
Human Resource Management Practices And The Performance Of Small-Scale Enterprises. A Case Of

Wakiso District (Nansana Municipality)

Amutuhaire Edwig¹, Okee Jill Margaret²

1, 2 Metropolitan International University

Abstract

The research was mainly centered on examining the relationship between human resource management practices and performance in small-scale enterprises. The research was guided by three specific objectives that is to examine how recruitment and selection practices affect performance in small scale enterprises in Wakiso district, to assess the effects of performance appraisal on the performance of small scale enterprises in Wakiso district and to evaluate the influence of compensation plan on the performance of small-scale enterprises in Wakiso district.

Geographically, the research was carried out in Wakiso district Uganda among the food and beverage enterprises. Specifically, Nansana Municipality a town in the Central Region of Uganda located in the Wakiso District mainly because this is one of the very busy towns in Uganda and it has a very big number of small-scale enterprises ranging from small manufacturing enterprises, agricultural enterprises and construction enterprises on top of retail businesses. Nansana as a town is easily accessible and it's close to Kampala city which was favorable for the researcher. The research was carried out mainly using questionnaires and interviews and also reviews of existing literature. The researcher distributed the various questionnaires to the various respondents in the field and later collected them after the respondents had filled them. The interviews were done face to face as the respondents answered the questions that had been asked by the researcher.

Keywords: Human Resource, Management Practices, Performance and Small-Scale Enterprises

Background of the study

One of the main topics in the field of corporate strategy concerns competitiveness and the determinants of organizational performance (Ivan et al., 2023). Human resource management (HRM) is concerned with the effective performance of employees to enable them to achieve organizational goals and objectives, as well as employee job satisfaction, whether for profit or not (Kazaara & Kazaara, 2023). Employees are required to behave in a certain positive manner in order to meet predetermined target work behaviors that need to be mentioned and approached continuously so that they do not degenerate into slumps in organizational goals and objectives. HRM has a direct personal impact on employees, such as shaping the nature of work, salaries, and career prospects (Christopher, Moses, Muhindo, & Muhammad, 2022). The reputation an organization develops as a good employer helps attract and retain quality employees (David and Andrew, 2004). The history of human resource management (HRM) begins around the end of the 19th century, when social workers emerged (Ivan et al., 2023). During the 1920s, jobs with the titles "Labor Manager" or "Employment Manager" were introduced to the engineering industry and other industries where there were large factories. The role included dealing with absence, recruitment, firing and bonus inquiries (Winny et al., 2023). During the 1930s, the economy began to recover. Large corporations in these newer sectors have seen value in improving employee benefits as a way to recruit, retain, and motivate employees. After

Received: 14.05.2024

Accepted: 18.05.2024

Published on: 30.05.2024

Second World War, trade and other types of development continued to stabilize, and this constantly followed the development of human resource management in the world from Europe to Asia and all other continents of the world (N. Moses et al., 2022). Human resource management (HRM), as a key player in the creation and development of a highly productive workforce, lies at the center of the debate on business competitiveness (LEPAK et al., 2006). Ruwan (2007) and Lee and Lee (2007) empirically evaluated six human resource (HR) practices (realistic work, information, job analysis, work balance, career development, compensation, and supervisor support) and their likely impact on marketing manager turnover. A long same line (Ntirandekura, Ainebyoona, et al., 2022) states two components of human resource (HR) practices, namely training and information technology have a direct impact on organizational performance. In addition (T. Moses, 2023) four HRM practices showed that training and development, teamwork. HR planning and performance appraisal have a positive and significant impact on business performance. (Ntirandekura & Christopher, 2022) examine the impact of human resource management (HRM). (David et al., 2023) believe that business firms are concerned with performance in pursuit of their goals. The performance of the company as a whole determines its survival. Drunker 12007) defines performance as the balance between all factors of production that will produce the greatest output with the least effort (Isaac et al., 2023). Performance is a measure of the results achieved. Performance efficiency is the ratio between the effort expended and the results achieved. A performance presupposes an actor of some kind, but an actor can be an individual or a group of people acting in concert. A performance platform is the infrastructure or equipment used in the act of performance (Ntirandekura, Friday, et al., 2022). Performance involves performance improvement, an organizational change concept in which managers and the governing body of an organization implement and manage a program that measures the organization's current level of performance, such as inventory management, and then generate ideas to modify organizational behavior and infrastructure that are implemented behind in order to achieve higher performance (Deus, 2023). The performance indicator of an organization is a number of factors that vary from organization to organization due to a number of factors at a given time such as location of the firm, size of the firm, government regulation and others (Christopher, Moses, Muhindo, Mohamed, 2022)

