



HUMAN RESOURCE INTEGRATED PERSONNEL INFORMATION SYSTEM (HRIPIS): ITS EFFECTIVENESS IN IMPROVING HUMAN RESOURCE MANAGEMENT EFFICIENCY IN BUREAU OF FIRE PROTECTION (BFP) REGION 6

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ABSTRACT

This study examined the effectiveness of the Human Resource Integrated Personnel Information System (HRIPIS) in improving human resource management efficiency in the Bureau of Fire Protection (BFP) Region 6. Prior to HRIPIS implementation, personnel transactions such as leave applications, promotions, training documentation, and recruitment processes were managed manually, resulting in delays, misplaced records, redundant encoding, excessive paper usage, and inefficiency. Using a descriptive-developmental research design, this study assessed the impact of HRIPIS on document processing speed, transparency, data accuracy, accessibility, and resource utilization. Findings revealed that HRIPIS significantly reduced processing time from several days to only a few hours, improved personnel record accessibility, minimized data entry errors through centralized digital records, and enhanced transparency through real-time monitoring. Additionally, the system reduced paper consumption by approximately 90%, particularly evident during FO1 recruitment, where applicants no longer needed to prepare multiple physical folders. The findings demonstrate that HRIPIS is an effective digital innovation that strengthens operational efficiency, promotes environmental sustainability, and modernizes HR management in BFP Region 6.

KEYWORDS: HRIPIS, Human Resource Management, Digital Transformation, Bureau of Fire Protection Region 6, Process Efficiency, Paperless System.

I. INTRODUCTION

Efficient human resource management is essential in public service organizations to ensure timely personnel actions, accurate record management, and effective workforce administration. In government agencies such as the Bureau of Fire Protection (BFP), human resource functions play a critical role in recruitment, promotions, training, leave management, and personnel documentation. Traditionally, many of these processes in BFP Region 6 were performed manually, relying heavily on paper-based submissions, physical routing, and repetitive encoding procedures.

Manual HR systems often lead to delayed processing, misplaced documents, data inconsistencies, excessive administrative workload, and increased operational costs. In BFP Region 6, personnel transactions such as leave applications, promotions, and training requirements previously required physical submission across multiple offices, creating inefficiencies and unnecessary expenses for both personnel and applicants. During Fire Officer 1 recruitment, applicants were burdened with preparing seven physical folders, increasing financial costs and logistical difficulties.

The emergence of digital transformation in public administration has introduced information systems that streamline operations and improve service delivery. The Human Resource Integrated Personnel Information System (HRIPIS) was implemented in BFP Region 6 to address these inefficiencies by digitizing HR transactions, centralizing personnel records, and improving accessibility. Through HRIPIS, personnel can now process applications faster, monitor transaction status in real time, and access records remotely. This study aims to evaluate the effectiveness of HRIPIS in improving HR management processes in BFP Region 6 by examining its impact on efficiency, transparency, accessibility, and sustainability.

II. RELATED LITERATURE AND STUDIES

Digital Human Resource Management Systems (HRMS) are widely recognized as essential tools for improving organizational efficiency, particularly in public sector institutions undergoing digital transformation. According to Kavanagh and Johnson (2021), Human Resource Information Systems streamline personnel functions by automating workflows, reducing administrative burden, and improving data reliability. These improvements directly support faster and more accurate HR transactions, which align with the efficiency outcomes observed in this study.

Supporting this, Stone et al. (2015) emphasized that the integration of technology in human resource management transforms traditional administrative processes by increasing operational efficiency, minimizing manual errors, and enhancing responsiveness.



in personnel management. These findings correspond with the results of this study, where HRIPIIS significantly reduced processing time from several days to only a few hours through digital automation and centralized processing.

Furthermore, Venkatesh et al. (2003) explained that the success of information system adoption is strongly influenced by perceived usefulness and ease of use. This supports the successful implementation of HRIPIIS in BFP Region 6, where users experienced improved convenience, faster transactions, and simplified HR processes such as leave applications, recruitment, and record management.

In the context of e-governance, Gupta and Rani (2022) found that digital transformation in public institutions significantly improves operational speed, transparency, and public satisfaction. Similarly, the Department of Information and Communications Technology (2023) reported that the Philippine government's digital systems enhance document accessibility, reduce bureaucratic inefficiencies, and promote environmental sustainability by reducing paper use. These findings are consistent with the results of this study, which revealed approximately 90% reduction in paper consumption and improved transparency through real-time monitoring of HR transactions.

