Benefits of Human Resource Information Systems in a South African Construction Organisation

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Abstract. This study assessed the impact of Human resource information system (HRIS) within a large construction organisation in South Africa. The study adopted a quantitative research approach and used descriptive statistics to analyse the data gathered. Research respondents consisted of twenty-seven persons from the human resource department in an identified construction company in Gauteng, South Africa. The study revealed that HRIS is a management system in accordance with the legislation governing labour relations in the country which provides a clear vision of the business and saves time. Also, it minimises errors that are caused by human factor. This paper offers an overview of HRIS on Human Resource Management. Thus, highlighting its benefits thereof.

1. Introduction

The dynamic project-based and labour-intensive nature of the construction industry has a major impact on human resource management (HRM) [1]. The type of construction work required on a project may differ significantly from project to project [2]. This means that necessary skills and knowledge needed may change from one project to another. Hence, the industry relies on labour outsourcing [3], joint ventures, subcontracting, alliances, and the creation of new organisations to deliver projects [4]. All of these make the sector distinct, more so, they have made relationships between companies and their employees momentary and fluid, unlike in other industrial sectors.

According to Loosemore et al. [5] the construction industry pays little attention to HRM issues, therefore making planning for employee requirements a vague exercise which may result in the decrease of employee productivity, increase in labour turnover, and reduced employee moral thus making it hard to plan for the future [6]. Moreover, the HRM focus has been centralised to head-office function and employee information becomes spread between interdependent departments within the organisation making its accessibility increasingly difficult [6].

Tetz [7] observed that there is a need to incorporate a wider range of employee’s information thus ensuring an effective HRM decision-making process. A school of noted the increase in the adoption of information technology (IT) with applications that provide storage for the data required without cost increments in the administration of the HRM function [8]. Hence, the use of computers for the administration of employees has steadily increased in the past few years [9 - 13]. According to Raiden et al., [8] Human Resource Information Systems (HRIS) have been developed to aid the HRM function with comprehensive expert or decision-support systems. With rapidly changing human resource requirements and the casual nature of employment within the construction sector, HRIS is a means for organisations to overcome these problems through the adequate, reliable and accurate accessibility to personnel information [6]. HRIS includes systems and processes that integrate HRM and IT hence, it has become vital a tool for many organisations. HRIS is an instrument that uses information technology (IT) for the effectiveness of HRM practices and applications and it is rapidly becoming its own IT field [14; 15]. The IT development has improved the manner in which employee information is gathered,
through the development of HRIS systems [16]. IT has enabled the comprehensive adoption of HRIS applications and assisted companies to increase productivity by enhancing the proficiency of HRM [17]. Hence, the study by Panayotopoulou et al. [18], highlighted the importance of HRM investment in IT and educating and training employees about the benefits of using HRIS. Gill and Johnson [19] defined HRIS as a computerized system that comprises of a database or similar database that tracks employees and their employment records. Hence, it can be seen as an integrated system used to gather, store and analyse information regarding an organisation's human resource [20]. According to Dessler [21], issues pertaining to HRM have been a major concern to managers. This is because organisational objectives are met through the efforts of employees within the company hence, it is imperative that all personnel are effectively managed. The study by Lengnick-Hall and Moritz [22], highlighted that HRIS enables HRM personnel to contribute effectively to the organisational objectives. This can be achieved by systematising and decentralising the routine of HRM tasks. Also, HRIS provides HRM personnel with the time needed to direct their attention to other pressing matters within the organisations, such as talent management and leadership development [22].

Previous studies have revealed how the use of HRIS has increased within organisations, [23 - 25]. Furthermore, Khera and Gulati, [26] noted that the use of HRIS is not a new concept but it keeps evolving with changing environment. The study further identified the major role for HRIS is human resource planning (HRP), which serves as a major element in any company. It assists organisations to have updated information on current employees, as well as future workforce demand and supply. Correspondingly, the use of HRIS such as performance management, training and development, compensation management and corporate communication are being utilised within organisations [27; 28].

Studies by Hendirks, (2003), Beadles et al. [15] and Kovach et al. [29] observed the advantages of HRIS from a three-dimensional viewpoint: the advantages for management, the HR department and for employees. For management HRIS enables efficient decision-making; reduces costs and improved budget control; transparency within the organisation; a clear business vision and transparency in the process of hiring and firing of employees.