Statement of the Problem

Over the years, organizational performance is still an issue that has left many scholars scratching their heads. This is because organizational performance varies from organization to organization (Edgar & Moses, 2023). A number of factors are indicators of organizational performance and these vary from organization to organization due to factors at a given time such as firm location, firm size, government regulation, and others (Christopher, Moses, Muhindo, & Muhammad, 2022). One aspect that competitors cannot easily imitate is human resources (HR), and therefore effective management of these resources can offer service organizations a competitive advantage (Ivan et al., 2023). In the last decade, researchers have emphasized the influence of human resource management (HRM) practices on organizational performance (K. Moses et al., 2023). Effective human resource practices relate to company performance by contributing to employee and customer satisfaction, innovation, productivity, and the development of a favorable company reputation in the industry (Racheal et al., 2023). A number of researchers have reported that HR practices are positively associated with organizational and employee performance, but little evidence is available on HR practices and employee performance of small businesses from developing countries (Turyatamba et al., 2022). Therefore, there is a need to examine HRM practices and their impact on the organizational performance of small businesses (Frank et al., 2023).

Specific objectives

1. To examine how recruitment and selection practices affect performance in small scale enterprises in Wakiso district
2. To assess the effects of performance appraisal on the performance of small scale enterprises in Wakiso district.
3. To evaluate the influence of compensation plan on the performance of small-scale enterprises in Wakiso district

Methodology

Research design is a framework of methods and techniques chosen by the researcher to combine the various components of research in a reasonably logical manner so that the research problem is effectively addressed (A & Ahmed, 2019). The researcher used a cross-sectional research design during the study. The researcher used this design because he can compare different groups of the population at one point in time. A cross-sectional design is a type of observational study design in which the researcher measures the outcome and exposure in study participants simultaneously (Jallow et al., 2022). The study population included business owners and employees in Nansana Municipality. The study population included persons aged 18 and over. The National Population and Housing Census (NPHC) 2014 showed that Nansana Municipality has a total of 186 employees (Christopher, Moses, Muhindo and Nturanabo, 2022). A sample size of 70 respondents was selected by the researcher from the field. This sample size was representative of the entire Nansana municipality. The researcher collected both qualitative and quantitative data using questionnaires and research interview guides. Quantitative data was collected using a structured questionnaire. Qualitative data were collected using an interview guide (Nafiu et al., 2012).

Received: 14.05.2024

Accepted: 18.05.2024

Published on: 30.05.2024

Questionnaires were used in data collection because respondents may take more time to answer at the appropriate time, thus providing more genuine responses (Nafiu et al., 2017). The researcher designed the questionnaires in accordance with the research objectives and distributed them to the various respondents of Nansana. Data analysis included editing, coding data entry into the computer, and verifying the accuracy of the data entered into the computer. Qualitative data was assessed and analyzed using content analysis, where a backup of analyzed numerical data was used according to key statements. Data analysis was done using SPSS & STATA in the form of frequency distribution tables, graphs and pie chart (Nelson et al., 2022).

RESULTS

Effects of Recruitment and selection on performance of small-scale enterprises

Table 1: Effects of recruitment and selection on performance of small-scale enterprises

Response	SA		A		NS		D		SD		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Recruitment is key in generating a pool of qualified applicants for organizational jobs	36	51.4	32	45.8	2	2.8	0	0.0	0	0.0	70	100
If carried out well recruitment and selection promote organizational advantage	31	44.3	36	51.4	0	0.0	3	4.3	0	0.0	70	100
Proper selection of employees in a source of effectiveness and efficiency in the organization	28	40.0	32	45.8	2	2.8	6	8.6	2	2.8	70	100
A source man power plan program logically follows a well-drawn up recruitment strategy	37	52.9	29	41.4	1	1.4	3	4.3	0	0.0	70	100
The quality of the organizational performance depends upon the quality of employee which is determined by the recruitment and selection strategy	42	60.0	28	40.0	0	0.0	0	0.0	0	0.0	70	100
Continued growth and development to an organization depends on its ability to recruit and select high quality personnel	20	28.5	34	48.5	4	5.7	10	14.2	2	2.8	70	100
Recruitment and selection help small scale enterprises to improve their	24	4.2	30	42.8	0	0.0	12	17.1	4	5.7	70	100

human resources practices and organizational efficiency												
--	--	--	--	--	--	--	--	--	--	--	--	--