In addition, Laumer et al. (2016) highlighted those centralized digital systems improve interdepartmental coordination and decision-making by enabling real-time access to accurate data. This supports the HRIPIIS feature of centralized personnel records, which minimizes encoding errors, reduces duplication of records, and improves data accuracy in BFP Region 6.

Armstrong and Taylor (2020) further emphasized that modern human resource management increasingly relies on technology-driven systems to enhance strategic decision-making and workforce efficiency. This aligns with the study's findings that HRIPIIS improved accessibility, streamlined HR operations, and supported faster and more reliable administrative decisions.

Finally, Rodriguez and Santos (2024) found that centralized HR databases significantly improve data consistency, reduce administrative workload, and enhance recruitment efficiency through digital processing systems. This directly supports the findings of this study, particularly during FO1 recruitment, where digital submission replaced multiple physical folders, reducing applicant burden and processing costs.

Overall, these studies strongly support the implementation of the Human Resource Integrated Personnel Information System (HRIPIIS) as an effective digital innovation. The system aligns with global and national findings on HR digitalization by improving processing speed, reducing paper consumption, enhancing transparency, increasing data accuracy, and promoting accessibility. These outcomes validate HRIPIIS as a modern and efficient human resource management system in the Bureau of Fire Protection (BFP) Region 6.

III. PURPOSE OF THE STUDY

This study aimed to comprehensively determine the effectiveness of the Human Resource Integrated Personnel Information System (HRIPIIS) in improving the efficiency, accessibility, transparency, and sustainability of human resource management processes in the Bureau of Fire Protection (BFP) Region 6. Specifically, it examined how the transition from traditional manual systems to a centralized digital platform transformed personnel administration, streamlined transactions, reduced resource consumption, and enhanced service delivery for all stakeholders. It also sought to determine how HRIPIIS supports the Bureau of Fire Protection's modernization program through digital transformation in human resource management. More specifically, this study aimed to:

1. Describe the human resource management processes in BFP Region 6 before the implementation of HRIPIIS.
This includes examining the traditional manual procedures used for personnel transactions such as leave applications, promotions, training nominations, recruitment documentation, and record management. It also sought to identify the common challenges encountered under the manual system, including delayed processing, repetitive encoding, misplaced records, excessive paperwork, high administrative workload, and financial burden on personnel and applicants.
2. Identify and analyze the improvements in HR transaction speed and workflow efficiency after the implementation of HRIPIIS.
This objective focused on determining how HRIPIIS affected the speed of processing personnel documents and transactions by comparing the time required before and after implementation. It also examined how digital routing, automated record retrieval, and centralized data management improved turnaround time, reduced bottlenecks, and enhanced operational productivity across HR, Administrative, and Training Sections.
3. Determine the effectiveness of HRIPIIS in reducing paper consumption, administrative burden, and operational costs.
This aspect of the study assessed HRIPIIS's contribution to paperless governance by measuring reductions in physical document requirements, printing expenses, storage needs, and repetitive clerical tasks. It also evaluated how the system minimized applicant expenses, particularly during FO1 recruitment, where digital submissions replaced multiple physical folders, thereby promoting environmental sustainability and cost-efficiency.
4. Assess HRIPIIS's role in improving transparency, accessibility, accountability, and data accuracy in personnel management.
This objective examined how the system enhanced personnel confidence through real-time application tracking, accessible digital records, and minimized encoding errors through centralized databases. It also explored the system's ability to improve



monitoring, ensure consistency of personnel information, and strengthen accountability by allowing users and administrators to verify status updates and records more efficiently.

5. Evaluate the overall benefits of HRIPIS for key stakeholders, including BFP personnel, HR staff, Administrative and Training Sections, FO1 applicants, and recruitment panelists.

This objective sought to determine the broader organizational and user-centered advantages of HRIPIS, including convenience, reduced workload, improved decision-making, simplified recruitment procedures, and enhanced user experience. It also aimed to identify how HRIPIS contributed to institutional modernization and digital transformation within BFP Region 6.

6. Explore the potential of HRIPIS as a model for innovation and digital transformation in other BFP regional offices and public sector institutions.

Beyond evaluating current implementation, this study also aimed to determine whether HRIPIS could serve as a scalable best-practice framework for improving human resource systems in other government agencies by demonstrating its effectiveness in operational efficiency, sustainability, and public service modernization.