While HRIS advantages for HR department are: centralised database with all the employees information; an up to date database, especially for regionally diversified organisations; paperless work thus reducing human error; system is in accordance with the legislation; a decrease or elimination of redundancy within the system; ensures company processes conform to standards; data is highly reliable; enhances employees satisfaction with the HR department because of the departments efficiency; enables control over internal migration of employees, manage their talents and the ability to take preventive measures to avoid disputes within the organisation. Meanwhile the benefits for employees include: the likelihood of independent access to data; saves time; automated tracking and reminder to the organisational obligations and events; encourages employees to take initiatives and make decisions based on the information obtained in the HRIS system; data is always available; information is readily available on the system; internal web training courses for employee development may be accessed, thus enhancing staff knowledge, skills and morale [22]. Additionally, Lengnick-Hall and Moritz [22] mentioned other benefits for implementing HRIS include: creation of HRM policies and programs; facilitate decision-making regarding employee transfer, promotion, nomination, retirement plans, provident funds, leave, travel allowances; providing information and submitting returns to governmental statutory bodies; gathering suitable data and changing them to information and knowledge for improved decision making; enhance competitiveness through the revaluation of HRM practices; create multiple HRM reports that are accurate and up to-date; and improve employee satisfaction by delivering accurate HRM services promptly.

It is imperative to note that for organisations to have an efficient HR department that will aid them to successfully compete in global markets and thus obtaining competitive advantage. An adequate updated information on their current employees and those they wish to employ in the future should always be conveniently accessible. It is based on this knowing that this paper assessed the benefits of HRIS in a South African construction organisation.
2. Research Methodology

The study employed quantitative methods in assessing the benefits of HRIS in a South African construction organisation. The organisation is a large contracting firm situated in Gauteng, Johannesburg. The approach adopted enabled the researcher to examine relationships among variables, using descriptive statistics. The study used a structured questionnaire as an instrument of data collection. The questionnaire for this study comprised of closed-ended questions using a five-point Likert scale, to measure the views of the participants by choosing a factor from a number of factors ranging from ‘Strongly Disagree to ‘Strongly Agree’. Twenty-seven questionnaires were distributed to the HR department within the company. A 100% response rate was achieved. The Cronbach’s Alpha test for consistency was used to measure the internal consistency for the variables and yielded an alpha value of 0.972. Though, there are different reports on the acceptable alpha value, ranging from 0.70 to 0.95 [30 - 32]. The study by George and Mallory [33] reported that any value above 0.7 is acceptable. Therefore, the questionnaire used for this study is reliable. The biographical data were analysed using percentage, while mean item score (MIS), and standard deviation (SD) were used to rank the identified benefits as rated by the respondents. The factor with the highest MIS was ranked first followed by the next in a descending order. More so, factors with MIS of 3.00 and above were consider significant benefits of HRIS on HRM in a South African within a construction organisation.

3. Findings and Discussion

3.1 Background Information

The results from the data gathered on the respondent’s background information showed that majority of the respondents were between the ages of 41 – 45 years old (22.2%) and the least age category was between the ages of 20 – 25 years (3.7%). Furthermore, results revealed that the average years of work experience among the respondents is 13.5 years. Additionally, the results revealed that most of the respondents either had a matric certificate (37%) or diploma (37%) with the least having a master’s degree (3.7%). Based on the data analysis shown in Table 1 it can be deduced that the participants were matured enough in terms of work experience and qualified enough based on their educational background in the area of HR to give reasonable answers to the questions of this research study.

| Category          | Classification          | Frequency | Percentage |
|-------------------|-------------------------|-----------|------------|
| Age group         | 20-25 years old         | 1         | 3.7        |
|                   | 26-30 years old         | 3         | 11.1       |
|                   | 31-35 years old         | 2         | 7.4        |
|                   | 36-40 years old         | 5         | 18.5       |
|                   | 41-45 years old         | 6         | 22.2       |
|                   | 46-50 years old         | 2         | 7.4        |
|                   | 51-55 years old         | 4         | 14.8       |
|                   | 56 years and above      | 4         | 14.8       |
| **Total**         | **27**                  |           | **100.0**  |
| Years of experience | 1 – 5 years           | 4         | 14.8       |
|                   | 6 – 10 years            | 6         | 22.2       |
|                   | 11 – 15 years           | 5         | 18.5       |
|                   | 16 – 20 years           | 4         | 14.8       |
|                   | 21 years and above      | 8         | 29.6       |
| **Total**         | **27**                  |           | **100.0**  |
| Average           |                         |           | **13.5**   |
| Educational Background | Matric Certificate (grade 12) | 10   | 37.0     |
|                   | Certificate in Human Resource | 2     | 7.4     |
|                   | Diploma                 | 10       | 37.0     |
|                   | Bachelor’s Degree       | 4        | 14.8     |
|                   | Master’s Degree         | 1        | 3.7      |
| **Total**         | **27**                  |           | **100**   |
3.2 Benefits of HRIS on HRM