Source: Field Data 2023

The table indicates that 51.4% strongly agree, 45.8% agree, 2.8% of the respondents are not sure yet none of the respondents disagree or even strongly disagrees with the point that Recruitment is a key In generating a pool of qualified applicants for organizational jobs (Christopher, Moses, Muhindo, & Komunda, 2022b), the table also indicates If carried out well, recruitment and selection promote organizational competitive advantage represented with the following statistics 44,3% strongly agree, 51.4% agree, 0,0% not sure, 4.3% disagree and 0,0% strongly disagree. Further still, the table above indicates that 28 (40.0%), strongly agree, 32(45,8%) agree, 2(2.8%) are not sure, 6 (8.6%) disagree and 2 (2,8%) strongly Proper selection of employees is a source of effectiveness and efficiency in the organization (Christopher, Moses, Muhindo, & Komunda, 2022a). The statistics also show that 37(52.9%) strongly agree, 29(41.4%) agree, only 1(1.4%) is not sure, 3(4.3%) disagree and 0(0.0%) strongly disagree A sound man power plan program logically follows a well-drawn up recruitment strategy. The statistics for the points that the quality of the organizational performance depends upon the quality of employee which is determined by the recruitment and selection strategy are indicated as follows: 42(60.0%) strongly agree, 28 (40.0%) agree while none of the respondents was not sure or disagreed with the point. The statistics indicate further that 20(28.5%) strongly agree, 34(48.5%) agree, 4(5,7%) not sure, 10(14.2%) disagree while 2(2,8%) strongly disagree Continued growth and development of an organization depends on its ability recruit and select high quality personnel (Racheal et al., 2023). Lastly, the table indicates that 24(34.2%) strongly agree, 30(42.8%) agree, 12(17.1%) disagree, 4(5.7%) strongly disagree Recruitment and selection help small scale enterprises to improve their human resources practices and organizational efficiency.

Table 2: The effects of performance appraisal on small scale enterprises

Response	SA		A		NS		D		SD		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Performance appraisal is a method of evaluating the behaviour of employees in the work place	43	61	27	38.5	0	0.0	0	0.0	0	0.0	70	100
Performance appraisal is an important career development tool for manager and employees	21	30	27	38.5	6	8.5	16	22.8	0	0.0	70	100
Managers are able to identify training needs of the organizational employees through performance appraisal	42	60	28	40	0	0.0	0	0.0	0	0.0	70	100

Received: 14.05.2024

Accepted: 18.05.2024

Published on: 30.05.2024

Performance appraisal is major tool in leadership development and succession planning	9	12.8	13	18.5	7	10	24	34.2	17	24.2	70	100
Performance appraisal is way of motivating employees of an organization	20	28.5	32	45.7	4	5.7	6	8.5	8	11.4	70	100
Performance appraisal promotes teamwork and cooperation	46	65.7	24	34.2	0	0.0	0	0.0	0	0.0	70	100

Source: Field Data 2023

The statistics indicate that 43(61%) strongly agree, 27(38.5%) agree while non disagrees or is not sure about the point that performance appraisal is a method of evaluating the behaviour of employees in the work place. 21(30%) strongly agree, 27(38.5%) agree, 6(8.5%) not sure and 16(22.8%) disagree that Performance appraisal is an important career development tool for managers and employees (Christopher, Moses, Muhindo, & Nturanabo, 2022). 20(28.5%) strongly agree, 41(58,5%) agree, 9(12.8%)disagree that Performance appraisal is a guide in identifying areas of strength among employees in the organisation. 42(60%)strongly agree, 38(40%) agree and none either disagree or is not sure about the issue that Mangers are able to identify training needs of the organizational employees through performance appraisal. 9(12.8%) strongly agree, 13 (18.5%) agree, 7(10%) are not sure, 24(34.2%) disagree and 17(24.2%) strongly disagree that Performance appraisal is major tool in leadership development and succession planning. 32(45.7) strongly agree, 20(28.5%) agree, 4(5.7%) not sure, 8(11.4%)disagree and 6(8.5%) strongly disagree that Performance appraisal is way of motivating employees of an organization. 46(65.7%) strongly agree, 24(34.2%) agree and non-disagree or is not sure that Performance appraisal promotes team work and cooperation (Winny et al., 2023).