IV. THEORETICAL FRAMEWORK

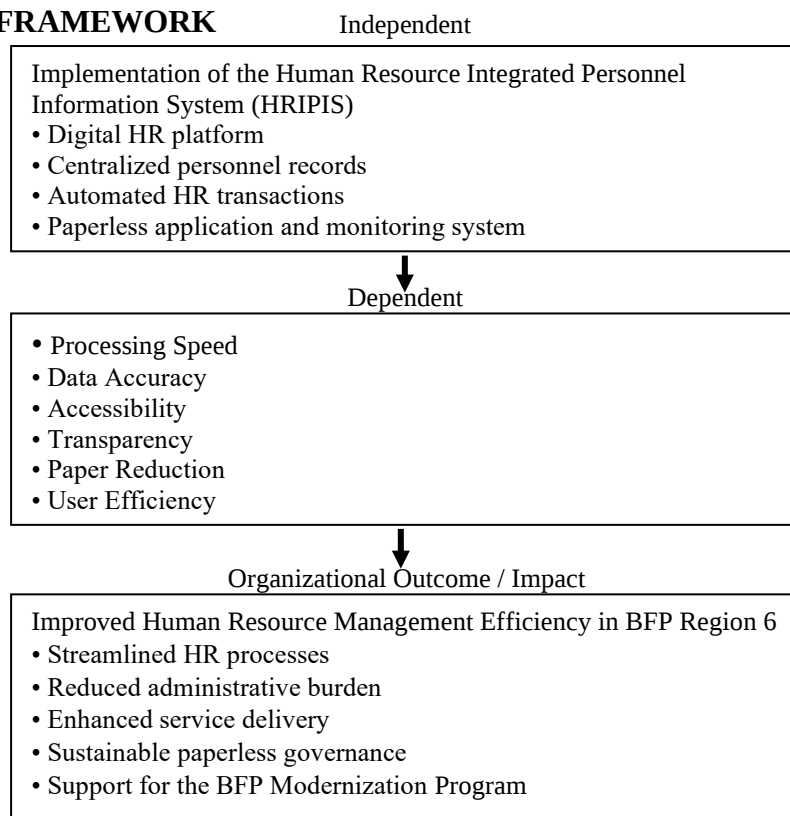
This study is anchored on the Technology Acceptance Model (TAM) by Davis (1989), which explains that system adoption depends on perceived usefulness and ease of use. HRIPIS was accepted in BFP Region 6 because it improved efficiency, reduced processing time, minimized repetitive tasks, and simplified HR transactions such as leave, promotion, training, and recruitment.

It is also based on Systems Theory, which emphasizes that organizations function more effectively when interconnected systems work together efficiently. Before HRIPIS, HR processes were fragmented and manual, causing delays and duplication. HRIPIS centralized multiple HR functions into one digital platform, improving coordination, data access, and overall organizational efficiency.

The study is further supported by Green Management Theory, which promotes sustainability through resource conservation and paperless systems. HRIPIS significantly reduced paper consumption, printing costs, and administrative waste by digitizing records and applications, contributing to environmentally responsible governance.

Lastly, the study is anchored on the BFP Modernization Framework under Republic Act No. 11589 (BFP Modernization Act of 2021), which emphasizes innovation, digital transformation, and organizational capability enhancement. HRIPIS supports this modernization agenda by transforming traditional HR processes into a more efficient, transparent, and technology-driven system. Together, these frameworks establish HRIPIS as an innovative, sustainable, and modernization-aligned system that enhances human resource management efficiency in BFP Region 6.

V. CONCEPTUAL FRAMEWORK





The study is further anchored on the BFP Modernization Framework, particularly aligned with Republic Act No. 11589 (BFP Modernization Act of 2021), which emphasizes innovation, digital transformation, and organizational capability enhancement to strengthen both operational and administrative functions of the Bureau. While modernization is often associated with fire suppression equipment and operational readiness, this framework recognizes that administrative innovation is equally essential. HRIPIS supports BFP modernization by transforming traditional HR management into a technology-driven system that enhances institutional productivity, sustainability, and service delivery. Through this framework, HRIPIS is positioned not only as an HR innovation but also as a strategic modernization initiative contributing to BFP Region 6's overall transformation into a more efficient, transparent, and future-ready public service organization.

