

Human Resource Management Model with ICT Architecture: Solution of Management & Understanding of Psychology of Human Resources and Corporate Social Responsibility

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Abstract

Both the fast development of the economy and the relatively new relationship between corporate strategy management and human resource management have been subjected to criticism. The primary focus of this piece of research and subsequent discussion is on the contribution that intelligent communication management terminals provide to the progression of the paradigm for human resource management. In order to establish an Android development environment on a computer, the Android Software Development Kit (SDK) as well as the Android Software Development Kit plug-in for Eclipse need to be installed on the computer's operating system. The design of the system not only makes it simpler and easier to administer the firm, but it also streamlines corporate processes, which in turn reduces the amount of human resources that are required. The system is able to perform a wide range of functions, such as managing personnel, recruiting new employees, tracking attendance, managing training, and managing employment. In order for the function of the system to handle the recruitment plan effectively, essential aspects like the recruiting component, the amount of recruits, the required employees, and the precise arrival time of the workers all need to be made clearly apparent. Employees who are in charge of the company's human resources division are required to comply with all laws and rules that are currently in effect as well as complete any training that is needed. They may also serve as an instructive example for other businesses that are coping with issues that are analogous, which would improve the effectiveness of the administration of the company's human resources.

Keywords: Human Resource Management, Intelligent Communication Management, Corporate Strategy Management.

1) Introduction

The concept of "electronic archives," which is common in nations of the west, served as a driving force behind the development of an information system for human resource management. Since the 1960s, nations all over the world have been employing information systems to better manage their human resources. This practise dates back to the beginning of the information era. Following decades of development, these information systems are now more thoroughly integrated into cutting-edge ideas for human resource management as well as contemporary scientific theory. This is the result of decades of research and development. The fact that these systems are based on computers made it possible for this to happen. Finding studies that investigate organisational practises of corporate social responsibility, often known as CSR, from the perspective of human resource management in the context of India's environment is becoming an increasingly rare occurrence. India is home to a diverse range of cultures and environments. In addition, there are relatively few studies that investigate the efforts of corporate social responsibility in India from the viewpoint of the workforce. In the context of India, the concepts of corporate social responsibility and the management of human resources as well as the productivity of enterprises need to be explored in conjunction with one another. This is because corporate social responsibility (CSR) is a concept that has only recently emerged in the country. The system has progressively grown capable of managing the primary concerns that initially surfaced during the early stages of the introduction of the human resource management information system. These issues first surfaced during the

early stages of the implementation of the system. This method also includes a number of important obligations, such as the payment of remuneration, the submission of reports, and the gathering of financial data. Despite this, just a portion of the system's potential has been used [1]. This is mostly the consequence of a lack of expertise in the industry as a whole as well as an inadequate comprehension of the relevant human resource management field.

A fundamental structure underpins each of the procedures that are carried out in personnel administration. The most important aspects of the work process for people management are the maintenance of employee files, the management of staff changes, and other problems connected to these aspects. This is due to the fact that they are connected to both the dependability of business operations and the safety of the information that is kept in databases. The maintenance of contracts and paperwork, as well as keeping track of when employees switch shifts, are the primary emphasis of this sector of the business. Within the context of the system for managing people, the procedures of managing contracts and managing files are seen as being of the utmost significance. Both of these procedures need a wide range of essential skills, such as the capacity to add to and take away from the list of items. After the matching adjustments have been completed, there is the possibility that further modifications will be made to take the alterations into consideration.

As a result of the severe rivalry that exists in the market for talent, human resource management has garnered a great deal of attention in recent years and has evolved into one of the main core management challenges that every organisation must contend with. This is a direct effect of the severe rivalry that exists in the talent market. This is due to the increased amount of internal debate on new basic management concerns that are present in HRM. Every facet of modern life necessitates the use of a human resources management information system, and the requirements placed on the system's degree of objectivity are becoming more stringent as more and more time passes. The development of an information system for human resources may sometimes be seen through the lens of human resource management in today's world. This is made possible by a system interface that is easier for users to navigate, unified administration of information input and storage, specific financial processes, and other forms of data processing. This is due to the fact that the data input and storage was done via a centralised administrative system. This is due to the fact that unified management was implemented for the purpose of data storage and information collection, which in turn leads this to occur. Dealing with the "information island" that is the human resources market is the primary focus of this article. Other objectives include achieving interaction between the online and offline components of the market, achieving interconnection and intercommunication between the market's public services and labour management systems, and realising the expansion of public employment services through the use of self-service terminals, mobile terminals, and other equipment. There is something of a "information island" in the market for human resources, and it has to be addressed.

