOM4	<---	Workflow_integration	.823
PCOM1	<---	Workflow_integration	.786
IT2	<---	ITAdoption	.741
IT4	<---	ITAdoption	.697
IT3	<---	ITAdoption	.704
IT1	<---	ITAdoption	.657
RA2	<---	Organizational_Benefit	.762
RA4	<---	Organizational_Benefit	.751
RA3	<---	Organizational_Benefit	.682
PC3	<---	System_Alignment	.844
PC4	<---	System_Alignment	.825

(Sources: AMOS Result)

The above table displays standardized regression weights; values greater than 0.5 indicate that the variable explains a meaningful amount of variance. All the values of standardized regression weights in the researcher's study are above 0.5, which denotes a strong explanatory strength. The standardized regression weights value lies between 0.657 to 0.844

Table: 4.29 Correlations

			Estimate
Job_Satisfaction	<-->	Workflow_integration	.203
Job_Satisfaction	<-->	ITAdoption	.413
Job_Satisfaction	<-->	Organizational_Benefit	.609
Job_Satisfaction	<-->	System_Alignment	.339
Workflow_integration	<-->	ITAdoption	.154
Workflow_integration	<-->	Organizational_Benefit	.152
Workflow_integration	<-->	System_Alignment	.415
ITAdoption	<-->	Organizational_Benefit	.538
ITAdoption	<-->	System_Alignment	.403
Organizational_Benefit	<-->	System_Alignment	.402

(Sources: AMOS Result)

According to the CFA analysis presented in the above table, certain factors are highly correlated with each other, which are listed as follows:

The correlation estimate value of 0.203 signifies a positive association betwee Job satisfaction and workflow integration.

The correlation estimate value of 0.413 signifies a positive association between Job satisfaction and IT Adoption.

The correlation estimate value of 0.609 signifies a strong positive association between Job satisfaction and Organizational benefit.

The correlation estimate value of 0.339 signifies a moderate positive association between Job satisfaction and system alignment.

The correlation estimate value of 0.154 signifies a positive association between workflow integration and IT Adoption.

The correlation estimate value of 0.152 signifies a positive association between workflow integration and Organizational benefit.

The correlation estimate value of 0.415 signifies a positive association between workflow integration and system alignment.

The correlation estimate value of 0.538 signifies a strong positive association between IT Adoption and Organizational benefit.

The correlation estimate value of 0.403 signifies a positive association between IT Adoption and system alignment.

The correlation estimate value of 0.402 signifies a positive association between Organizational benefit and system alignment.

Table 4.30 Mean and standard deviation of Factors contributing to HRIS adoption and Organizational performance

Constructs	Mean	Standard deviation	N of Items in constructs	Min	Max	N
Job satisfaction	3.966	0.625	8	3.860	4.037	515
Workflow Integration	3.361	0.937	4	3.272	3.449	515
IT Adoption	4.141	0.685	4	4.045	4.241	515
Organizational Benefit	3.939	0.713	3	3.878	4.043	515
System Alignment	3.650	0.971	2	3.467	3.654	515

(Sources: Research Result)

Table 4.30 presents descriptive statistics (mean, std dev, min, max) for five constraints: Job satisfaction, Workflow Integration, IT Adoption, Organizational Benefit, and System Alignment. The data includes the mean and standard deviation for understanding the contribution of HRIS adoption and organizational performance. The maximum mean value was observed for constraints IT Adoption, i.e., 4.141, and the lowest mean value was recorded for constraints Workflow Integration, i.e., 3.361. System alignment has a moderately high standard deviation among the constraints, 0.971, Job satisfaction has the lowest standard deviation, 0.625.

4.6.2 Factors Reliability via using Cronbach's alpha

In this research, Cronbach's alpha reliability analysis was applied to verify the internal consistency of the measurement scales used. It measures how closely linked the items in each construct are to one another and how they all measure the same underlying dimension. The standard threshold for demonstrating scale reliability is 0.70 or greater for Cronbach's alpha (Cronbach, 1951). The reliability and consistency of the measuring tool are confirmed by the alpha values calculated for each factor, which are shown in the reliability statistics below.

Table : 4.31 Instrument's Reliability Statistics

Constructs	Cronbach's Alpha	Comment
Job satisfaction	.890	Excellent reliability
Workflow Integration	.887	Excellent reliability
IT Adoption	.790	Acceptable reliability
Organizational Benefit	.771	Acceptable reliability
System Alignment	.821	Good reliability

(Sources: Research Result)

All five features demonstrated acceptable internal consistency, according to the reliability analysis's findings, with Cronbach's alpha values above the suggested threshold of 0.70 (Cronbach, 1951). This suggests that the items within each

construct are strongly correlated and provide a consistent measurement of their intended dimension.

Table: 4.32 Convergent and Discriminant Validity Analysis

	CR	AVE	MSV	MaxR(H)	OB	JS	WI	ITA	SA
OB	0.776	0.537	0.371	0.780	**0.733**				
JS	0.890	0.503	0.371	0.892	0.609	**0.709**			
WI	0.888	0.665	0.172	0.889	0.152	0.203	**0.815**		
ITA	0.794	0.491	0.289	0.796	0.538	0.413	0.154	**0.700**	
SA	0.821	0.696	0.172	0.822	0.402	0.339	0.415	0.403	**0.835**

(Sources: Research Result)

The above table 4.32 presents Convergent and Discriminant Validity Analysis using composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Variance (MSV), and Maximum Reliability (MaxR(H)) along with the correlations among five constructs. The composite reliability (CR) values for all constructs fall between 0.776 and 0.890, which shows a strong positive level of internal consistency and reliability since the values of all the constructs exceed the threshold value of 0.7 (Fornell & Larcker, 1981). The Average Variance Extracted (AVE) value should be greater than 0.5 (Bagozzi & Yi, 1988). The range of MSV should be less than AVE to maintain good validity (Urbach & Ahlemann, 2010). The findings indicate that the average variance extracted (AVE) is greater than the construct correlations, and the composite reliability exceeds the AVE value.

Objective: 4 To study the difference in HRIS adoption based on various demographic profiles.

To determine the normality of the factors that affect IT-ITES employees regarding the Human Resource Information System (HRIS) in the organization.

Table: 4.33 Normality test for the statement of HRIS for IT-ITES employees

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations.	.259	515	.000	.802	515	.000
The Organization maintains sufficient technological resources, including software and data management resources for HRIS support.	.251	515	.000	.826	515	.000
The Organization facilities efficient internet connectivity.	.289	515	.000	.784	515	.000
The organization follows a resilient backup plan to address network connectivity problems.	.229	515	.000	.828	515	.000
The adoption of HRIS applications is well suited to the organization's existing operating methods.	.260	515	.000	.829	515	.000
HRIS applications are aligned with the organization’s core mission and principles	.267	515	.000	.835	515	.000
HRIS may not be fully supported by the organization’s current hardware and network systems.	.244	515	.000	.879	515	.000

Implementation of the updated and new system may require significant adjustments to existing software and data systems.	.221	515	.000	.886	515	.000
HRIS is complex to use.	.191	515	.000	.903	515	.000
HRIS application development involves a complex and multi-layered process.	.197	515	.000	.901	515	.000
HRIS is hard to learn	.177	515	.000	.912	515	.000
HRIS integration is expected to disrupt existing work practices.	.179	515	.000	.912	515	.000
HRIS will enable me to improve efficiency in my job responsibilities.	.230	515	.000	.832	515	.000
Adopting HRIS will enhance more productivity across the organization.	.265	515	.000	.828	515	.000
HRIS can lead to cost savings in day-to-day operations.	.211	515	.000	.860	515	.000
HRIS integration is likely to contribute to greater organizational profitability.	.227	515	.000	.859	515	.000
Top-level management encourages and supports the adoption of HRIS.	.239	515	.000	.830	515	.000
Top-level management has provided appropriate and sufficient resources to support HRIS implementation.	.270	515	.000	.849	515	.000

Top-level management understands the potential benefits offered by HRIS.	.235	515	.000	.848	515	.000
The adoption of HRIS by our competitors influences our decision to implement it.	.213	515	.000	.885	515	.000
Adopting HRIS is necessary to align with prevailing industry practices.	.242	515	.000	.887	515	.000
Our organization keeps itself updated on competitors' emerging technological developments.	.215	515	.000	.869	515	.000
Adequate training support for HRIS is offered by the vendors.	.252	515	.000	.848	515	.000
Availability of reliable technical assistance during HRIS adoption.	.254	515	.000	.853	515	.000
Technical Support is provided after HRIS has been implemented.	.228	515	.000	.850	515	.000
Government promoted the use of IT enable/ HRIS software for Organization	.232	515	.000	.863	515	.000
Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF, ESIC)	.247	515	.000	.860	515	.000

Senior executives are open to adopting and experiment with innovative information systems.	.230	515	.000	.850	515	.000
Senior executives demonstrate a willingness to adopt updated information systems.	.247	515	.000	.873	515	.000
Senior executives prefer developing new solutions over improving existing processes.	.225	515	.000	.875	515	.000
Senior executives are willing to take risks by trying new approaches.	.220	515	.000	.882	515	.000
The HR team has adequate knowledge of information technology to handle HR function effectively.	.238	515	.000	.850	515	.000
HR team possess specialized IT skills required to operate HR-specific systems.	.231	515	.000	.855	515	.000
HR team is relied on at least one expert in computer systems and applications.	.229	515	.000	.856	515	.000
Recruitment and selection ratio is unpaired adoption of HRIS.	.226	515	.000	.854	515	.000
Effectiveness of selection is increased by adoption of HRIS.	.245	515	.000	.852	515	.000
Flexibility in training is possible from HRIS.	.251	515	.000	.843	515	.000

Training needs are specified easily through HRIS.	.236	515	.000	.851	515	.000
Internal and external equity is ensured through adoption of HRIS.	.229	515	.000	.839	515	.000
Transparency is possible through HRIS system.	.271	515	.000	.830	515	.000
Market Rate Analysis is easier through HRIS adoption.	.222	515	.000	.852	515	.000
Mechanism has become easier and quick through HRIS.	.246	515	.000	.832	515	.000
Communication in upward and downward is effectively done through HRIS.	.249	515	.000	.842	515	.000
Succession planning is done through HRIS.	.242	515	.000	.847	515	.000
Carrier planning is effectively done through HRIS.	.246	515	.000	.858	515	.000
Performance Appraisal Mapping of employee's performance is effectively done through HRIS.	.234	515	.000	.844	515	.000
KRA's and KPI's are easy to manage through HRIS.	.236	515	.000	.859	515	.000
Work Job fit is possible through HRIS Adoption.	.237	515	.000	.861	515	.000

a. Lilliefors Significance Correction

(Sources: Research Result)

H_0: The statements for the IT-ITES Employees regarding the impact of the Human Resource Information System (HRIS) are normally distributed.

H_1: The statements for the IT-ITES Employees regarding the impact of the Human Resource Information System (HRIS) are not normally distributed.

Interpretation

The above table shows the results of normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) for the statements related to Human Resource Information System (HRIS) for IT-ITES employees. The normality test was performed using the Kolmogorov-Smirnov and Shapiro-Wilk tests, with a significance threshold value of 0.05 (Ghasemi & Zahediasl, 2012). The normality test was evaluated on a sample size of 515 respondents. It has been noted that all the statements have a P value of 0.000, which falls below the significance threshold of 0.05. All statements listed in the above table do not follow the normal distribution. On the other hand, the author fails to accept the null hypothesis for all the statements.

Table: 4.34 Factors - Tests of Normality of IT-ITES employees

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Job satisfaction	.102	515	.000	.965	515	.000
Workflow Integration	.100	515	.000	.973	515	.000
IT Adoption	.112	515	.000	.919	515	.000
Organizational Benefit	.142	515	.000	.944	515	.000
System Alignment	.184	515	.000	.928	515	.000
a. Lilliefors Significance Correction						

(Sources: Research Result)

H_0: The Factors for the IT-ITES Employees regarding the impact of the Human Resource Information System (HRIS) are normally distributed.

H_1: The Factors for the IT-ITES Employees regarding the impact of the Human Resource Information System (HRIS) are not normally distributed.

Interpretation

The above table shows the results of normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) for the factors related to the Human Resource Information System (HRIS) for IT-ITES employees. The normality test was conducted on a sample size of 515 respondents. It has been seen that all the factors have a P value of 0.000, which falls below the significance level of 0.05. All statements listed in the above table do not follow the normal distribution. On the other hand, the author fails to accept the null hypothesis for all the Factors.

4.7 Mann-Whitney U and Kruskal Wallis Test with Demographic profile - Hypothesis test

$H_0$1: There is no significant difference in HRIS adoption based on various demographic profiles.

$H_0$1a: There is no significant difference in the adoption of HRIS between two gender groups.

Table: 4.35 Mean Rank for the difference in the adoption of HRIS between two gender groups.

Ranks				
Gender		N	Mean Rank	Sum of Ranks
Mean Of HRIS	Male	347	255.83	88774.50
	Female	168	262.47	44095.50
	Total	515		

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for adopting HRIS among gender. The mean rank scores of 88,774.50 for males compared to 44,095.50 for females reveal a significant difference in the adoption of HRIS, with males achieving higher average ranks.

Table: 4.36 Test Statistics for the difference in the adoption of HRIS between two gender groups

Test Statistics[a]	
	Mean Of HRIS
Mann-Whitney U	28396.500
Wilcoxon W	88774.500
Z	-.475
Asymp. Sig. (2-tailed)	.635
a. Grouping Variable: Gender	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the adopting HRIS among gender groups related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adopting HRIS among gender groups is not statistically significant (p = .635), which is above 0.05. Hence the finding suggests that the variability in the relationship between adopting HRIS among gender in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that adopting HRIS has a significant effect on the gender groups of employees in the IT & ITES sector.

$H_0 1b$: There is no significant difference in the adoption of HRIS among Age.

Table: 4.37 Mean Rank for the difference in the adoption of HRIS among Age.

Ranks			
Age		N	Mean Rank
Mean Of HRIS	Below 25	250	258.72
	25-35	229	254.75
	35-45	29	267.19
	45-55	5	314.70
	Above 55	2	265.50
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for adopting HRIS among Age groups. A total of 515 respondents were divided into five age groups: Below 25, 25-35 years, 35-45 years, 45-55 years, and above 55 years. All the age groups are satisfied with adopting HRIS in the IT & ITES sector. This suggests that age factors do not influence the adoption of HRIS, as employees across all age groups show a similar level of adoption of HRIS.

Table: 4.38 Test Statistics for the difference in the adoption of HRIS among Age

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	.957
Df	4
Asymp. Sig.	.916
a. Kruskal Wallis Test	
b. Grouping Variable: Age	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the adoption of HRIS among age related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among age is not statistically significant (p = 0.916), which is above 0.05 hence, the finding suggests that the variability in the relationship between the adoption of HRIS among Age in the study is not significantly different from what could be expected by chance. Thus, The analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the age of employees in the IT & ITES sector.

$H_0 1c$:There is no significant difference in the adoption of HRIS among Marital Status.

Table: 4.39 Mean Rank for the difference in the adoption of HRIS among Marital Status

Ranks			
Marital status		N	Mean Rank
Mean Of HRIS	Single	263	257.51
	Married	239	257.23
	Divorced	13	282.08
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for adopting HRIS among marital status. A total of 515 respondents were divided into three categories: Single, married, and divorced. The mean value for the Single category, considering their marital status background, is 257.51. The married category has a mean rank of 257.23, and the divorced category has a mean rank of 282.08. These suggest that employees across different marital status have a positive perception of adopting HRIS. This suggests that employees, irrespective of marital status, equally adopt HRIS in IT & ITES sector.

Table: 4.40 Test Statistics for the difference in the adoption of HRIS among Marital Status

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	.350
Df	2
Asymp. Sig.	.840
a. Kruskal Wallis Test	
b. Grouping Variable: Marital status	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the adoption of HRIS among Marital Status related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among Marital Status is not statistically significant (p = 0.840), which is above 0.05 hence the finding suggests that the variability in the relationship between the adoption of HRIS among Marital Status in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the Marital Status of employees in the IT & ITES sector.

$H_0 1d$:There is no significant difference in the adoption of HRIS among working locations.

Table: 4.41 Mean Rank for the difference in the adoption of HRIS among working locations.

Ranks			
Working Location		N	Mean Rank
Mean Of HRIS	Ahmedabad	160	264.09
	Rajkot	120	255.17
	Surat	120	267.59
	Vadodara	115	242.47
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The table above summarizes the mean rank results of IT & ITES employees for adopting HRIS by working location. It has been noticed that there is no significant difference across working locations. This suggests that employees' perception of HRIS is positive among different working locations in the IT & ITES sector.

Table: 4.42 Test Statistics for the difference in the adoption of HRIS among working locations

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	2.064
Df	3
Asymp. Sig.	.559
a. Kruskal Wallis Test	
b. Grouping Variable: Working Location	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the adoption of HRIS among Working locations related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among working locations is not statistically significant (p = 0.559), which is above 0.05 hence the finding suggests that the variability in the relationship between the adoption of HRIS among Working Location in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the working locations of employees in the IT & ITES sector.

$H_0 1e$:There is no significant difference in the adoption of HRIS among Annual Income.

Table: 4.43 Mean Rank for the difference in the adoption of HRIS among Annual Income.

Ranks			
Annual Income (in Rs. Lacs):		N	Mean Rank
HRIS	Below 5,00,000	298	264.00
	5,00,001 to 10,00,000	146	244.45
	10,00,001 to 15,00,000	34	270.16
	Above 15,00,001	37	251.99
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for adopting HRIS among Annual income. The analysis shows that the mean rank for different Annual Income: Below 5,00,000, 5,00,001 to 10,00,000, 10,00,001 to 15,00,001, and Above 15,00,001 are closely clustered. Employee earning Rs. 10,00,001 to 15,00,000 has a higher mean rank of 270.16. This suggests that the income level does not play a major role in the adoption of the HRIS IT & ITES sector.

Table: 4.44 Test Statistics for the difference in the adoption of HRIS among Annual Income

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	1.983
Df	3
Asymp. Sig.	.576
a. Kruskal Wallis Test	
b. Grouping Variable: Annual Income (in Rs. Lacs)	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the adoption of HRIS among annual income related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among annual income is not statistically significant ($p = 0.576$), which is above 0.05 hence the finding suggests that the variability in the relationship between the adoption of HRIS among annual income is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the annual income of employees in the IT & ITES sector.

***$H_0 1f$* :*There* is no significant difference in the adoption of HRIS among Qualification.**

Table :4.45 Mean Rank for the difference in the adoption of HRIS among Qualification.

Ranks			
.		N	Mean Rank
HRIS	Graduation	153	257.87
	Post Graduation	310	252.57
	Diploma	52	290.75
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for adopting HRIS among Qualification. The analysis shows that diploma qualification has the highest mean rank, 290.75, compared to employees with graduation and post-graduation. The findings suggest that higher Qualification do not ensure satisfaction with the adoption of HRIS in this situation.

Table: 4.46 Test Statistics for the difference in the adoption of HRIS among Qualification.

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	2.932
Df	2
Asymp. Sig.	.231
a. Kruskal Wallis Test	
b. Grouping Variable: Qualification	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the adoption of HRIS among Qualification related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among Qualification is not statistically significant ($p = 0.231$), which is above 0.05. Hence, the finding suggests that the variability in the relationship between the adoption of HRIS among Qualification in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the Qualification of employees in the IT & ITES sector.

$H_0 1g$: There is no significant difference in the adoption of HRIS among department.

Table: 4.47 Mean Rank for the difference in the adoption of HRIS among department.

Ranks			
Department		N	Mean Rank
HRIS	Administration Department	40	251.05
	Marketing & Sales Department	99	254.20
	HR Department	98	239.47
	Software Developer & Engineer	80	268.06
	Web developer	90	243.99
	IT Department	44	307.40
	Project Department	64	269.76
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above table summarizes the mean rank result of IT & ITES employees for adopting HRIS among department. A department like the IT Department shows the highest mean rank of 307.40. This is understandable due to the roles and duties in managing and implementing the Information system. On the other hand, the HR department shows the lowest mean rank of 239.47 in adopting HRIS. This suggests that the HR department requires more training and a well-supported system. The differences in mean ranks across various department indicate diverse levels of adoption of HRIS in the IT & ITES sector.

Table: 4.48 Test Statistics for the difference in the adoption of HRIS among department

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	8.085
Df	6
Asymp. Sig.	.232
a. Kruskal Wallis Test	
b. Grouping Variable: Department	

(Sources: Research Result)

Result derived from Statistical Testing

The above table details the test statistics for the difference in the adoption of HRIS among department related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among department is not statistically significant ($p = 0.232$), which is above 0.05. Hence, the finding suggests that the variability in the relationship between the adoption of HRIS among department in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the department of employees in the IT & ITES sector.

$H_0 1h$:There is no significant difference in the adoption of HRIS among position.

Table: 4.49 Mean Rank for the difference in the adoption of HRIS among position.

Ranks			
Position		N	Mean Rank
HRIS	Executive	287	267.25
	Manager	125	250.52
	Operator	70	244.97
	Supervisor	33	233.53
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above table summarizes the mean rank result of IT & ITES employees for adopting HRIS among position. Executive and manager position show the favorable adoption of HRIS. Operators and Supervisors have a less favorable mean rank. Out of all these four position, the mean rank for an executive position requires favorable experience in adopting HRIS in the IT & ITES sector.

Table: 4.50 Test Statistics for the difference in the adoption of HRIS among position.

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	2.855
Df	3
Asymp. Sig.	.414
a. Kruskal Wallis Test	
b. Grouping Variable: Position	

(Sources: Research Result)

Result derived from Statistical Testing

The above table details the test statistics for the difference in the adoption of HRIS among position related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among position is not statistically significant ($p = 0.414$), which is above 0.05. Hence, the finding suggests that the variability in the relationship between the adoption of HRIS among position in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the position of employees in the IT & ITES sector.

$H_0 1i$:There is no significant difference in the adoption of HRIS among work experience.

Table: 4.51 Mean Rank for the difference in the adoption of HRIS among work experience.

Ranks			
		N	Mean Rank
HRIS Work Experience	Less than 2 years	147	267.29
	2 to 5 years	223	259.64
	5 to 8 years	76	245.64
	Above 8	69	246.51
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above table summarizes the mean rank result of IT & ITES employees for adopting HRIS among work experience. The analysis of mean ranks by work experience reveals a positive significance for the adoption of HRIS in the IT & ITES sector. It suggests that employees from various work experiences tend to have certain similarities in adopting HRIS in the IT & ITES sector.

Table: 4.52 Test Statistics for the difference in the adoption of HRIS among work experience

Test Statistics[a,b]	
	Mean Of HRIS
Chi-Square	1.535
Df	3
Asymp. Sig.	.674
a. Kruskal Wallis Test	
b. Grouping Variable: Work Experience	

(Sources: Research Result)

Result derived from Statistical Testing

The above table details the test statistics for the difference in the adoption of HRIS among work experience related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between adoption of HRIS among work experience is not statistically significant ($p = 0.674$), which is above 0.05. Hence, the finding suggests that the variability in the relationship between the adoption of HRIS among work experience in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that HRIS adoption has a significant effect on the work experience of employees in the IT & ITES sector.

Table: 4.53 Result of hypothesis statements for HRIS adoption based on various demographic profiles

Hypothesis Statement	Test Used	p-value	Result (Significant/Not significant)	H0 Accepted/ Rejected
$H_0 1$: There is no significant difference in HRIS adoption based on various demographic profiles				
$H_0 1a$: There is no significant difference in the adoption of HRIS between two gender groups	Mann-Whitney U	.635	Not Significant	H0 is Accepted
$H_0 1b$: There is no significant difference in the adoption of HRIS among Age.	Kruskal Wallis Test	.916	Not Significant	H0 is Accepted
$H_0 1c$:There is no significant difference in the adoption of HRIS among Marital Status.	Kruskal Wallis Test	.840	Not Significant	H0 is Accepted
$H_0 1d$:There is no significant difference in the adoption of HRIS among working locations.	Kruskal Wallis Test	.559	Not Significant	H0 is Accepted
$H_0 1e$:There is no significant difference in the adoption of	Kruskal Wallis Test	.576	Not Significant	H0 is Accepted

HRIS among Annual Income.				
$H_0 1f$:There is no significant difference in the adoption of HRIS among Qualification.	Kruskal Wallis Test	.231	Not Significant	H0 is Accepted
$H_0 1g$:There is no significant difference in the adoption of HRIS among department.	Kruskal Wallis Test	.232	Not Significant	H0 is Accepted
$H_0 1h$:There is no significant difference in the adoption of HRIS among position.	Kruskal Wallis Test	.414	Not Significant	H0 is Accepted
$H_0 1i$:There is no significant difference in the adoption of HRIS among work experience.	Kruskal Wallis Test	.674	Not Significant	H0 is Accepted

(Sources: Research Result)

Objective 5 To study the difference in perceived organizational performance based on various demographic profiles.