VI. METHODOLOGY

6.1 Research Design

This study employed a descriptive-developmental research design to examine the implementation of the Human Resource Integrated Personnel Information System (HRIPIS) and evaluate its effectiveness in improving human resource management efficiency in the Bureau of Fire Protection (BFP) Region 6. The design was used to describe existing HR processes, analyze system development, and assess measurable improvements before and after HRIPIS implementation, particularly in terms of processing time, efficiency, transparency, accessibility, and resource utilization.

6.2 Participants

The participants of the study included key stakeholders directly involved in human resource operations within BFP Region 6. These consisted of HR personnel, Administrative Section staff, Training Section personnel, Fire Officer 1 (FO1) applicants, and recruitment panelists. These participants were selected because they directly engage in HR transactions such as recruitment, leave processing, training documentation, and personnel record management, which were significantly affected by the implementation of HRIPIS.

6.3 Data Gathering Procedure

Data were collected through multiple sources to ensure a comprehensive evaluation of the system. These included HRIPIS system performance reports, official administrative records, user observations, and a structured comparison of HR processes before and after system implementation.

The data before implementation focused on manual processes such as paper-based routing, physical document submission, encoding duplication, and processing delays. The after-implementation data focused on digital workflows such as automated processing, centralized records, real-time tracking, and paperless transactions.

6.4 Data Analysis

The data gathered were analyzed using descriptive analysis and comparative process evaluation. This method was used to compare pre-implementation and post-implementation HR operations in terms of:

- Processing time
- Paper consumption
- Data accuracy
- Accessibility
- Transparency
- Administrative workload

The analysis directly supported the findings presented in the Results and Discussion, particularly the reduction in processing time from days to hours and the 90% reduction in paper usage.

VII. RESULTS AND DISCUSSION

7.1 Before HRIPIS Implementation

Prior to the implementation of the Human Resource Integrated Personnel Information System (HRIPIS), human resource processes in the Bureau of Fire Protection (BFP) Region 6 were predominantly manual, paper-based, and highly dependent on physical document handling. This traditional system resulted in several operational inefficiencies that affected the speed, accuracy, and overall effectiveness of HR management.

Manual document routing was the standard procedure, wherein personnel transactions such as leave applications, promotions, training requests, and other HR-related documents were physically transmitted from one office to another for signature and approval. This process was time-consuming and often resulted in delays due to workload distribution among signatories, physical distance between offices, and logistical constraints.

Consequently, processing times ranged from several days to weeks before completion of a single transaction. These delays negatively affected administrative responsiveness and slowed down the delivery of HR services within the organization. In addition,



personnel records were vulnerable to misplacement, loss, or damage due to the absence of a centralized digital storage system, making retrieval of information inefficient and labor-intensive.

The system also required repetitive encoding of data, where the same information had to be manually entered into multiple forms and submitted to different offices. This practice increased administrative workload and heightened the risk of encoding errors and data inconsistencies.

Furthermore, the manual system resulted in high paper consumption, as each transaction required multiple printed copies for routing, filing, and archival purposes. This contributed to increased operational costs and significant environmental impact. During recruitment processes, particularly for Fire Officer 1 (FO1) applicants, the requirement to submit multiple sets of physical documents imposed financial burdens due to printing, photocopying, and folder preparation expenses.

7.2 After HRIPIIS Implementation

With the implementation of HRIPIIS, the Bureau of Fire Protection (BFP) Region 6 experienced a significant transformation in human resource management processes through digitalization and system integration. The system introduced a centralized, automated, and paperless approach that greatly improved operational efficiency.

One of the most notable improvements was the reduction of processing time from days to hours. Through automated workflows, digital routing, and real-time access to records, HR transactions were completed significantly faster compared to the previous manual system, thereby enhancing organizational responsiveness.

The system introduced centralized digital personnel records, allowing all HR data to be stored in a single secure platform. This eliminated duplication of files, reduced the risk of document loss, and improved the speed and reliability of record retrieval. HRIPIIS also enabled real-time transaction monitoring, allowing personnel and administrators to track the status of applications and requests instantly, improving coordination among offices and reducing uncertainty in transaction processing.

7.2.1 Improvement in Promotion Process

A significant improvement was observed in the promotion process. Through HRIPIIS, personnel are no longer required to submit multiple physical folders or personally visit the regional office during the initial stages of promotion processing. Instead, applications are submitted electronically through the system for evaluation and screening. Only personnel who are shortlisted or approved for promotion are required to submit physical folders for final validation and documentation. This streamlined process reduced unnecessary paperwork, minimized travel requirements, and significantly decreased administrative workload.