The field of human resource management is undergoing change as a direct result of advancements in computer science and technology, most notably the resurgence of information technology and the growing use of technologies connected to the Internet. Information systems are no longer being used for traditional company management systems; rather, they are being used to fulfil the requirements of extra users. This is owing to the fact that the Information Age came along at a period of time when developments in computer science and technology were occurring at a fast rate. The closed mode, which had previously been connected to a greater number of restrictions, has been modified as a direct result of this modification. In today's corporate world, which is well-known for its cutthroat competition, the availability of human resources has been highlighted as one of the most important factors that must be taken into account in order to successfully deal with the problems. This is one of the most important factors that must be taken into consideration in order to effectively deal with the problems. It has been determined that this is one of the most important aspects that, in order to effectively address the problems, it is necessary to take into consideration. Companies have lately been forced to cope with major difficulties because of the expansion of the information economy, changes in the attitudes and demographics of the workforce, and the severity of the degree of global competition [2].

His research is primarily focused on learning about the HRM strategies that are now being implemented in the private banking business in Bangladesh, as well as how the influence of these techniques affects the level of employee satisfaction in the industry. One hundred bank employees in all were selected to take part in the survey out of a larger pool of prospective responders. There were a total of 100 people who participated in the survey, and 88 of those people provided replies that appropriately indicated their level of comprehension of the topics that were discussed. In all, responses came from 88% of the population. The paper focuses on nine fundamental aspects of human resource management and covers those aspects in depth. They consist of the procedures that are used in the recruiting and selection of personnel, the pay scale, job security, career promotion, training, and development, as well as the management style, the nature and duties of each position, reward and incentive programmes, and the actual workplace itself. His study cannot be considered comprehensive since it lacks sufficient supporting evidence. According to Guest, the strategy that supports the

idea of reciprocal benefits underlines the concept that human resource management (HRM) should be useful to both people and enterprises [3].

2) Review of Literature

When it comes to firms that are knowledge-based, modern human resource management (HRM) has to take a closer look at the competences of the staff than it did in the past. Because of this more detailed definition and the need for information exchange across the different companies that make up networked enterprises, it is necessary to standardise the notion of competencies as well as other related concepts. Both a university competence management system and a meta-search engine for job seekers using job portals will use an ontology that was developed by our team. This ontology contains many concepts that are associated with human resource management and will be used in both of these projects. Before delving further into the requirements brought forth by the two projects, we begin by providing a high-level overview of the design of the ontology. Because it contains job descriptions, ideas for assessing skills at different levels, and evidence of competence, this ontology is unique. In addition, the HR-XML standard is followed when it comes to the technique for developing competence profiles, which ensures that the definition is accurate. [4] the construction of an ontology for human resources by the use of already established classification systems and criteria. In addition to this, they said that the skill sub-ontology of the KOWIEN ontology, which is derived from it and defines the degree of competence, generates concepts that are representative of competencies. Despite this, they do not provide any specific data about the makeup of the ontology, its characteristics, or its linkages to any other ontologies. They do not, however, take into consideration the benefits that might be obtained via the use of meta-search engines for online employment opportunities. The existing website has the potential to be developed into actual career networks, or virtual places, where employers and job seekers alike may discover relevant and helpful services to match their individual requirements. Throughout the whole of the candidate selection process, they relied only on semantic search. a method for the production of ontologies that consists of a step-by-step guide broken up into four sections and recommendations for best practises derived from their respective areas of expertise. They provide a scenario in which a large insurance company makes the decision to construct an ontology-based skill management system, and they show how their five-step approach is used in the context of this scenario by describing the hypothetical circumstance. [5].

The capability of the system to manage users is an essential component in ensuring that the system as a whole operates successfully and productively. Even if it is an indirect business activity that is more essential to the system's employees, the design of the user management function is still required if the system is to run consistently and effectively within a particular range. This is the case even though the design of the user management function is necessary if the system is to operate consistently and effectively within a certain range. This is necessary in order for the system to be able to provide the desired results, which are dependent on the design of the user management function. After successfully logging in, the user of the system is granted access to the interface of the system, at this point they are authorised to make use of the essential features. The essential configurations for the system's usage authority are stored in the user management function module of the system. User administration is a part of this system's management that is straightforward and simple to grasp. The most important aspect of the processing of this module is, however, the collection of the pertinent data that is obtained from the information of the company's personnel. The vast bulk of this data is comprised of sign-in details for users and information on who has power. The module dealing with file management is the one that is used the most, and the enterprise staff is the one that is responsible for administering the system. This is done to ensure that the critical work information of the company's staff is secure. [6].