$H_0 2$: There is no significant difference in perceived Organizational Performance based on various demographic profiles.

$H_0 2a$: There is no significant difference in the perceived Organizational Performance between two gender groups.

Table: 4.54 Mean Rank for the difference in the perceived Organizational Performance between two gender groups.

Ranks				
Gender		N	Mean Rank	Sum of Ranks
Mean of OP	Male	347	257.63	89398.50
	Female	168	258.76	43471.50
	Total	515		

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived Organizational Performance among gender. The mean rank scores of 89398.50 for males compared to 43471.50 for females reveal a significant difference in the perceived Organizational Performance, with males achieving higher average ranks.

Table: 4.55 Test Statistics for the difference in the perceived Organizational Performance between two gender groups.

Test Statistics[a]	
	Mean of OP
Mann-Whitney U	29020.500
Wilcoxon W	89398.500
Z	-.081
Asymp. Sig. (2-tailed)	.936
a. Grouping Variable: Gender	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among gender groups related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among gender groups is not statistically significant ($p = .936$), which is above 0.05. Hence the finding suggests that the variability in the relationship between the perceived Organizational Performance among gender groups in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the gender groups of employees in the IT & ITES sector.

$H_0 2b$: There is no significant difference in the perceived Organizational Performance among Age.

Table:4.56 Mean Rank for the difference in the perceived Organizational Performance among Age.

Ranks			
Age		N	Mean Rank
Mean of OP	Below 25	250	258.47
	25-35	229	252.58
	35-45	29	279.33
	45-55	5	318.90
	Above 55	2	358.25
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance among age. A total of 515 respondents were divided into five age groups: Below 25, 25-35 years, 35-45 years, 45-55 years, and above 55 years. The age group below 25 reported the lowest mean rank, indicating less favorable perceptions towards perceived organizational performance. While the age group above 55 reported the highest mean rank, showing favorable perception towards perceived organizational performance. This suggests that old employees have more positive perceptions of perceived organizational performance in IT & ITES sector.

Table 4.57 Test Statistics for the difference in the perceived Organizational Performance among Age.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	2.653
Df	4
Asymp. Sig.	.617
a. Kruskal Wallis Test	
b. Grouping Variable: Age	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among age related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among age is not statistically significant (p = .617) which is above 0.05 hence the finding suggests that the variability in the relationship between the perceived Organizational Performance among age in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the age of employees in the IT & ITES sector.

$H_0 2c$:There is no significant difference in the perceived Organizational Performance among Marital Status.

Table: 4.58 Mean Rank for the difference in the perceived Organizational Performance among Marital Status.

Ranks			
Marital status		N	Mean Rank
Mean of OP	Single	263	258.07
	Married	239	255.54
	Divorced	13	301.77
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance among marital status. The mean rank indicates that married employees reported the lowest mean rank (255.54), suggesting they perceived organizational performance less favorable than those with other marital statuses. The mean rank for single employees falls between these two groups. Divorced employees reported the highest mean rank (301.77), indicating a favorable perception of perceived organizational performance.

Table: 4.59 Test Statistics for the difference in the perceived Organizational Performance among Marital Status.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	1.193
Df	2
Asymp. Sig.	.551
a. Kruskal Wallis Test	
b. Grouping Variable: Marital status	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among marital status related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among marital status is not statistically significant ($p = .551$) which is above 0.05. Hence the finding suggests that the variability in the relationship between the perceived Organizational Performance among marital status in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the marital status of employees in the IT & ITES sector.

$H_0 2d$:There is no significant difference in the perceived Organizational Performance among working locations.

Table: 4.60 Mean Rank for the difference in the perceived Organizational Performance among working locations.

Ranks			
		N	Mean Rank
Mean of OP	Ahmedabad	160	272.46
	Rajkot	120	237.53
	Surat	120	257.50
	Vadodara	115	259.76
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance among working locations. The mean rank among different working locations shows a difference in employee perception towards perceived organizational performance. Among the four different cities, Ahmedabad, Rajkot, Surat, and Vadodara. Rajkot recorded the lowest mean rank (237.53), which implies that employees in Rajkot have less favorable perceptions towards organizational performance. Ahmedabad recorded the highest mean rank (272.46), indicating a greater perception of organizational performance compared to employees in other locations. While Surat and Vadodara mean rank indicates a moderate level of perceptions towards organizational performance.

Table: 4.61 Test Statistics for the difference in the perceived Organizational Performance among working location.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	3.807
Df	3
Asymp. Sig.	.283
a. Kruskal Wallis Test	
b. Grouping Variable: Working Location	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among working locations related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among working locations is not statistically significant (p =.283), which is above 0.05. Hence, the finding suggests that the variability in the relationship between the perceived Organizational Performance among working locations in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the working location of employees in the IT & ITES sector.

$H_0 2e$:There is no significant difference in the perceived Organizational Performance among Annual Income.

Table 4.62 Mean Rank for the difference in the perceived Organizational Performance among Annual Income.

Ranks			
		N	Mean Rank
Mean of OP	Below 5,00,000	298	267.84
	5,00,001 to 10,00,000	146	229.45
	10,00,001 to 15,00,000	34	281.00
	Above 15,00,001	37	270.23
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance in terms of annual income. Employees earning between ₹ 5,00,001 and ₹ 10,00,000 reported the lowest mean rank (229.45), indicating an unfavorable perception of organizational performance. Employee earnings between ₹ 10,00,001 to ₹ 15,00,000 recorded a higher mean (281.00), which is favorable towards the perception of Organizational performance. Employees in the income group below 500,000 and above 15,00,001 showed a balanced view on organizational performance.

Table: 4.63 Test Statistics for the difference in the perceived Organizational Performance among Annual Income.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	7.757
Df	3
Asymp. Sig.	.051
a. Kruskal Wallis Test	
b. Grouping Variable: Annual Income (in Rs. Lacs)	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among annual income levels related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among annual income is not statistically significant (p = .051), which is above 0.05 hence the finding suggests that the variability in the relationship between the perceived Organizational Performance among annual income in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the annual income of employees in the IT & ITES sector.

***$H_0 2f$* :There *is* no significant difference in the perceived Organizational Performance among Qualification.**

Table: 4.64 Mean Rank for the difference in the perceived Organizational Performance among Qualification.

Ranks			
Qualification		N	Mean Rank
Mean of OP	Graduation	153	253.14
	Post Graduation	310	257.08
	Diploma	52	277.81
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance among Qualification. The mean rank for qualification levels shows a difference in the perceptions of Organizational performance. Respondents with a diploma degree reported the highest mean rank of 277.81, which shows the favorable perceptions of Organizational performance. On the other hand, respondents with a graduation degree reported the lowest mean rank, 253.14, indicating a less favorable perception of organizational performance. The mean rank for respondents of postgraduate degree lies between that of graduates and diploma holders, suggesting a moderately positive view of organizational performance.

Table 4.65 Test Statistics for the difference in the perceived Organizational Performance among Qualification.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	1.099
Df	2
Asymp. Sig.	.577
a. Kruskal Wallis Test	
b. Grouping Variable: Qualification	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among Qualification related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among Qualification is not statistically significant (p = .577), which is above 0.05 hence, the finding suggests that the variability in the relationship between the perceived Organizational Performance among Qualification in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the Qualification of employees in the IT & ITES sector.

$H_0 2g$:There is no significant difference in the perceived Organizational Performance among department.

Table: 4.66 Mean Rank for the difference in the perceived Organizational Performance among department.

Ranks			
Department		N	Mean Rank
Mean of OP	Administration Department	40	247.44
	Marketing & Sales Department	99	254.23
	HR Department	98	265.80
	Software Developer & Engineer	80	262.67
	Web developer	90	230.32
	IT Department	44	290.25
	Project Department	64	269.41
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance among department. The mean rank for each department shows insight into organizational performance across different department within the IT & ITES sector. The web developer department recorded the lowest mean rank of 230.32, indicating an unfavorable perception of organizational performance. The IT department shows the highest mean score, 290.25, indicating a favorable perception of organizational performance compared to other department. While the analysis shows that mean ranks for Administration

Department, Marketing & Sales Department, HR Department, Software Developer & Engineer, and Project Department are nearly equal. This suggests that this entire department has a comparable outcome in relation to perceived organizational performance.

Table: 4.67 Test Statistics for the difference in the perceived Organizational Performance among department.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	6.185
Df	6
Asymp. Sig.	.403
a. Kruskal Wallis Test	
b. Grouping Variable: Department	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among department related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among department is not statistically significant (p =.403), which is above 0.05. Hence, the finding suggests that the variability in the relationship between the perceived Organizational Performance among department in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the department of employees in the IT & ITES sector.

$H_0 2h$:There is no significant difference in the perceived Organizational Performance among position.

Table: 4.68 Mean Rank for the difference in the perceived Organizational Performance among position.

Ranks			
Position		N	Mean Rank
Mean of OP	Executive	287	265.91
	Manager	125	252.48
	Operator	70	252.48
	Supervisor	33	221.88
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table presents the mean rank of IT & ITES employees for perceived organizational performance among position. The mean rank reveals that the executives have the highest mean rank of 265.91, which appears to be an unfavorable outcome related to organizational performance. The other supervisor shows the lowest mean rank of 221.88, suggesting that their organization's performance is perceived as favorable from other position. The mean ranks for Managers and Operators demonstrate a moderate rank towards organizational performance

Table: 4.69 Test Statistics for the difference in the perceived Organizational Performance among position.

Test Statistics[a,b]	
	Mean of OP
Chi-Square	3.030
Df	3
Asymp. Sig.	.387
a. Kruskal Wallis Test	
b. Grouping Variable: Position	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among work experience related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among work experience is not statistically significant (p =.387) which is above 0.05 hence, the finding suggests that the variability in the relationship between the perceived Organizational Performance among work experience in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the work experience of employees in the IT & ITES sector.

***$H_0$2i*:*There* is no significant difference in the perceived Organizational Performance among work experience.**

Table: 4.70 Mean Rank for the difference in the perceived Organizational Performance among work experience.

Ranks			
Work Experience		N	Mean Rank
Mean of OP	Less than 2 years	147	270.99
	2 to 5 years	223	255.65
	5 to 8 years	76	234.88
	Above 8	69	263.37
	Total	515	

(Sources: Research Result)

Interpretation of the mean rank table

The above presented table summarizes the mean rank result of IT & ITES employees for perceived organizational performance among work experience. Respondents with work experience of 5 to 8 years have the lowest mean rank of 234.88, suggesting that their organizational performance is more unfavorable than that of other work experience. In contrast, those with less than 2 years of work experience show a higher mean rank of 270.99. This pattern suggests a positive relation between work experience and Organizational performance. The 2 to 5 years and above 8 years' experience groups showed a mean rank moderate relationship between work experience and Organizational performance.

Table 4.71 Test Statistics for the difference in the perceived Organizational Performance among work experience

Test Statistics[a,b]	
	Mean of OP
Chi-Square	3.107
Df	3
Asymp. Sig.	.375
a. Kruskal Wallis Test	
b. Grouping Variable: Work Experience	

(Sources: Research Result)

Result derived from Statistical Testing

The above presented table details the test statistics for the difference in the perceived Organizational Performance among work experience related to the impact of Human Resource Information Systems (HRIS) on Organizational Performance. The result derived from test statistics indicates that the relationship between the perceived Organizational Performance among work experience is not statistically significant (p = .375) which is above 0.05 hence, the finding suggests that the variability in the relationship between the perceived Organizational Performance among work experience in the study is not significantly different from what could be expected by chance. Thus, the analysis shows that the available evidence is inadequate to confirm that the perceived Organizational Performance has a significant effect on the work experience of employees in the IT & ITES sector.

Table: 4.72 Result of hypothesis statements for perceived Organizational Performance based on various demographic profiles.

Hypothesis Statement	Test Used	p-value	Result (Significant/Not significant)	H0 Accepted/ Rejected
$H_0 2$: There is no significant difference in the perceived Organizational Performance based on various demographic profiles				
$H_0 2a$: There is no significant difference in the perceived Organizational Performance between two gender groups	Mann-Whitney U	.936	Not Significant	H0 is Accepted
$H_0 2b$: There is no significant difference in the perceived Organizational Performance among Age.	Kruskal Wallis Test	.617	Not Significant	H0 is Accepted
$H_0 2c$:There is no significant difference in the perceived Organizational Performance among Marital Status.	Kruskal Wallis Test	.551	Not Significant	H0 is Accepted

$H_0 2d$:There is no significant difference in the perceived Organizational Performance among working location.	Kruskal Wallis Test	.283	Not Significant	H0 is Accepted
$H_0 2e$:There is no significant difference in the perceived Organizational Performance among Annual Income.	Kruskal Wallis Test	.051	Not Significant	H0 is Accepted
$H_0 2f$:There is no significant difference in the perceived Organizational Performance among qualification.	Kruskal Wallis Test	.577	Not Significant	H0 is Accepted
$H_0 2g$:There is no significant difference in the perceived Organizational Performance among department.	Kruskal Wallis Test	.403	Not Significant	H0 is Accepted
$H_0 2h$:There is no significant difference in the	Kruskal Wallis Test	.387	Not Significant	H0 is Accepted

perceived Organizational Performance among position.				
$H_0 2i$:There is no significant difference in the perceived Organizational Performance among work experience.	Kruskal Wallis Test	.375	Not significant	H0 is Accepted

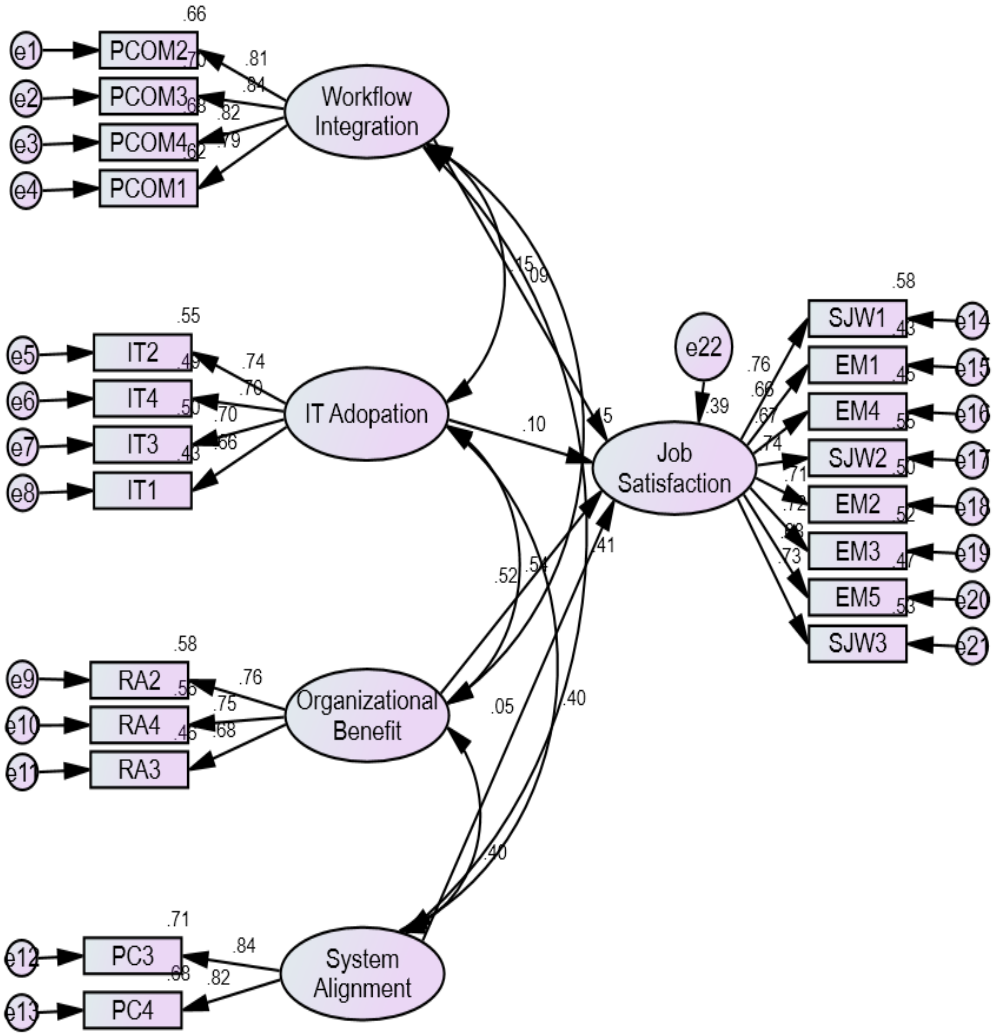
(Sources: Research Result)

Objective: 6 To examine the effect of Workflow Integration, IT adoption, organizational benefit, and system alignment on Job satisfaction.

4.8 Structural Equation Model

Structural Equation Modeling (SEM) is a multivariate technique that integrates the functionalities of factor analysis and regression to examine the structural relationships among latent and observed constructs (Byrne, 2010; Kline, 2016b). It is highly effective for modeling cause-and-effect relationships, capturing both direct and indirect effects (Hair et al., 2010). This study adopts SEM to examine the relationships between various factors impacting the Human Resource Information System (HRIS) on organizational performance among employees in the IT & ITES sector in selected cities of Gujarat. SEM offers a distinct advantage by allowing the simultaneous analysis of multiple independent and dependent variables. This technique provides a more comprehensive view of the structural relationships among variables. Unlike standard regression models, which typically focus on one dependent variable, SEM addresses the complexities of interconnected factors.

Figure : 4.14 SEM Path Model for the factors affecting HRIS



(Sources: AMOS result)

Structural Equation Modeling (SEM) was applied to examine the relationships among latent variables and assess the validity of the proposed model (Hair et al., 2010; Lowery & Johns, 2005). The SEM was used to compute various parameters, which ultimately contributed to determining the model's ability to accurately represent the data. The results of the SEM model fit indicate all values fall within the acceptable range, confirming the model provides an appropriate level of fit to the data.

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Model Fit Summary

In the Structural Equation Model (SEM) the model fit is associated with serval SEM approaches. Various indices in the Model Fit summary are evaluated to assess the fit of each model to the data, with each index reflecting a specific hypothesis regarding the relationships between the variables (Kline, 2016).

This research seeks to examine the effect of factors (Workflow Integration, IT adoption, organizational benefit, and system alignment on Job satisfaction in IT & ITES sector.

- **CMIN (Chi-square)**

The Chi-square statistic, commonly known as CMIN, evaluates the statistical significance of the difference between the observed variables and the expected results (Kline, 2016). CMIN reflects the degree to which the sample data fits the model in the analysis.

Table :4.73 NPAR, CMIN, and DF

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	52	572.798	179	.000	3.200
Saturated model	231	.000	0		
Independence model	21	5217.396	210	.000	24.845

(Sources: AMOS result)

The CMIN (Normed Chi-Square) is calculated at 572.798, leading to a CMIN/DF value of 3.200, which falls under an acceptable range. Hence, it can be said that the model is a good fit for the data (Hair et al., 2009) . The value of CMIN/DF is within an acceptable range, which implies that the chi-square statistic is suitable for the degrees of freedom.

- **RMR, GFI**

The Root Mean Residual (RMR) is a metric utilized to assess model fit by determining the average difference between the covariance matrices observed in the data and those predicted by the model. The Goodness of Fit Index (GFI) is a statistical measure used to indicate the adequacy of a proposed model with the actual data observed.

Table : 4.74 Root Mean Square Residual, Goodness-of-Fit Index (RMR, GFI)

Model	RMR	GFI	AGFI	PGFI
Default model	.036	.900	.871	.697
Saturated model	.000	1.000		
Independence model	.249	.340	.274	.309

(Sources: AMOS result)

RMR: The RMR (Root Mean Square Residual) value is measured at 0.036. This value of RMR is considered excellent for model fit. This signifies a very favorable fit between the model's predicted and covariance matrix, with residuals remaining low.

GFI: GFI (The Goodness of Fit Index) represents the proportion of variance and covariance that the model concerning that to a saturated model, which represents a perfect fit (Jöreskog & Sörbom, 1981). A GFI value is measured at 0.900, which is accepted as demonstrating a good fit for the model.

AGFI: AGFI (Adjusted Goodness of Fit Index) represents an adjusted form of the GFI, which is designed to consider the degrees of freedom within the model. Similarly to the GFI, AGFI values that are nearer to 0.9 denote a perfect fit. The AGFI value is measured at 0.871, which is acceptable for the model.

PGFI: PGFI (Parsimony Goodness of Fit Index) represents an additional modification to the GFI. It examines the relationship between model fit and parsimony, An increase

in PGFI values indicates an improved model fit between the two factors (Jaccard & Wan, 1996; Mulaik et al., 1989).

Baseline Comparisons Model fit

Baseline comparisons signify the initial models fitted to the data, which serve as a standard for evaluating the fit of the suggested model. They involve the default model, saturated model, and the Independence model.

Table:4.75 Baseline Comparisons (NFI, RFI, IFI, TLI, and CFI)

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.890	.871	.922	.908	.921
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

(Sources: AMOS result)

NFI

The Normed Fit Index (NFI) is measured at 0.890, indicating an excellent fit. This index evaluates the proportional reduction in error relative to a null model, with values greater than 0.890 signifying an excellent fit. The NFI was introduced by Bentler and Bonnet in 1980 as one of the first incremental fit indices. It is calculated by dividing the chi-square value of the null model by the difference between the chi-square values of the fitted model and the null model. The NFI ranges from zero to one, with a perfect fit represented by one value. The current NFI value of 0.952 is very close to one, suggesting an exceptional model fit.

RFI

An RFI value of 0.871 has been recorded, indicating that it falls within an acceptable range, and it indicates a good fit. The RFL is expected to be between 0 and 1 (Bentler & Bonett, 1980).

IFI

IFI for the default Model is 0.922, indicating an ideal fit for the model, with a value of 0.90 representing a perfect fit. Which presents the same case here.

TLI

The Turker Lewis Index (TLI) is value is measured at 0.908, which falls in the range, indicating an excellent fit (Schermelleh-Engel et al., 2003). This index is comparable to the Comparative Fit Index (CFI), where a value exceeding 0.90 signifies an acceptable fit for the model. In this instance, the model shows a very good fit with the data.

CFI (Comparative Fit Index):

A CFI value of 0.921 is situated within this range, which is considered to signify an acceptable fit. A value greater than 0.90 is considered an acceptable fit for the data.

- **Parsimony-Adjusted Measures**

PRATIO

The Parsimony Ratio (PRATIO) is an important metric to evaluate models, particularly statistical models within structural equation modeling (SEM) and related areas (Mulaik et al., 1989). The signification of PRATIO fits into the calculation of PNFI AND PCFI

Table: 4.76 Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.852	.759	.785
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

(Sources: AMOS result)

PNFI :

The threshold PNFI value should be greater than 0.5, it reflects that the model is a good fit and also relatively parsimonious (Hair et al., 2010; Schermelleh-Engel et al., 2003). Here in this model, the value of PNFI is 0.759

PCFI

The Parsimony Comparative Fit Index indicates the outcome of the parsimony adjustment applied to the Comparative Fit Index (CFI). The threshold value for PNFI should be greater than 0.5 (Schermelleh-Engel et al., 2003), and in the current model, it has a value of 0.785, which meets the criteria for a good model fit.