7.3 Efficiency, Sustainability, and Cost Reduction

A major impact of HRIPIIS was the approximately 90% reduction in paper usage, as most HR transactions were conducted electronically. This shift significantly reduced printing costs, storage requirements, and environmental waste, contributing to more sustainable administrative practices.

In addition, the system led to reduced applicant expenses, particularly during recruitment and promotion processes, as fewer printed documents were required. This made the application process more accessible and financially less burdensome for applicants, improving overall user experience.

7.4 Transparency, Accountability, and Data Integrity

Furthermore, HRIPIIS improved transparency and accountability within HR operations. All transactions could be monitored digitally, allowing stakeholders to track progress in real time. This reduced the likelihood of lost documents, unexplained delays, or unauthorized alterations.

The centralized database also enhanced data accuracy and integrity by minimizing repetitive encoding and ensuring consistency of personnel records across all HR functions. As a result, decision-making became more reliable and data-driven.

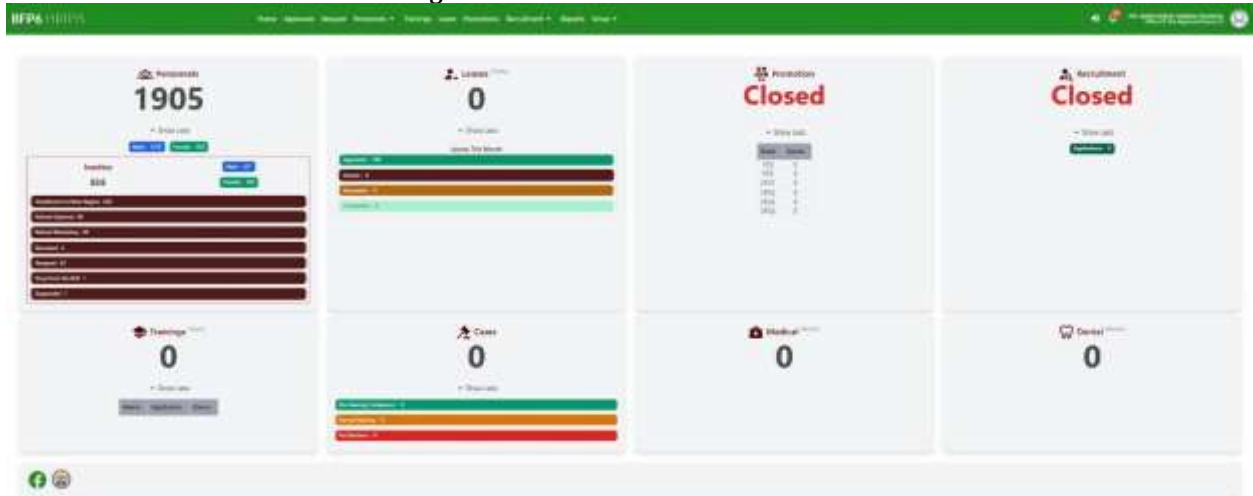
7.5 Summary of System Impact

Overall, the implementation of HRIPIIS significantly enhanced human resource management efficiency in BFP Region 6. The system streamlined HR operations by reducing processing time, eliminating redundant processes, improving accessibility, and strengthening transparency and accountability. It also supported environmental sustainability through reduced paper consumption and contributed to cost efficiency across HR operations.

The findings demonstrate that HRIPIIS is an effective digital transformation tool that modernizes human resource management and strengthens administrative performance within the Bureau of Fire Protection.



Figure 1. HRIPIS Dashboard Overview



The HRIPIS Dashboard Interface serves as the central control panel of the Human Resource Integrated Personnel Information System (HRIPIS). It provides a consolidated and real-time overview of human resource operations, including key performance indicators, personnel records, transaction monitoring, and system notifications. The dashboard is designed to enhance accessibility, transparency, and efficiency by integrating all HR modules into a single user interface accessible after system login.