Table 3: The influence of compensation plan on performance of small-scale enterprises

Response	SA		A		NS		D		SD		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Compensation is a way of eliminating or fighting conflicts in an organization	22	31.4	20	28.5	2	2.8	12	17.1	14	20	70	100
Excessive compensation costs can reduce an organizations competitiveness and its ability to provide jobs	22	31.4	34	48.5	0	0.0	11	15.7	3	4.2	70	100
Compensation is a motivation tool used by organizations	48	68.5	20	28.5	2	2.8	0	0.0	0	0.0	70	100

Received: 14.05.2024

Accepted: 18.05.2024

Published on: 30.05.2024

Compensation promotes organizational growth through promoting efficiency and effectiveness	22	31.4	18	25.7	4	5.7	12	17.1	14	20	70	100
The essence of compensation is to attract and retain skilled man power in the organization	32	45.7	31	44.2	0	0.0	7	10	0	0.0	70	100
Compensation is used by organizations to base decisions like promotion, demotions, termination of contracts among others	42	60	26	37.1	2	2.8	0	0.0	0	0.0	70	100
Proper compensation reduces costs of supervision because it encourages self-driven operations among employees	24	34.2	39	55.7	0	0.0	7	10	0	0.0	70	100

Source: Field Data 2023

According to the table, 28.5% strongly agree, 31.4% agree, 2.8% of the respondents are not sure, 20% disagree and 17.1% of the respondents strongly disagree that Compensation is a way of eliminating or fighting conflicts in an organisation. 31.4% strongly agree, 48.5% agreed, 15.7% disagree and 4.2% strongly disagree that Excessive compensation costs can reduce organisations competitiveness and its ability to provide jobs. The table then shows that 68.5% strongly agree Compensation is a motivation tool used by organisations, 28.5% agree, while 2.8% are not sure that Compensation is a motivation tool used by organisations.

According to the findings in the table above 31.4% strongly agree, 25.7% agree, 5.7% are not sure about the statement compensation promotes organizational growth through promoting efficiency and effectiveness. However, , 17.1% disagree while 20% strongly disagree with the fact that compensation promotes organizational growth through promoting efficiency and effectiveness.

The table indicates that most of the respondents strongly agree that the essence of compensation is to attract and retain skilled man power in the organisation indicated statically as 45.7% and 44.2% respectively yet only 10.0% disagree with this statement. None of the respondents disagreed or even strongly disagreed with the fact that compensation is used by Organisations to base decisions like promotion, demotions, termination of contracts among others. However, the findings in the table above indicate that 60% strongly agree, 37.1% agree while only 2.8%



were not sure of this. In the table further, 34.2% strongly agree, 55.7% agree and only 10.0% disagree that Proper compensation reduces costs of supervision because it encourages self-driven operations among employees.

Table 4: The relationship between human resource practices and organizational performance

Is there a relationship between human resource practices and organizational performance of small-scale enterprises?

Statement	Yes		No	
	F	%	F	%
Is there a relationship between human resource practices and organizational performance	66	94.3	4	5.7

The table above indicates that most of the respondents supported the fact that there is a relationship between human resource practices and organizational performance. This is statistically indicated as follows: 94.3% respondents say yes there is a relationship while 5.7% say NO there is no relationship (Nelson et al., 2023).

Conclusion

Human resource management is key to all organisations that need to stand the taste of time mainly because despite the fact that technology is continuously growing and machines are replacing people in some instances, human beings still remain a vital part of any business and no organisation can survive without human beings. It takes humans to manage the new and increasing business technology so it hence important for all organisations to ensure that they put in place proper human resource management practices for a better performance of their organization.

