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**Traditional vs Digital Human Resource Management
Systems in ICDS: A Comparative Study of
Their Impact on Employee Efficiency**

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Abstract

Human Resource Management (HRM), the crucial part in improving the efficiency and effectiveness of Human Resource in public welfare programs. With the increasing use of digital tools in government run schemes, lot of existent practices are slowly and gradually being taken over by digital programs. We may refer, Integrated Child Development Services (ICDS) program, which has also adopted various digital tools for management of these human resources, comprising of digital reporting, online attendance, tech driven training structure and electronic communication facility. In this context, this study aims at evaluating and comparing traditional (manual) and modern (digital) Human Resource Management (HRM) systems in ICDS and analyse its impact on program efficiency.

This study follows a detailed study pattern to understand the prevailing HRM practices and their influence on the performance of ICDS staff such as Anganwadi Workers, Helpers, Supervisors, and Child Development Project Officers. Data are collected using a structured questionnaire focusing on major HRM functions including recruitment, training and development, performance management, compensation, employee relations, and HR administration. The study attempts to highlight how the shift from manual procedures to digital HRM systems has influenced transparency, communication, monitoring, and service delivery.

The findings of the study are expected to provide insights into the effectiveness of digital HRM practices in improving employee efficiency and administrative functioning within ICDS. Furthermore, the study may help policymakers and administrators understand the benefits and challenges associated with digital transformation in HR management and suggest ways to strengthen digital HR systems in social welfare programs.

Keywords: Digital HRM, Traditional HR Practices, ICDS, Employee Efficiency, Anganwadi Workforce.

1. Introduction

Human Resource Management plays a vital role in attaining organizational success, for social welfare programmes that depend on frontline staff for effective achievement of

organizational goal. In India, the Integrated Child Development Services (ICDS) which is one of the largest community-based public welfare programs which is known for its universal services and looks forward to enhance the health, nutrition, and development of children ranging from infants upto six years of age. Concurrently, it aims at providing best nutrition and health support to pregnant and lactating mothers. The achievement of ICDS objective depends on the service and efficiency of last point of the ICDS chain, which is frontline manpower AWW (Anganwadi workers), Sahayika (Anganwadi helpers) and supervisory staff. This segment of ICDS staff plays the most crucial role as it ensures proper nutrition, preschool education, health awareness programmes. Proper management of this human resource is therefore very much important for ensuring in proper service disposal and success of the programme. If we refer the past, HRM functions at ICDS was being dealt through manual/tangible processes in all aspects such as Attendance registers, Project reports, and other service records in physical form. Communication for work among AWW, helpers and supervisors used to be paper form only. While this system sufficed needs for decades, it somehow led to delayed output, lacked transparency and operational hinderance. Lately, the Government of India is inclined towards implementation of digital tools and adoption of technology in public welfare. Various digital tools have now been implemented in ICDS operations. It combines mobile applications for monitoring systems, online attendance, E-reporting of data and record management in softcopy. This gradual shift from traditional system to digital tools marks a vital shift in the management of ICDS program. It has influenced target community and employees. This modern-day Digital tool has made program effective and efficient. It has made the communication better and beneficiaries now have easier access to the needs being fulfilled. However, the workforce, primarily hailing from villages and substantial number of workers not being tech-savy, are facing problems in implementation. Other negative is the infrastructure in form of Internet connection, particularly at villages and those remote places where electricity is also not available 24*7. Herewith, we look forward to compare the traditional and digital HRM practices in ICDS and quantify their pros

and cons on program efficiency using data-driven methodology which evaluates both, objective and descriptive aspects.

2. Objectives of the Study

The foremost objectives of the study are as follows:

- To analyze the development of digital HRM systems in the ICDS Scheme.
- To compare traditional and digital HRM systems in terms of efficiency and transparency of Digital tools and techniques.
- To evaluate the impact of digital tools in practices on employee efficiency in ICDS.
- To identify challenges and issues associated with the implementation of digital tools in HR systems.

3. Research Methodology

To explore the objectives study design as descriptive research which is based on secondary data which collected from many different sources like the Government official websites, published reports by Ministry of Women and Child Development, journals, Articles related to ICDS, Books of Human Resource Management ETC. The main objective is to analyse existing information and literature related to HR management practices in ICDS and the transition toward digital systems and understand the challenges and opportunities to their employees.

Method of Analysis

The collected data was scrutinized and analysed using a comparative descriptive methodology. The research investigates the disparities between traditional and digital HRM systems in ICDS across various HR functions, including recruitment, training, performance management, and record-keeping.

4. Traditional Human Resource Management Systems in ICDS

Before the introduction of digital technologies, tools and portals, most of the HR functions (Recruitment to Retirement) in ICDS were conducted through manual systems. These practices were largely paper-based and relied on physical documentation.

Recruitment and Selection

Recruitment of Anganwadi workers and helpers was traditionally conducted through local administrative procedures done by the Gram panchayat of that particular village or by the Local Authorities. Information about vacancies was communicated through notice boards, News Papers or local announcements. The selection process depends upon manual verification of documents at the district or block level.

Training and Development

Physical training centers were where most of the training programs for Anganwadi workers took place. Workers had to go to training sessions, which took time and money.

Record Management

All the documents related to Service records, beneficiary data, and administrative documents were stored manually in paper files. So many numbers of registers maintained by the Anganwadi workers and Helpers, each register evaluate by the supervisors that creates difficulty in retrieving information and storage issues.