NCP

Table: 4.77 Normalized Coefficient of Performance

Model	NCP	LO 90	HI 90
Default model	393.798	325.243	469.961
Saturated model	.000	.000	.000
Independence model	5007.396	4775.373	5245.784

(Sources: AMOS result)

NCP

The default model exhibits a Normalized Coefficient of Performance (NCP) of 398.798, which suggests a model fit to the data. Whereas, the saturated model has an NCP of 0.00, indicating the perfect fit. LO 90 (Lower bound) value 325.243 indicates the lower limit of the 90% confidence interval for the population NCP, indicating that there is a 90% probability that the actual population NCP lies within this range. HI 90

(Higher value) value 469.961 indicates the maximum value of the 90% confidence interval for the population NCP lies within this range (Kline, 2016).

FMIN

Table: 4.78 Fit Function Minimum (FMIN)

Model	FMIN	F0	LO 90	HI 90
Default model	1.114	.766	.633	.914
Saturated model	.000	.000	.000	.000
Independence model	10.151	9.742	9.291	10.206

(Sources: AMOS result)

FMIN

It represents a metric that indicates the degree to which the model arranges with the data.The FMIN value for the default model is recorded at 1.431, indicating a good fit to the data. LO 90 (Lower boundary) of 90% confidence interval of FMIN is 0.633 and HI 90 (Higher boundary) of 90% Confidence interval of FMIN is 0.914

- **RMSEA (Root Mean Square Error of Approximation)**

Root Mean Square Error of Approximation is a widely utilized statistic in Structural Equation Modeling (SEM) to determine the goodness of fit of a model. The RMSEA indicates the level of discrepancy between the observed covariance matrix and the covariance matrix that the model predicted.

Table:4.79 Root Mean Square Error of Approximation (RMSEA)

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.065	.059	.071	.000
Independence model	.215	.210	.220	.000

(Sources: AMOS result)

The Root Mean Square Error of Approximation (RMSEA) is a widely utilized fit index for determining the extent to which a model fits the observed data while considering the complexity of the model (Byrne, 2010; Kline, 2016). RMSEA values that lie between 0.05 and 0.08 reflect an acceptable fit for the model (Browne & Cudeck, 1993; Meyers et al., 2005). The RMSEA value for this model is 0.065, as it lies between the thresholds of 0.05 and 0.08.

- **Akaike Information Criterion (AIC)**

The Akaike Information Criterion (AIC) is a statistical measure tool for model selection. It helps to determine which model from a set of alternatives best fits the data, while also considering the complexity associated with each model.

Table:4.80 Akaike Information Criterion (AIC)

Model	AIC	BCC	BIC	CAIC
Default model	676.798	681.448	897.494	949.494
Saturated model	462.000	482.659	1442.403	1673.403
Independence model	5259.396	5261.274	5348.523	5369.523

(Sources: AMOS result)

The Akaike Information Criterion (AIC) is a statistical tool for model selection. It evaluates the fit of a statistical model to the data, while also addressing the complexity of the model. The preferred value for the AIC is not established. The model which has a lower AIC value is considered favorable. AIC value is recorded at 676.798 which suggests that the model is a good fit.

- **ECVI (Expected Cross Validation Index)**

ECVI (Browne & Cudeck, 1993), measures the efficacy of a model in estimating future outcomes through a simple chi-square transformation, excluding the constant scale factor.

Table:4.81 Expected Cross Validation Index (ECVI)

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.317	1.183	1.465	1.326
Saturated model	.899	.899	.899	.939
Independence model	10.232	9.781	10.696	10.236

(Sources: AMOS result)

The model exhibiting the lowest values of ECVI and MECVI is regarded as the most suitable model. In this analysis, the default model demonstrates the lowest ECVI value of 1.317 and MECVI of 1.326, thereby establishing it as the optimal model for this study.

- **HOELTER**

The Hoelter Index is an established goodness-of-fit measure that evaluates how well a model aligns with the data.

Table :4.82 HOELTER

Model	HOELTER .05	HOELTER .01
Default model	190	203
Independence model	25	26

Minimization: .065

Miscellaneous: 1.377

Bootstrap: 3.393

Total: 4.835

(Sources: AMOS result)

The finding of the structural equation model fit the observed data well, as indicated by goodness-of-fit indices that fall within the acceptable range. In detail, fit indicates CFI, NFI, GFI, AGFI, IFI, RFI, SRMR, RMSEA, PNFI, PCFI, and PCLOSE. This validates that the relationship between the effect of workflow integration, IT adoption, Organizational benefit, and system alignment on Job satisfaction is supported by statistical analysis.

The following four hypotheses have been established based on the SEM path model:

$H_0 3a$: There is no significant impact of Workflow integration on job satisfaction among employees in the IT & ITES sector.

$H_0 3b$: There is no significant impact of IT Adoption on Job satisfaction among employees in the IT & ITES sector.

$H_0 3c$: There is no significant impact of Organizational Benefit on job satisfaction among employees in the IT & ITES sector.

$H_0 3d$: There is no significant impact of System Alignment on job satisfaction among employees in the IT & ITES sector.

- **Result of Hypothesis testing**

The hypotheses were evaluated by analyzing the path coefficients and their corresponding p-values obtained from the structural model. A p-value less than 0.05 is considered supportive of the hypothesis, indicating the null hypothesis will be rejected (Field, 2013). Whereas a p-value greater than 0.05 indicates that the hypothesis is not supported (Field, 2013; Gravetter & Wallnau, 2014).

Table 4.83 Result of SEM hypothesis testing

Hypothesis	Path	Estimate	P-value	Result
$H_0 3a$	WI → JS	.066	.071	Not Significant
$H_0 3b$	ITA →JS	.103	.101	Not Significant
$H_0 3c$	OB → JS	.549	***	Significant
$H_0 3d$	SA → JS	.039	.349	Not Significant

Significance Level: † p < 0.100, * p < 0.050, ** p < 0.010, *** p < 0.001

Table: 4.84 Regression Weights

			Estimate	**S.E.**	**C.R.**	**P**	**Label**
Job_Satisfaction	<---	Workflow_integration	.066	.037	1.804	.071	par_23
Job_Satisfaction	<---	ITAdoption	.103	.063	1.641	.101	par_24
Job_Satisfaction	<---	Organizational_Benefit	.549	.071	7.764	***	par_25
Job_Satisfaction	<---	System_Alignment	.039	.041	.937	.349	par_26
SJW1	<---	Job_Satisfaction	1.000				
EM1	<---	Job_Satisfaction	.900	.061	14.841	***	par_1

			Estimate	S.E.	C.R.	P	Label
EM4	<---	Job_Satisfaction	.827	.055	15.092	***	par_2
SJW2	<---	Job_Satisfaction	.974	.058	16.894	***	par_3
EM2	<---	Job_Satisfaction	.857	.054	15.990	***	par_4
EM3	<---	Job_Satisfaction	.990	.060	16.396	***	par_5
EM5	<---	Job_Satisfaction	.869	.056	15.461	***	par_6
SJW3	<---	Job_Satisfaction	.990	.060	16.580	***	par_7
PCOM2	<---	Workflow_integration	1.000				
PCOM3	<---	Workflow_integration	1.114	.053	20.954	***	par_8
PCOM4	<---	Workflow_integration	1.106	.054	20.517	***	par_9
PCOM1	<---	Workflow_integration	1.046	.054	19.364	***	par_10
IT2	<---	ITAdoption	1.000				
IT4	<---	ITAdoption	1.111	.081	13.685	***	par_11
IT3	<---	ITAdoption	1.009	.073	13.795	***	par_12
IT1	<---	ITAdoption	.914	.070	13.020	***	par_13
RA2	<---	Organizational_Benefit	1.000				
RA4	<---	Organizational_Benefit	1.106	.076	14.612	***	par_14
RA3	<---	Organizational_Benefit	1.004	.074	13.629	***	par_15
PC3	<---	System_Alignment	1.000				
PC4	<---	System_Alignment	1.011	.077	13.196	***	par_16

(Sources: AMOS result)

The table above displays the regression weights for each observed variable in relation to its corresponding construct. The result evaluates the relationship between IT Adoption, workflow integration, Organizational benefit, System Alignment, and Job Satisfaction. Each observed variable within the constructs demonstrates a positive association with the respective construct. Furthermore, the relationship between each observed variable and its construct is statistically significant. The estimated value in the table reflects the extent to which an observed variable changes in response to a one-unit change in the construct.

Chapter – 5
Findings

5.1 Findings based on the demographic profile of the employees

Gender: Among the total sample of 515 employees, it is seen that male employees constitute 67.4% (347 employees) and female employees constitute 32.6% (168 employees)

Age: The majority of the employees are below 25 years, i.e., 48.3%, and the employees aged 25-35 years constitute 44.5%. employees in the age group between 45-55 make up 1.2%, and those above 55 years are just 0.4%.

Marital Status: The majority, 51.1% of employees, are single, i.e., 263 out of 515. Whereas 46.4%, i.e., 239 out of 515, of the employees are married. Only 2.5% of employees are divorced, 13 out of 515.

Annual Income: The large group of employees earns below Rs. 500,000 annual income. About 28.3% fall in the income range of Rs. 500,001 to Rs. 10,00,000. Among 515 respondents, only 6.6 % of employees earnRs.10,00,001 to Rs. 15,00,000, i.e., 34 employees out of 515. And just 7.2% earn above Rs. 15,00,001. This indicates that high salaries are limited to a small proportion of employees.

Education Qualification: The Majority of IT-ITES employees have an education qualification for post-graduation, i.e., 60.2% (310 out of 515). 29.7% (153 out of 515) of the employees have graduation degrees. Very few, 10.1% (52 out of 515), hold a diploma degree. Hence, the finding suggests that post-graduation is an important qualification for taking a job in IT-ITES.

Working Location: It has been found that the Ahmedabad location constitutes 31.1% of employees, i.e., 160 out of 515. Rajkot and Surat have an equal number of employees at 23.3%, i.e., 115 employees out of 515, respectively. The proportion of Vadodara employees is recorded at 22.3%, i.e., 115 employees.

Work Experience: The IT-ITES sector is characterized by early career professional employees with 71.3% experience, less than 5 years. The majority of 43.3% have 2 to 5 years of experience, while 28.5% are fresher and have less than 2 years. Whereas only 13.4% of IT-ITES employees have work experience of more than 8 years.

Position: Executive employees constitute 55.7% of employees, and Managers constitute 24.3% of employees, which suggests that there is a substantial proportion of employees. Operators constitute 13.6% of employees, whereas supervisors' position account for only 6.4% of employees.

Department: The IT-ITES employees are spread across different department, Marketing and sales, 19.2%, HR department, 19.0%, having the highest share. Web developers, 17.5%, and software developers, 15.5%, also have a significant proportion of employees. Project managers, 12.4%, and IT managers, 8.6%, hold a crucial role in the IT-ITES sector. While Administration has 7.8% has the smallest representation.

5.2 Findings of Research Objective 1

Objective: 1. To study the acceptance and benefit of HRIS in IT & ITES sector.

5.2.1 Reliability Outcome

Reliability statistics were conducted for 48 items. The items related to the impact of Human Resource information systems and Organizational performance indicated strong reliability with Cronbach's alpha value of 0.952

5.2.2 Descriptive Analysis

The objective is to assess the acceptance and benefit of the Human Resource Information System (HRIS) regarding organizational performance in the IT-ITES sector. Respondents shared their views on the impact of HRIS, focusing on the context of technology, the organizational context, the environment context, and the human context. mean and standard deviation calculations were performed to analyze the acceptance and benefit of HRIS. The findings suggest that the acceptance and benefit of HRIS are high.

The statement "The organization has speedy internet facility" is recorded with the highest mean score at 4.24. whereas the lowest mean score is recorded for the statement "Integrating HRIS into our current work practices will be very difficult" i.e., 3.27. The result reveals for the statement "Integrating HRIS into our current work practices will be very difficult" is evident at a higher value of 1.112. On the other hand, Transparency is possible through HRIS with the lowest standard deviation of 0.774. Based on the findings, it can be concluded that acceptance and use of HRIS are

high in the IT-ITES sector. The availability of speedy internet facilities in the organization supports HRIS implementation. While challenges and complexity of learning HRIS and integrating it existing practices remain.

5.3 Findings of Research Objective 2

Objective: 2 To know the impact of HRIS on organizational Performance with specific reference to the IT & ITES sector of Gujarat.

- The findings of the regression analysis reveal that Human Resource Information Systems (HRIS) has a significant positive impact on Organizational Performance. The correlation coefficient (R-value) is 0.680, indicating a moderate positive relationship between HRIS and Organizational Performance.
- The model accounts for around 46.2% of the variance in Organizational Performance, signifying the importance of HRIS in this context. The statistical significance of the model and its coefficients suggests that enhancements in HRIS are likely to lead to improvements in Organizational Performance.
- Furthermore, the Durbin-Watson statistics are recorded at 1.919, suggesting that the residuals in the model are not subject to autocorrelation, thereby confirming that the model's assumptions are satisfied. A value near 2, such as 1.919, indicates the independence of the residuals.
- With a p-value below 0.05, the regression model is deemed statistically significant, demonstrating its relevance at a 5% significance level.

5.4 Findings of Research Objective 3

Objective: 3 To study the factors contributing to HRIS adaptation and organizational performance.

5.4.1 Finding Based on Exploratory Factor Analysis

KMO and Bartlett's Test

The KMO test measures the sampling adequacy of the data, and Bartlett's Test assesses the suitability of the data for factor analysis (Pallant, 2020). The KMO value is 0.870, which is considered greater and appropriate. The significant Bartlett's Test value is 0.00, which is below the threshold value of 0.05(Tabachnick & Fidell, 2007).

The findings from both the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test confirmed that the data are fit for factor analysis.

Factor Analysis

Exploratory Factor Analysis reveals the underlying factors contributing to HRIS adoption and Organizational performance for the IT&ITES sector. A total of five factors were identified from Exploratory factor analysis (EFA) to know the contribution of HRIS adoption on organizational performance relevant to the IT&ITES sector.

Factor 1: Job Satisfaction

This includes the statements: "Succession planning is done through HRIS", "Internal and External equity is ensured through adoption of HRIS", "Mechanism has become easier and quick through HRIS." "career planning is effectively done through HRIS.", "Transparency is possible through HRIS system", "Market rate analysis is easier through HRIS Adoption", "Communication in upward and downward is effectively done through HRIS", "Performance Appraisal Mapping of employee's performance is effectively done through HRIS."

Factor 2: Workflow Integration

This includes the statements: "HRIS application development involves a complex and multi-layered process.", "HRIS is hard to learn", "HRIS integration is expected to disrupt existing work practices.", "HRIS is complex to use."

Factor 3: IT adoption

This includes the statements: "The Organization maintains sufficient technological resources, including software and data management resources for HRIS support." , "The organization follows a resilient backup plan to address network connectivity problems.", "The Organization facilities efficient internet connectivity.", "The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations."

Factor 4: Organizational Benefit

This includes the statements “Adopting HRIS will enhance more productivity across the organization.”, “HRIS integration is likely to contribute to greater organizational profitability.”, “HRIS can lead to cost savings in day-to-day operations.”

Factor 5: System Alignment

This includes the statements: “HRIS may not be fully supported by the organization’s current hardware and network systems.”, “Implementation of the updated and new system may require significant adjustments to existing software and data systems.”

5.4.2 Finding based on Confirmatory Factor Analysis

Outcome of Reliability and Validity for constraints

Composite Reliability (CR) measures the reliability of constructs, where the CR value for all the constructs is above 0.7, which exceeds the acceptable threshold value. The CR values are recorded from 0.776 to 0.890. Thus, it can be confirmed that the model is strongly reliable.

Average Variance Extracted (AVE) is a measure of convergent validity. It shows that AVE values are recorded from 0.491 to 0.696. Most construct exceeds the acceptable threshold value, conforming to good convergent validity. Since all the MSV values for the construct are less than the AVE values.

Table: 5.1 Correlations

	OB	**JS**	**WI**	**ITA**	**SA**
OB	**1**				
JS	0.609	**1**			
WI	0.152	0.203	**1**		
ITA	0.538	0.413	0.154	**1**	
SA	0.402	0.339	0.415	0.403	**1**

The above table presents a correlation matrix among five variables: Job satisfaction, Workflow integration, IT Adoption, Organisational Benefit, and system alignment, which reveals a significant positive relationship between variables at a significant

0.01 level. The finding suggests that if one variable increases, the related variable tends to increase. Thus, organizations should focus on overall approaches that balance these factors.

5.5 Findings of Research Objective 4

Objective:4 To study the difference in HRIS adoption based on various demographic profiles.

Table: 5.2 Findings on HRIS Adoption among demographic profiles

$H_0 1$: There is no significant difference in HRIS adoption based on various demographic profiles.	
Hypothesis	Findings of the Study
$H_0 1a$: There is no significant difference in the adoption of HRIS between two gender groups.	From $H_0 1a$ hypothesis determining significant difference in the adoption of HRIS between two gender groups. The Mann-Whitney U test result indicated that there is no significant relationship between gender and HRIS adoption. Hence, the null hypothesis $H_0$is accepted. This finding indicates that gender does not play a role in the adoption of HRIS.
$H_0 1b$: There is no significant difference in the adoption of HRIS among Age.	From $H_0 1b$ hypothesis determining significant differences in the adoption of HRIS among Age. The Kruskal-Wallis test indicated that there is no significant relationship between age and HRIS adoption. Hence, the null hypothesis H_0 is accepted. This suggests that age groups have a similar level of HRIS adoption.
$H_0 1c$:There is no significant difference in the adoption of HRIS	From $H_0 1c$ hypothesis determining significant difference in the adoption of HRIS among Marital Status. The Kruskal-

among Marital Status	Wallis test indicated that there is no significant relationship between Marital Status and HRIS adoption. Hence, the null hypothesis H_0 is accepted.It indicates that the marital status of employees does not influence the adoption of HRIS.
$H_0 1d$:There is no significant difference in the adoption of HRIS among working location.	From $H_0 1d$ hypothesis determining significant differences in the adoption of HRIS among working location. The Kruskal-Wallis test indicated that there is no significant relationship between working location and the adoption of HRIS. Hence, the null hypothesis H_0 is accepted. This suggests that employees working with different locations in Gujarat adopt HRIS at a similar level.
$H_0 1e$:There is no significant difference in the adoption of HRIS among Annual Income.	From $H_0 1e$ hypothesis determining significant difference in the adoption of HRIS among Annual Income. The Kruskal-Wallis test indicated that there is no significant relationship between annual income and adoption of HRIS. Hence, the null hypothesis H_0 is accepted. The findings of the statistical test indicate that an employee's income level does not affect the adoption of HRIS.
$H_0 1f$:There is no significant difference in the adoption of HRIS among Qualification.	From $H_0 1f$ hypothes is determining significant difference in the adoption of HRIS among Qualification. The Kruskal-Wallis test indicated that there is no significant relationship between Qualification and the adoption of HRIS. Hence, the null

	hypothesis H_0 is accepted. This suggests that the adoption of HRIS is used similarly irrespective of the Qualification.
$H_0 1g$:There is no significant difference in the adoption of HRIS among department.	From $H_0 1g$ hypothesis determining a significant difference in the adoption of HRIS among department. The Kruskal-Wallis test indicated that there is no significant relationship between department and the adoption of HRIS. Hence, the null hypothesis H_0 is accepted. This indicates that the departmental differences do not impact the adoption of HRIS system, whichh is adopted uniformly across the functional areas in organizations.
$H_0 1h$:There is no significant difference in the adoption of HRIS among position.	From $H_0 1h$ hypothesis determining a significant difference in the adoption of HRIS among position. The Kruskal-Wallis test indicated that there is no significant relationship between position and the adoption of HRIS. Hence, the null hypothesis H_0 is accepted. This indicates that there is no significant difference in adopting HRIS across organizational position.
$H_0 1i$:There is no significant difference in the adoption of HRIS among work experience.	From $H_0 1i$ Hypothesis determining significant differences in the adoption of HRIS among work experience. The Kruskal-Wallis test indicated that there is no significant relationship between work experience and adoption of HRIS. Hence, the null hypothesis H_0 is accepted. This shows that work experience does not play a significant role in influencing the adoption of

	HRIS.

(Sources: Research Result)

The result of the hypothesis testing indicates that HRIS adoption in the IT-ITES sector in Gujarat has no significant difference among demographic factors such as gender, age, marital status, working location, annual income, Qualification, department, position and work experience. The acceptance of the null hypothesis H_0 indicates that demographic factors do not influence HRIS adaptation in the IT-ITES sector in Gujarat state.

5.6 Findings of Research Objective 5

Objective: 5 To study the difference in perceived organizational performance based on various demographic profiles.

Table: 5.3 Findings on perceived Organizational Performance among demographic profiles.

$H_0 2$: There is no significant difference in perceived Organizational Performance based on various demographic profiles.	
Hypothesis	Findings of the study
$H_0 2a$:There is no significant difference in the perceived Organizational Performance between two gender groups	From $H_0 2a$ Hypothesis determining significant difference in the perceived Organizational Performance between two gender groups. The Mann-Whitney U test found no significant difference between perceived Organizational performance across different gender groups. The findings of the study indicate that perceived organizational performance is similar across gender groups. males and female employees perceived organizational performance similarly. This means that gender does not have a significant influence on perceived Organizational

	performance.
$H_0 2b$: There is no significant difference in the perceived Organizational Performance among Age.	From $H_0 2b$ Hypothesis determining the significant difference in the perceived Organizational Performance among the Age. The Kruskal-Wallis test found no significant difference between perceived Organizational performance across different age groups. Since the p-value is greater than 0.05, the null hypothesis is accepted. The findings suggest that employees across various age groups do not have significantly different perceptions of perceived Organizational performance.
$H_0 2c$:There is no significant difference in the perceived Organizational Performance among Marital Status.	From $H_0 2c$ Hypothesis determiningthe significant difference in the perceived Organizational Performance among Marital Status. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among marital status. Since the p-value is greater than 0.05, the null hypothesis is accepted. The finding suggests that being single, married, or divorced does not impact the perceived organizational performance.
$H_0 2d$:There is no significant difference in the perceived Organizational Performance among working location.	From $H_0 2d$ Hypothesis determining the significant difference in the perceived Organizational Performance among working location. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among the working location. Since the p-value is greater than 0.05, the null hypothesis is accepted.

	The findings suggest that organizational performance is perceived similarly irrespective of working location.
$H_0 2e$:There is no significant difference in the perceived Organizational Performance among Annual Income.	From $H_0 2e$ Hypothesis determining the significant difference in the perceived Organizational Performance among Annual Income. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among annual income. Since the p-value is greater than 0.05, the null hypothesis is accepted. The result indicates that income level does not significantly influence perceived Organizational performance.
$H_0 2f$:There is no significant difference in the perceived Organizational Performance among Qualification.	From $H_0 2f$ Hypothesis determining significant differences in the perceived Organizational Performance among Qualification. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among Qualification. Since the p-value is greater than 0.05, the null hypothesis is accepted. This suggests that education Qualification do not significantly impact on perceived organizational performance.
$H_0 2g$:There is no significant difference in the perceived Organizational Performance among department.	From $H_0 2g$ Hypothesis determining the significant difference in the perceived Organizational Performance among department. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among department. Since the p-value is greater than

	0.05, the null hypothesis is accepted. This indicates that department differences do not appear to influence perceived organizational performance.
$H_0 2h$:There is no significant difference in the perceived Organizational Performance among position.	From $H_0 1h$ Hypothesis determiningthe significant difference in the perceived Organizational Performance among position. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among position. Since the p-value is greater than 0.05, the null hypothesis is accepted. Perceived Organizational performance is viewed similarly among the various position within the organizations.
$H_0 2i$:There is no significant difference in the perceived Organizational Performance among work experience.	From $H_0 1i$ Hypothesis determining the significant difference in the perceived Organizational Performance among work experience. The Kruskal-Wallis test found no significant difference between perceived Organizational performance among work experience. Since the p-value is greater than 0.05, the null hypothesis is accepted. Work experience does not significantly impact the perceived organizational performance.

(Sources: Research Result)

5.7 Findings of Research Objective 6

Objective : 6 To examine the effect of Workflow Integration, IT adoption, Organizational Benefits, and system alignment on Job satisfaction.

