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ABSTRACT

Technological advancement in the 21st century has unlocked possibilities in all spheres of existence. Lately, with the advent of the Covid-19 pandemic, the workplace has been transformed, and businesses are operating in unchartered waters. A human resource management information system is believed to guarantee a more efficient and effective way of managing human capital in organizations. However, its implementation has not effectively transformed from the manual method of running the human resource functions. Many organizations are, therefore, still stuck with the traditional way of managing human capital. On this basis, this study sought to establish the effectiveness of recruitment information systems in human capital management. The study was anchored on the resource-based theory of the firm and used a cross-sectional research design with a target population of 458 employees. A sample size of 213 respondents was determined while stratified and simple random sampling techniques were adopted to select the respondents for the study. A structured questionnaire was used to obtain primary data from the respondents. The reliability of the questionnaire was tested through a pilot study where an average Cronbach alpha coefficient of 0.89 was obtained. The validity of the questionnaire was ensured by doing a detailed literature review and consultation with subject experts. Descriptive statistics (mean and standard deviation) were used to summarize data, while correlation analysis was used to test the study's hypothesis. Results were presented using tables. The findings established that recruitment information systems had a strong positive relationship (R = 0.873, β₁ = 0.518, R² = 0.762, p = 0.05) with human capital management, indicating that James Finlay Limited should invest more in Recruitment information systems. The study recommended that the company improve the recruitment information system to enhance the job interview process and improve the system to allow efficiency in tracking job applications and appointment processes.
INTRODUCTION

In recent years, information technology has been found to affect human resource management practices and processes profoundly. According to Johnson et al. (2016), Information Systems have been used by organizations to aid business functions, including production, accounting, marketing, and management of human resources. The use of Information systems in the management of human resources entails the application of technology to facilitate HR function. The information systems transform each organization’s processes to help the organization gain a competitive advantage and efficiency (Peneva & Ivanov, 2016).

Adoption of Information systems increases the efficiency of human resource management functions through improved and effective human resource planning, recruitment methods, selection process, performance management, employee involvement, organizational communication, and increased skills for human resource managers (Stone et al., 2015). The quality of human resource management is an essential success factor in organizations. This requires that organizations adapt to new logic and abandon outdated thinking and acting methods to improve human capital efficiency. Integrating information systems in human resource processes helps organizations to define their strategies and build programs that can be used to develop their human capital.

Bondarouk and Brewster (2016) assert that technology has changed how human resources are managed in organizations specifically; technology has changed how organizations gather, store, use and disseminate information about their human resources. Information technology systems have also enabled human resource professionals to deliver better services to all stakeholders and minimize administrative burdens for the organization (Stone & Deadrick 2015).

Stone et al. (2015) indicate that information technology has had far-reaching effects on human resource practices in organizations. However, maximum utilization of HRIS potential has been affected by various challenges such as the system allowing one-way communication, which is impersonal and passive, lack of interpersonal interaction, and creation of artificial distance between individuals and organization.
Sadiq *et al.* (2013) established that information systems were widely used in managing human capital in both countries. However, the cost of maintaining the HR information systems and effective change management in organizations hindered the efficient use of the systems, resulting in some organizations using traditional human resource management practices and modern practices using HRIS.

Matimbwa *et al.* (2020) found a limited implementation of the RIS in Tanzania. The few organizations that had adopted RIS were not using them appropriately, and hence it was not easy to measure their effectiveness. A study by Mugo (2017) indicated a positive effect on the performance of organizations that had adopted recruitment information systems. However, there was a need to incorporate recruitment information systems with other Human resource information systems such as training information systems and performance management information systems for maximum effectiveness.

James Finlay was established in 1750, and the company is owned by the Swire Group, a diversified global business group. The company has business interests in horticulture and tea farming sectors in Kenya, China, Sri Lanka, and South Africa. The company has its primary markets in Asia, the USA, the UK, and part of the European continent. There are three multinational companies in Kericho producing tea on a large scale, including George Williamson's limited, Unilever limited, and James Finlay limited. Among the three companies, James Finlay tea limited company is the largest, and it is for this reason the study purposively selected the company as a unit of analysis.