Figure 2. Data Notice



Figure 3. Login Page Interface

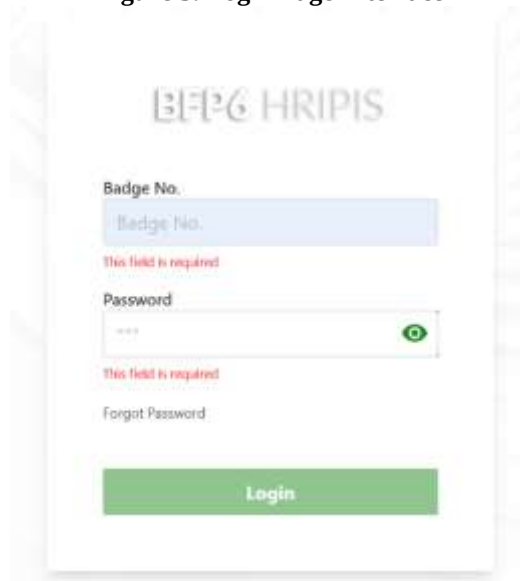




Figure 4. OTP Page Interface

BFP6 HRPIS

Please check on your mobile phone authenticator application for the One Time Password (OTP)

Contact your System Administrator if you did not receive or scan the 2FA QR

OTP

Submit OTP

[Reset 2FA](#)

Figure 5. Personnel Profile Module

Badge No	Full Name	Item No	Gender	Unit Assignment	Designation	Status
460038	TSART JULIUS BERTS JHILLAR AMBICA	0-02-0001	Male	Office of the Regional Director VI	Regional Director	Active
026015	TSART JEROME BARRIS GUMWIKANE	0-01-0072	Male	Office of the Regional Director VI	Assistant Regional Director for Administration	Active
A23053	TSART JENI HANAPINO ALUMINA BANA	0-01-0043	Female	Office of the Provincial Fire Marshal - Capiz	Provincial Fire Marshal	Active
030073	TSART BARTOLOME ODSANGA BELURAN	0-01-0040	Male	Office of the Provincial Fire Marshal - Buta	Provincial Fire Marshal	Active
A23180	TSART VENCE JOJO FORNER ALDOBARD	0-04-0154	Male	Office of the Regional Director VI	Chief Financial Management Executive	Active
070306	TSART ANTONIO SALLANS COLLADO	0-04-0080	Male	Office of the Provincial Fire Marshal - Antique	Provincial Fire Marshal	Active
023001	TSART ARI PROUNA OLIBO	0-04-0171	Male	Office of the Provincial Fire Marshal - Buta	Asst. Provincial Fire Marshal	Active
070707	TSART ROLAND GARDOSI HANANIL	0-04-0154	Female	Radio City Fire Station	City Fire Marshal	Active
M23051	TSART ALENE DEL NORTE BICANAN	0-01-0000	Female	Office of the Regional Director VI	Chief Public Information Unit	Active
011560	TSART REYNAR ELAGOS BACANA	0-05-0181	Male	Office of the Regional Director VI	Chief Operations Division	Active
023030	TSART ROLAN ITHERMA BERNARD	0-05-0071	Male	Office of the Provincial Fire Marshal - Misamis	Provincial Fire Marshal	Active
A23074	TSART DARIN BACANA ALONSO	0-01-0040	Female	Office of the Provincial Fire Marshal - Capiz	City Officer	Active
014008	TSART JASON BACANA BERNAN	0-04-0147	Male	Radio City Fire Station	Asst. City Fire Marshal	Active
023030	TSART MICHAEL BRAS SANCOSON	0-01-0215	Male	Office of the Provincial Fire Marshal - Guimaras	Asst. Provincial Fire Marshal / Chief of the Provincial Fire Marshal	Active
030014	TSART ESTELA TABAGAN B. TURUMANA	0-04-0042	Female	Office of the Regional Director	Asst. Chief, Policy and Programs Section, Plans and Projects Division	Active
023070	TSART MARCEL GABON CORDEO	0-04-0079	Female	Office of the Regional Director VI	Asst. Chief, Office of the Internal Affairs	Active
040000	TSART JOSE ANTONIO MATE	0-04-0040	Male	Office of the Regional Director VI	Asst. Chief, Fire Safety Enforcement Division	Active
023030	TSART JOSHUA LOPES MANCHE	0-04-01000	Male	Office of the Regional Director VI	Medical Officer, Health Services Section, Operations Division	Active