Finding of the Structural Equation Model

A total of five factors have been extracted from 21 variables, representing the impact of Human Resource Information Systems (HRIS) on Organizational Performance in the IT-ITES sector. This structural framework was designed to examine the framework for the effect of Workflow Integration, IT adoption, Organizational Benefits, and system alignment on Job satisfaction.

The SEM model analysis of Workflow Integration shows the relationship between Workflow Integration and its underlying constructs. The results indicate that all observed indicators and the factor loadings of the measurement variables, which range from 0.71 to 0.81, are statistically significant. This suggests a strong and significant correlation between the variables and the constructs.

The SEM model analysis of IT Adoption shows the relationship between IT Adoption and its underlying constructs. The results indicate that all observed indicators and the factor loadings of the measurement variables, which range from 0.66 to 0.74, are statistically significant. This suggests a strong and significant correlation between the variables and the constructs.

The SEM model analysis of Organizational Benefit shows the relationship between Organizational Benefit and its underlying constructs. The results indicate that all observed indicators and the factor loadings of the measurement variables, which range from 0.68 to 0.76, are statistically significant. This suggests a strong and significant correlation between the variables and the constructs.

The SEM model analysis of System Alignment shows the relationship between System Alignment and its underlying constructs. The results indicate that all observed indicators and the factor loadings of the measurement variables, which range from 0.82 to 0.84, are statistically significant. This suggests a strong and significant correlation between the variables and the constructs.

The SEM model analysis of System Job satisfaction shows the relationship between its underlying constructs. The results indicate that all observed indicators and the factor loadings of the measurement variables, which range from 0.66 to 0.76, are statistically significant. This suggests a strong and significant correlation between the variables and the constructs.

Most of the factors are nearly 1.0, indicating a high degree of correlation between Workflow Integration, IT adoption, Organizational Benefits, system alignment, and Job Satisfaction. The CR value, indicating a strong and statistically reliable relationship. The model is well structured as variables show high factor loading.

Table : 5.4 Findings of hypothesis testing based on Structural Equation Modeling

Hypothesis	**Direct Path**	**Findings of the study**
H1	Workflow integration → Job Satisfaction	H1 stated that there is a significant impact of Workflow integration on job satisfaction among employees in the IT & ITES sector. The finding of H1 indicates that the relationship was not statistically significant, and therefore, H1 was not supported. This suggests that Workflow integration may not have a direct influence on Job Satisfaction within the organization.
H2	IT Adoption → Job Satisfaction	H2 stated that there is a significant impact of IT Adoption on Job satisfaction among employees in the IT & ITES sector. The finding of H2 indicates that the relationship was not statistically significant, and therefore, H2 was not supported. This suggests that IT Adoption may not have a direct influence on Job Satisfaction within the organization.

H3	Organizational Benefit → Job Satisfaction	H3 stated that there is a significant impact of Organizational Benefit on job satisfaction among employees in the IT & ITES sector. The finding of H3 indicates that the relationship was statistically significant, and therefore, H3 was supported. This suggests that Organizational Benefit may have a direct influence on Job Satisfaction within the organization.
H4	System Alignment → Job Satisfaction	H4 stated that there is a significant impact of System Alignment on job satisfaction among employees in the IT & ITES sector. The finding of H4 indicates that the relationship was not statistically significant, and therefore, H4 was not supported. This suggests that System Alignment may not have a direct influence on Job Satisfaction within the organization.

(Sources: Research Result)

The SEM finding suggests that workflow Integration, IT adoption, Organizational Benefit, and System Alignment have a positive contribution to Job Satisfaction. The strong model fit, and path relationship suggest that all factors are crucial for the IT-ITES sector.

Chapter 6
Conclusion and Recommendations

6. Conclusion

The present study, “The Impact of Human Resource Information System (HRIS) on Organizational Performance: A Study on IT & ITES sector in Gujarat” was conducted on a sample of 515 IT & ITES employees working in four major cities of Gujarat state, Ahmedabad, Rajkot, Surat, and Vadodara. The study examines a range of factors in the Human Resource Information System. The theoretical model has been proposed, focused on the T-O-E framework and the Hot-Fit model. The variables include Technology context, Organization context, Environment context, and Human context. Through the integration of these two theoretical models, the study has offered a thorough comprehension of the various aspects that affect the effective adoption and use of HRIS. The model concludes that adopting and using HRIS can increase organizational performance in the IT & ITES sectors.

Findings concerning the impact of HRIS on organizational performance, guided by the T-O-E framework and HOT-fit model, demonstrate various impactful outcomes. Firstly, in the technological context, the ease of adoption and efficacy of HRIS are influenced by a number of factors, including perceived complexity, IT infrastructure, and compatibility. When properly aligned, these factors improve system usability and efficiency, facilitating a smooth transition into organizational processes. Second, in the organizational context, adoption is promoted by relative benefits like enhancing effectiveness in the organization and a more efficient HR function, which are largely supported by the resources and dedication of top management. However, inadequate strategic alignment leads to uncertainty in long-term execution. Thirdly, the environmental context comprising competitive pressure, vendor support, and government regulations has a mixed impact; while external pressures push organizations toward HRIS adoption, dependency on vendors and inconsistent regulatory guidance create challenges. From a human context, the favorable attitudes of senior executives and the IT skills of HR professionals have a significant impact on the overall efficacy and successful utilization of the system. However, there is cause for concern given the disparities in staff members' digital readiness. Overall, the results show that organizational performance is significantly and favorably impacted by HRIS. Particularly in enhancing efficiency, transparency, and responsiveness when

supported by strong infrastructure, top level regulatory facilitation, and user competence. Through ongoing advancements in technology and enhanced responsiveness to external challenges, organizations are strategically positioned to realize the complete potential of HRIS.

Based on the objective to know the impact of HRIS on Organizational performance, the study concluded that HRIS has a significant impact on Organizational performance in the IT & ITES sectors. However, the positive coefficient indicates that improving for Human Resource Information System (HRIS) will lead to an increase in Organizational Performance among the IT & ITES sector in this model. From the item statistics, it was found that the organizations that have speedy internet facilities have a maximum mean value of 4.24. From the frequencies, it was observed that most respondents agree that Transparency is possible through the HRIS system.

The Exploratory Factor Analysis results indicated that most observed variables related to the Human Resource Information system were aligned with separate factors. Meanwhile, the confirmatory factor analysis shows a positive relation between the observed variable and the construct. Each relation between the observed variable and the construct was observed to be statistically significant.

The study highlighted various factors that contribute to the impact of Human Resource Information Systems (HRIS) adoption and organizational performance, which include:

1. Job Satisfaction: Conforming to transparency, Effective communication, career planning, and performance mapping within the organization.
2. Workflow Integration: workflow offers improving current work practice, involving the development process and the learning curve challenges in the organization.
3. IT adoption: Ensuring IT Infrastructure, sufficient network connectivity, and database sources to maximize the performance of the Organization.
4. Organizational Benefit: Enhancing productivity, increasing profitability, and minimizing expenses.
5. System Alignment: Emphasizing hardware and software applications, ensuring seamless integration in the organization.

HRIS has demonstrated a high level of acceptance, demonstrating that the system is a useful instrument for improving organizational performance in the IT & ITES sector. Adequate IT infrastructure, high internal and external connections, and uninterrupted adoption of HRIS enable employees to access and utilize the system effectively.

The study noted several challenges related to HRIS implementation, even though HRIS is widely used in the IT & ITES sector, its complexity can prevent users from fully utilizing it. Workflow integration also addresses the limitation. Necessitating further assistance in implementing the system, and training for the system will help them become familiar with and efficient with it.

In conclusion, the strong fit and clear path relationships suggest that Workflow Integration, IT Adoption, Organizational Benefits, and System Alignment are essential for the successful implementation and effectiveness of HRIS in the IT-ITES sector. Organizations should focus on improving these important areas to increase job satisfaction, which, in turn, will improve overall organizational performance.

The adoption of the Human Resource Information System (HRIS) can be integrated smoothly into the organization of IT & ITES. However, it is important to recognize that the adoption and benefit of HRIS mechanisms have become more effective, time-saving, and quicker. HRIS plays a crucial role in facilitating upward and downward communication in the organization. Once adopted, HRIS can be beneficial in all department in the long run and increase the organization's performance. Overall, the study confirms that the successful implementation of HRIS is not solely dependent on the technological context, but also on the alignment between human, organizational, and environmental contexts. The T-O-E framework and HOT-fit model were combined to provide a thorough framework for assessing organizational alignment, readiness, and performance effects. This combined approach offers practical insights for organizations aiming to implement an HRIS application strategically to improve operational efficiency, adaptability, and competitive edge.

6.1 Limitations of the study

This research has certain limitations, which are as follows:

1. The principal drawback of this study was the inadequate sample size. The research aims to explore the impact of the Human Resource Information

System on the Organizational performance of employees working in the IT & ITES sector in Gujarat State. Although this region has many IT & ITES sectors and a large population of IT employees. The study included 515 employees. Expanding the sample size could have yielded more accurate and reliable findings.

2. This study was conducted in the IT and ITES sectors of Gujarat state in Ahmedabad, Rajkot, Surat, and Vadodara.
3. The study emphasizes a specific selection of variables consisting of Technological context, Organizational context, Environmental context, Human context, and Organizational performance in the IT & ITES sector of Gujarat state.
4. The limitations of this study arise from its sample size and the specific variables that were examined. Additionally, the findings are relevant only to the IT and ITES sector in Gujarat and may not be generalized to other sectors such as BFSI, healthcare, Real estate, MSMEs, retail, or education.
5. The study has a limitation due to its cross-sectional design, which involves gathering and analyzing data at one specific time. This approach restricts the capacity to identify causal relationships between the variables. A longitudinal study that observes these variables over a longer timeframe would be more effective in establishing causality.
6. Future research may extend the scope of the study to include IT and ITES organizations across multiple states as well as at the national and international levels, while also exploring the role of emerging technologies such as artificial intelligence, analytics-driven HRIS, and cloud-based platforms in enhancing strategic HR decision-making, thereby improving the generalizability and contemporary relevance of the findings.

6.2 Recommendations

- The IT & ITES sector shall provide a comprehensive training program to update the technical skills of employees for each department. So that the effective utilization of HRIS is revived. Top-level management support should ensure the proper resources and maintenance of the information system.
- The Organization should implement cloud-based solutions, which can save companies money, offer flexibility, reduce human error, and make advanced features accessible. The company can adopt cloud-based solutions such as Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).
- It is recommended that IT and ITES organizations use the analytics features of HRIS to improve workforce planning and optimize resource allocation. An organization can effectively predict future hiring requirements, identify underutilized or redundant talent, and distribute its staff across multiple projects, department, and geographic location by employing data-driven insights. This strategic implementation of HRIS enhances efficiency, facilitates improved project execution, and coordinates human resource planning with corporate goals.
- The Organization should regulate coaching and mentoring platforms that will boost productivity and better decision-making. Mentoring programs in the IT & ITES sector can be used to provide personalized support, feedback, and development opportunities for employees
- It is important for an organization to integrate HRIS practices so that organizations can streamline daily payroll processing and reporting. Additionally, organizations should align HRIS with organizational values, culture, and belief systems so that a culture of transparency, fairness, and employee empowerment is maintained in the organization.
- IT & ITES sectors should utilize HRIS to strengthen employee retention by analyzing important data related to engagement, performance, and career development. By tracking retention indicators and providing personalized growth opportunities to employees through the system. Moreover, HRIS can

help identify early signs of disengagement, allowing for timely interventions to retain key talent and reduce turnover. Organizations can create a supportive environment within the organization that encourages employees to stay.

- Organizations should formulate KPIs and performance dashboards to consistently evaluate the influence of HRIS on HR efficiency, employee satisfaction, and organizational performance. This continuous feedback mechanism strengthens the system's effectiveness and its alignment with strategic goals.
- Top-level management of the IT and ITES sector should consider a detailed Return on Investment analysis for the implementation of HRIS. They should also support the adoption of the system at the proper time, which can highlight the potential for cost savings, productivity increases, improved compliance management, and long-term growth.
- During the planning and implementation phase of HRIS, the organization should involve end-users, IT teams, and human resources professionals to ensure support and reduce challenges.
- Organizations should give employees self-service features, such as handling leave requests, tracking attendance, and monitoring performance, because these tools not only improve operational efficiency but also encourage transparency and increase employee engagement.
- Organizations should make use of artificial intelligence (AI) and data analytics in HRIS to improve talent management, increase recruiting accuracy, and forecast workforce trends. This enhances the effectiveness of decision-making and organizational performance.
- IT and ITES companies should prioritize automating compliance with labor laws, tax regulations, and reporting standards, which can lower the chances of errors. This automated compliance system is particularly crucial in the IT-ITES sector, where it is essential to stay updated with current regulations on compliance matters to reduce legal risks and improve operational efficiency in the organization. Thus, it is crucial and valuable to adopt the compliance system.
- The organization should integrate learning and development programs with HRIS to foster ongoing employee growth, particularly in the rapidly changing

field of the IT & ITES Sector. Organizations can enhance their ability to track employee certifications, training progress, and upskilling needs by integrating a Learning Management System (LMS) with their HRIS application

- IT & ITES sectors are advised to enhance the functionality of their Human Resource Information Systems (HRIS) by improving their communication strategies related to updates and changes in the system. The organization should provide timely, clear, and relevant information about modifications and updates in the HRIS application and functionalities, and policies among employees. When employees are well-informed about system enhancements and understand how these changes impact their work experience, they are more likely to utilize the HRIS effectively.
- Adopting HRIS can improve employee engagement and retention by measuring engagement scores, automating satisfaction surveys, and putting feedback systems in place. The information gained by HRIS can benefit company culture, lower turnover, and keep top talent
- It is advisable for organizations to make use of E-HRM tools to track and advance Diversity, Equity, and Inclusion (DEI) by assessing diversity-related metrics, pinpointing potential biases in recruitment and promotion processes, and ensuring equitable access to learning and development opportunities. This method not only promotes ethical and inclusive HR practices but also enhances organizational performance by cultivating a more engaged and diverse workforce.
- It is suggested that the IT & ITES sector should emphasize the creation of robust data backup systems, as this is essential for the successful implementation of Human Resource information systems.
- The accessible functionalities of an HRIS can improve its attractiveness and ease of use for employees, making the system more widely accepted and driving motivation in the utilization of HRIS in organizations
- It is recommended that organizations encourage environmentally sustainable HR practices by leveraging E-HRM tools for digital record-keeping, e-signatures, virtual onboarding, and paperless workflows. These practices not only align with corporate social responsibility (CSR) objectives but also enhance operational efficiency and reduce administrative costs.

- Through HRIS insights, vendors are better positioned to deliver solutions that align with organizational objectives, improve process efficiency, and enhance performance metrics.
- Effective use of HRIS provides policymakers with accurate workforce insights, enabling them to design informed HR policies, ensure regulatory compliance, and promote strategic initiatives that improve organizational performance.
- Optimal use of HRIS provides the HR department with accurate workforce insights, enabling informed HR policy decisions.
- By analyzing organizational requirements through HRIS, vendors can develop solutions that streamline HR workflows, enhance data accuracy, and support strategic decision-making across the organization.
- By leveraging insights provided by HRIS, vendors can customize software solutions to improve process efficiency, deliver actionable analytics, and strengthen operational effectiveness.
- Organizations and HR software vendors should encourage the development of innovative features, such as predictive analytics and AI-driven tools, to enhance HR decision-making and organizational success.
- Overall, the recommendations and implications seek to address the important success factors for HRIS implementation while maintaining congruence with both organizational goals and user needs. Implementing these strategies can dramatically improve system efficacy, user satisfaction, and organizational results.

6.3 Scope of Further Research

1. The current study was conducted on IT & ITES employees of Gujarat. Further studies can be undertaken in different industries like BFSI, healthcare, Real estate, MSMEs, retail, or education.

2. The research could be applied to other Indian states, or a cross-sectional study focusing on IT & ITES in rural and urban areas could be initiated.

3. Further research can be initiated on the financial effects of adopting HRIS on the Organization by focusing on return on investment (ROI), potential for cost savings, and the efficiency gains that can be achieved in the organization.

4. Further research can be conducted by focusing on different technology adoption models, such as Unified Theory of Acceptance and Use of Technology (UTAUT) Technology Acceptance Model (TAM), IS Success Model, or Task-Technology Fit (TTF) Model to assess the impact of HRIS adoption and benefit within in IT & ITES sector.

5. To further explore the link between the impact of HRIS and Organizational performance, further research should consider using a larger sample size and integrating a more set of variables.

6. The research can focus on longitudinal studies and can be conducted to analyze the causal relationship between HRIS and Organizational performance.

7. Further research can consider qualitative approaches such as interviews and case study methods, which can significantly enhance understanding of the factors that impact HRIS on Organizational performance.

References

Abadiano, M. N. (2012). Human Resources Information System for the University of Cebu. *IAMURE International Journal of Business and Management*, *3*(1). https://doi.org/10.7718/iamure.ijbm.v3i1.278

Abutayeh, B., Al-Qatawneh Assistant Professor, M., & Al Hammad, F. A. (2012). *The effect of the implementation of Human Resource Information Systems on job related decisions in commercial banks in Jordan*. http://www.eurojournals.com/EJEFAS.htm

Acar, A. Z., & Acar, P. (2014). Organizational Culture Types and Their Effects on Organizational Performance in Turkish Hospitals. *EMAJ: Emerging Markets Journal*, *3*(3), 18–31. https://doi.org/10.5195/emaj.2014.47

Adade, D., & de Vries, W. T. (2024). An extended TOE framework for local government technology adoption for citizen participation: insights for city digital twins for collaborative planning. In *Transforming Government: People, Process and Policy*. Emerald Publishing. https://doi.org/10.1108/TG-01-2024-0025

Adelekan, S. A., & Ojo, J. O. (2018). *Human Resource Information System and Organizations' Performance In Selected Banks In Lagos State*. *20*, 67–78. https://doi.org/10.9790/487X-2004036778

Agarwal, M. T. (2018). *Effect of Talent Management Practices and Organisational Performance on Employee retention: Evidence from Indian IT Firms*. *20*, 42–52. https://doi.org/10.9790/487X-2004034252

Agha, S., Alrubaiee, L., & Jamhour, M. (2011). Effect of Core Competence on Competitive Advantage and Organizational Performance. *International Journal of Business and Management*, *7*(1). https://doi.org/10.5539/ijbm.v7n1p192

Agrawal, R., & Parmar, S. (2020). *A Study of development of Human Resource Information Systems and its effectiveness in the banking sector* (Vol. 3, Issue 5).

Ahmad, I. B., Omar, S. S., Ali, M., & Ali, S. (2023). *A Conceptual Study of TOE and Organisational performance*.

Ahmad Khan, F., Ali Khan, N., & Aslam, A. (2024). *Adoption of Artificial Intelligence in Human Resource Management: An Application of TOE-TAM Model*. https://www.researchgate.net/publication/380490808

Ahmad, N. A., Drus, S. M., Azaliah, N., & Bakar, A. (2019). Moderating effect of organisation size in measuring the Technology Organisation Environment and Pressure (TOEP) in enterprise architecture adoption. *Journal of Theoretical and Applied Information Technology*, *31*(14). www.jatit.org

Ahmer, Z. (2013). Adoption of Human Resource Information Systems innovation in Pakistani organizations. In *Journal of Quality and Technology Management: Vol. IX*.

Al Mamun, M. A. (2016). *Perception of Management on Outcomes of Human Resource Information System (HRIS)*. http://www.thejournalofbusiness.org/index.php/site

Alam, M. G. R., Masum, A. K. M., Beh, L. S., & Hong, C. S. (2016). Critical factors influencing decision to adopt human resource information system (HRIS) in hospitals. *PLoS ONE*, *11*(8). https://doi.org/10.1371/journal.pone.0160366

Al-Azzam, Z. F. (2016). The Effect of Information System's on Quality Performance of Human Resource Management Functions Through Using Human Resource Information Systems in Banking Industry of Jordan. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2710578

Al-Dmour, R. H. (2020). The Influence of hris usage on employee performance and mediating effects of employee engagement in five stars hotels in jordan. *International Journal of Information Systems in the Service Sector*, *12*(3), 1–18. https://doi.org/10.4018/IJISSS.2020070101

Al-Dmour, R. H., & Al-Zu'bi, Z. M. F. (2014). Factors Motivating and Inhibiting the Practice of HRIS in Business Organizations: An Empirical Analysis. *International Business Research*, *7*(7). https://doi.org/10.5539/ibr.v7n7p139

Aligarh, F., Sutopo, B., & Widarjo, W. (2023). The antecedents of cloud computing adoption and its consequences for MSMEs' performance: A model based on the Technology-Organization-Environment (TOE) framework. *Cogent Business and Management*, *10*(2). https://doi.org/10.1080/23311975.2023.2220190

Almatrooshi, B., Singh, S. K., & Farouk, S. (2016). Determinants of organizational performance: a proposed framework. *International Journal of Productivity and Performance Management*, *65*(6), 844–859. https://doi.org/10.1108/IJPPM-02-2016-0038

Alshibly, H. H. (2017). *Human Resources Information Systems success Assessment: An integrative model*. *the Effectiveness of Business Intelligence Systems View project Information Systems Sucess View project*. https://www.researchgate.net/publication/264699074

Altarawneh, I., & Al-Shqairat, Z. (2010). Human Resource Information Systems in Jordanian Universities. *International Journal of Business and Management*, *5*(10). https://doi.org/10.5539/ijbm.v5n10p113

Al-Tit, A. A. (2017). Factors affecting the organizational performance of manufacturing firms. *International Journal of Engineering Business Management*, *9*. https://doi.org/10.1177/1847979017712628

ANI News. (2025). *Gujarat CM Inaugurates Cognizant TechFin Centre at GIFT City*. https://theprint.in/india/gujarat-cm-inaugurates-cognizants-techfin-centre-at-gift-city/2089732/

Ankrah, E., & Sokro, E. (2012). *HUMAN RESOURCE INFORMATION SYSTEM AS A STRATEGIC TOOL IN HUMAN RESOURCE MANAGEMENT*.

Ankrah, E., & Sokro, E. (2016). Intention and Usage of Human Resource Information Systems among Ghanaian Human Resource Managers. *International Journal of Business and Management*, *11*(2), 241. https://doi.org/10.5539/ijbm.v11n2p241

Anugrawan, A., & Rahadian, Y. (2023). Evaluation of Follow-Up Monitoring Information System Using Hot Fit Model. *Jurnal Ecotipe (Electronic, Control, Telecommunication, Information, and Power Engineering)*, *10*(1), 12–21. https://doi.org/10.33019/jurnalecotipe.v10i1.3391

Anupa, M. (2021). Role of Human Resources Information System (Hris) in Accelerating Organizational Effectiveness – It Companies Perspective. *International Journal of Management and Humanities*, *5*(6), 22–25. https://doi.org/10.35940/ijmh.F1245.025621

Arnav, A. (2020). *Evaluating The Effectiveness Of Human Resource Information System(Hris) Among Information Technology Sector Employees At Bengaluru*. www.solidstatetechnology.us

Arora, K. (2013). Importance of HRIS: A Critical Study on Service Sector. In *Global Journal of Management and Business Studies* (Vol. 3, Issue 9). http://www.ripublication.com/gjmbs.htm

Arora, R. ;, & Chauhan, V. (2020). Role of HRIS in improving recruitment process: Evidence from IT sector. *International Journal of Human Resource Studies*, *10*(2), 45–56.