**Problem Statement**

The application of Information technology in the human resource management field guarantees a more efficient and effective way of managing human capital. However, failure to implement human resource management systems has seen many organizations experience malpractices in human capital management. These anomalies include payroll fraud, where ghost workers continue to earn salaries, irregularities in the hiring process, and detection of anomalies taking a long time. To this effect, several studies have been done to examine the effectiveness of Recruitment information systems in the management of human capital. But most of these studies have focused on organizations in developed countries, especially in the public sector. The few studies that have been done in Kenya have focused on one or two modules of the recruitment information systems. For example, Mwangi and Reuben (2019) studied the influence of electronic training and electronic recruitment on human resource performance. Gitari (2019) studied the impact of E-recruitment and selection information systems on the performance of listed companies. Nyaga (2018) did a study on the effectiveness of performance management information systems, Mugo (2017) did a survey of ESS, and Njeje, Chepkilot, and Ochieng (2018) focused on the effects of HRPS on organizational efficiency. On this basis, the current study sought to assess the effectiveness of recruitment information systems on the management of human capital.

The objective of the study was to evaluate the effectiveness of recruitment information systems on the management of human capital

**Study hypothesis:** Recruitment information system has no significant influence on the effective management of human capital

**LITERATURE REVIEW**

This section presents the study's theories, the empirical review, and the conceptual framework depicting the relationship between the study variables.

The study was underpinned by Resource-Based View (RBV), which Wernerfelt (1984) propounded. The RBV theory is founded on a theoretical
A paradigm that postulates that the resources and attributes of the firm are more critical to sustained competitive advantage than industry structure and the actions of competitors (Barney, 1997). Barney (2001) defined resources as the tangible and intangible assets a firm uses to choose and implement its strategies and generally include organizational, human, financial, and physical resources.

In outlining a framework to determine a resource's required to be considered a source of sustained competitive advantage, Teece, Pisano, and Shuen (1997) listed the following as the key elements; resources have to be rare, not substitutable valuable and inimitable. The resource-based view theory argues that technology, natural resources, and economies of scale can create value, but that these sources of value are increasingly available to almost anyone anywhere and anytime and they are easy to copy, whereas human resources can provide the firm with a source of competitive advantage with respect to its competitors. The theory was relevant to the study since HRIS and human resources are important resources that an organization could use to deliver competitive advantage.

This theory lends credence to investment in technology that would enhance the performance of the firm's most important resource – the human resource. The theory also underscores the need to ensure the effectiveness of the resources engaged in an organization. It thus supports the dependent variable under study, which is the management of human capital.

Recruitment is the process where an organization attracts potential applicants to apply and fill for a vacant position. The effectiveness of the recruitment information system can be determined by faster filling advertised vacancies, cost reduction for recruitment, quantity, quality, and diversity of applicants. A recruitment information system helps generate data faster and keep employees updated about the availability of the job, all at a low cost (Muma, 2018). HRIS can support long-range human resource planning with information with sufficient information on the supply and demand of the labour force. HRIS can enable organizations to keep information on the need for employment arising from separations, termination, and retirement. It also keeps a database of potential employees and other information such as appropriate training programs, salary forecasts, pay budgets, and labour/employee relations with contract negotiations and employee assistance needs (Al-Shibly, 2011).

Arefin and Hosain (2019) investigated the role of HRIS on firms’ performance in selected pharmaceutical firms in Bangladesh. Specifically, the study sought to examine the influence of job analysis, recruitment, selection, performance appraisal, and communication on the profitability of pharmaceutical firms. The researcher employed Pearson's correlation coefficient technique to test the relationship between independent and dependent variables and employed linear regression analysis in testing the hypothesis. The findings indicated that all the four independent variables had a positive and strong relationship with organizational performance. The study established that efficient utilization of HRIS in job analysis, recruitment and selection, performance appraisal, and communication led to improved profitability.