Recruitment and selection in any organization is a serious business as the success of any organization or efficiency in service delivery depends on the quality of its workforce who was recruited into the organization through recruitment and selection exercises, it is important for managers to understand the objectives, policies and practices used for selection (Christopher, Muhindo, & Nakalema, 2022). More importantly, those responsible for making selection decisions should have adequate information upon which to base their decisions, organization's human resource policies and practices represent important forces for shaping employee behavior and attitudes. In view of the findings, the study suggests that in designing and instituting human resource practices criteria quality should not be compromised. Furthermore, given that organizational environment is ever changing, the management of the organisations or business firms is implored to constantly evaluate the workforce as much as they can.

Performance appraisal comes with a lot of remuneration and package for both the employee and the organisation as a whole. However, it should not be overlooked that performance appraisal also has its shortcomings or negative effects towards the employees and the organization as a whole, though it seems that the positive effects outweigh the negative effects (Winny et al., 2023).



Recommendations

Management of organisations should ensure that they put in place up to date human resource management practices that favor all members of the organization as this will yield positive results for the organisations and prevent the challenges that come up with poor human resource management practices. Organizations can use employment agencies in the act of recruitment and selection but should be open to disclose the job description and responsibility to enable them select best suitable candidates for them. It was also recommended that firms should consider employing through an active and committed employee recommendation as it enhances mentoring, monitoring, obedience and coaching among employees and thereby increase productivities of employees. It also makes work environment friendlier and more enjoyable as workers work with friends because employees refer others like them. The study also recommends that firms should recruit based on the capability of the candidates on performing the job responsibilities than consideration based on host community influences to ensure that effective candidate is employed to perform the specified duty effectively.

Organisations should consider practicing Standardized performance assessments. Standardized performance assessments allow companies to aggregate, calculate and analyze results to show where performance is strong. These areas of strength then can serve as benchmarks and opportunities for sharing of best practices for other areas of the organization.

References

- A, S. M. D. A. U. Y. N. L., & Ahmed, H. O. (2019). *On a Semi-Markov Model for Stock Exchange using Capital Assets*. 6(1), 138–144.
- Christopher, F., Moses, N., Muhindo, M. E., & Komunda, T. R. (2022a). *Employee Training and Organizational Performance : A Case Study of African College of Commerce and Technology in Kabale District , South Western Uganda* : 6(5), 1–7.
- Christopher, F., Moses, N., Muhindo, M. E., & Komunda, T. R. (2022b). Employee Training and Organizational Performance: A Case Study of African College of Commerce and Technology in Kabale District, South Western Uganda. *International Journal of Academic Pedagogical Research*, 6(5), 1–7.
- Christopher, F., Moses, N., Muhindo, M. E., & Muhammad, M. (2022). *Rewards and Employee Performance in an Organization : A Case Study of African College of Commerce and Technology in South Western Uganda*. 6(4), 414–428.
- Christopher, F., Moses, N., Muhindo, M. E., & Nturanabo, M. (2022). *The Influence of Intrinsic and Extrinsic Motivation on Employees ' Performance : A Case Study of African College of Commerce and Technology in South Western Uganda*. 6(4), 321–329.
- Christopher, F., Muhindo, M. E., & Nakalema, F. (2022). *Decentralization and Social Service Delivery in Uganda : Acritical Analysis of the Decentralization and Social Service Delivery in Uganda : Acritical Analysis of the literature review*. November.

David, M., Julius, A., Ariyo, D., & Kazaara, G. (2023). THE ROLE OF COMMERCIAL BANKS IN

Received: 14.05.2024

Accepted: 18.05.2024

Published on: 30.05.2024

SMALL SCALE ENTREPRENEURIAL DEVELOPMENT IN ADJUMANI DISTRICT, A CASE STUDY OF CENTENARY BANK Background of the Study. *METROPOLITAN JOURNAL OF BUSINESS & ECONOMICS (MJB), 2(3), 1490–1505.*

Deus, T. (2023). *Inventory Control And Financial Performance Of Private Health Institutions . A Case Study Of Nakasero Hospital , Central Division.* 7(2), 158–166.

Edgar, M., & Moses, N. (2023). *the Impact of Community Based Organisation on the Social Economic Transformation of Communities in Uganda a Case Study of Disaster Resilience Initiative Uganda.* 2(3), 856–875.