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BFP6 HRIPS		Home Approvals Request Personnel Trainings Leave Promotions Recruitment Reports Setup					100 JAMES HENRY BARRON HRIP6 01 The Regional Office 01			
Leaves										
Search Personnel		Search		Date Filter		1234				
Account No.	Personnel	Leave ID	Leave Period	Duration	Particulars	Description	Status			
> D18102	SPD Rodolfo Nolasco Olvera	LE000013701468	December 11, 2018 to December 12, 2018	1.00 Days	168		Approved			
> 828981	PO1 Lennard Stephen Sumayenda	LE0000052538662	December 12, 2018 to December 12, 2018	1.00 Days	168		Approved			
> 829329	PO1 Darren Velasco Rosales	LE000017133119	December 13, 2018 to December 13, 2018	1.00 Days	168		Approved			
> 828765	PO1 Joseph Lee Sengolag Isard	LE000015341268	December 13, 2018 to December 14, 2018	1.00 Days	168	MANDATORY LEAVE	Approved			
> A10358	PO3 Ahmed John Sakundin Alingag	LE000013589311	December 16, 2018 to December 17, 2018	1.00 Days	168	Mandatory Leave	Approved			
> 177878	PO2 Edwillo Aranda Langa	LE000004826298	December 16, 2018 to December 16, 2018	1.00 Days	168		Completed			
> 186155	RMSF ALZMEL ZEDORA CUMSON	LE000013681746	December 19, 2018 to December 19, 2018	1.00 Days	168		Approved			
> A10358	PO3 Ahmed John Sakundin Alingag	LE000013589363	December 21, 2018 to December 21, 2018	1.00 Days	168	Mandatory Leave	Approved			
> 813988	PO2 Sharif Lourdes Avelino Salazar	LE000013216094	December 21, 2018 to December 21, 2018	1.00 Days	168		Approved			
> 04034	PO1 Joel Victor Garcia Interiano	LE000015731713	December 21, 2018 to December 21, 2018	1.00 Days	168		Approved			
> A10358	PO3 Ahmed John Sakundin Alingag	LE000015897812	November 26, 2018 to November 26, 2018	1.00 Days	168	Mandatory Leave	Approved			
> 829370	PO1 Wilfredo Erico Leticia Bering	LE000016543888	November 26, 2018 to November 27, 2018	1.00 Days	168	FOR DISAPPEARING	Approved			
> 118030	PO1 Brian Dale Cruz Macos	LE000013887803	November 27, 2018 to November 27, 2018	1.00 Days	168		Approved			
> 822886	PO1 Mark Joseph Maguina Dela Cruz	LE000015519377	November 28, 2018 to November 28, 2018	1.00 Days	168	MANDATORY LEAVE	Approved			
> P15144	PO3 Eatin Byler Lancia Pardo	LE000014621927	November 28, 2018 to November 27, 2018	1.00 Days	168		Approved			
> 819741	POC HP Ruel Ramon Salazar	LE000013171344	November 30, 2018 to December 03, 2018	3.00 Days	168		Approved			
> A10358	RMSF ERUEL SAMAR ANACIO	LE000016155539	November 23, 2018 to November 23, 2018	1.00 Days	168		Approved			
> 032840	PO1 Wilfredo Bernaldo Rodriguez	LE000012186746	November 25, 2018 to November 26, 2018	1.00 Days	168		Approved			
> 824014	PO1 Napoleon Francisco Mito	LE000014988847	November 25, 2018 to November 27, 2018	3.00 Days	168		Approved			

[illegible]

Figure 9. Report Module

[illegible]

VIII. SUMMARY OF FINDINGS

The study found that the Human Resource Integrated Personnel Information System (HRIPIS) significantly improved human resource management efficiency in the Bureau of Fire Protection (BFP) Region 6 by transforming previously manual and paper-based processes into a streamlined digital system. Processing time for key personnel transactions such as leave applications, promotions, recruitment requirements, and training documentation was reduced from several days or even weeks to only a matter of hours, resulting in faster service delivery and improved responsiveness of HR operations.

In addition, HRIPIIS contributed to a substantial reduction in paper consumption, estimated at approximately 90%, as most transactions were shifted from physical documentation to electronic processing. This shift not only reduced printing and operational costs but also minimized the environmental impact associated with excessive paper use. The system also enhanced transparency through real-time monitoring of HR transactions, allowing personnel and administrators to track the status of requests instantly and reducing delays caused by manual follow-ups and unclear processing stages.

Furthermore, the implementation of HRIPIS improved data accuracy and reliability through the use of centralized digital personnel records, which eliminated repetitive encoding, reduced human error, and prevented the loss or misplacement of documents. Accessibility was also significantly improved, as users were able to conveniently access, update, and monitor HR-related information through a unified system interface without the need for physical document retrieval.