Arz Bhutto, S. (2016). *Employee Motivation and Acceptance of Human Resource Information System in Pakistan*. *6*(9). www.iiste.org

Asghar Afshar Jahanshahi. (2012). Analyzing the effects of electronic commerce on organizational performance: Evidence from small and medium enterprises. *AFRICAN JOURNAL OF BUSINESS MANAGEMENT*, *6*(22). https://doi.org/10.5897/ajbm11.1768

Awa, H. O., & Ojiabo, O. U. (2016). A model of adoption determinants of ERP within T-O-E framework. *Information Technology and People*, *29*(4), 901–930. https://doi.org/10.1108/ITP-03-2015-0068

Awa, H. O., Ukoha, O., & Emecheta, B. C. (2016). Using T-O-E theoretical framework to study the adoption of ERP solution. *Cogent Business and Management*, *3*(1). https://doi.org/10.1080/23311975.2016.1196571

Awa, H. O., Ukoha, O., & Igwe, S. R. (2017). Revisiting technology-organization-environment (T-O-E) theory for enriched applicability. *Bottom Line*, *30*(1), 2–22. https://doi.org/10.1108/BL-12-2016-0044

Azlan Mohamad, A. (2009). *HUMAN RESOURCE PRACTICES AND ORGANIZATIONAL PERFORMANCE. INCENTIVES AS MODERATOR*. https://www.researchgate.net/publication/46542964

Bagga, T. (2014). A Comparative Study on the Usage of HRIS in the IT/ITES, Services, and Manufacturing Sectors in the Indian Scenario Study of Consumer Behavior towards Real Estate Sector Post Demonetization View project. *Article in Prabandhan Indian Journal of Management*. https://doi.org/10.17010/2014/v7i6/59325

Bagozzi, R. P., & Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/10.1007/BF02723327

Bal, Y., Bozkurt, S., & Ertemsir, E. (2012). *The importance of using Human Resources Information Systems (HRIS) and a research on determining the success of HRIS*.

Ball, K. S. (2001). Human resource information systems The use of human resource information systems: a survey. In *Personnel Review* (Vol. 30, Issue 6). # MCB University Press. http://www.emerald-library.com/ft

Bamel, N., Bamel, U. K., Sahay, V., & Thite, M. (2014). Usage, benefits and barriers of human resource information system in universities. *VINE*, *44*(4), 519–536. https://doi.org/10.1108/VINE-04-2013-0024

Bandlamudi, R. C. (2024). *From PaaS to IaaS: Navigating the Infrastructure Evolution for Startups*. https://www.forbes.com/councils/forbestechcouncil/2024/07/31/from-paas-to-iaas-navigating-the-infrastructure-evolution-for-startups/

Barisic, A. F., Poor, J., & Pejic Bach, M. (2019). The Intensity of Human Resources Information Systems usage and Organizational Performance. *Interdisciplinary Description of Complex Systems*, *17*(3), 586–597. https://doi.org/10.7906/indecs.17.3.15

Bartlett, M. S. (1950). Tests of significance in factor analysis. *British Journal of Statistical Psychology*, *3*(2), 77–85. https://doi.org/10.1111/j.2044-8317.1950.tb00285.x

Beadles, N. A., Lowery, C. M., & Johns, K. (2005). The impact of human resource information systems: An exploratory study in the public sector. *Communications of the IIMA*, *5*(4), 36–46.

Becker, B. E., Huselid, M. A., & Ulrich, D. (2001). *The HR Scorecard: Linking People, Strategy, and Performance* (Vol. 2001).

Bentler, P. M. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin*, *107*(2), 238–246.

Bentler, P. M., & Bonett, D. G. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychological Bulletin*, *88*(3), 588–606. https://doi.org/10.1037/0033-2909.88.3.588

Beulen, E. (2009). The contribution of a global service provider's Human Resources Information System (HRIS) to staff retention in emerging markets: Comparing issues and implications in six developing countries. *Information Technology and People*, *22*(3), 270–288. https://doi.org/10.1108/09593840910981446

Bhuiyan, F., Chowdhury, S. A., Yunus, M., & Rokibul Kabir, M. (2013). Impact of Human Resources Information System (HRIS) on the Performance of Firms: A Study on Some Selected Bangladeshi Banks. In *BIAM Foundation*. https://www.researchgate.net/publication/316039925

Bhuiyan, M. Y., Othman, S. H., & Raja Mohd. Radzi, R. Z. (2019). An Enhancement of TOE Model by Investigating the Influential Factors of Cloud Adoption Security Objectives. *International Journal of Innovative Computing*, *9*(1). https://doi.org/10.11113/ijic.v9n1.192

Bhuyan, S., & Anusandhan, S. O. (2018). Exploring Cloud Computing Adoption in Private Hospitals in India: An Investigation of DOI and TOE Model. In *Article in Journal of Advanced Research in Dynamical and Control Systems* (Vol. 10). Special Issue. https://www.researchgate.net/publication/326258818

Bijak Prestasi Supriadi, P., & Saragih, B. (2020). *The Effect of Integrity and Compensation on Organizational Performance through Job Satisfaction as a Variable of Mediation in Pt*. *3*, 122–127. https://doi.org/10.36349/easjebm.2020.v03i02.003

Blumberg, B. , C., D. R., & S., & P. S. (2008). *Business research methods* (2nd European ed.). McGraw-Hill Higher Education.

Bondarouk Tanya, & Huub Ruël. (2009). Electronic Human Resource Management: Challenges in the digital era. *The International Journal of Human Resource Management*, *20*(3). https://doi.org/https://doi.org/10.1080/09585190802707235

Bradley, S. (2019). An Exploratory Study of the Role of the Human Resource Information System Professional. *Athens Journal of Technology & Engineering*, *6*(1), 63–76. https://doi.org/10.30958/ajte.6-1-4

Brown, T. A. (2015). *Confirmatory Factor Analysis for Applied Research* (2nd Edition). The Guilford Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Testing Structural Equation Models*, 136–162.

Bryman, A., & Bell, E. (2015). *Business Research Methods*. Oxford University Press.

Business Standard Staff. (2024, December). *Cloud, AI-ML Top Emerging Techs Adopted by Indian Banks, Reveals RBI Survey*. https://www.business-standard.com/technology/tech-news/cloud-ai-ml-top-emerging-techs-adopted-by-indian-banks-reveals-rbi-survey-124123000947_1.html

Buzkan, H. (2016). The Role of Human Resource Information System (HRIS) in Organizations: A Review of Literature. *Academic Journal of Interdisciplinary Studies*. https://doi.org/10.5901/ajis.2016.v5n1p133

Byrne, B. M. (2001). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. Lawrence Erlbaum Associates.

Byrne, B. M. (2010). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming* (2nd ed.). Routledge.

Cattell, R. B. (1966). The Scree Test for the Number of Factors. *Multivariate Behavioral Research*, *1*(2), 245–276. https://doi.org/10.1207/s15327906mbr0102_10

Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. John Wiley & Sons.

Chakraborty, A. R., & Mansor, N. N. A. (2013). Adoption of Human Resource Information System: A Theoretical Analysis. *Procedia - Social and Behavioral Sciences*, *75*, 473–478. https://doi.org/10.1016/j.sbspro.2013.04.051

Chau, P. Y. K. (1998). What Measures Service Quality? A Critique and a Research Proposal. *Proceedings of the Ninth Australasian Conference on Information Systems (ACIS)*, 132–140.

Cheema, S., Javed, F., Akram, A., & Pasha, A. T. (2016). *The Impact of HRIS and HPWS on Employee Performance Surveyed from SMEs of Pakistan Manufacturing Firms*.

Cochran, W. G. (1977). *Sampling Techniques* (3rd edition). John Wiley & Sons.

Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, *19*(2), 189–211. https://doi.org/https://doi.org/10.2307/249688

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. https://doi.org/10.1007/BF02310555

Das, K., & Barman, A. (2019). Human Resource Information Systems (HRIS): The New Role of HR in the Giant Data Age. *Advances in Economics and Business Management (AEBM)*.

Davarpanah, A., & Mohamed, N. (2013). Human Resource Information Systems (HRIS) success factors in a public higher education institution context. *International Conference on Research and Innovation in Information Systems, ICRIIS*, 79–84. https://doi.org/10.1109/ICRIIS.2013.6716689

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, *13*(3), 319–339. https://doi.org/10.2307/249008

De Vaus, D. A. (2001). *Research design in social research*. SAGE Publications.

Delaney, J. T. (1996). *THE IMPACT OF HUMAN RESOURCE MANAGEMENT PRACTICES ON PERCEPTIONS OF ORGANIZATIONAL PERFORMANCE* (Vol. 39, Issue 4). Academy of Management.

Deloitte Insights. (2021). *2021 Deloitte Global Human Capital Trends*.

Deloitte Touche Tohmatsu India LLP. (2022). *The Future of BPO: Intelligent Automation and AI*. https://www2.deloitte.com/in/en/pages/strategy/articles/future-of-bpo-intelligent-automation.html

Deloitte Touche Tohmatsu India LLP. (2023). *Tech Trends India 2023: Innovating in Uncertain Times*. https://www2.deloitte.com/in/en/pages/technology/articles/tech-trends.html

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, *3*(1), 60–95. https://doi.org/10.1287/isre.3.1.60

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, *19*(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748

Denscombe, M. (2010). *The Good Research Guide: For Small-Scale Social Research Projects* (4th ed.). Open University Press (McGraw-Hill Education).

Department of Science and Technology, G. of G. (2023). *Gujarat State Data Centre (GSDC)*. https://dst.gujarat.gov.in

Effendi, M. I., Sugandini, D., & Istanto, Y. (2020). Social Media Adoption in SMEs Impacted by COVID-19: The TOE Model*. *Journal of Asian Finance, Economics and Business*, *7*(11), 915–925. https://doi.org/10.13106/jafeb.2020.vol7.no11.915

Elmayati, E., Intan, B., Nurdiansyah, D., Milenia, A., & Kelpin, Y. (2022). Application of Hot Fit Model to Analyze Information Technology Ams (Academic Management System). *SinkrOn*, *7*(3), 822–833. https://doi.org/10.33395/sinkron.v7i3.11462

ElNakib, D. M., Ragheb, M. A., Youssef, R. A. E., & Ghanem, A. N. (2021). The Effect of HRIS Adoption on Vodafone Egypt Firm's Performance. *Journal of Human Resource and Sustainability Studies*, *09*(02), 173–192. https://doi.org/10.4236/jhrss.2021.92012

Erlirianto, L. M., Ali, A. H. N., & Herdiyanti, A. (2015a). The Implementation of the Human, Organization, and Technology-Fit (HOT-Fit) Framework to Evaluate the Electronic Medical Record (EMR) System in a Hospital. *Procedia Computer Science*, *72*, 580–587. https://doi.org/10.1016/j.procs.2015.12.166

Erlirianto, L. M., Ali, A. H. N., & Herdiyanti, A. (2015b). The Implementation of the Human, Organization, and Technology-Fit (HOT-Fit) Framework to Evaluate the Electronic Medical Record (EMR) System in a Hospital. *Procedia Computer Science*, *72*, 580–587. https://doi.org/10.1016/j.procs.2015.12.166

ET CFO Bureau. (2025, January). utlook 2025: India Inc CFOs to Allocate Major IT Budgets to Cloud, AI, Cybersecurity and Automation. *2025*. https://cfo.economictimes.indiatimes.com/news/cfo-tech/outlook-2025-india-inc-cfos-to-allocate-major-it-budgets-to-cloud-ai-cybersecurity-and-automation/117082043

ET Telecom Bureau. (2024, May). *Industrial Adoption of 5G, IoT to Fuel Business in India, Says Germany's Giesecke+Devrient*. https://telecom.economictimes.indiatimes.com/news/industry/industrial-adoption-of-5g-iot-to-fuel-business-in-india-says-germanys-gieseckedevrient/110527177

Evans, J. R. , & Mathur, A. (2005). The value of online surveys. *Internet Research*, *15*(2), 195–219. https://doi.org/https://doi.org/10.1108/10662240510590360

Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, *15*(2), 195–219.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*(3), 272–299.

Ferdous, F., Chowdhury, M. M., & Bhuiyan, F. (2015). Barriers to the Implementation of Human Resource Information Systems. *Asian Journal of Management Sciences & Education*, *4*(1).

Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics* (4th ed.). SAGE Publications.

Fisher, R. A. (1925). *Statistical Methods for Research Workers*. Oliver and Boyd.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Gardner, S. D., Lepak, D. P., & Bartol, K. M. (2003). Virtual HR: The impact of information technology on the human resource professional. *Journal of Vocational Behavior*, *63*(2), 159–179. https://doi.org/10.1016/S0001-8791(03)00039-3

Gartner, Inc. (2023). *Market Guide for Conversational AI and Natural Language Processing in Customer Service*. https://www.gartner.com/en/documents/4001321

Ghafoor Khan, A., Ahmed Khan, F., Aslam Khan, M., & Raja Abdul Ghafoor Khan, B. (2011). Impact of Training and Development on Organizational Performance. *Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc*, *11*.

Ghasemi, A., & Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *International Journal of Endocrinology and Metabolism*, *10*(2), 486–489. https://doi.org/10.5812/ijem.3505

GIFT IFSC. (2023). *International Financial Services Centre*. https://giftgujarat.in/business/ifsc

Gitari Muriithi Ag, J., Gachunga Senior Lecturer, H., & Kathoka Mburugu, C. (2014). Effects of Human Resource Information Systems on Human Resource Management Practices and Firm Performance in Listed Commercial Banks at Nairobi Securities Exchange. In *European Journal of Business and Management www.iiste.org ISSN* (Vol. 6, Issue 29). Online. www.iiste.org

Göktaş, P., & Akgül, Y. (2019). *The Investigation of Employer Adoption of Human Resource Information Systems at University Using TAM* (pp. 1–27). https://doi.org/10.4018/978-1-5225-8015-7.ch001

Goodhue, D. L., & Thompson, R. L. (1995). Task-Technology Fit and Individual Performance. *MIS Quarterly*, *19*(2), 213–236.

Government of Gujarat. (2021). *Gujarat State Urban Development Report*. https://www.gujaratindia.gov.in

Government of Gujarat. (2022). *Gujarat IT/ITES Policy 2022–2027*. https://directorit.gujarat.gov.in/IT-Policy

Gravetter, F. J., & Wallnau, L. B. (2014). *Essentials of Statistics for the Behavioral Sciences* (8th Edition). Wadsworth Cengage Learning.

Gravetter, F. J., & Wallnau, L. B. (2016). *Statistics for the Behavioral Sciences* (10th Edition). Cengage Learning.

Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the Behavioral Sciences* (10th edition). Cengage Learning.

Gupta, B. (2013). *Human Resource Information System (HRIS): Important Element of Current Scenario* (Vol. 13, Issue 6). www.iosrjournals.org

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Education.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th Edition). Cengage Learning.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Multivariate Data Analysis*. Pearson Prentice Hall.

Hakim, A. N., & Madyatmadja, E. D. (2023). Examining the Employees' Acceptance of Human Resource Information Systems: An Empirical Study with UTAUT Model. *Journal of System and Management Sciences*, *13*(4), 40–58. https://doi.org/10.33168/JSMS.2023.0403

Hani Al-Dmour Assistant Professor of Management, R., Yousef Obeidat, B., & Abdelkarim Almajali Assistant Professor of Management, D. (2015). The Practice of HRIS Applications in Business Organizations in Jordan: An Empirical Study. In *European Journal of Business and Management www.iiste.org ISSN* (Vol. 7, Issue 33). Online. www.iiste.org

Hassan N Rawash. (2021). E-commerceAdoptingTOEModelbySMEsinJordan. *Multicultural Education*, *7*(3), 118–123. https://doi.org/10.5281/zenodo.4598098

Hatcher, L. (1994). *A Step-by-Step Approach to Using the SAS System for Factor Analysis and Structural Equation Modeling*. SAS Institute Inc.

Hena, A., Arefin, M. M., Arefin, A., & Hosain, S. (2019). The Role of Human Resource Information System on Organizational Performance: Evidence from Bangladeshi Pharmaceutical Industry. *European Journal of Applied Business Management*, *5*(1), 37–53. https://www.researchgate.net/publication/334107203

Hendrickson, & A. R. (2003). Human Resource Information Systems: Backbone Technology of Contemporary Human Resources. *Journal of Labor Research*, *24*(3), 381–394.

Horton, R. P., Buck, T., Waterson, P. E., & Clegg, C. W. (2001). Explaining intranet use with the technology acceptance model. *Journal of Information Technology*, *16*(4), 237–248. https://doi.org/10.1080/02683960110102407

Hosain, M. S., Arefin, A. H. M. M., & Hossin, M. A. (2020). The Role of Human Resource Information System on Operational Efficiency: Evidence from MNCs Operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, 29–47. https://doi.org/10.9734/ajeba/2020/v18i230279

Hosain, S. (2017). *The impact of E-HRM on organizational performance: evidence from selective service sectors OF Bangladesh*. www.iaset.us

Hu, L., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

i-Hub Gujarat. (2023). *About i-Hub*. https://ihubgujarat.in/about

Infosys Knowledge Institute. (2023). *Cloud Radar Report 2023: The Next Chapter of Enterprise Cloud*. https://www.infosys.com/knowledge-institute/cloud.html

International Data Corporation (IDC). (2023). *DevOps and Agile in Indian IT Firms: A Market Adoption Study*. https://www.idc.com/getdoc.jsp?containerId=AP47600421

Iyer, S. ;, & Rao, M. (2020). Integrating HRIS with attendance systems in Indian IT sector: A case study. *Asian Journal of Business and Management*, *8*(3), 112–120.

Jacks, T., Palvia, P., Schilhavy, R., & Wang, L. (2011). A framework for the impact of IT on organizational performance. In *Business Process Management Journal* (Vol. 17, Issue 5, pp. 846–870). https://doi.org/10.1108/14637151111166213

Jan, A. U., & Contreras, V. (2011). Technology acceptance model for the use of information technology in universities. *Computers in Human Behavior*, *27*(2), 845–851. https://doi.org/10.1016/j.chb.2010.11.009

Jerram, C. (2010). *Exploring the organizational adoption of Human Resources Information Systems (HRIS) in the Australian public sector*. http://aisel.aisnet.org/acis2010/100

Jöreskog, K. G., & Sörbom, D. (1981). *LISREL V: Analysis of Linear Structural Relationships by the Method of Maximum Likelihood* . National Educational Resources.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*(1), 31–36. https://doi.org/10.1007/BF02291575

Kaur, H., & Patel, N. (2024). *Annals of the Bhandarkar Oriental Research Institute Impact of HRIS on effectiveness of HR practices among generation Y in the service sector relevant to Gujarat state*.

Kaur, H., & Patel, N. (2025). User satisfaction on adopting HRIS and its impact on organization performance in the IT Sector. In *International Journal of Cultural Studies and Social Sciences* (Vol. 22, Issue 1). UGC CARE Journal.

Kavanagh, M. J., Thite, M., & Johnson, R. D. (2012). *Human Resource Information Systems: Basics, Applications, and Future Directions* (3rd ed.). Sage Publications.

Kavanagh, M. J., Thite, M., & Johnson, R. D. (2015a). *Human Resource Information Systems: Basics, Applications, and Future Directions* (3rd ed.). Sage Publications.

Kavanagh, M. J., Thite, M., & Johnson, R. D. (2017). *Human Resource Information Systems: Basics, Applications, and Future Directions* (4th edition). SAGE Publications.

Kaygusuz, İ., Akgemci, T., & Yilmaz, A. (2016). The impact of HRIS usage on organizational efficiency and employee performance: a research in industrial and banking sector in ankara and Istanbul cities. *International Journal of Business & Management*, *IV*(4). https://doi.org/10.20472/bm.2016.4.4.002

Ken Rifarsih, D., Purwani, F., & Hafidh Zulfikar, D. (2022). Management Information System Success Rate on Pusri Palembang Hospital Using HOT-FIT Models. *Journal of Information Systems and Informatics*, *4*(1), 2656–5935. http://journal-isi.org/index.php/isihttp://journal-isi.org/index.php/isi

Khalique, M., Shaari, J. A. N. bin, Isa, A. H. bin M., & Samad, N. B. (2013). Impact of Intellectual Capital on the Organizational Performance of Islamic Banking Sector in Malaysia. *Asian Journal of Finance & Accounting*, *5*(2), 75. https://doi.org/10.5296/ajfa.v5i2.4005

Khashman, I. M. A., & Khashman, A. M. (2016). The Impact of Human Resource Information System (HRIS) Applications on Organizational Performance (Efficiency and Effectiveness) in Jordanian Private Hospitals. *Journal of Management Research*, *8*(3), 31. https://doi.org/10.5296/jmr.v8i3.9419

Khera, S. N., & Gulati, K. (2012). Human Resource Information System and its impact on Human Resource Planning: A perceptual analysis of Information Technology companies. In *IOSR Journal of Business and Management (IOSRJBM)* (Vol. 3, Issue 6). www.iosrjournals.org

Kim, S. , & Kankanhalli, A. (2009). Investigating user resistance to information systems implementation: A status quo. *MIS Quarterly*, *33*(3), 567–582. https://doi.org/https://doi.org/10.2307/20650307

Kline, R. B. (2016a). *Principles and Practice of Structural Equation Modeling* (4th ed.). The Guilford Press.

Kline, R. B. (2016b). *Principles and Practice of Structural Equation Modeling* (4th edition). The Guilford Press.

Kosasi, S., Victor, E., Dewa Ayu Eka Yuliani, I., Kasma, U., Fitriani, D., & Bunyi, B. (2022). Effects of IT Service Management on E-Learning Readiness through the HOT-Fit Model. *2022 10th International Conference on Cyber and IT Service Management, CITSM 2022*. https://doi.org/10.1109/CITSM56380.2022.9935923

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Age International Publishers.

Kovach, K. A., Hughes, A. A., Fagan, P., & Maggitti, P. G. (2002). Administrative and Strategic Advantages of HRIS. *Employment Relations Today*, *29*(2), 43–48. https://doi.org/10.1002/ert.10039

Kruskal, W. H. ; W. W. A. (1952). Use of Ranks in One-Criterion Variance Analysis. *Journal of the American Statistical Association*, *47*(260), 583–621. https://doi.org/10.2307/2280779

Kumar, N. A., & Parumasur, S. B. (2013a). Managerial Perceptions of the Impact of HRIS on Organizational Efficiency. In *Journal of Economics and Behavioral Studies* (Vol. 5, Issue 12).

Kumar, N. A., & Parumasur, S. B. (2013b). *The impact of HRIS ON organizational efficiency: random or integrated and holistic?*

Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners* . SAGE Publications.

Kundu, S. C., & Kadian, R. (2012). Applications of HRIS in Human Resource Management in India: A Study. In *European Journal of Business and Management www.iiste.org ISSN* (Vol. 4, Issue 21). Online. www.iiste.org

Laudon, K. C., & Laudon, J. P. (2015). *Management Information Systems: Managing the Digital Firm* (Vol. 14). Pearson Education.

Laumer, S., Maier, C., & Eckhardt, A. (2014). *The impact of human resources information systems and business process management implementations on recruiting process performance: A case study*.

Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. SAGE Publications.

Lengnick-Hall, C. A., & Moritz, S. (2003). The impact of e-HR on the human resource management function. *Journal of Labor Research*, *24*(3), 365–379. https://doi.org/10.1007/s12122-003-1001-6

Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology*, *22*(140), 1–55.

Lowery, C. M. ;, & Johns, K. (2005). Issue 4 Article 6 2005 Part of the Management Information Systems Commons Recommended Citation Recommended Citation Beadles. In *Communications of the IIMA* (Vol. 5). https://scholarworks.lib.csusb.edu/ciimaAvailableat:https://scholarworks.lib.csusb.edu/ciima/vol5/iss4/6

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2013). Analyzing the impact of HRIS implementations on HR personnel's job satisfaction and turnover intention. *Journal of Strategic Information Systems*, *22*(3), 193–207. https://doi.org/10.1016/j.jsis.2012.09.001

Malhotra, N. K. (2010). *Marketing Research: An Applied Orientation* (6th ed.). Pearson Education.

Manivannan, L., & Jayasakthivel Rajkumar, R. (2016). Practice of hris in select private hospitals in tamilnadu. In *International Journal of Scientific Research and Modern Education (IJSRME) ISSN: Vol. I*. www.rdmodernresearch.com

Marsh, H. W., & Hocevar, D. (1985). Application of Confirmatory Factor Analysis to the Study of Self-Concept: First- and Higher Order Factor Models and Their Invariance Across Groups. *Psychological Bulletin*, 562–582. https://doi.org/10.1037/0033-2909.97.3.562

Masana, N., & Muriithi, G. M. (2018). Investigating TOE Factors Affecting the Adoption of a Cloud-Based EMR System in the Free-State, South Africa. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST*, *206*, 233–238. https://doi.org/10.1007/978-3-319-67837-5_23

Maxwell, S., & Yadav, M. S. (2019). Effectiveness of HRIS on Organizational Performance. In *International Journal of Research in Business Studies* (Vol. 4, Issue 1).

