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Case Study

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01. Introduction

Background

One of the major challenges of today's modern organizations is the proper management of employees. The old methods of tracking work progress, recording attendance, and payroll were manual. It was too time-consuming. Nowadays, many companies are using employee task management systems to work efficiently and to get rid of old manual problems. The systems simplify HR work, track employee performance, ensure accountability, and promote transparency. This case study analyzes four notable projects, which include both local and international solutions. PiHR, a popular HR software in Bangladesh, was launched in 2018 which is currently used by more than 500 companies[1]. It's making HR work easier and efficient. The other, HR.my, launched in 2009, is free, forever! It supports multi-role access, task assignments, and employee performance tracking[2]. While it is simple and affordable for small organizations, it lacks automated progress tracking and the interface is outdated. Internationally, Finnish software Stafferi uses artificial intelligence to manage shift planning, employee competency and license monitoring, and HSE (Health, Safety, and Environment). It is suitable for manufacturing, healthcare, and food processing industries. Trello is also a popular employee task management tool. It helps teams easily organize projects through boards, lists, and cards. It offers task assignment and calendar-based scheduling, which helps the teams to complete their work on time.

Importance in the software industry

In the current software industry, integrated employee management systems are really important for ensuring productivity and efficiency. The systems ensure transparency and progression of the tasks in detail. It also reduces administrative burden and provides information on employee performance. By comparing the local systems like PiHR and HR.my with international systems like Stafferi and Trello, it is clear how different platforms ensure organizational needs and adapt software for small businesses, large companies, or even for global teams.

02. Objectives

Goals of the Case Study

The main goals of this case study are to analyze and compare the key features, functionalities, and limitations of four existing employee task management systems. This will help to find opportunities for improvement, and strategies of local and international platforms. It will also show how the software can improve task assignment, progress tracking of the tasks, employee management, record attendance, and payroll automation. The case study will help to create a user-friendly and adaptable task management system.

Scope of the Project

The study includes a detailed review of task management systems from a local and international perspective. It contains methods of task assignment, tracking the progress of the task, employee information, record attendance, payroll management, efficiency tracking and reporting tools. It also includes user experience, strict privacy and security, multi-role access, multi-language support, and AI support. This will help understand the functionalities, limitations of existing systems, and how new solutions can increase efficiency and productivity.

03. Analysis of Existing Project

Overview of local projects

Local Project 01



Overview

PiHR is the best HR software in Bangladesh. Transform the way your HR department works. Manage HR and payroll activities from a single software. PiHR was established in 2018 and used by more than 500 companies across the country [1].

Table 01

No	Key Features	Functionalites	Limitations
1	Task Management	Assigning tasks to employees, progress tracking, and a reminder system.	PiHR may have limited customization for unique organizational needs.
2	Employee Management	Storing employee information in one centralized database.	It's suitable for small to medium businesses, but may face challenges with large ones. enterprises.
3	Attendance Management	Cloud-based attendance tracking [3].	
4	Payroll Management	Automatically calculate salaries, bonuses, and taxes.	

Local Project 02



Overview

HR.my is a free multi-lingual online Human Resource, Payroll, and e-Leave Management platform that offers easy-to-use yet powerful features to improve productivity in all sorts of workplaces. HR.my was first released in 2009 and will be free forever. It contains all the necessary features in detail, which makes this easy to use and understand.

Table 02

No	Key Features	Functionalities	Limitations
1	Well-structured Home Page	The home page contains overall details of the software	The home page looks a bit old-fashioned.
2	Multi-Role Access (Admin, HR, and Employee)	At the time of login, the interface shows easy ways to log in as Administration, HR or an employee. The page.	If the admin mistakenly assigns the wrong role to others. There is always a high chance of leaking sensitive and confidential information.
3	Security and Privacy	Ensures security by checking two-factor authorization and strictly restricting third-party access.	The duration of arriving verification code may be time-consuming depending on network conditions.
4	Employee Management	Assign tasks to employees and have transparency of tasks' progress with more detailed information. It also records the performance of employees from their past responses.	This software does not have any progress indicator, so the employee has to update the progress manually to keep the task's progression transparent.
5	Strict Funtuality	Records employees' regular Field check-in, Workday, and Holiday	Risk of misuse of data.

Overview of International Projects

International Project 01



Overview

Stafferi is an employee management system from a software company in Finland. It has already planned and successfully managed over 1 million shift modules and this software uses artificial intelligence to plan shift modules and perform excitation. Additionally, more than a hundred companies are using this software and there are more than 1,000 active users[4]. Safari is designed so that all types of industries can use this software. Among them, manufacturing, healthcare, and food processing organizations can easily and efficiently perform their daily tasks and improve their performance. The server has not been down even once since 2024.

Table 03

No	Key Features	Functionalities	Limitations
1	Shift Planning	Create and manage shifts easily with automatic optimization based on skills and availability.	
2	Skills and Licences	Track employee skills and licenses, with automatic reminders when expiration dates are approaching.	Skills and licenses cannot be verified properly
3	HSE Management	Comprehensive Health, Safety & Environment management – track safety training, incidents, and compliance requirements.	
4	Production Planning	Advanced production planning tools to optimize manufacturing schedules and resource allocation.	Advance production plans are not always accurate.

5	Multiple Language	Available in 20 different languages to support a worldwide workstation.	Every language is not supported
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International Project 02



Overview

Trello is a well known task management tool where groups can create plans, collaborate to execute a project, organize tasks, and track progress in a visual, productive, and informative way. From brainstorming to planning to execution, Trello helps to manage the big milestones and the daily tasks of working together and getting things done. In May 2015, Trello went international, with localized experiences for Brazil, Germany, and Spain[5].