Overall, HRIPIIS streamlined human resource operations, reduced administrative workload, and improved coordination across HR units. It contributed to a more efficient, transparent, and modernized human resource management system within BFP Region 6, demonstrating its effectiveness as a digital transformation tool for public sector human resource administration.

IX. CONCLUSION

The implementation of the Human Resource Integrated Personnel Information System (HRIPIS) in the Bureau of Fire Protection (BFP) Region 6 proved to be highly effective in transforming traditional human resource operations into a more modern, efficient, transparent, and environmentally sustainable system. By replacing manual, paper-based processes with an integrated digital platform, the system successfully addressed long-standing issues such as processing delays, document misplacement, repetitive encoding, and high administrative workload. As a result, HR transactions became significantly faster, more organized, and easier to monitor.

In addition, HIRPIS contributed to improved cost efficiency by reducing the need for physical documents, printing, and storage, while also promoting environmental sustainability through a substantial decrease in paper consumption. The system further enhanced service accessibility by allowing personnel and applicants to process, track, and manage HR-related transactions in real time, thereby improving overall user experience and institutional responsiveness.

Overall, HRIPIIS serves as a strong model of digital innovation in public sector human resource management, demonstrating how technology can significantly improve efficiency, accountability, and service delivery in government institutions. It supports the growing demand for paperless and data-driven governance, aligning HR processes with modern administrative standards.



Furthermore, HRIPIS represents a significant administrative modernization initiative within BFP Region 6, highlighting that institutional modernization is not limited to operational and firefighting capabilities alone, but also extends to the digital transformation of internal systems, particularly in human capital management. Through this innovation, BFP Region 6 strengthens its capacity to deliver faster, more transparent, and more reliable public service.

X. RECOMMENDATIONS

1. Expand HRIPIS implementation nationwide across all BFP regional offices.
The system should be fully deployed to all Bureau of Fire Protection regional offices to ensure uniformity in human resource processes, improve inter-regional coordination, and standardize digital HR management practices. Nationwide implementation will maximize the benefits of HRIPIS in terms of efficiency, transparency, and data consistency across the organization.
2. Continue system upgrades for enhanced cybersecurity and functionality.
Regular system enhancements should be conducted to strengthen data security, protect sensitive personnel information, and improve overall system performance. Upgrades may include advanced security protocols, backup systems, and additional features that support evolving HR requirements and ensure long-term system reliability.
3. Conduct regular user training for personnel and applicants.
Continuous training programs should be implemented for HR personnel, administrative staff, and system users to ensure proper utilization of HRIPIS. This will help maximize system efficiency, reduce user errors, and ensure that both employees and applicants can fully benefit from the digital platform.
4. Integrate analytics dashboards for workforce planning.
Advanced analytics tools should be incorporated into HRIPIS to support data-driven decision-making in workforce planning, recruitment forecasting, and personnel performance monitoring. This will enable management to identify trends, improve resource allocation, and enhance strategic HR planning.
5. Promote paperless governance initiatives in other administrative processes.
The success of HRIPIS should be extended to other administrative functions within BFP by promoting full paperless transactions. This will further reduce operational costs, improve environmental sustainability, and strengthen the organization's commitment to digital transformation.

HRIPIS may be adopted by other BFP regional offices as part of the nationwide implementation of the BFP Modernization Program to strengthen digital governance, enhance operational efficiency, and promote a more responsive and technology-driven public service system across all levels of the organization.

XI. REFERENCES

1. Kavanagh, M. J., & Johnson, R. D. (2021). *Human Resource Information Systems*. Sage Publications.
2. Gupta, A., & Rani, S. (2022). Digital transformation in public administration. *International Journal of Public Sector Management*.
3. Department of Information and Communications Technology. (2023). *Philippine Digital Governance Report*.
4. Rodriguez, P., & Santos, L. (2024). Centralized HR systems in government institutions. *Asian Journal of Public Administration*.
5. Stone, D. L., Deadrick, D. L., Lukaszewski, K. M., & Johnson, R. (2015). The influence of technology on the future of human resource management. *Human Resource Management Review*, 25(2), 216–231.
6. 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.
7. Laumer, S., Maier, C., & Eckhardt, A. (2016). The impact of business process management on digital HR systems. *Business & Information Systems Engineering*, 58(1), 15–25.
8. Armstrong, M., & Taylor, S. (2020). *Armstrong's Handbook of Human Resource Management Practice*. Kogan Page.