McKight, P. E., & Najab, J. (2010). Kruskal-Wallis Test. In *Encyclopedia of Research Design* (pp. 705–707). Sage Publications.

McKinsey & Company. (2022). *The State of AI in 2022 – and a Half Decade in Review*. https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-state-of-ai-in-2022

Meenalochani, K., & Kumar, V. S. (2020). *A study on the impact of the implementation of Human Resource Information System (HRIS) among information technology employees in selected sector areas of tamilnadu*.

Mehmood, M., Awais, M., Afzal, M. M., Shahzadi, I., & Khalid, U. (2017). The Impact of Human Resource Management Practices on Organizational Performance. In *International Journal of Engineering and Information Systems (IJEAIS)* (Vol. 1). www.ijeais.org

Meyers, L. S., Gamst, G., & Guarino, A. J. (2005). *Applied Multivariate Research: Design and Interpretation*. Sage Publications.

Ministry of Statistics and Programme Implementation (MoSPI). (2023). *National Accounts Statistics 2023*. https://mospi.gov.in/web/mospi/publications

Mishra, B. K. ;, & Bhardwaj, S. (2019). Cloud-Based Human Resource Information Systems and Its Impact on HRM Strategies: A Case Study in HDFC Banks of Cuttack & Bhubaneswar Twin City. *International Journal of Management and Humanities*, *5*(6), 24–30.

Mjomba, S. H., & Oyagi, B. N. (2021). The Influence of Human Resource Information System on Organizational Performance in Tanzania; A case of ZanzibarPorts Corporation. In *American Journal of Humanities and Social Sciences Research* (Issue 5). www.ajhssr.com

Mohammed, M., Absar, N., Balasundaram, N., Muhammad, M., & Jilani, A. K. (2010). *Impact of HR Practices on Organizational Performance in Bangladesh Contemporary stream of research View project Issues on global cases View project*. https://www.researchgate.net/publication/209755853

Mohlala, T. T. N., Mehlwana, L. L. M., Nekhavhambe, U. P., Thango, B., & Matshaka, L. (2024). *Strategic Innovation in HRIS and AI for Enhancing Workforce Productivity in SMEs: A Systematic Review*. https://doi.org/10.20944/preprints202409.1996.v1

Mounika, M., & Kamesh, A. V. S. (2017). *Employee Perception on the impact of HRIS on Productivity: A Study of select IT organizations in Hyderabad*.

Munir, M., & Glorino Rumambo Pandin, M. (2020). *Human Resource Information System and Work Stress during COVID-19 Pandemic*. https://doi.org/10.20944/preprints202012.0469.v1

Nachar, N. (2008a). The Mann–Whitney U: A test for assessing whether two independent samples come from the same distribution. *Tutorials in Quantitative Methods for Psychology*, *4*(1), 13–20. https://doi.org/https://doi.org/10.20982/tqmp.04.1.p013

Nachar, N. (2008b). The Mann–Whitney U: A test for assessing whether two independent samples come from the same distribution. *Tutorials in Quantitative Methods for Psychology*, *4*(1), 13–20. https://doi.org/10.20982/tqmp.04.1.p013

Nagendra, A., & Deshpande, M. (2014a). Human Resource Information Systems (HRIS) in HR Planning and Development in Mid to Large Sized Organizations. *Procedia - Social and Behavioral Sciences*, *133*, 61–67. https://doi.org/10.1016/j.sbspro.2014.04.169

Nagendra, A., & Deshpande, M. (2014b). Human Resource Information Systems (HRIS) in HR Planning and Development in Mid to Large Sized Organizations. *Procedia - Social and Behavioral Sciences*, *133*, 61–67. https://doi.org/10.1016/j.sbspro.2014.04.169

NASSCOM. (2023a). *AI Adoption in India: Trends, Challenges, and Opportunities*. https://nasscom.in/knowledge-center/publications/ai-adoption-india

NASSCOM. (2023b). *NASSCOM Strategic Review 2023: The technology sector in India – Navigating new frontiers*.

NASSCOM. (2024a). *Strategic Review 2024: Technology Industry in India*.

NASSCOM. (2024b). *Strategic Review of the Indian IT-BPM Industry*. https://nasscom.in/knowledge-center/publications

Nasution, S. W., Chairunnisa, & Ginting, C. N. (2023). *Majalah Kedokteran Bandung (MKB) Hospital Management Information System Implementation Assessment Using HOT-FIT Model in Langsa General Hospital Aceh, Indonesia*. *55*(1), 13–20. https://doi.org/10.15395/mkb.v55n1.2808

Nawaz, M. N. (2013). Human Resource Information Systems – A Review. *International Journal of Management, IT and Engineering*, 74–83.

Nawaz, N. (2020). HRIS as a Tool for Effective Decision Making in Select Software Companies in Bangalore, Karnataka, India. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2920060

Ngai, E. W. T., & Wat, F. K. T. (2006). Human resource information systems: A review and empirical analysis. In *Personnel Review* (Vol. 35, Issue 3, pp. 297–314). Emerald Publishing. https://doi.org/10.1108/00483480610656702

Nguyen Van Thanh, Hyenyoung Yoon, & Junseok Hwang. (2018). *A study on the factors affect to technological adoption of e-Government Information System interoperability in Vietnam*. *7*, 125–143.

Nikmah, F., Hermawan, A., Wardoyo, C., & Hasan, H. (2021). TOE PERSPECTIVE: TECHNOLOGY ADOPTION BY SMEs IN FACING THE INDUSTRIAL REVOLUTION 4.0. *European Journal of Business, Economics and Accountancy*, *9*(1), 2021. www.idpublications.org

Nisha Bamel, Umesh Kumar Bamel, Vinita Sahay, & Mohan Thite. (2014). Usage, benefits and barriers of human resource information system in universities. *VINE*, *44*(4), 519–536. https://doi.org/10.1108/VINE-04-2013-0024

Noutsa, F. A., Kamdjoug, J. R. K., & Wamba, S. F. (2017). Acceptance and use of HRIS and influence on organizational performance of SMEs in a developing economy: The case of cameroon. *Advances in Intelligent Systems and Computing*, *569*, 563–580. https://doi.org/10.1007/978-3-319-56535-4_57

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.

Obeidat, B. Y. (2012). The Relationship between Human Resource Information System (HRIS) Functions and Human Resource Management (HRM) Functionalities. *Journal of Management Research*, *4*(4). https://doi.org/10.5296/jmr.v4i4.2262

Olfat, M. (2024). ESM Adoption for Marketing Purposes in Organizations: The TOE Framework. *Journal of Promotion Management*. https://doi.org/10.1080/10496491.2024.2386245

Palacios-Marqués, D., García, M. G., Sánchez, M. M., & Mari, M. P. A. (2019). Social entrepreneurship and organizational performance: A study of the mediating role of distinctive competencies in marketing. *Journal of Business Research*, *101*, 426–432. https://doi.org/10.1016/j.jbusres.2019.02.004

Pallant, J. (2020). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS* (7th ed.). Routledge.

Pandey, P., & Singh, P. (2023). *EPRA International Journal of Environmental Economics, Commerce and Educational Management*. https://doi.org/10.36713/epra0414

Papia, M., Nath, S., & Gajendra Naidu, J. (2015). HRIS efficiency and its impact on Organization. In *Print) International Research Journal of Management Science & Technology*. http://www.irjmst.com

Parasuraman, A. (2000). Technology readiness index (TRI): A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, *2*(4), 307–320. https://doi.org/10.1177/109467050024001

Patcha, D., Rao, B., & Rao, P. B. (2015). Effectiveness of Human Resource Information Systems: A Study with Reference to Greaves Cotton Limited. In *Asian Journal of Managerial Science* (Vol. 4, Issue 1). https://www.researchgate.net/publication/333562265

Permadi, G. S., Adi, K., & Gernowo, R. (2018). Application Mail Tracking Using RSA Algorithm As Security Data and HOT-Fit a Model for Evaluation System. *E3S Web of Conferences*, *31*. https://doi.org/10.1051/e3sconf/20183111007

Phahlane, M. M., & Kekwaletswe, R. M. (2017). *A conceptual research framework for human resource information systems adoption and use in universities*. 1–7.

Prasad, K. D. V., Nag, D., Kalavakolanu, S., & Vaidya, R. (2023). The application of human resources information systems for enhancing output in agricultural companies. *Journal of Social Economics Research*, *10*(4), 179–193. https://doi.org/10.18488/35.v10i4.3521

Punch, K. F. (2014). *Introduction to Social Research: Quantitative and Qualitative Approaches* (3rd ed.). SAGE Publications.

Qaisar, N., Shahzad, K., & Arif, M. (2018). Extent of HRIS adoption and its impact on organization's performance: moderating role of hr staff expertise. In *Abasyn Journal of Social Sciences*.

Quaosar, G. M. A. A. (2018). Adoption of Human Resource Information Systems in Developing Countries: An Empirical Study. *International Business Research*, *11*(4), 133. https://doi.org/10.5539/ibr.v11n4p133

R., S., & A., M. (2024). Effectiveness of HRIS Personnel Records Management on Performance of Higher Learning Institutions: A Case of Tengeru Institute of Community Development. *International Journal of Scientific Research and Management (IJSRM)*, *12*(03), 6045–6057. https://doi.org/10.18535/ijsrm/v12i03.em10

Rahman, M. A., Qi, X., & Jinnah, M. S. (2016). Factors affecting the adoption of HRIS by the Bangladeshi banking and financial sector. *Cogent Business and Management*, *3*(1). https://doi.org/10.1080/23311975.2016.1262107

RAHMAN, M., & AYDIN, E. (2019). organisational challenges and benefits of E- HRM implementations in governmental organisations: theoretical shift from toe model. *Uluslararası İktisadi ve İdari İncelemeler Dergisi*, 127–142. https://doi.org/10.18092/ulikidince.516443

Rangriz, H., Mehrabi, J., & Azadegan, A. (2011). The Impact of Human Resource Information System on Strategic Decisions in Iran. In *Computer and Information Science* (Vol. 4, Issue 2). www.ccsenet.org/cis

Raymond A. Noe, John R. Hollenbeck, Barry A. Gerhart, & Patrick M. Wright. (2024). *Fundamentals of Human Resource Management* (9th ed.). McGraw-Hill Education.

Razali, M. Z., & Vrontis, D. (2010). The reactions of employees toward the implementation of human resources information systems (HRIS) as a planned change program: A case study in Malaysia. *Journal of Transnational Management*, *15*(3), 229–245. https://doi.org/10.1080/15475778.2010.504497

Rubel, M., Rahman Khan, A., & Hasan, N. (2015). *Factors affecting organizations adopting human resource information systems: a study in Bangladesh*. *17*, 45–54. https://doi.org/10.9790/487X-171124554

Sadiq, U., Khan, A. F., Ikhlaq, K., & Mujtaba, B. G. (2012). The Impact of Information Systems on the Performance of Human Resources Department. *Journal of Business Studies Quarterly*, *3*(4), 77–91.

Sala, E. E., & Subriadi, A. P. (2023). Hot-Fit Model to Measure the Effectiveness and Efficiency of Information System in Public Sector. *The Winners*, *23*(2), 131–141. https://doi.org/10.21512/tw.v23i2.7423

Saleem, I. (2012). Impact of adopting HRIS on three tiers of HRM: Evidence from developing economy. *Business Review*, *7*(2), 96–105. https://doi.org/10.54784/1990-6587.1206

Salehf. (2020). *A new decade for social changes The factors of acceptance and use of HRIS*. *9*, 2020. www.techniumscience.com

Salehzadeh, R., & Ziaeian, M. (2024). Decision making in human resource management: A systematic review of the applications of analytic hierarchy process. *Frontiers in Psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1400772

Sánchez, J., & Aguayo, M. (2007). An approach to the satisfaction of Human Resource Information Systems (HRIS). In *Int. J. Human Resources Development and Management* (Vol. 7, Issue 2).

Sarma, B. (2021). Organizational Performance: A Conceptual Framework. In *Turkish Online Journal of Qualitative Inquiry (TOJQI)* (Vol. 12, Issue 8).

Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th edition). Pearson Education.

Saxena, M., & Gupta, A. (2017). Review of Organization Performance towards Service Sector in India. *IOSR Journal of Business and Management (IOSR-JBM)*, *19*(8 (Version II)), 31–39. https://www.iosrjournals.org

Schermelleh-Engel, K. ;, Moosbrugger, H. ;, & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, *8*(2), 23–74. https://www.dgps.de/fachgruppen/methoden/mpr-online/issue2/art2.pdf

Segars, A. H., & Grover, V. (1993). Re-examining Perceived Ease of Use and Usefulness: A Confirmatory Factor Analysis. *MIS Quarterly*, *17*(4), 517–525. https://doi.org/10.2307/249590

Selvaraj, A. M., Rengamani, J., & Supervisor, R. (2018). A Study on the Role of Human Resource Information System in Human Resource Planning in India. *International Journal of Mechanical Engineering and Technology (IJMET*, *9*(8), 377–385. http://iaeme.com/Home/journal/IJMET377editor@iaeme.comhttp://iaeme.com/Home/issue/IJMET?Volume=9&Issue=8http://iaeme.com/Home/issue/IJMET?Volume=9&Issue=8http://iaeme.com/Home/journal/IJMET378

Setiyani, L., & Rostiani, Y. (2021). Analysis of E-Commerce Adoption by SMEs Using the Technology-Organization-Environment (TOE) Model: A Case Study in Karawang, Indonesia. *International Journal Of Science*. http://ijstm.inarah.co.id

Shahreki, J. (2020). The Effect of Human Resource Information System Application on Employee Satisfaction and Turnover Intention. *Entrepreneurship and Sustainability Issues*, *7*(3), 2196–2213. https://doi.org/10.9770/jesi.2020.7.3(50)

Shani, A., & Tesone, D. V. (2010). Have human resource information systems evolved into internal e-commerce? *Worldwide Hospitality and Tourism Themes*, *2*(1), 30–48. https://doi.org/10.1108/17554211011012586

Sharma, D. (2011). Resistance to Human Resource Information Systems (HRIS) – Problem Recognition, Diagnosis and Positive Intervention: A Study on Employee Behavior and Change Management. *Indian Journal of Applied Research*, *3*(1), 99–104. https://doi.org/10.15373/2249555X/JAN2013/39

Shiri, S. (2012). *Effectiveness of Human Resource Information System on HR Functions of the Organization—A Cross Sectional Study*.

Shiyaa, H. H., & Shyaa, H. H. (2019a). A human resource information systems and its impact on a hotel's organisational performance. In *African Journal of Hospitality, Tourism and Leisure* (Vol. 8, Issue 5). http//: www.ajhtl.com

Shiyaa, H. H., & Shyaa, H. H. (2019b). A human resource information systems and its impact on a hotel's organisational performance. In *African Journal of Hospitality, Tourism and Leisure* (Vol. 8, Issue 5). http//: www.ajhtl.com

Siengthai, S., & Udomphol, A. (2016). The Impact of Human Resource Information System (HRIS) on Organizational Effectiveness. *International Journal of Asian Business and Information Management*, *7*(3), 40–53. https://doi.org/10.4018/ijabim.2016070103

Singh, H. P.;, & Jindal, S. (2020). Role of Human Resource Information System in Banking Industry of Developing Countries. *International Journal of Human Resource Studies*, *10*(2), 45–56.

Singh, H. P., Jindal, S., & Samim, S. A. (2011). *Role of Human Resource Information System in Banking Industry of Developing Countries*.

Singh, R., & Gupta, N. (2021). Role of Human Resource Information System in streamlining HR functions in IT industry. *Journal of Human Resource and Sustainability Development*, *9*(2), 101–110.

Singh, S., Darwish, T. K., & Potočnik, K. (2016). Measuring Organizational Performance: A Case for Subjective Measures. *British Journal of Management*, *27*(1), 214–224. https://doi.org/10.1111/1467-8551.12126

Singh, V., Kumar, A., & Singh, T. (2018). Impact of TQM on organisational performance: The case of Indian manufacturing and service industry. *Operations Research Perspectives*, *5*, 199–217. https://doi.org/10.1016/j.orp.2018.07.004

Software Technology Parks of India. (2023). *STPI Centres in India*. https://dst.gujarat.gov.in

Subawa, N. S., & Mimaki, C. A. (2019). An empirical study of e-marketplace acceptance by MSMEs in Bali using TOE model. *ACM International Conference Proceeding Series*, 152–156. https://doi.org/10.1145/3377817.3377837

Suharti, L., & Sulistyo, P. R. (2018). The implementation of human resources information system and it's benefit for organizations. *Diponegoro International Journal of Business*, *1*(1), 1. https://doi.org/10.14710/dijb.1.1.2018.1-7

Suleman, N. (2017). Impact of Human Resource Information System (HRIS) usage on Organization's Performance. In *International Journal of Research Scholars (IJRS)* (Vol. 1, Issue 2). http://www.ijrs.pk

Sulochana, & Sajeewanie. (2015). The Impact of HRIS on HRM Effectiveness: A Study in Large Scale Group of Company in Sri Lanka. *HRM Scintilla Human Resource Management Journal*, *03*(01).

Sun, L.-Y., Aryee, S., & Law, K. S. (2007). *High-performance Human Resource practices, citizenship behavior, and organizational performance: a relational perspective*.

Suthar, B. K., Chakravarthi, T. L., & Pradhan, S. (2014). Impacts of Job Analysis on Organizational Performance: An Inquiry on Indian Public Sector Enterprises. *Procedia Economics and Finance*, *11*, 166–181. https://doi.org/10.1016/s2212-5671(14)00186-5

Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). Pearson Education.

Tadić, I., & Pivac, S. (2013). *Human Resource Information system and electronic recruitment as internal and external managerial tools in creation of companies' success*.

Tamrakar, B., & Shrestha, A. (2022). Factors influencing Use of Human Resource Information System in Nepali Organizations. *Journal of Business and Management Research*, *4*(01), 1–16. https://doi.org/10.3126/jbmr.v4i01.46678

Tannenbaum, & Scott I. (1990). HRIS: User group implications. In H. G. ; Gueutal & D. L. Stone (Eds.), *Human Resource Information Systems: Applications in Human Resource Management* (pp. 245–262). PWS-Kent Publishing Company.

Teo, T. S. H., Lim, G. S., & Fedric, S. A. (2007). The adoption and diffusion of human resources information systems in Singapore. *Asia Pacific Journal of Human Resources*, *45*(1), 44–62. https://doi.org/10.1177/1038411107075402

Teotia, K. (2012). *Role of HRIS in performance evaluation & decision making*. www.zenithresearch.org.in

Tornatzky, L. G., & Fleischer, M. (1990). *The Processes of Technological Innovation*. Lexington Books.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, *3*(14), 207–222. https://doi.org/https://doi.org/10.1111/1467-8551.00375

Troshani, I., Jerram, C., & Hill, S. R. (2011). Exploring the public sector adoption of HRIS. *Industrial Management and Data Systems*, *111*(3), 470–488. https://doi.org/10.1108/02635571111118314

Tursunbayeva, A., Bunduchi, R., & Pagliari, C. (2020). "Planned Benefits" Can Be Misleading in Digital Transformation Projects: Insights From a Case Study of Human Resource Information Systems Implementation in Healthcare. *SAGE Open*, *10*(2). https://doi.org/10.1177/2158244020933881

Urbach, N., & Ahlemann, F. (2010). Structural Equation Modeling in Information Systems Research Using Partial Least Squares. *Journal of Information Technology Theory and Application (JITTA)*, *11*(2), 5–40. https://aisel.aisnet.org/jitta/vol11/iss2/2

van Teijlingen, E. ;, & Hundley, V. (2001). The importance of pilot studies. *Social Research Update*, *35*, 1–4. https://sru.soc.surrey.ac.uk/SRU35.html

Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, *27*(3), 425–478. https://doi.org/10.2307/30036540

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, *11*(4), 801–814. https://doi.org/10.5465/amr.1986.4283976

Vijaya Bhaskar, S., & Krishna, C. (2015). *Assessment of support and benefits of HRIS in medium-scale textile industries*. http://www.euroasiapub.orghttp://www.euroasiapub.org

Voice & Data Bureau. (2025, April). *Driving Digital Transformation with 5G-powered IoT Innovation in India*. https://www.voicendata.com/opinion/driving-digital-transformation-with-5g-powered-iot-innovation-in-india-8949717/

Walker, & A. J. (1982). *HRIS: Human resource information systems: Basic applications and future directions*. McGraw-Hill.

Weka, M., Politeknik, S., Jember, N., Damayanti, N. A., & Hargono, A. (2021). *Evaluating The Usability of Hospital Information System (HIS) Through Human Organization Technology-Fit (Hot-Fit) Model APTI RMI KI Evaluating The Usability of Hospital Information System (HIS) Through Human Organization Technology-Fit (Hot-Fit) Model*. https://www.researchgate.net/publication/348742781

William R. Shadish, Thomas D. Cook, & Donald T. Campbell. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin.

Wright, K. B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication*, *10*(3). https://doi.org/https://doi.org/10.1111/j.1083-6101.2005.tb00259.x

Wu, Y.-H., & Lin, M.-M. (2013). *SAJEMS Special Issue 16 (2013) : 1-8 The relationships among business strategies, organisational performance and organisational culture in the tourism industry*.

Yusof, M. M., Kuljis, J., Papazafeiropoulou, A., & Stergioulas, L. K. (2008). An evaluation framework for Health Information Systems: human, organization and technology-fit factors (HOT-fit). *International Journal of Medical Informatics*, *77*(6), 386–398. https://doi.org/10.1016/j.ijmedinf.2007.08.011

Yusoff, Y. M., Ramayah, T., & Ibrahim, H. (2010). E-HRM: A proposed model based on technology acceptance model. *African Journal of Business Management*, *4*(13), 3039–3045. http://www.academicjournals.org/AJBM

Zheng, B., Xu, H., Liu, W., Li, Z., & Huang, M. (2024). *Research on Configuration Path of Digital Transformation of Service Industry in Guangxi based on TOE Model*. http://www.stemmpress.com

Zhong, Y., & Moon, H. C. (2023). Investigating the Impact of Industry 4.0 Technology through a TOE-Based Innovation Model. *Systems*, *11*(6). https://doi.org/10.3390/systems11060277

Zhu, K., Kraemer, K. L., & Xu, S. (2003). Electronic business adoption by European firms: A cross-country assessment of the facilitators and inhibitors. *European Journal of Information Systems*, *12*(4), 251–268.

Books

Becker, B. E., Huselid, M. A., & Ulrich, D. (2001). *The HR Scorecard: Linking People, Strategy, and Performance* (Vol. 2001).

Bondarouk Tanya, & Huub Ruël. (2009). Electronic Human Resource Management: Challenges in the digital era. *The International Journal of Human Resource Management*, *20*(3). https://doi.org/https://doi.org/10.1080/09585190802707235

Bryman, A., & Bell, E. (2015). *Business Research Methods*. Oxford University Press.

Byrne, B. M. (2010). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming* (2nd ed.). Routledge.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th Edition). Cengage Learning.

Kavanagh, M. J., Thite, M., & Johnson, R. D. (2012). *Human Resource Information Systems: Basics, Applications, and Future Directions* (3rd ed.). Sage Publications.

Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* (4th ed.). The Guilford Press.

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Age International Publishers.

Laudon, K. C., & Laudon, J. P. (2015). *Management Information Systems: Managing the Digital Firm* (Vol. 14). Pearson Education.