It has been determined that one of the most important considerations that must be considered in order to successfully manage the challenges is the availability of human resources in today's sector, which is notorious for its intense level of competition. In recent years, businesses have been confronted with enormous challenges as a result of the growth of the information economy, changes in the attitudes and demographics of the workforce, and the increasing degree of worldwide competition. His research is largely focused on gaining an understanding of the HRM practises that are currently being implemented in Bangladesh's private banking business as well as the ways in which these practises impact employee happiness. One hundred bank employees in all were chosen to take part in the poll after being selected from a larger pool of organisations. A total of 100 persons took part in the survey, and 88 of them gave responses that demonstrated an accurate understanding of the topics covered. The overall response rate was 88%. The questionnaire delves into nine distinct facets of human resource management, including the hiring and selection procedure, the pay structure, job security, career advancement, training and development, management style, job design and responsibility, reward and incentive programmes, and the working environment. His research lacks the necessary number of data to be considered complete. According to Guest, the mutually beneficial approach maintains that human resource management (HRM) should be favourable to both individuals and businesses [7].

3) Requirements for an Ontology for the Management of Human Resources

The use of ontologies as a method for representation may be traced all the way back to the beginning of the field of artificial intelligence. At that time, there was some discussion on how assertional knowledge and taxonomic knowledge were to be kept apart from one another. Knowledge pertaining to taxonomy may be thought of as a kind of blueprint for the aforementioned things, but assertional knowledge often identifies particular instances of one-of-a-kind real-world objects. When describing conceptual knowledge for more straightforward applications, the usage of a taxonomy of things is all that is necessary. If, however, the meaning of things or concepts has to be streamlined in order to help in some form of understanding, then we need an ontology to explain the taxonomic knowledge. Taxonomies have a structure that is similar to an inheritance hierarchy, and it is in this structure that the categorical categories of concepts are organised. Frequently, an ontology will build extra links between ideas in order to limit them against one another in a manner that is more realistic. This indicates that, as a result of Ness's improved limits, it ought to be a great deal simpler to link individual persons to particular concepts and to construct consistent processing on them. In the subject of human resources (HR), several taxonomies are often used in order to arrange concepts such as different types of jobs, learning goals, and competencies. We foster clearer thinking, which ultimately leads to a knowledge base that is stronger and more dependable, and we give more connections that cut between stages. In the sections that follow [8], we will provide an overview of these links as well as a few features of the core notions included inside our ontology.

An ontology is necessary for two different projects: the maintenance of academic competencies and online recruiting that is combined with a meta-search for vacant jobs.

• *University Competence Management System*

The term "competence" refers to "a particular set of knowledge, skills, and/or other deployment-related attributes that a human resource may hold and that are required for the execution of an activity within a certain concept." Competence may be defined as "a particular set of deployment-related attributes that are required for the execution of an activity within a certain concept." Or, to put it another way, a competence may be described as "a specific set of knowledge, skills, and/or other deployment-related attributes that a human resource may hold." Knowledge, skills, and behaviours are the three components that come together to form competence. Through our participation in the educational system, we are able to gain knowledge. Either by hands-on experience or theoretical knowledge, one may establish a suitable level of skill. Both of these methods are viable options. The only way to really learn anything is via direct experience and consistent repetition of the task at hand. Behaviours are one example of a person's unique characteristics. Behaviour has a significant impact on the degree of success that may be achieved when using information and skills. The recording of competence profiles is often considered to be one of the most important goals of systems for managing competencies. These strategies are helpful in assigning grades to staff members as well as pupils and in recognising areas of strength and areas in which improvement is necessary. In order to construct competency profile models, we make use of HRXML. The HR-XML Consortium is responsible for developing this standard, which provides a description of the processes and data that are vital to human resources. When constructing these competency profiles, the following three essential requirements need to be adhered to: comparability, validity, and data protection. It is necessary for all of the actors to make use of the same skill nomenclature and measurement scales so that comparisons between them can be made more easily. The use of an ontology is a tried-and-true strategy for the development of a language that is accessible to everyone. The dependability of the outcomes is what we mean when we talk about the validity of a competency test. Validity may be shown via the use of proof (such as digital certificates), as well as through the evaluations of competence carried out by specialists or peer groups [9].