Eckhardt et al. (2014) surveyed the transformation of people, processes, and information technology in e-recruitment. The survey involved an eight-year-old case study from German Media Corporation. Interviews were carried out, each interview was recorded and transcribed, and materials given by the firm were appropriately analysed, cross-checked, and coded depending on the adopted survey model. Positive effects of e-recruitment in the survey indicated that e-recruitment in collaboration with implementations of HRIS contributed to the improved overall performance of the organization. This was due to an improved recruitment schedule that led to the reduced time taken to perform the
entire process and sub-processes such as time-to-interview, time-to-hire, and time-to-publish-job-ads. The study also indicated that e-recruitment enabled a firm to decrease recruitment costs. The marketing costs of personnel, the process costs, and the incoming costs reduced application.

Samkarpad (2017) studied the effectiveness of HR information systems on HR functions of manufacturing units of Sangareddy district (India). The study was an effort to establish a study framework of the effectiveness of HRIS applications. This research aimed to measure the HRIS Recruitment application effectiveness in a firm, to focus on HR Information System contribution in Planning of Human Resource. The research framework was composed of 2 sub-systems of HRD; HRIS Planning of Human Resource and HRIS recruitment. The data collected from 50 HR professionals highlighted that the HR executives were conscious that they could escalate the HR planning efficiency through HRIS as the systems helped the company save costs and time.

A study by Esther et al. (2018) highlighted that information technology today enhances many of the recruitment function's sub-processes such as long and short-term candidate attraction, generation, pre-screening, and processing of applications or contracting and deployment of new employees. Online job advertisements on corporate websites and internet job boards, online CV databases, different forms of electronic applications, applicant management systems, corporate skill databases, and IS-supported workflows for the contracting phase. These are only a few examples of the various ways by which information systems today support recruitment processes.

A study by Gitari (2019) sought to examine the impact of recruitment and selection information systems on the performance of listed companies in the Nairobi stock exchange. The study adopted a descriptive - exploratory research design. The target population was 60 companies listed in the Nairobi stock exchange. The purposive and quota sampling method was used to come up with 30 companies for the study. The study findings established that recruitment information systems contributed positively to listed firms' performance.

From the above-reviewed studies, it is evident that recruitment information systems positively influence organizational performance. However, the studies have not established the extent to which various variables related to recruitment are influenced by Recruitment information systems hence the need to carry out further studies to examine the relationship between HRIS and management of human capital.

**RESEARCH METHODOLOGY**

The study adopted a cross-sectional research design. According to Nerison (2021), cross-sectional research is used to establish or conclude the cause-and-effect relationship between variables where one variable depends on the other independent variable. The research design is also adopted when the independent variable cannot be manipulated, and its effect on the dependent variable is measurable (Wahyuni, 2012). In this study, the design helped the researcher examine the effectiveness of human resource information systems on human capital management. The target population of the study was all the employees of James Finlay Kenya Limited. A sample size of 213 respondents was determined, and respondents were selected proportionately using stratified and simple random sampling techniques. Primary data was obtained through the use of a structured questionnaire having a 5-point Likert scale. Descriptive statistics using mean and standard deviation were used to present summary data, while correlation analysis was used to indicate the nature and direction of the relationship between recruitment information systems and management of human capital. Lastly, all the ethical issues, such as seeking the respondent's consent and informing them of the purpose of the study, were adhered to.
Further, the respondents’ opinions were respected and treated with a lot of confidentiality.

RESULT AND DISCUSSION

The section presents the results from data analysis which was done using descriptive and inferential statistics.

Descriptive Statistics

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recruitment information system in the company has led to improved online vacancy advertisement.</td>
<td>204</td>
<td>4.09</td>
<td>0.87</td>
</tr>
<tr>
<td>The recruitment information system in the company has contributed to an effective employee selection process.</td>
<td>204</td>
<td>4.05</td>
<td>0.78</td>
</tr>
<tr>
<td>The recruitment information system in the company has enhanced the interview process.</td>
<td>204</td>
<td>3.95</td>
<td>1.02</td>
</tr>
<tr>
<td>The recruitment information system has led to ease of applicant tracking and appointment.</td>
<td>204</td>
<td>3.93</td>
<td>0.95</td>
</tr>
<tr>
<td>Effective recruitment information system in the organization has enhanced the efficiency of human capital.</td>
<td>204</td>
<td>4.15</td>
<td>0.95</td>
</tr>
</tbody>
</table>