Appendix A – QUESTIONNAIRE

Section A - Demographic profile

1. Gender o Male o Female
2. Age o Below 25 o 25-35 o 35-45 o 45-55 o Above 55
3. Marital status o Single o Married o Divorced
4. Annual Income o Below Rs. 500,000 o Rs.500,001 to Rs.10,00,000 o Rs.10,00,001 to Rs.15,00,000 o Above Rs.15,00,001
5. Education Qualification o Graduation o Post-Graduation o Diploma
6. Working Location o Ahmedabad o Rajkot o Surat o Vadodara
7. Work Experience o Less than 2 years o 2 to 5 years o 5 to 8 years o Above 8 years
8. Position o Executive o Manager o Operator o Supervisor
9. Department o Administration Department o Marketing & Sales Department o HR Department o Software Developer & Engineer o Web Developer o IT Department o Project Department

Section B - Technology context

Items	Statements for impact of HRIS on Organizational Performance	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
IT Infrastructure						
1.	The organization is extensively digitized, supported by internal and external network systems that link it to its branch locations.					
2.	The Organization maintains sufficient technological resources, including software and data management resources for HRIS support					
3.	The Organization facilities efficient internet connectivity.					
4.	The organization follows a resilient backup plan to address network connectivity problems.					
Perceived compatibility						
5.	The adoption of HRIS applications is well suited to the organization's existing operating methods.					
6.	HRIS applications are aligned with the organization’s core mission and principles					
7.	HRIS may not be fully supported by the					

	organization's current hardware and network systems.					
8.	Implementation of the updated and new system may require significant adjustments to existing software and data systems.					
Perceived complexity						
9.	HRIS is complex to use.					
10.	HRIS application development involves a complex and multi-layered process.					
11.	HRIS is hard to learn.					
12.	HRIS integration is expected to disrupt existing work practices.					

Section C - Organizational context

Items	**Statements for impact of HRIS on Organizational Performance**	**Strong Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Relative Advantages						
13.	HRIS will enable me to improve efficiency in my job responsibilities.					
14.	Adopting HRIS will enhance more productivity across the organization.					

15.	HRIS can lead to cost savings in day-to-day operations.					
16.	HRIS integration is likely to contribute to greater organizational profitability.					
Top Management Support						
17.	Top-level management encourages and supports the adoption of HRIS.					
18.	Top-level management has provided appropriate and sufficient resources to support HRIS implementation.					
19.	Top-level management understands the potential benefits offered by HRIS.					

Section D - Environment context

Items	**Statements for impact of HRIS on Organizational Performance**	**Strong Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Competitive pressure						
20.	The adoption of HRIS by our competitors influences our decision to implement it.					
21.	Adopting HRIS is necessary to align with prevailing industry practices.					
22.	Our organization keeps itself updated on competitors' emerging technological					

	developments.					
Technology vendor support						
23.	Adequate training support for HRIS is offered by the vendors.					
24.	Availability of reliable technical assistance during HRIS adoption.					
25.	Technical Support is provided after HRIS has been implemented.					
Government regulations and support						
26.	Government promoted the use of IT enable/ HRIS software for Organization.					
27.	Adequate training, Handbooks, e-books, and materials are provided for the use of IT-enabled software for the organization (PF, ESIC).					

Section E - Human context

Items	**Statements for impact of HRIS on Organizational Performance**	**Strong Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Senior executives attitude						
28.	Senior executives are open to adopting and experiment with					

	innovative information systems.					
29.	Senior executives demonstrate a willingness to adopt updated information systems.					
30.	Senior executives prefer developing new solutions over improving existing processes.					
31.	Senior executives are willing to take risks by trying new approaches.					
IT skill of HRM professionals						
32.	The HR team has adequate knowledge of information technology to handle HR function effectively.					
33.	HR team possess specialized IT skills required to operate HR-specific systems.					
34.	HR team is relied on at least one expert in computer systems and applications.					

Section F - Organizational Performance

Items	**Statements for impact of HRIS on Organizational Performance**	**Strong Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Employee skills						
35.	Recruitment and selection ratio is unpaired adoption of					

	HRIS.					
36.	Effectiveness of selection is increased by adoption of HRIS.					
37.	Flexibility in training is possible from HRIS.					
38.	Training needs are specified easily through HRIS.					

Employee Motivation						
39.	Internal and external equity is ensured through adoption of HRIS.					
40.	Transparency is possible through HRIS system.					
41.	Market Rate Analysis is easier through HRIS adoption.					
42.	Mechanism has become easier and quick through HRIS.					
43.	Communication in upward and downward is effectively done through HRIS.					

Structure of Job and Work						
44.	Succession planning is done through HRIS.					
45.	Carrier planning is effectively					

	done through HRIS.					
46.	Performance Appraisal Mapping of employee's performance is effectively done through HRIS.					
47.	KRA's and KPI's are easy to manage through HRIS.					
48.	Work Job fit is possible through HRIS Adoption.					

Appendix B (List of Publications)

- **"IMPACT OF HRIS ON EFFECTIVENESS OF HR PRACTICES AMONG GENERATION Y IN THE SERVICE SECTOR RELEVANT TO GUJARAT STATE"** Annals of the Bhandarkar Oriental Research Institute Annals of the Bhandarkar Oriental Research Institute Volume-CI, Issue-1, 2024 (UGC Care Listed Group-I Journal) ISSN: 0378-1143

- **"USER SATISFACTION ON ADOPTING HRIS AND ITS IMPACT ON ORGANIZATION PERFORMANCE IN THE IT SECTOR**" International Journal of Cultural Studies and Social Sciences Vol-22, Issue-1, No.1, January - June: 2025:: ISSN: 2347-4777 (UGC CARE Journal)

Annals of the Bhandarkar Oriental Research Institute

ISSN: 0378-1143

IMPACT OF HRIS ON EFFECTIVENESS OF HR PRACTICES AMONG GENERATION Y IN THE SERVICE SECTOR RELEVANT TO GUJARAT STATE

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ABSTRACT

The study evaluates usage and Effectiveness of HRIS among Generation Y in Gujarat State. But unfortunately, very insufficient number of studies has been conducted on this area in the context of Gujarat. Mostly many organizations use HRIS application and E-HRM for managing human resource activities in day to day activities. The aim of this research paper is know the usage and effectiveness of HRIS and effective on HR policies and practices. This research contributes to fill the gap by implementing UTATA model factor such as performance expectancy, Effort Expectancy, social Influence and facilitating condition where studied to know the effectiveness of HR practices and policies in organization among Generation To implement the framework, a set of questionnaire was developed according to model description in the Research framework and questionnaire was distributed to Generation Y working is service sector users of HRIS in Gujarat. We have used primary data of the generation Y to study how the usage of HRIS can help the employees in Organization. Secondary data is also used for analysis purpose. The finding revels that the usage and Effectiveness of HRIS among generation Y is positive. If the organization adopts HRIS it gives favorable result in enhancing HRM effectiveness in Policies and Practices.

KEYWORDS: Human Resource Information system (HRIS), UTATA Model, Generation Y, Service Sector

INTRODUCTION

The main aim of this research paper is to identify the major variables of Human Resource information system (HRIS) with in Generation Y working in service sector. and to examine usage and Effectiveness of HRIS. Many organizations in developing countries now are much dependent on their Human Resource management for their competitive advantages (edward E. Lawler, 2014) Human Resource Information system is getting focused in every sector for organizational success. Many studies has been carried on different Applications on HRIS (Kadian, 2012) Factors used for study are HRIS in technical and strategic HRM, HRIS in performance and reward management, HRIS in pay roll, HRIS in corporate communication, HRIS in the employee record. (Md. Abdullah Al Mamun1, 2006) Studied HRIS in three broad perceptions Operational Efficiency, Managerial Effectiveness, and strategic Finesse. (Song Wei, 2013) HRIS in different practice like recruitment & Selection, training and development and in payroll system in business organization. Service sector is more adopting HRIS Application then industry companies as services sector companies tend to more technology acceptance oriented. (Dr. Al-Dmour, 2015) Human Resource Information System is special tool for organization HRIS focus on performance Management, Staff training, compensation management and other important work. HRIS. Creativity, technological savvy,

optimism, achievement oriented, sociable, existence of moral values, more diverse, heroic spirit, tenacity, need for supervision and support, multitasking abilities, and collective action are characteristics of Generation Y.

WHAT IS HUMAN RESOURCE INFORMATION SYSTEM (HRIS)?

The systems and procedures at the point where human resource management (HRM) and information systems meet are referred to as human resource management systems (HRMS) or human resource information systems (HRIS). Human Resource Information System (HRIS) is a set of systems and processes that sit at the crossroads of Human Resource Management (HRM) and Information Systems. It combines HRM as a discipline, and particularly its basic HR activities and processes, with the field of information technology, whereas data processing system programming evolved into standardized routines and packages of Enterprise Resource Planning (ERP) software.

LITERATURE REVIEW

Human Resource Information System (HRIS) in HR Planning and development in mid to large-sized organizations. The researcher has focused on HRIS Recruitment utilization, Job Analysis, Management of skill Inventory, Training and Development. Where the researcher found out that still many organizations have faith in the Traditional method and also lack top management support, lack of funds availability and incomplete knowledge of information system is the main function keeping organizations away to use HRIS. Further HRIS recruitment is linked with workforce planning of mid to large-size organizations, also the higher usage of training and Development function of HRIS analysis a proper training need with better predictability. There is a positive relationship between Job Analysis and Effectiveness. More use of HRIS can increase the effectiveness and efficiency of the organization. The study highlighted the need to offer more intelligent capabilities of HRIS to increase the effectiveness of HR planning. (Asha Nagendra, 2014), Role of Human Resource Information System in Banking Industry of Developing Country. HRIS is applied in all administration HR activities, Leave system, skill inventory, medical history, performance appraisal, training and development, HR planning, recruitment, career planning, etc. In this research paper the researcher has focused on HRIS in Banks of various developing countries. It is very essential for a bank to identify its application before implementing HRIS. This integrated platform is preferable over singular optimization as it leads to effective information to banks. And there is an easy to exchange the information between the HR process and the HRIS IT platform. (Dr. Harman Preet Singh, 2011), Training for HRIS should be given to each staff member so that employees are aware about HRIS application and accept the use of Information system in the organization (Ebenezer Ankrah) Industry should focus of week area of information system such as employee tracking, Administration and employee interface and workforce planning. And textile industry is requirement to adopt information systems for better effectiveness and efficiency in the medium scale textile industries. (C.Y.S Krishna, 2011) HRIS helps in proper planning the study was based on five variables Budgeting factor, Employee management, Benefit and compensation, HR development factor and labour retention. HRIS minimize the cost like hiring cost, labor cost as the data is managed by computerized system and also have much functional system. (Dr. Shikha N. Khera, 2012) HRIS is a system which can provide information and data. Regarding Job Analysis, E-recruitment & Selection, E-compensation benefit, E-communication and E-performance. Managers should decide which information is important and how information should be used in efficiently in the organization. (Md Sajjad Hosain, 2020)Impact of HRIS on

six dimensions namely HR process, time-saving, cost saving, information effects, decision-making effectiveness, and strategic impact on HR role all these dimensions have a positive impact on organizational Effectiveness. (Sununta Siengthai, 2016) HR directors and executives are satisfied with the system but majorly system is used to share information. Through HRIS Recruitment, hiring and Training are handled in the public sector. HRIS is not fully utilized in the public sector and the system need to be updated so HRIS can be more effectively utilized. (Nicholas Aston Beadles II, 2005)

PURPOSE OF THE STUDY

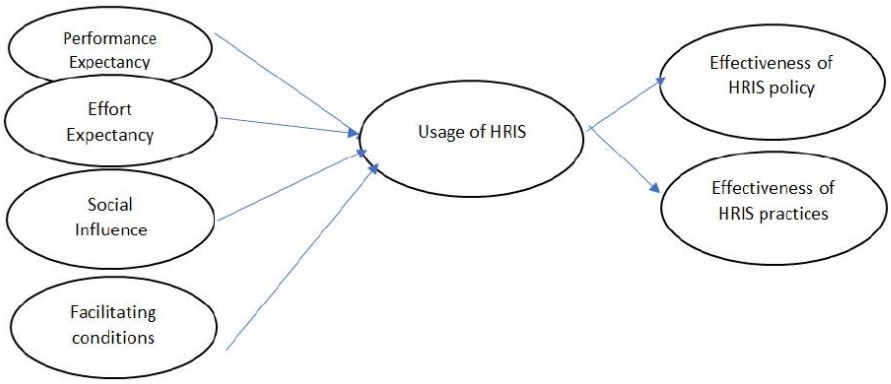
The purpose of the study is to know the Impact of HRIS on Effectiveness of HR Practices among Generation Y in Service sector relevant to Gujarat State

RESEARCH OBJECTIVES

1. To know the usage of HRIS among Generation Y
2. To understand the perception of Generation Y about execution of HRIS
3. To investigate the use of HRIS on effectiveness on HR policies and Practices among Generation Y

RESEARCH FRAMEWORK

The advancement of technology has enabling organizations in improving their performance and making competitive by simplifying and integrating organizational usage and effectiveness of HRIS by using the UTATA model. Variable used in research model are Performance Expectancy, Effort Expectancy, Social Influence and facilitating Conditions. The study has focused on the effectiveness of HRIS Policy and Practices among Generation Y working in service sector. Multiple departments of the organization are using advanced technologies like information systems. Nowadays, HRIS is becoming an important information system in each organization. Research Framework



RESEARCH METHODOLOGY

RESEARCH DESIGN

A descriptive research design has been used for the detailed study.

SOURCES OF DATA

Face-to-face interview with the respondent was conducted with the aid of a questionnaire. The questions were structured and non-disguised. The respondent was informed of the purpose of the study. The questionnaire consists of a combination of open-ended and closed-ended questions.

Primary Data: The Primary data was collected by making significant use of structured questionnaires, through Google Forms.

Secondary Data: Secondary data has been collected from magazines, journals, websites, research papers, and articles, etc.

SAMPLE SIZE

The sample size is 200 out of which 156 responded. The sample size includes employees of Generation Y working in the service sector.

DATA TECHNIQUE

SIMPLE RANDOM PROBALLITY SAMPLING

TOOLS USED FOR ANALYSIS

Karl Pearson is used to test the correlation and ANOVA is used to find the significant effect.

HYPOTHESIS OF THE STUDY

H1:The uses of HRIS is not popular among Generation Y

H2: There is no significant relationship between HRIS and Generation Y perception

H3: There of no significant effect of HRIS on HR practices and policy among Generation Y

DATA ANALYSIS AND INTERPRETATION

1. Usage of HRIS among Generation Y

H0 : The uses of HRIS are not popular among Generation Y

H1: The uses of HRIS are popular among Generation Y

Table 1.1: ANOVA Table

		Sum of Squares	Df	Mean Square	F	Sig.
HRIS* Popularity among Generation Y	Between Groups	3.113	2	1.5565	0.973	0.028
	Within Groups	180.521	154	1.172		
	Total	183.634	156			

The Table shows that the significance level is 0.028, less than the standard level of 0.05. So, the Alternative hypothesis is "the usage of HRIS is popular among generation Y" is accepted. So, the usage of HRIS is popular.

2. Relationship between HRIS and Generation Y Perception

H0: There is no significant relationship between HRIS and Generation Y perception

H1: There is a significant relationship between HRIS and Generation Y perception

Table 1.2: Correlation

		HRIS	Generation Y Perception
HRIS	Pearson Correlation	1	0.267
	Sig. (2 -tailed)		0.043
	N	156	156
Generation Y Perception	Pearson Correlation	0.267	1
	Sig. (2 -tailed)	0.043	
	N	156	156

Correlation is significant at the 0.05 level (2-tailed).

The null hypothesis is accepted. The Pearson correlation value is 0.267. The significance value is 0.043 which is lower than the standard value of 0.05, so there is a significant correlation between HRIS and Generation Y Perception.

3. Effect of HRIS on HR Practices and Policy among Generation Y

H0: There is no significant effect of HRIS on HR practices and policy among Generation Y

H1: There is significant effect of HRIS on HR practices and policy among Generation Y

Table 1.3: ANOVA Table

		Sum of Squares	Df	Mean Square	F	Sig.
Effect of HRIS*HR Policies & Practices	Between Groups	2.148	2	1.074	0.766	0.0031
	Within Groups	128.203	154	0.832		
	Total	130.351	156			

The Table shows that the significance level is 0.0031, less than the standard level of 0.05. So, the Alternative hypothesis is "There is significant effect of HRIS on HR practices and policy among Generation Y" is accepted. So, the HRIS effect the HR policies and Practices significantly.

CONCLUSION

The result of this study shows that the human resource information system has a positive usage among generation Y. We found that HRIS System is useful for carrying out job-related tasks for Generation Y. Secondly it was also found that HR staff in the organization is helpful in relation to use HRIS system and enable to complete the task more quickly. Most researchers agreed that the organization has the necessary resources required for an information system. whereas Managers and Top-Level management encourage to use of HRIS systems in the organization as HRIS system services are easy to use.

LIMITATION OF THE STUDY

1. The Generation perspective is the most significant research limitation. Because human resources are assets to organization regardless of generation, the role of HRIS

can be studied in any other industry. Future research efforts could focus on the differences between traditional HRM methods and HRIS. As a result, similar research can be carried out in the future to determine whether or not HRIS is improving with the passage of time.

2. Another limitation of the study is its static nature; that is, the study is based on the current scenario of HRIS level and usage in Generation Y Based Organizations; however, HRIS can be improved in the future.
3. The research study was limited to those respondents whom the researcher desired to interview; future research may focus on a larger sample of respondents in order to validate the study's findings.

REFERENCE

1. Asha Nagendra, M. D. (2014). Human Resource Information Systems (HRIS) in HR planning and development in mid to large sized organizations . *Social and Behavioral Sciences 133* , 61- 67.
2. C.Y.S Krishna, S. V. (2011). ASSESSMENT OF SUPPORT AND BENEFITS OF HRIS IN MEDIUM-SCALE TEXTILE INDUSTRIES. *International Journal of Research in Economics & Social Sciences Volume 1, Issue 2* , 48-57.
3. Deshpande, A. N. (2014). Human Resource Information Systems (HRIS) in HR planning and development in mid to large sized organizations. *Procedia - Social and Behavioral Sciences 133* , 61-67.
4. Dr. Al-Dmour, o. (2015). The practice of HRIS application in Businss organziations in Jordan: An empirical Study. *eurpean Journal of Business and Management vol 7*, 37-51.
5. Dr. Harman Preet Singh, D. S. (2011). Role of Human Resource Information System in Banking Industry of Developing Countries. *The First International Conference on Interdisciplinary Research and Development, 31 May - 1 June 2011, Thailand* , 44.1-44.4.
6. Dr. Shikha N. Khera, M. K. (2012). Human Resource Information System and its impact on Human Resource Planning: A perceptual analysis of Information Technology companies . *IOSR Journal of Business and Management (IOSRJBM) ISSN: 2278-487X Volume 3, Issue 6 (Sep,-Oct. 2012)* , PP 06-13 .
7. Ebenezer Ankrah, E. S. (n.d.). HUMAN RESOURCE INFORMATION SYSTEM AS A STRATEGIC TOOL IN HUMAN RESOURCE MANAGEMENT. *problems of mANAGemeNT iN The 21st ceNTury Volume 5, 2012* , 6-15.
8. edward E. Lawler, A. L. (2014). HR Materics and Analytics - uses and impact . *Center of effective organziaion* , 1-21.
9. Hossin, M. S. (2020). The Role of Human Resource Information System on Operational Efficiency: Evidence from MNCs Operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, 29-47.
10. Kadian, S. R. (2012). Applications of HRIS in Human Resource Management in India: A Study . *European Journal of Business and Management* , 34-41.

11. Md Sajjad Hosain, A. H. (2020). The Role of Human Resource Information System on Operational Efficiency: Evidence from MNCs Operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, 29-47.

12. Md. Abdullah Al Mamun1, M. S. (2006). Perception of Management on Outcomes of Human Resource Information System (HRIS). *International Journal of Business and Social Research*, 29-37.

13. Nicholas Aston Beadles II, C. M. (2005). The Impact of Human Resour The Impact of Human Resource Information Systems: An ce Information Systems: An Exploratory Study in the Public Sector Exploratory Study in the Public Sector. *Communications of the IIM Communications of the IIMA*, 39-46.

14. Obeidat, B. Y. (2012). The Relationship between Human Resource Information System (HRIS) Functions and Human Resource Management (HRM) Functionalities . *Journal of Management Research ISSN 1941-899X 2012, Vol. 4, No. 4*, 192-211.

15. Song Wei, a. A. (2013). Research on Applications of Human Resource Information System in SMEs . *International Conference on Science and Social Research (ICSSR 2013)*, 804-807.

16. Sununta Siengthai, A. U. (2016). The Impact of Human Resource Information System (HRIS) on Organizational Effectiveness: A Case Study of the Textile Industry in thailand. *International Journal of Asian Business and Information Management*, 40-53.

17. Thailand, T. I. (2016, July- sep). Sununta Siengthai,Aroonlod Udomphol. *International Journal of Asian Business and Information Management*, 40-53.

USER SATISFACTION ON ADOPTING HRIS AND ITS IMPACT ON ORGANIZATION PERFORMANCE IN THE IT SECTOR

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Abstract:
The objective of this study is to investigate user satisfaction with the adoption of Human Resource Information Systems (HRIS) and its effect on organizational performance in the IT sector of Gujarat. The research is based on primary data gathered from 205 participants. The analysis of the data was performed using mean, standard deviation, ANOVA, and Pearson correlation methods. The independent variable HRIS, which is based on the Technology Acceptance Model (TAM), includes perceived ease of use and perceived usefulness, while organizational performance is treated as the dependent variable. Findings from the ANOVA analysis revealed that age does not have a significant influence on HRIS adoption or user satisfaction. This suggests that age does not pose a barrier to the successful implementation and use of HRIS. Additionally, mean scores provide further insights. The Pearson correlation results indicate a significant positive relationship between perceived ease of use and user satisfaction. Similarly, perceived usefulness correlates strongly with user satisfaction, and the correlation between user satisfaction and organizational performance is even stronger.
Keyword:

1. Introduction

The Human Resource Information System (HRIS) is primarily utilized at the operational and functional levels. Organizations might derive greater advantages from implementing and using HRIS in these areas rather than at the strategic level, as they often aim to enhance efficiency by minimizing personnel requirements for routine administrative functions.(Saleem, 2012). On the other hand, the Adaptation and Utilization of a Human Resource Information System (HRIS) significantly improves the effectiveness and efficiency of organizational operations. There is a very high contribution of HRIS to Human Resource Planning. (Selvaraj et al., 2018; Dani Safaâ, 2020). Moreover, Organizations can improve their HRIS strategy, address challenges effectively, and optimize performance by utilizing technology. Moreover, Adopting and utilizing Human Resource Information Systems (HRIS) improves organizational effectiveness and efficiency. Organizations can accelerate their HR processes and elevate employee engagement, which leads to better performance of employees. Through the strategic implementation of HRIS, Organizations can gain a competitive edge in a rapidly evolving and competitive environment, thereby, enhancing overall organizational performance and success. (Meghana Panthangi, 2023) Effective implementation and realization of benefits from a Human Resource Information System (HRIS) necessitate thorough data preparation, comprehensive training, clear communication, and meticulous process analysis.

2. Literature Review

2.1 Human Resource Information system (HRIS)

(Radhika Agrawal, 2020) This study focuses on the effectiveness of Human Resource Information Systems (HRIS). The analysis indicates that HRIS is proficient in identifying job vacancies, thoroughly analyzing each job position, and determining organizational training needs. Additionally, HRIS aids in the timely selection of employees for training and assesses the effectiveness of pre-service and in-service training programs. Hence, it can be inferred that HRIS is a critical component in managing human resources. In this study, quantitative research methodology was used, specifically by implementing a questionnaire method to collect data. The research involved visits to various banks, with only a limited number providing details about their Human Resource Information System (HRIS) software. Data was collected from employees working in both private and public sector banks situated in Gwalior. The collected data encompasses aspects related to HRIS software, data collection methods, reporting practices, and the sustainability of HRIS. Additionally, secondary data was sourced from

various academic papers, websites, and literature. This research is characterized as both descriptive research and quantitative research. The data obtained from the questionnaires was converted into chart and graph format by calculating the percentages of the measured quantities, thereby facilitating an assessment of HRIS effectiveness in the banking sector as indicated by the chart results. The study states that The Human Resource Information System (HRIS) has significantly benefited the bank's senior management in decision-making and personnel administration. Data about payroll, disease statistics, and human resources has indicated that HRIS is an increasingly effective tool within the banking sector. The findings show that HRIS is vital for identifying job vacancies, conducting in-depth evaluations of each position, facilitating job identification, and addressing the training needs of organizations. The information gathered suggests that HRIS significantly aids the Department of Human Resources in the banking sector, emphasizing its essential role in boosting organizational efficiency and effectiveness. According to (Prasad et al., 2023) The hiring process, performance evaluation, training requirements, and management support statistically impact the outcome variable associated with increased productivity. An automated Human Resource Information System (HRIS) can be valuable for managing training requirements, conducting performance evaluations, and facilitating the selection process.