Table 2 reveals how the participants ranked the benefits of HRIS. Improved management system in accordance with the legislation ranked first (MIS=3.70; SD=1.07); Standardization of business processes ranked second (MIS=3.67; SD=1.00); HRIS is an extensive database for a wide range of employee information ranked third (MIS=3.60; SD=1.05); HRIS compiles employee profile in compliance to the employment equity act ranked fourth (MIS=3.60; SD=1.12). Increase of overall decision-making efficiency ranked fifth (MIS=3.56; SD=1.05); HRIS is user friendly ranked sixth (MIS=3.52; SD=1.09); Provides business transparency ranked seventh (MIS=3.52; SD=1.22); and Provides a clear vision of the business ranked eighth (MIS=3.52; SD=1.19). Also, HRIS can compile the organisation's equity plan ranked ninth (MIS=3.48; SD=1.09), and HRIS saves time ranked tenth. Likewise, HRIS compiles a report on the skills development of employees ranked eleventh (MIS=3.44; SD=1.15); Elimination of paper forms ranked twelfth (MIS=3.41; SD=1.12); and automatic tracking/reminder to business obligations ranked twelfth (MIS=3.41; SD=1.12). Furthermore, minimize errors that are caused by human factor ranked thirteenth (MIS=3.37; SD=1.11); also, increasing staff morale ranked fourteenth (MIS=3.37; SD=1.24); lastly, insightful process of hiring and firing employees ranked fifteenth (MIS=3.11; SD=1.28). The data from the respondents is congruent with the suggestion by [20], [15] and [29] who noted the three-dimensional advantages of HRIS. Also, the data concurs with the study by [22], which revealed that the benefits of HRIS are; creation of HRM policies and programs; facilitate decision-making regarding employee transfer, promotion, nomination, retirement plans, provident funds, leave, travel allowances; providing information and submitting returns to governmental statutory bodies; gathering suitable data and converting them to information and knowledge for improved decision making; enhance competitiveness through the revaluation of HRM practices; create multiple HRM reports that are accurate and up-to-date; and improve employee satisfaction by delivering accurate HRM services promptly. Moreover, the submission by [18] added that HRIS provides HRM personnel with the time needed to direct their attention towards more business critical and strategic levels tasks, such as leadership development and talent management.

| Benefits | MIS | SD  | R |
|----------|-----|-----|---|
| Improved management system in accordance with the legislation. | 3.70 | 1.07 | 1 |
| Standardisation of business processes. | 3.67 | 1.00 | 2 |
| HRIS is an extensive database for a wide range of employee information. | 3.60 | 1.05 | 3 |
| HRIS compiles employee profile in compliance to the employment equity act. | 3.60 | 1.12 | 4 |
| The increase of overall decision making efficiency. | 3.56 | 1.05 | 5 |
| HRIS is user-friendly. | 3.52 | 1.09 | 6 |
| Provides a clear vision of the business. | 3.52 | 1.19 | 7 |
| Provides business transparency. | 3.52 | 1.22 | 8 |
| HRIS can compile the organisation's equity plan | 3.48 | 1.09 | 9 |
| Saves time. | 3.48 | 1.28 | 10 |
| HRIS compiles a report on the skills development of employees. | 3.44 | 1.15 | 11 |
| Elimination of paper forms. | 3.41 | 1.12 | 12 |
| Automatic tracking/reminder to business obligations. | 3.41 | 1.12 | 12 |
| Minimize errors that are caused by human factor. | 3.37 | 1.11 | 13 |
| Increasing staff morale. | 3.37 | 1.24 | 14 |
| The insightful process of hiring and firing employees. | 3.11 | 1.28 | 15 |

4. Conclusion

The conclusion is based on the review of literature and the analysed data from the respondents on the benefits of HRIS. The data from the respondents revealed that improved management system is in accordance with legislation, standardisation of business processes, HRIS is an extensive database for a wide range of employee information, HRIS compiles employee profiles in compliance to the
employment equity act and it increases the overall decision-making efficiency. The fact that this study only focused on the HR department in a single construction organisation poses as a limitation to the study, hence the results of this study cannot be generalised. Therefore, this study can be extended to other companies for a broader view. Likewise, a study on the types of HRIS employed within the different organisations may be examined.

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