From Table 1, the study established that most of the respondents strongly agreed that the company's recruitment information system led to improved online vacancy advertisement ($M = 4.09; SD = 0.87$). The respondents also agreed that the recruitment information system in the company has contributed to an effective employee selection process ($M = 4.05; SD = 0.78$). However, the respondents were neutral as to whether the recruitment information system in the company has enhanced the interview process ($M = 3.95; SD = 1.01$). Likewise, the respondents were neutral on whether the recruitment information system had led to ease of applicant tracking and appointment ($M = 3.93; SD = 0.94$). Further, the respondents agreed that an effective organizational recruitment information system enhanced human capital efficiency ($M = 4.15; SD = 0.94$). The findings indicate that at least all the respondents agreed to the statements relating to the recruitment information system, thus confirming that Recruitment Information System has a positive influence on the management of human capital. These findings concur with those of Arefin and Hosain (2019), Eckhardt et al. (2014), Samkarpad (2017), and Gitari (2019). They established a positive relationship between recruitment information systems and the management of human capital.

Inferential Statistics

The study used a linear regression model to assess the effectiveness of the recruitment information system on the management of human capital at James Finlay limited. This is because only one independent variable was involved in the study.

The linear regression model used was as follows:

$$Y = \beta_0 + \beta_1X_1 + \epsilon$$
Where \( Y \) = dependent Variable (Management of Human Capital); \( \beta_0 \) = Constant; \( X_1 \) = Independent Variable (Recruitment Information Systems); \( \epsilon \) = Error Term

### Table 2: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>( R )</th>
<th>( R^2 )</th>
<th>Adjusted ( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.873a</td>
<td>0.762</td>
<td>0.734</td>
</tr>
</tbody>
</table>

*\( \alpha \). Predictors: (Constant), Recruitment Information System

*\( \beta \). Dependent Variable: Management of Human Capital

The study findings established a correlation coefficient \( (R = 0.873) \). This is an indication the independent variables are good predictors of the dependent variable. The proportion of variance is indicated by the coefficient of determination \( (R^2 = 0.762) \) which can be explained by the independent variable as accounted by the regression model. This implies that 76.2% of the organization's human capital management was due to the recruitment information systems, while 23.8% was due to other factors not under study. Thus, the study concluded that the recruitment information system has a significant positive relationship with human capital management.

### Table 3: Analysis of Variance (ANOVA)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>( F )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>63.563</td>
<td>5</td>
<td>12.713</td>
<td>38.751</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>64.955</td>
<td>198</td>
<td>0.328</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>128.518</td>
<td>203</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*\( \alpha \). Dependent Variable: Management of Human Capital

*\( \beta \). Predictors: (Constant), Recruitment Information System

The findings established a significant statistical relationship between the independent and dependent variable, \( F (5,198) = 30.751, p < 0.05 \), and thus the null hypothesis was rejected, and in place, the alternative hypothesis was accepted. The study, therefore, concluded that there is a significant relationship at \( \alpha = 0.05 \) that indicates a positive linear relationship between recruitment information systems and management of human capital. These findings were consistent with those of Asare, 2019; Mulegi, 2014; Arefin and Hosain, 2019; Gitari, 2019; Cui, Wu, Lu, Jin, Dai, and Bai, 2016; Margatama, 2017).

### CONCLUSION AND RECOMMENDATION

James Finlay limited implemented a recruitment information system indicated through online vacancy advertisements, an effective employee selection process, and the use of online applicant tracking and appointment systems. The study found that effectiveness on recruitment information systems at the organization led to enhanced human capital management. Further, the study established significant evidence at \( \alpha = 0.05 \), which indicated a positive linear relationship between recruitment information systems and management of human capital at James Finlay limited; hence it can be generalized that firms in a similar sector can increase management of their human capital by adopting recruitment information systems.

The study recommended that organizations use recruitment information systems to improve human capital management and comply with statutory labour relations and standards. To ensure efficient implementation of recruitment information systems, the management should incorporate the objective in
the company's strategic and change management plan. The management should also involve employees from all levels to get their support in implementing the changes.

REFERENCES