(Selvaraj et al., 2018) Through the utilization of Human Resource Information Systems (HRIS), organizations can improve their operational efficiency, stimulate innovation, increase profitability and productivity, and enhance employee satisfaction. HRIS is vital for developing and sustaining an integrated work culture and environment. It underpins the strategic, tactical, and operational aspects of human resource management. For instance, manpower planning and labor force tracking are often seen as strategic staffing decisions. On the other hand, labor cost analysis, budgeting, and turnover analysis are typically tactical, whereas recruiting, workforce planning, and scheduling are regarded as operational staffing decisions. The study's findings indicate that the identification of unfilled job positions with precision is the most accepted feature of HRIS. There is a notable positive correlation between HRIS job analysis and the effectiveness of HR planning. Most organizations have observed that HRIS contributes significantly to the efficiency of HR planning, particularly through the implementation of HRIS skill inventories. This research accentuates the role of HRIS in the context of Human Resource Planning. Moreover, it reveals that an increase in HRIS usage is associated with improvements in both organizational effectiveness and efficiency.

According to (Sulochana & Sajeewanie, 2015) Many organizations have utilized technology, particularly Human Resource Information Systems (HRIS) and Electronic Human Resource Management Systems (e-HRM), to enhance the efficiency of their human resource management department. A descriptive questionnaire served as the primary method for data collection, which was distributed to HR representatives as well as non-HR representatives in the organization, encompassing CEOs of SBUs, HR representatives, and IT representatives. The data analysis was conducted with univariate analysis, correlation, and regression analysis, employing the SPSS software (version 16.0). The study findings suggested a weak positive association between the effects of HRIS and the effectiveness of HRM in the selected large-scale enterprise. Adoption and use of HRIS should be expanded, it has the potential to yield more advantageous results in improving HRM effectiveness within the organization in many ways.

(Meenalochani, n.d.) Organizations have begun to automate many of these processes electronically to decrease the frequency of routine transactions, duplication of work, and conventional human resource activities while effectively addressing complex transformational challenges. This has been facilitated by introducing specialized systems known as Human Resource Information Systems (HRIS) or Human Resource Management Systems (HRMS). HRIS represents the integration of human resource management with information technology, serving as a system for acquiring, storing, manipulating, analyzing, retrieving, and distributing information about an organization’s human resources.

(Papia et al., 2015)The study's findings indicate that Human Resource Information Systems (HRIS) possess the capacity to influence operational efficiency and effectiveness. Implementing HRIS has reduced the time required for processing documentation, enhanced data accuracy, and decreased the number of human resource personnel needed. Furthermore, it has improved the ability of both

managers and employees to make prompt decisions. The research also highlights the necessity of acknowledging and diagnosing the resistance encountered during implementation of new HRIS. According to (Anupa, 2021) HRIS can save time and money in the HRM cycle, including hiring and selection, development and strategy, and managing the organization's finances. The implementation and proper use of HRIS have a positive and direct effect on the financial outcome of the organization. (Bhuiyan et al., 2015).

The basic uses of Human Resource Information Systems (HRIS) within business organizations are centered around Employee Records, with Pay Roll and "Recruitment/Selection" following closely. Additionally, more advanced HRIS applications, including Succession Planning, Performance Appraisal, Compensation Management, and Training and Development, were also noted in various organizations. (Al-Dmour & Al-Zu'bi, 2014) On the other hand, (Tursunbayeva et al., 2020) reviewed that effective communication, extensive training, careful process analysis, and data preparation are all necessary for the successful implementation and benefits of a Human Resource Information System (HRIS). HRIS has improved HR task management, removed redundancies, decreased work duplication, and supported personnel records management, including correspondence and leave records. Additionally, HRIS facilitates workforce planning, skill development, and talent management initiatives. Consequently, HRIS promotes strategic HRM practices and significantly improves organizational performance and operational efficiency. (R. & A., 2024) Moreover, Organizations should focus on improving performance expectancy, and effort expectancy, and facilitating conditions to increase employee acceptability and adoption of HRIS deployment. Performance expectations can be raised by clearly communicating to employees the benefits of HRIS and how it can improve their work performance. It is possible to raise effort expectations by making HRIS easier to use, providing employees with training and assistance, and ensuring that the infrastructure and resources required to enable HRIS adoption and use are available. (Hakim & Madyatmadja, 2023)

(Kumar Das & Saismita Priyadarshinee, n.d.) The research aim is to explore the adoption rate of human resource information systems (HRIS) among organizations in Odisha and to examine the resultant effects on the efficiency of human resource management activities. The study investigates organizations across several fields, specifically information technology, real estate, business process outsourcing, financial services, manpower consulting, and the travel and tourism sector.

The research was designed with a sample size of 96 participants. A total of 100 questionnaires were distributed randomly among the employees of the respective organizations. Ultimately, around 85 completed questionnaires were returned, yielding a response rate of 96%. The secondary data also used in this study has been sourced from various books addressing relevant subjects, online platforms, official websites of pertinent departments for statistical information, and an array of journals, newspapers, and magazines. Also, printed materials such as brochures obtained from these companies have been included. The findings suggest that entities in the information technology, real estate, business process outsourcing, financial services, and travel and tourism sectors have the potential to optimize their human resource management activities by concentrating on the deployment and application of an advanced human resource information system. The study highlights a critical disconnect between the recognized advantages of HRIS and its actual application in the region. Addressing this disparity could lead to significant advancements in human resource management, ultimately contributing to the overall growth and development of organizations in Odisha.

2.2 Organizational Performance

Organization Performance and TQM have a positive relationship in the organization (V. Singh et al., 2018)It is important to note that the process of measuring organizational performance is fundamentally multifaceted.(S. Singh et al., 2016) Organizations that focus on customer and partner relationships, actively manage risks and discrepancies, and prioritize high employee performance will experience superior organizational performance (Al-Tit, 2017). In addition to this, it is recognized that within the service sector, the only focus cannot be wholly on performance; rather, it must also encompass a range of managerial decision and regulatory decisions that are aimed at enhancing both internal and external systems of the organization in a favorable way (Dr. Mayank Saxena, 2017). OCB plays a partial mediating role in the relationship between high-performance human resource practices and the

organizational performance metrics of turnover and productivity (Sun et al., n.d.). Evaluating performance in the organization is crucial for directing the organization in the guiding of its strategic and operational objectives of Organization. It is important to establish relevant performance indicators and their associations with the organization's objectives and activities. However, existing approaches to organizational modeling do not sufficiently reflect this aspect(Popova & Sharpanskykh, 2010). According to the study of (Ghafoor Khan et al., 2011) Training and Development, On-the Job Training, Training Design, and Delivery style are the four most important and vital factors for effective organization studied. It has been found that all four factors have a positive impact on organizational performance.

3. Research Objectives

- To study the adaptation of Human Resource Information Systems (HRIS) in the IT sector.
- To know the effectiveness of HRIS in the IT sector
- To identify the overall contribution of HRIS to organization performance in the IT sector.

4. Conceptual Framework

In this research study, we drew inspiration from the Technology Acceptance Model (TAM). The conceptual framework of this research study is based on a previous study. Based on the Literature review and passed study this study uses multidimensional constructs for variables Perceived ease of use and perceived usefulness. (Davis, 1989), HRIS User Satisfaction (DeLone & McLean, 1992, 2003), and Organizational Performance (Delaney, 1996).

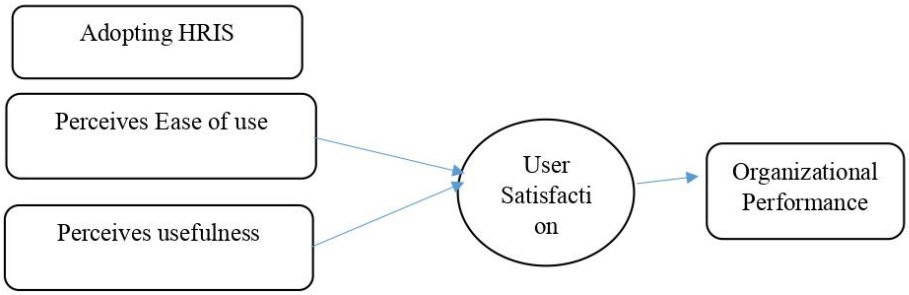

Figure 1 Research Model

5. Research Methodology

A quantitative approach was used in the study to collect the primary data. The primary respondents in this study were IT employees from Gujarat state. For collecting primary data, questionnaires were distributed to the various IT employees via email, visits to IT companies, and LinkedIn. The final sample size for the research study was 205 respondents. The ordinary scale was used for variable constructs namely, a five-point Likert scale was used (1= strongly disagree, 2 = disagree, 3= Neutral, 4= Agree, and 5=strongly agree) to measure the items for all variables. The collected data were analyzed using various statistical methods through Statistical Package for the Social Sciences (SPSS) including analysis of variance (ANOVA), mean, standard deviation (SD), and Pearson correlation. Secondary data is gathered from a range of academic journals and literature. Thus, the adoption of HRIS in the IT sector is measured by taking findings obtained by analysis.

Table 1. Demographics variable

	Categories	Frequencies	Percentage
Gender	Male	120	58.5%
	Female	85	41.5%
	Total	**205**	**100**
Age	18-25	82	40%
	26-35	102	49.8%
	36-45	20	9.8%
	< 45 years	1	0.5%
	Total	**205**	**100**
Work experience	Less than 2 years	52	25.4%
	2 to 5 years	81	39.5%
	5 to 8 years	56	27.3%
	Above 8 years	16	7.8%
	Total	**205**	**100**
Annual Income	Below 5 Lacs	84	41%
	5 to 10 Lacs	98	48%
	10 to 15 Lacs	21	10%
	Above 15 Lacs	2	1%
	Total	**205**	**100**
Designation	Executive	81	39.5%
	Manager	27	13.2%
	Developer	44	21.5%
	Supervisor	14	6.8%
	Operator	39	19%
	Total	**205**	**100**

(Source: Primary data)

Table 2. Descriptive Statistics of HRIS and Organizational Performance

Items	N	Mean	Std. Deviation
Perceived Ease of Use (PE-1)	205	3.80	1.122
Perceived Ease of Use (PE- 2)	205	3.59	1.163
Perceived Ease of Use (PE - 3)	205	3.54	1.078
Perceived Ease of Use (PE - 4)	205	3.68	1.198
HRIS Perceived Usefulness (PU - 1)	205	4.02	1.093
HRIS Perceived Usefulness (PU – 2)	205	3.60	1.178
HRIS Perceived Usefulness (PU - 3)	205	3.70	1.109
HRIS Perceived Usefulness (PU - 4)	205	3.72	1.183
User Satisfaction (US - 1)	205	3.97	1.109
User Satisfaction (US - 2)	205	3.61	1.130
User Satisfaction (US – 3)	205	3.70	1.082
User Satisfaction (US – 4)	205	3.73	1.135
Organizational Performance (OP - 1)	205	4.03	1.120
Organizational Performance (OP - 2)	205	3.64	1.091
Organizational Performance (OP -3)	205	3.73	1.081
Organizational Performance (OP - 4)	205	3.61	1.064
Valid N (listwise)	205		

(Source: Primary data)

Table 3. Hypothesis Testing – shows the result of the correlation between user Satisfaction on Adopting HRIS and its impact on Organization Performance

Hypothesis (There is a significant relation between)	Sig value	N	Accepted/ Rejected
Perceives Ease of use and user satisfaction	**0.000**	**205**	**H1 has been accepted.**
Perceived Usefulness and User Satisfaction	**0.000**	**205**	**H1 has been accepted.**
User Satisfaction and Organization Performance	**0.000**	**205**	**H1 has been accepted.**

(Source: Primary data)

Interpretation:

The Pearson correlation of 0.909 indicates a positive correlation between perceived ease of use and user satisfaction. The associated p-value of 0.000, which is below the significance threshold of 0.01, leads to the acceptance of the alternative hypothesis (H1). Furthermore, the correlation coefficient between perceived usefulness and user satisfaction is also 0.909, demonstrating a strong positive linear relationship. This analysis confirms a statistically significant positive association between perceived usefulness and user satisfaction, warranting the acceptance of the alternative hypothesis (H1). Additionally, the Pearson correlation coefficient between user satisfaction and organizational performance is recorded at 0.943, Further indicating a very strong positive linear relationship between these two variables. Hence the acceptance of the alternative hypothesis (H1) is accepted.

Table 4. Hypothesis Testing - shows the result of ANOVA between Adopting HRIS Among different age groups.

Hypothesis	Sig value	Accepted/ Rejected
Level of Adoption of HRIS across different age groups	.126	H1 is rejected
Level of user satisfaction across different age groups	.113	H1 is rejected

(Source: Primary data)

Interpretation:

The hypothesis testing demonstrates the Level of Adoption of HRIS across different age groups. The results from the ANOVA indicate significant differences in the Adoption of HRIS across these age groups ($F= 1.930$, $p = 0.126$). Therefore, the alternative hypothesis is rejected. Additionally, hypothesis testing on user satisfaction demonstrates the Level across different age groups. The results from the ANOVA indicate significant differences in the Adoption of HRIS across these age groups ($F= 2.015$, $p = 0.113$). Therefore, the alternative hypothesis is rejected. The finding through ANOVA shows that age does not significantly affect the level of HRIS adoption or user satisfaction with the HRIS system. This outcome indicates that age-related factors are not a barrier to successfully implementing and using HRIS.

6. Finding

Human Resource information systems (HRIS) play an important role in IT sector. While most organizations have adopted HRIS systems to streamline HR processes, this system improves automation in the organization and increases the organization's performance. This study aims to examine user Satisfaction with Adopting HRIS and its impact on organizational performance in the IT sector. The findings of this research provide compelling evidence of robust and statistically significant positive correlations among key variables: perceived ease of use, perceived usefulness, and user satisfaction. These relationships suggest that when users find a system easy to use and perceive it as beneficial, their overall satisfaction with the Information system in the organization increases. Additionally, there is a noteworthy connection between user satisfaction and organizational performance, indicating that satisfied users contribute positively to the overall effectiveness and success of the organization. This finding implies that age is not a critical factor influencing the

effectiveness of HRIS implementation and utilization, suggesting that organizations can focus on other factors to enhance user experience and system adoption. Secondly, the result of the research also provides the Level of Adoption of HRIS across different age groups and the Level of user satisfaction across age groups This research indicates that determinants other than age may be more critical in influencing the adoption and satisfaction with HRIS, suggesting that age differences do not have a meaningful impact on these aspects.

7. Conclusion

Human Resource Information Systems (HRIS) in organizations are not limited to technical aspects such as computer hardware, and applications; they can also incorporate personnel, policies, procedures, and data needed to manage the organization's human resource functions. The usage and adaptation of Human Resource Information Systems (HRIS) within organizations in IT companies offer many benefits to employees. This research examined user satisfaction with adopting HRIS and its impact on organizational performance in the IT sector. The present research focused on the Perceived Ease of Use and Perceived Usefulness on Organization Performance. correlation analysis of the study indicated a strong positive relation among all variables of HRIS, such as perceived ease of use and Perceived Usefulness and User Satisfaction which enhanced the overall Organization performance of the IT sector in Gujarat. The results also indicated that there were two variables; namely, Perceived Ease of Use and Perceived Usefulness which are positively associated with user satisfaction. The study concludes that the use satisfaction with the adaptation of the HRIS application plays an important role and significant role in Organizational performance. With the adoption of HRIS employees can have accurate information and the users are satisfied using HRIS in their organization. Future research should focus on the function of HRIS on the level of user success and employee performance in other sectors. This study offers significant insights into the evaluation of user satisfaction on organization performance.

Reference.

1. Al-Dmour, R. H., & Al-Zu'bi, Z. M. F. (2014). Factors Motivating and Inhibiting the Practice of HRIS in Business Organizations: An Empirical Analysis. International Business Research, 7(7). https://doi.org/10.5539/ibr.v7n7p139
2. Al-Tit, A. A. (2017). Factors affecting the organizational performance of manufacturing firms. International Journal of Engineering Business Management, 9. https://doi.org/10.1177/1847979017712628
3. Anupa, M. (2021). Volume-5 Issue-6. Online). https://doi.org/10.35940/ijmh.F1245.025621
4. Bhuiyan, F., Mahbubur Rahman, M., & Osman Gani, M. (2015). Impact of Human Resource Information System on Firm Financial Performance. International Journal of Business and Management, 10(10). https://doi.org/10.5539/ijbm.v10n10p171
5. Dani Safaâ, F. M. (2020, July). The factors of acceptance and use of HRIS. *Technium Social Sciences Journal, 9*, 397-404
6. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly: Management Information Systems, 13(3), 319–339. https://doi.org/10.2307/249008
7. Delaney, J. T. (1996). THE IMPACT OF HUMAN RESOURCE MANAGEMENT PRACTICES ON PERCEPTIONS OF ORGANIZATIONAL PERFORMANCE (Vol. 39, Issue 4). Academy of Management.
8. DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. Information Systems Research, 3(1), 60–95. https://doi.org/10.1287/isre.3.1.60
9. DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. Journal of Management Information Systems, 19(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748
10. Dr. Harman Preet Singh, D. S. (2011). Role of Human Resource Information System in Banking Industry of Developing Countries. *The First International Conference on Interdisciplinary Research and Development, 31 May - 1 June 2011, Thailand* , 44.1-44.4.
11. Dr. Mayank Saxena, M. A. (2017). Review of Organization Performance towards Service Sector in India. *IOSR Journal of Business and Management (IOSR-JBM)*, 31-39.
12. Ghafoor Khan, A., Ahmed Khan, F., Aslam Khan, M., & Raja Abdul Ghafoor Khan, B. (2011). Impact of Training and Development on Organizational Performance Impact of Training and Development on

Organizational Performance Impact of Training and Development on Organizational Performance. Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc, 11.
13. Hakim, A. N., & Madyatmadja, E. D. (2023). Examining the Employees' Acceptance of Human Resource Information Systems: An Empirical Study with UTAUT Model. Journal of System and Management Sciences, 13(4), 40–58. https://doi.org/10.33168/JSMS.2023.0403
14. Kumar Das, K., & Saismita Priyadarshinee, P. (n.d.). THE EFFECT OF HRIS ON ORGANIZATIONAL EFFICIENCY: A CASE STUDY. In Print) International Research Journal of Management Sociology & Humanity (Vol. 11, Issue 9). IRJMSH. www.irjmsh.com
15. Meenalochani, K. (n.d.). A STUDY ON THE IMPACT OF THE IMPLEMENTATION OF HUMAN RESOURCE INFORMATION SYSTEM (HRIS) AMONG INFORMATION TECHNOLOGY EMPLOYEES IN SELECTED SECTOR AREAS OF TAMILNADU.
16. Meghana Panthangi, Y. S. (2023). EXPLORING HRIS ADOPTION AND PERFORMANCE OUTCOMES IN HYDERABAD-BASED IT ENTERPRISES: A CASE STUDY APPROACH. *EPRA International Journal of Economics, Business and Management Studies (EBMS), 10*(12), 112-117. doi:: 10.36713/epra1013
17. Papia, M., Nath, S., & Gajendra Naidu, J. (2015). HRIS efficiency and its impact on Organization. In Print) International Research Journal of Management Science & Technology. http://www.irjmst.com
18. Popova, V., & Sharpanskykh, A. (2010). Modeling organizational performance indicators. Information Systems, 35(4), 505–527. https://doi.org/10.1016/j.is.2009.12.001
19. Pragya Pandey, D. S. (2023). THE IMPACT OF HUMAN RESOURCES INFORMATION SYSTEMS ON EFFICIENCY AND EFFECTIVENESS IN THE PHARMACEUTICAL INDUSTRY. *EPRA International Journal of Environmental Economics, Commerce and Educational Management, 10*(7), 74-81. doi: https://doi.org/10.36713/epra0414
20. Prasad, K. D. V., Nag, D., Kalavakolanu, S., & Vaidya, R. (2023). The application of human resources information systems for enhancing output in agricultural companies. Journal of Social Economics Research, 10(4), 179–193. https://doi.org/10.18488/35.v10i4.3521
21. R., S., & A., M. (2024). Effectiveness of HRIS Personnel Records Management on Performance of Higher Learning Institutions: A Case of Tengeru Institute of Community Development. International Journal of Scientific Research and Management (IJSRM), 12(03), 6045–6057. https://doi.org/10.18535/ijsrm/v12i03.em10
22. Radhika Agrawal, D. S. (2020). A STUDY OF DEVELOPMENT OF HUMAN RESOURCE INFORMATION SYSTEMS AND ITS EFFECTIVENESS IN THE BANKING SECTOR. *JCIRAS | ISSN (O) - 2581-5334 October 2020 | Vol. 3 Issue. 5*, 22-28
23. Saleem, I. (2012). Impact of adopting HRIS on three tiers of HRM: Evidence from developing economy. Business Review, 7(2), 96–105. https://doi.org/10.54784/1990-6587.1206
24. Selvaraj, A. M., Rengamani, J., & Supervisor, R. (2018). A Study on the Role of Human Resource Information System in Human Resource Planning in India. International Journal of Mechanical Engineering and Technology (IJMET, 9(8), 377–385. http://iaeme.com/Home/journal/IJMET377editor@iaeme.comhttp://iaeme.com/Home/issue/IJMET?Volume=9&Issue=8http://iaeme.com/Home/issue/IJMET?Volume=9&Issue=8http://iaeme.com/Home/journal/IJMET378
25. Singh, S., Darwish, T. K., & Potočnik, K. (2016). Measuring Organizational Performance: A Case for Subjective Measures. British Journal of Management, 27(1), 214–224. https://doi.org/10.1111/1467-8551.12126
26. Singh, V., Kumar, A., & Singh, T. (2018). Impact of TQM on organisational performance: The case of Indian manufacturing and service industry. Operations Research Perspectives, 5, 199–217. https://doi.org/10.1016/j.orp.2018.07.004
27. Sulochana, & Sajeewanie. (2015). The Impact of HRIS on HRM Effectiveness: A Study in Large Scale Group of Company in Sri Lanka. HRM Scintilla Human Resource Management Journal, 03(01).
28. Sun, L.-Y., Aryee, S., & Law, K. S. (n.d.). high-performance human resource practices, citizenship behavior, and organizational performance: a relational perspective.
29. Tursunbayeva, A., Bunduchi, R., & Pagliari, C. (2020). "Planned Benefits" Can Be Misleading in Digital Transformation Projects: Insights From a Case Study of Human Resource Information Systems Implementation in Healthcare. SAGE Open, 10(2). https://doi.org/10.1177/2158244020933881
30. Vedant Singha, A. K. (2018). Impact of TQM on organisational performance: The case of Indian. *Operations Research Perspectives*, 199-217.

Annals of the Bhandarkar Oriental Research Institute

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University Grants Commission

Published in Vol. CI, Issue-1, 2024

Annals of the Bhandarkar Oriental Research Institute with ISSN : 0378-1143

UGC-CARE List Group I

Impact Factor: 6.5

International Journal of Cultural Studies and Social Sciences

ISSN : 2347 - 4777

CERTIFICATE OF PUBLICATION

This is to certify that the article entitled

USER SATISFACTION ON ADOPTING HRIS AND ITS IMPACT ON ORGANIZATION PERFORMANCE IN THE IT SECTOR

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Research Scholar Gujarat Technological University

ज्ञान-विज्ञान विमुक्तये

Published in

International Journal of Cultural Studies and Social Sciences

ISSN **2347-4777** with IF=7.138

Vol-**22**, Issue-**01**, No.**1**, January - June: **2025**

ज्ञान-विज्ञान विमुक्तये UGC University Grants Commission

Double-Blind, Peer Reviewed, Refereed & Open Access, UGC CARE Listed Journal