• *Derived Requirements*

An electronic recruiting system may utilise a university's competence management system in order to do a competency profile analysis and identify students who are competent. This is done in order to find students who meet the recruitment requirements. A meta-search engine may be used by a university competence management system in order to locate career opportunities that are appropriate for students. In order to achieve a good matching of the profiles and interests of the candidates, it is necessary to have a common language for the systems used at both the searching firms and the educational institutions. The following is a list of the criteria that we have decided our ontology ought to satisfy:

- Ensuring a match between the candidate's skill set and the needs of the post, as well as vice versa;
- Competence and work-related terms that are synonymous,
- Establishing a connection between work and the relevant abilities,

- Suggestions for aspects of a person's personality,
- Learning goals, individual skills, and the interdependencies between individual competencies in relation to concepts of scale and measurement

4) Learning Objects Ontology

"Learning Objects" (sometimes written as "LOM") is one of the most well-known terminology in the field of e-learning concepts. This is a phrase that is often used to designate digital or analogue products that are exploited in the process of learning, education, and training (IMS). We call anything that was designed to aid people in the process of increasing their abilities a "learning object." We categorise these things based on the idea that learning objects might be anything from people who act as trainers to commercial businesses to works of written literature. Figure 1 [10] presents a framework that may be used to organise the many different sorts of learning items.

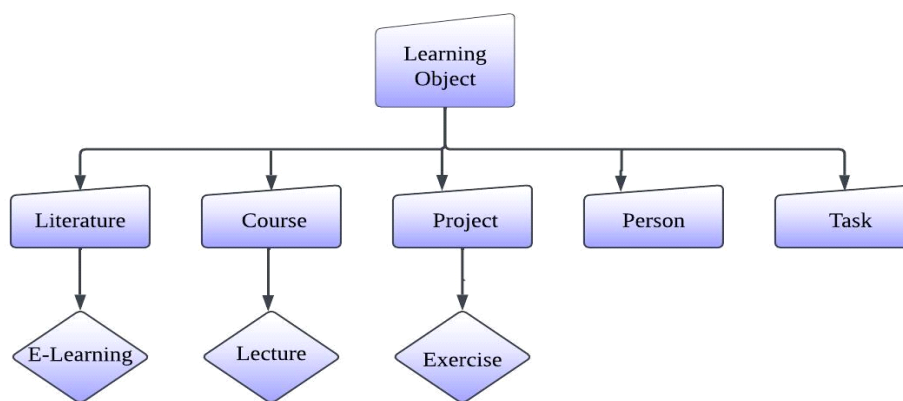


Figure 1: Learning Objects in the Ontology

Learning Objects are one of the components that can be found in ontologies. The following is a list of the areas in which the modelling assigns greater weight than one would expect based on the facts related to learning objects:

The "mode" OWL data type feature can be used to specify the learning mode (for example, alone, lecture, groups, or e-learning), and "preconditions," an OWL object type property that provides the necessary qualifiers before continuing, can be used to describe the amount of time required to obtain evidence from a learning object. [CDATA[The learning mode can be specified using the "mode" OWL data type feature (for example, alone, lecture, groups, or e-learning)].

Under the "Creates evidence" OWL object type attribute, the OWL dictionary provides a description of the evidence that the learning object creates. Information pertaining to this quality may be found in the OWL lexicon. Each learning item that is instantiated has an effect on the learner's total competency grade and contributes supporting data to the profile of the learner. Some educational resources will have a lesser influence on the overall value than other types of educational materials. The "book" learning object was produced in order to serve as an example for future projects. As the user progresses through a book, further evidence will be added to their profile. There is a wide range of diversity in the results that may be achieved using the different instructional tools at their various levels [11].

5) Research Methodology

- *System Software for Smartphones and Other Smart Mobile Devices*

An operating system for mobile devices, often known as an OS for mobile devices or just an OS for mobile devices, is an operating system that can be installed onto mobile devices. The term "OS for mobile devices" is usually reduced to "OS for mobile devices." It's possible that the open application programming interfaces (APIs) of the system, which make it possible for third parties to develop a broad variety of software applications, are the most notable aspect of the system. Apple's iOS, Microsoft's Windows Phone, and Google's Android are the three mobile operating systems that currently have the most users and get frequent software upgrades. Google's Android is the most popular mobile operating system overall. The following factors have had a major impact on the commercial success of the Android platform for the creation of software: As an immediate and direct consequence of this, Android apps are able to quickly and readily comprehend the