Restrictions of Traditional Systems

Traditional HRM systems in ICDS faced several limitations as the processes were time-consuming administrative processes, limited transparency in reporting and record management, delays in communication and monitoring and high risk of data loss or mismanagement etc.

5. Digital Human Resource Management Systems in ICDS

- Government led social welfare programs have had a gradual and comprehensive shift towards Digital governance. Integrated Child Development Service (ICDS) program has adopted these digital tools in wholesome. The sole aim is to ensure that the administrative tasks are addressed in efficient way and the services are made better.

- Use of mobile apps has been adopted, which helps Anganwadi Workers (AWWs) to record beneficiary information in an organised and drafted manner and the reports are being sent without any delay. Apps like Poshan Tracker assist the department grass root officials, Inc. Supervisors and even the higher-ups are able to assess the process and output in real time through these platforms.

- Few sectors of the project, have started using digital attendance, which has replaced paper registers. Latest mobile apps or biometric devices assist in keeping track of attendance, which makes it more accurate and effective.

- Digital learning platforms and online training modules have been set up to help Anganwadi workers improve their skills. This helps the workers with access to training materials without having to travel distances.

- ICDS use electronic databases like the Poshan Tracker app referred above, to keep track of employee records, beneficiary information, and program reports. Digital storage has ensured maintenance of records in organized manner and easy access.

- IT based digital payment systems address the latest module of Direct Benefit Transfers, which ensures that workers get their dues (honorariums) promptly.

6. Comparative Analysis

The below mention table is showing the comparison between traditional and digital systems and highlights significant differences in terms of administrative efficiency and operational effectiveness.

HR Function	Traditional System	Digital System
Recruitment	Oral communication and offline process for document verification and submission were included in offline training processes.	Online information provided on official site and digital records are maintained for future references.

Attendance	Maintain Paper registers for attendance of every employee.	Mobile Apps (Poshan tracker) is using for real time attendance.
Reporting	Physical reports submitted periodically, Different registers were maintained for reporting	Real-time digital reporting done by employees (AWH/AWW) through Poshan Tracker
Training	Earlier Physical classroom training, refresher trainings in offline mode.	Various types of training provided to employees through online learning programme.

HR Function	Traditional System	Digital System
Payments	In the offline transactions of salary and official bills only Manual verification of documentation is possible that results delays and mistakes.	Direct digital bank transfers make quick and safer practice to bills and salary payments.
Record keeping	All the records related to beneficiaries were kept in 11 different registers (earlier it was 17 registers) in handwritten format.	Currently all the data related to beneficiaries and supplies are recorded in Digital database mode through the Poshan Tracker.

Digital systems reduce paperwork and handwritten record keeping by the employees of ICDS scheme and allow them to faster communication between employees and supervisors. That can make monitoring more efficient and transparent for all the employees.

7. Impact of Digital HRM on Employee Efficiency

Digital Human resource management systems have the potential to pointedly improve employee efficiency in any sector, The Integrated child Development Scheme connecting several employees and many beneficiaries at different blocks. The Scheme is divided in so many levels like at ground or frontline level Anganwadi helpers and Anganwadi workers performing their roles, and they supervised by lady supervisors, and supervisors (LS) monitored by Child Development Project officers (CDPO). The current digital systems and tools are offering real-time reporting that enables supervisors to monitor programme services more effectively. The digital record management simplifies administrative work, maintained transparency, time saviour and helps employees to provide the hustle free services of the department.

Various Digital communication platforms also enhance coordination between Employees and make order and reporting process easier so that workers can receive instructions quickly and submit reports without delays and mistakes. Digital payment systems also make finances more open and lessens the work that comes with keeping track of bills and checking them manually. The benefits of digital HRM depend on a number of things, such as whether the technology is available and how well employees know how to use it.

8. Challenges in Implementing Digital HRM Systems in ICDS Scheme

There are still some Issues with digital HR systems, even though they have many benefits.

- Being able to work on a computer, using smartphones a lot of Anganwadi workers work in rural areas where they might not have access to digital technologies or proper infrastructure.
- Digital reporting systems need a reliable internet connection to work. In remote areas, weak connections can make it hard for digital operation to work.

- There may be technical problems with mobile apps and digital platforms that make it hard to enter data and report it.
- Some workers are afraid to use new technologies at first because they are scared of having to do more work, the apps and tools are not user friendly so they the resistance to this change.

9. Suggestions

There are a number of things that can make digital HRM implementation in ICDS stronger that can be included below mention steps:

- The department can offer regular digital training programs for workers and helpers.
- The government can provide proper infrastructure in rural areas to connect to the internet.
- Digital governance can make mobile apps that are easy to use and understand.
- If the proper Set up plan for technical support systems to help with problems.
- Several supporting programs can be planned so that teach digital skills to frontline workers.

10. Conclusion

The change to a larger system from traditional to digital systems is a big deal, for managing the ICDS workforce. Traditional HRM systems worked well for earlier time but they had some problems. They were mostly manual which caused delays and made it hard to see what was going on. Digital HRM systems are better because they make things more efficient let us watch what is happening in time and keep better records. For a smooth digital system to work well in the ICDS sector we need to make sure the employees can use them properly and have a good internet connection and proper infrastructure so the employees of the ICDS workforce can do their jobs more efficiently. Digital HRM systems will help the ICDS workforce to achieve their objectives and the digital HRM systems will make things easier for the ICDS workforce to manage.

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