Frank, M., Nelson, K., Kazaara, A. G., Deus, T., Christopher, F., & Catherine, M. (2023). *The Macroeconomic Determinants of Economic Growth in Uganda a Case Study Of Wakiso Distict.* 7(2), 147–159.

Isaac, O., Kazaara, A. G., & Kazaara, A. I. (2023). *Assessment of the Effect of Workplace Conflict on Employees Performance and Organizational Productivity , a Case Study of Tororo General Hospital.* 7(3), 279–289.

Ivan, M., Alex, I., & Deus, T. (2023). *Internal Auditing and Financial Performance Commercial Banks in Uganda: a Case Study of Centenary Bank Nansana Branch.* *Metropolitan Journal of Business & Economics (Mjbe), 2(6), 34–49.*

Jallow, M. A., Abiodun, N. L., & Weke, P. (2022). *Stochastic Forecasting of Stock Prices of Capital Assets Using Semi-Markov Model.*

Kazaara, A. G., & Kazaara, A. I. (2023). *Assess The Impacts Of Inflation To The Development Of Societies . A Case Study of Kagadi District.* 7(3), 281–290.

Moses, K., Kazaara, A. G., Kazaara, A. I., & Ismail, L. (2023). *External Auditing and the Financial Performance of Marianum Press Limited , Kisubi.* 7(3), 258–266.

Moses, N., Christopher, F., Muhindo, M. E., & Alex, A. (2022). *Task Oriented Management and Organisational Performance in Manufacturing Firms : A Case Study of Hima Cement Factory , Kasese District.* 6(4), 298–306.

Moses, T. (2023). *On Job Training and Its Implication on Staff Performance in Uganda : A Case Study of Kasanda District Local Government.* 7(4), 155–163.

Nafiu, L. A., Oshungade, I. O., & Adewara, A. A. (2012). *Alternative Estimation Method for a Three-Stage Cluster Sampling in Finite Population.* 2(6), 199–205. <https://doi.org/10.5923/j.ajms.20120206.06>

Nafiu, L. A., Ph, D., Ibitayo, L. D., Ph, D., Muyombya, S. M., & Sc, M. (2017). *On Empirical Power of Univariate Normality Tests under Symmetric , Asymmetric , and Scaled Distributions .* 18(1), 90–96.

Nelson, K., Christopher, F., & Milton, N. (2022). *Teach Yourself Spss and Stata.* 6(7), 84–122.

Nelson, K., Kazaara, A. G., & Kazaara, A. I. (2023). *Teach Yourself E-Views.* 7(3), 124–145.

Ntirandekura, M., Ainebyoona, A., Registrar, D., District, B., & Commission, E. (2022). *HUMAN RESOURCE MANAGEMENT STRATEGIES AND ENHANCEMENT OF STAFF RETENTION IN PUBLIC SECTOR ORGANISATIONS : AN EMPIRICAL INVESTIGATION IN KABALE.* 6(7), 89–103.

Received: 14.05.2024

Accepted: 18.05.2024

Published on: 30.05.2024

Ntirandekura, M., & Christopher, F. (2022). *Human Resource Recruitment and Labour Turnover in Local Government : a Case Study of Kabale Municipality*. 6(7), 154–159.

Ntirandekura, M., Friday, C., Mbisi, M. E., Nturanabo, M., & Muhammad, M. (2022). *Human Capital and Performance of Lecturers in Private Universities in Kampala District , Central Uganda*. 6(5), 185–195.

Racheal, N., Enock, Z., & Kazaara, A. G. (2023). *Impact of quality financial reporting on an organization resource management: a case study of humuza holding limited kampala uganda 1*. 2(2), 408–425.

Turyatamba, C., Nelson, K., Prudence, K., & Ntirandekura, M. (2022). *The Effect of Product Quality on Competitiveness of Small Medium-Sized Enterprises (SMES) In South Western Uganda ; Reflection on Kayonza Growers Tea Factory , In Kanungu District .* 6(12), 152–159.

Winny, N. D., Ariyo, D., Kazaara, G., Kazaara, A. I., & Deus, T. (2023). *Effect Of Motivation On Employee Performance In Non-Government Organizations (NGOS): A Case Of Mbale City*. In *International Journal of Academic Multidisciplinary Research* (Vol. 7). www.ijeais.org/ijamr