requirements of the Android development environment. Both the SQLite database and the Android development environment are cooperating in the background in one way or another right now. It is beneficial for the developers' development work to make use of this database since it eliminates the requirement for them to choose and make use of a different database when constructing Android apps. This eliminates a step that would normally be required. The developers have both more time and resources at their disposal today. Because the Android development platform offers developers access to such a comprehensive set of functionalities, it is far simpler for them to construct and troubleshoot software apps. Android has already established itself as the dominant operating system for a sizeable chunk of the smartphone market, and its rapid growth is something that no one on the face of the earth could have expected. This fact is made abundantly clear by the advanced civilisation of today. Due to the fact that there are presently millions of Android apps accessible for purchase, consumers are free to buy any sort of software they choose from the Android application market. The Eclipse plug-in for Android Development Tools and the Android Software Development Kit (SDK) are the two components that make up the Android development environment. The SDK is designed to work with certain versions of the operating system. These two components are what make up what is known as the Android development environment. Java is the major programming language used while developing applications for Android. The class library, which is a component of the programme architectural layer and helps to expedite software development, is used extensively throughout the creation of the system. This is made possible by the use of an object-oriented programming methodology. The following are some more techniques that might be used in order to define the behavioural model that they make use of: They operate on a person-person structure, in which the term "person" refers to direct superiors or colleagues.

$$R1 = (K \ln S1 + 1 + c) 1.$$

In the context of a human-machine system, the term "machine" refers to various types of equipment and technology that perform certain functions. This category contains a variety of different devices, including displays, controllers, and signalling systems. In the event that the machine is operating in the R2 mode, the following statements are true:

$$(K \ln S2 + c) = R2 \psi 2$$

- ***Design of the Function for User Management.***

The capability of the system to manage users is an essential component in ensuring that the system as a whole operates successfully and productively. Even if it is an indirect business activity that is more essential to the system's employees, the design of the user management function is still required if the system is to run consistently and effectively within a particular range. This is the case even though the design of the user management function is necessary if the system is to operate consistently and effectively within a certain range. This is necessary in order for the system to be able to provide the desired results, which are dependent on the design of the user management function. After successfully logging in, the user of the system is granted access to the interface of the system, at this point they are authorised to make use of the essential features.

The essential configurations for the system's usage authority are stored in the user management function module of the system. User administration is a part of this system's management that is straightforward and simple to grasp. The most important aspect of the processing of this module is, however, the collection of the pertinent data that is obtained from the information of the company's personnel. The vast bulk of this data is comprised of information on user logins and ownership of authorities. The important work information of the enterprise's employees is often protected by the usage of the file management module for the reason stated in the previous sentence. In the same vein, the majority of the administration work for the system is performed by the employees of the business. Business managers today have a much better understanding of the significance of effectively managing the information associated with an organisation's human resources, and as a result, they are working to reinforce and improve the building of an enterprise human resources management information system. As a direct consequence of this, a significant number of business managers have begun the process of developing or purchasing human resources information management systems that are suitable for the development goals or features of the organisation. However, a significant number of corporate managers still lack an in-depth understanding of the human resource information management system. Furthermore, managers often have the misconception that operations should be the major area of concentration. A test result that is more accurate in reflecting the real world may be obtained by blending together a number of different parameters, including system login, staff, attendance, performance, compensation, and announcements. These aspects are given varying weights in accordance with the system's numerous characteristics. As a consequence of this, it is vital to test the performance of the system in a variety of different circumstances. The regular services were the final option. According to the data and conclusions of the tests, the success rate of a transaction is almost 100%, and it is possible to obtain the desired end under a variety of different conditions. The transaction reaction time in the case is less than 1.5 seconds, which is within the acceptable response time range for such situations.

Table 2: Functional test structure data of each functional module

Module	No. of use cases	Success	Fail	Success rate(%)	Failure rate(%)
Attendance management	162	162	0	100	0
Department management	42	40	0	100	0
Training	110	109	1	99	1
Personnel management	220	220	0	100	0
Performance Management	82	82	0	100	0