Table 04

No	Key Features	Functionalities	Limitations
1	Better than a To-Do List	Organize tasks visually using Boards (projects), Lists (stages), and Cards	Limited task management features.
2	Assign Tasks and Manage Deadlines	Provides advanced checklists. HR adds more context to your tasks by assigning team members and due dates to checklist items, increasing visibility and keeping your team accountable.	Hard to manage for very large groups or various projects
3	Prioritize Tasks and Keep the Team Aligned	Give importance with labels to	

		identify what is high, medium, or low priority and add an extra layer of shared understanding to employee tasks. Employees can even filter by a certain label to only view tasks associated with the label the employee wants to view.	
4	Calendar View for Fresh Perspective	Visualize checklist items and tasks with due dates in Calendar View, showing what tasks are due in the days and weeks ahead. Tasks will be arranged according to their due date and will display any labels, members, or checklists added to them.	

04. Comparative Analysis

Table 05

Aspect	Local (PiHR, HR.my)	International (Stafferi, Trello)	Key Differences and Insights
Overview	PiHR (Bangladesh, 2018): Task and HR management software, used by 500+ companies. HR.my (Bangladesh, 2009): HR, Payroll, e-Leave management software.	Stafferi (Finland): AI-based employee management & shift planning system software and used in multiple industries, and offers twenty different languages. Trello (Global, 2015): Visual task & workflow management software.	International projects focus on AI, while local projects focus on core HR functions.
Key Features	Task, employee, attendance and	Shift and production plan, skills and license tracking,	International project focuses on global

	payroll management.	HSE and task management and collaboration	workforce support and visual project tracking, while the local project focuses on HR operations
Functionalities	Assign tasks, track employee info, cloud attendance, and automatic payroll.	Stafferi: AI-based shift optimization. Trello: Boards, Lists, Cards, task assignment, prioritization, Calendar View.	Limited advanced collaboration tools.
Limitations	May face scalability issues.	Stafferi: Advance production plans are not always accurate. Trello: Difficult to manage for very large teams or multiple projects.	International projects overcome many limitations, but challenge large-scale accuracy.

05. Gap Analysis and Proposed Improvements

Identified shortcomings

- Limited customization for unique organizations based on their needs and limited advanced collaboration tools.
- Not a user-friendly interface. For this reason, organizations have given training to their employees to use the software, which is time-consuming and costly.
- Data is not secure. Most of the existing software does not provide a personal server to store organizational information.
- If the admin makes a mistake, it will cause a domino effect, one mistake after another. There is no multiple verification for important tasks.
- There is not enough data to train or build AI models to help manage employees and their daily tasks.

Areas for Innovation or Enhancement

- Making the interface more user-friendly.
- All the remaining features (such as task assigning, Employee leave management, safety drill, planning, payroll, etc.) will be AI-driven to make the work progress more efficient.
- Able to real real-time data sharing.

Proposed Features

- Depending on the organization's demand, as much customization as possible is required.
- Data will be secure and will be provided on a personal server to the organizations, which will be maintained by the organizations.
- Software will be easy to use and user-friendly interface. So, there will be no need for training.
- There will be multiple verifications for important tasks.
- If someone makes a mistake, it will automatically inform their immediate superior.
- The Software will be able to check and verify the certificate and license and skills provided by the employee and based on experience, certificate, license, and skills, the software helps to assign tasks to employees.
- The software is able to plan and implement employee safety training and address concerns about employee rights according to the law.

06. Implementation Plan

Steps to incorporate proposed solutions

1. Requirements collecting from clients and looking at existing platforms to see what they are missing.
2. The frontend design is using HTML, CSS, and developing the backend with PHP and a database with MySQL.
3. Make it a user-friendly user interface and implement the proposed features.
4. Testing the features, loading time and smoothness.
5. Deployment to the server.

Tools and Technologies

- Frontend: HTML, CSS, JavaScript
- Backend: PHP
- Database: MySQL
- Hosting: Namecheap or GitHub

07. Conclusion

This case study compared two local Bangladeshi employee management systems (PiHR, HR.my) with two International systems (Staffer, Trello) based on their product, solution, key features, functionality, limitations, scalability, and usability.

Summary of Findings

Bangladeshi employee management systems focus on HR and daily operations such as task assignment, record attendance, payroll, employee leaves, record the work hours, track daily activities and employee record management. PiHR, it offers an efficient and time-saving work environment for HR, On the other hand, HR.my is free and the interface is very user-friendly with vast important tabs. But it can not show the real-time progression of the task automatically. International employee management systems are mostly AI-supported. Therefore, they offer advanced automation of real-time task progression, shift optimization, skill monitoring, and visual project management. Staffer is well recognized for its advanced AI-based workforce planning, while Trello offers flexible boards, checklists, and calendar views for team collaboration.

Expected Impact of Proposed Improvements

Upgrading the local systems with AI implementation, real-time progress tracking, multiple verification for important tasks, assigning and submitting, and improved user interface experience can greatly increase productivity, accuracy, and scalability of an organization. Nowadays, data security is also important. For this reason, a system should implement the organization's own server. Combining local insights with International best practices can create a versatile, efficient, and user-friendly task management platform for both small and large organizations.

08. References

- [1] <https://mypihr.com/>
- [2] <https://forum.hr.my/>
- [3] <https://mypihr.com/#all-features>
- [4] <https://www.stafferi.com/#features>
- [5] <https://trello.com/about>