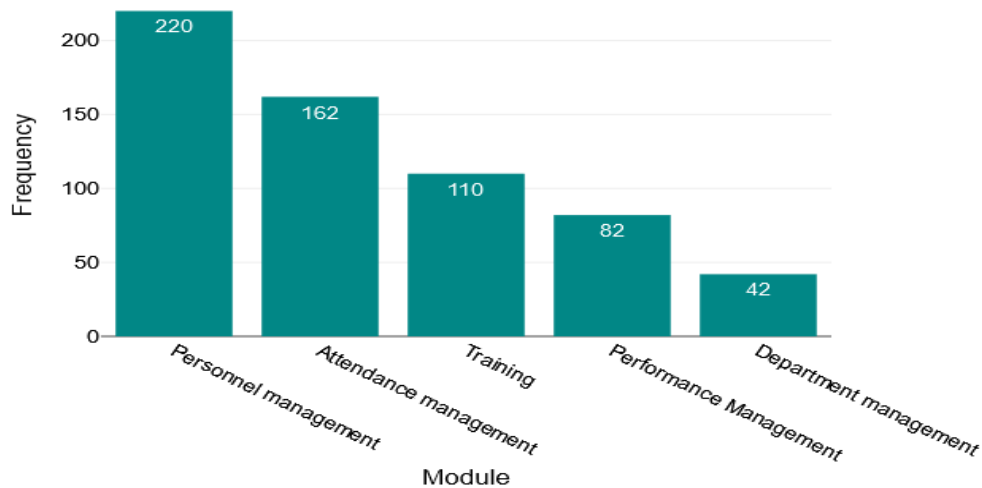


Figure 1: Module

• ***The Design of the Salary Management Function***

You may be able to construct a one-of-a-kind management platform to improve workers' love for their work if you calculate the amount of wealth that the company's employees have given to the firm in addition to other parts of their particular professions. After that, you may highlight the efforts of the personnel. When it comes to igniting employee passion and increasing employee ardour, one of the most important methods to do it is via the management of workers' compensation. As a consequence of this, pay management has to be taken into consideration whenever an organisation is developing its system for managing its human resources. All of the management modules of the system, including the function module responsible for pay management, are tightly integrated with one another. As a consequence of this, the planning of and the manner in which pay management is carried out are critical to the efficient operation of the HRM system as a whole. Wage management that takes into account the actual advantages received by employees has a substantial impact on a variety of factors, including the level of enthusiasm with which workers approach their job. Accurate entries, reports, and calculating methods are required in order to properly evaluate the amount of productivity achieved by each person at their place of employment. In addition, it must be feasible to meet the employees' requests for access to information on previous pay periods. The pay management function module of the system is comprised of three primary components: the administration of salary grade assessments, management of welfare benefits, and management of wages. The steps involved in determining compensation are outlined in Table 1, which may be viewed by clicking here.

Table 3: Salary calculation method

Name	Initial Value	Formula	State	Manage
Transport Aid	50.00	No Formula Set	Enable	Manage
Communications Assistance	20.00	No Formula Set	Not Enabled	Manage
Security For One's Health	1.00	-120	Not Enabled	Manage
Pension\Lateness An Early Start Was	1.00	-80	Enable	Manage

Made. Absence				
Travel Financing	1.00	- [Number Of Late Arrivals] *5	Enable	Manage
Time Off For Personal Use	1.00	- [Early Leave Times] *6	Enable	Manage
Transport Aid	1.00	- [Number Of Days Absent From Work] *30	Enable	Manage
Communications Assistance	1.00	[Business Trip Days] *10	Enable	Manage
Security For One's Health	1.00	[Number Of Days On Leave] *10	Enable	Manage

Business managers today have a much better grasp of the necessity of effectively managing the information connected to an organisation's human resources, so they are trying to enhance and improve the establishment of an enterprise human resources management information system. This is because they are aware of the fact that a business's human resources information must be managed efficiently. As a direct consequence of this, a huge number of business managers have begun the process of developing or obtaining human resources information management systems that are suitable for the development aims or features of the organisation. These systems are suited for the development of the organisation. Managers often believe that the company's operations should be the primary emphasis, despite the fact that many business managers still do not have a complete understanding of the human resource information management system. System login, personnel, attendance, performance, pay, and announcements are just some of the factors that may be combined to provide test results that are more genuinely representative of the actual world. Other variables that can be combined include: performance, pay, and announcements. A variety of weights are put on each of these parameters according to the myriad of characteristics that are associated with the system. As a result, it is very important to evaluate how effectively the system functions in a variety of different environments. Table 4 presents the typical services that, after careful consideration, were found to be the most advantageous option.

Table 4: Typical business

Typical Transaction Name	Function Type	Proportion Of Mixed Trading Time
Log in	Public employee function	22%
The submission of information about attendance	Administrator function	22%
Details on employees to be sent	Staff function	22%
notifications pertaining to the company's information	Administrator function	22%
Disclosure of compensation details to be submitted	Administrator function	15%

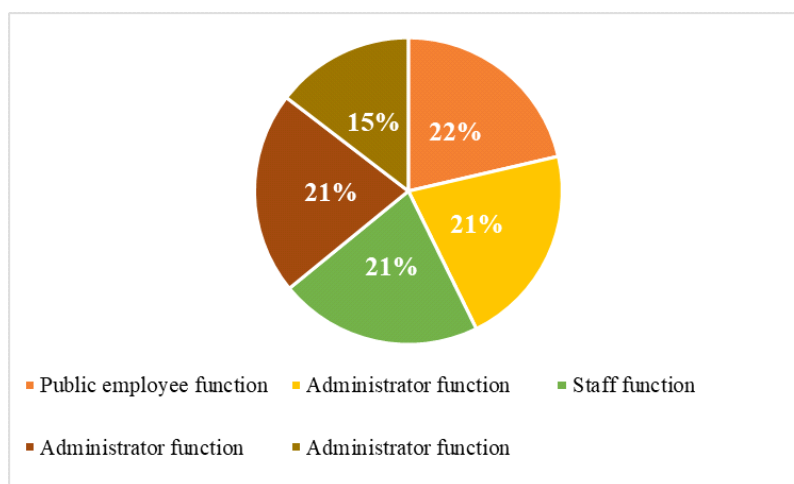


Figure 2: Typical business

6) Analysis and Interpretation

The human resource management information system has proven helpful in the process of improving the way that human resources are managed. In order for the department of human resource management to fully adopt the "management" role of strategic partners, it can no longer be confined to only supplying fundamental information about human resources. Instead, it may now provide assistance with managerial decision-making whenever and wherever it is needed. The human resource management information system improves the objectivity and transparency of human resource management by applying standardised corporate processes. Additionally, it eliminates human elements, which is very beneficial for establishing consistency in human resource management conduct. The success of individual individuals at their jobs has the potential to greatly boost the overall performance of the organisation.

Table 5: Descriptive statistics

	No. of use cases	Success	Total
Attendance management	162	162	162
Department management	42	40	41
Training	110	109	109.5
Personnel management	220	220	220
Performance Management	82	82	82
Total	123.2	122.6	122.9

A two-factor analysis of variance with measurement repetition was carried out in order to find out whether or not there was a significant difference between the groups of the first component, "No. of use cases and Success" (repeated measurements). This was done in relation to the variable that was being evaluated.

- a statistically significant difference was found between the groups that comprised the second factor module in terms of the dependent variable.

- There is a connection between the dependent variable and the variables "No. of use cases and Success" and "Module," and this correlation may be thought of as an interacting relationship.

The following are some of the inferences that may be drawn from the findings of the two-factor analysis of variance with repeated measurements:

- There is a statistically significant difference between the groups of the first factor, "No. of use cases and Success," in relation to the dependent variable, $p=aN$, s.

- the interaction that takes place between the two independent variables Module and " No. of use cases and Success " in relation to the dependent variable $p=aN$.

- a statistically significant gap exists between the several groups that comprise the first factor Module in terms of the dependent variable, and the p value for this gap is aN .

Table 6: Hypothesen

Null hypothesis	Alternative hypothesis
There is no statistically significant difference between the groups of the first component, which is the number of usage cases, and the Success group (measurement repetition).	When it comes to the component that is relied on, the groups designated by the first element, which is the number of use cases, and Success (measurement repetition), vary greatly.
In terms of the variable under consideration, there is no statistically significant difference between the second factor Module groups.	There is a substantial amount of variation in the dependent variable between the many different groups that come together to form the second factor Module.
The factors Success and Module, as well as the number of use cases, do not interact.	There is a connection between the variables Success, Module, and the quantity of use cases, which results in an interaction effect.

7) Result and Discussion

The regression model found that the variables Success, Fail, 99, and Failure rate (%) could explain 99.99% of the variance in the variable Number of usage occurrences. The model also found that these factors could explain

99.99% of the variation in the variable Failure rate (%). This conclusion was arrived at as a result of the fact that each of these variables had a value of 100. To determine whether or whether the gap between this number and zero is statistically significant, an ANOVA was carried out. It was found that the effect did not substantially depart from zero for the present sample ($F = 0$, $p = 1$, $R^2 = 1$); this was the conclusion reached by the researchers.

Table 7: Coefficients

	Unstandardized Coefficients	Standardized Coefficients			
Model	B	Beta	Standard error	t	P
Constant	0.28		0.5	0.57	.612
Success (X)	0	-0.11	0	-0.19	.862

Regression coefficients

The following regression model is obtained:

Number of use instances equals 1.61 plus 0.99 plus 0.12 plus 0.12, which is the success rate in percent, plus 99 plus 0.12 plus 0.12, which equals the failure rate in percent.

The value of the parameter. When all of the independent variables are initialised to zero, the number of use cases is equal to 1.61. Every point that is added or subtracted to the value of the Success variable will result in a change of 0.99 points in the total number of use cases. For every unit that the value of the variable Fail is altered, there is a corresponding 0.12-unit change in the number of use occurrences. Every time there is a change of one unit in the variable 99, there is a corresponding 0.12-unit shift in the value of the number of usage cases. Every time there is a unit shift in the value of the Failure rate (%) variable, there is a 0.12-point increment that occurs in the value of the number of usage cases.

coefficients of regression using standardisation

No matter what variable is being studied, the standardised coefficients beta will always fall somewhere between -1 and 1, since this is their natural range. The role that each independent variable performed in bringing about the change that was observed in the dependent variable. The number of use cases continues to increase as beta progresses. Within the context of this model, the variable Success has the greatest amount of impact on the variable Number of Use Cases.

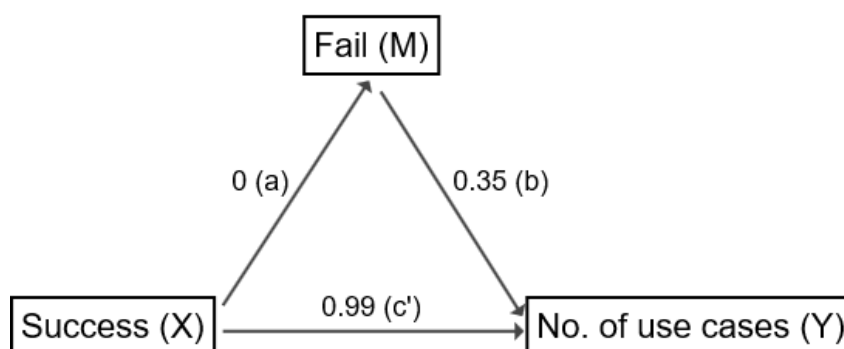


Figure 3: Mediator analysis

p-value

Since the estimated regression coefficients are tied to the sample that was used to complete the regression analysis, it is vital to know whether the individual coefficients just deviate from zero by chance or if they also deviate from zero in the population. This is because the estimated regression coefficients are connected to the sample. This is due to the fact that the sample that was used to draw conclusions from was connected to by the

projected regression coefficients. For the purpose of verifying this, we shall make use of the "null hypothesis," which asserts that the population value of each coefficient is equal to zero.

The standard error now represents the average coefficient dispersion that occurs when a bigger sample is utilised for the regression analysis. This occurs when the sample size is increased. After then, the test statistic, denoted by the letter *t*, is computed by making use of the standard error as well as the coefficient. a value notation is used for the *p*-value of the success coefficient. As a consequence of this, the *p*-value is greater than the threshold for significant difference of 0.05, lending credence to the alternative hypothesis that the success coefficient of the population is zero. As a consequence of this, it is presumed that the Success coefficient for the population is not equal to zero.

The *p*-value associated with the coefficient of failure is an empty string. As a consequence of this, the *p*-value is greater than the 0.05 threshold for significant difference, lending credence to the alternative hypothesis that the success rate of the population is equal to zero. As a direct consequence of this decision, we are going to proceed on the basis of the hypothesis that the population's coefficient for the variable Fail is not zero.

A figure that cannot be determined serves as the *p*-value for the coefficient of Failure rate (%). The assumption that the population's coefficient of failure rate (%) is equal to zero is known as the null hypothesis. This assumption causes the *p*-value to be greater than 0.05, which is the threshold of significance. Therefore, it is to be anticipated that the population's failure rate (% variable) will have a coefficient that is not equal to zero.

8) Conclusion

Through the use of mobile network communication technologies, this research project develops and maintains a commercial human resource management information system for the Android operating environment. The technology was developed with the goal of being used in an institutional or business environment. an approach to the management of data pertaining to human resources that is based on the Android operating system. The end aim is to create a platform that can govern information about human resources, issue warnings and notifications, and enable logins from a variety of users via the web or a mobile client application. This will be the final goal. This platform may be used to keep an eye on compensation data, exercise control over user information, publish and see alerts for attendance management, department administration, training, personnel management, and performance management, and monitor data related to employee performance. Other management-related concerns that might be addressed include training, people management, performance management, department management, and training. This will be done in the context of the follow-up study. In such case, the findings of the preceding study would be consistent with this conclusion.

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