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# HUMAN RESOURCES ACCOUNTING DISCLOSURE PRACTICES IN INDIA: AN EMPIRICAL STUDY ON ITS IMPACT ON ORGANISATIONAL PERFORMANCE

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**ABSTRACT**

*Accounting for human resources (HRA) has still not been made mandatory in India and consequently, the extent of its disclosure is not apparent. However, the increased disclosure requirements globally as per Global Reporting Initiative (GRI) or the SEBI mandated "Business Responsibility and Sustainability Report" (BRSR) in India may have resulted in increased disclosures for HRA also. This paper seeks to examine the extent of disclosure practices by Indian companies of their human resources and analyzeits impact on profitability. The study has measured HRA in terms of the disclosure index, (calculated using sixteen indicators adopted insome prior studies), employee training expense, number of employees and their incremental salaries. Profitability has been defined in terms of return on total assets. Using secondary data from CMIEprowess, and in-depth study of annual reports of each company, the analysis was carried on a sample of 39 BSE listed companies whose required disclosure data was available in their respective annual reports for the last4 years. The results revealed that extent of disclosure has increased over the last few years owing to the mandatory SEBI requirement of BRSR statements. Further, the empirical results preferred the random model but none of the independent variables significantly impact ROA in either the fixed or random effects models highlighting the challenges in identifying robust predictors of firm profitability in panel data settings, especially when firm-specific characteristics do not seem to play a dominant role in explaining variations in financial performance.*

***KEYWORDS**: HRA, Disclosure Practices, Profitability, ROA, Employee Cost.*

## Introduction

Human resource accounting (HRA) is the method of diagnosing, establishing and disclosing the worth of human resource as an asset within a company that contributes to its growth and success. It entails quantifying the cost and value of employees, their skills, knowledge, experience and capabilities, also referred to as human capital working in an organisation and presenting them in their financial statements. HRA treats human capital as an investment capable of generating benefits for the organisation. It is an indicator of the money an organisation spends on its human resources. It includes funds expended not only on recruiting and training them but also on salaries and other benefits paid to them. Knauf (1983), defined "HRA as the measurement and quantification of human organisational inputs such as recruiting, training, experience and commitment". Quantifying the value of these resources helps better allocate them, make informed decisions and gain long term success. Without human involvement,

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an organization can lose its work efficiency, which it requires along with its machine efficiency. Thus, organisations must recognize and acknowledge the value of their employees. HRAhas gained momentum in recent times as organisations recognise the importance of human resources in achieving their strategic goals. Further, it is not unexplored in the area of accounting and economics and has also been the subject of innumerable researches since the late 1960s. The theory and measurement of these accounting concepts as human assets have been developed by academicians and researchers alike which are very different to the traditional accounting system in which they are not even recognised as intangible assets. Though still not a part of standard financial reporting, yet some organisations disclose the value of their human capital in their annual reports to provide their stakeholders insights into the same. While the other forms of capital comprising financial, social and intellectual represent untapped capabilities, it is human capital that activates these energies for the addition of value.

Akintoye et al., 2016 defined “Human resource accounting disclosure (HRAD) as practice of recording, measuring, and presenting details of transactions related to employees in an organization including costs of recruitment, selection, training, development, welfare and payments to employees” . Global HRA disclosure practices have gained momentum especially in developed countries like United Kingdom (Flamholtz et al., 2002); Sweden (Ax et al., 2010), and Australia (Boedker, Guthrie, & Cuganesan, 2004). Moreover, in developing countries like India (Aggarwal et al., 2002; Ratti, 2012), Africa (Enfoe et al., 2013); Sri Lanka (Abeysekera, 2008) and Bangladesh (Mamun, 2009; Hossain, 2015)also, the level of disclosures practices of HRA have risen. However, its measurement remains a mystery. Also, as per Luh & Yusmarisa, 2016 “disclosure ofHRA is voluntary and not regulated”, which results in restricted or no disclosure and also unconventional reports.

Further, the existing research suggests that there is an increasing need felt by Indian companies to measure and report its human resources. Recognizing the merits of assessing and reporting human assets, few Indian companies (both public and private)namely, “Hindustan Unilever Ltd., Hindustan Zinc Ltd., etc” (Joshi &Mahei, 2012; Bansal & Sharma, 2019) have voluntarily starting disclosing relevant information related to their human resources along with their financial statements. Despite the growing importance of HRA, disclosure of human resources of an organization have not received the attention it deserves. It is still an evolving concept at the early stage of acceptance. Companies Act, 2013 does not contain any provision for reporting information about HRAin financial statements. No legislation is there to recognize HRAas 'assets' in the Balance sheet of companies in India. However, The Indian Accounting standard (Ind AS) 19 prescribes the accounting and disclosure of employees benefits which are to be recognised as expenses if paid for present services and liability if to be paid in future. Although this standard does not require specific disclosure about short term benefits to the employees, Ind AS 1 on presentation of financial statement requires its disclosure in financial statement and Ind AS 24 requires disclosure about benefits to key managerial persons. Moreover, although lot of work has been done in this area, there is no approved method either for assessment of human resources or for its disclosure. Our study attempts to fill this gap. This paper has tried to identify the level of disclosure practices adopted by the companies in India and analyse its impact on their profitability.

## Literature Review

Much work has been done on understanding HRA, its relevance to management decisions, and its inclusion in its financial statements. Tinoco (2013) argues that the use of knowledge that a person has manifested through innovative mechanismadds immensely to the value of the company. So, the amount invested in empowering employees within organizations may add value for the companies.Elias (1976) tried to deliver the outline of the accounting methods by capitalising all human resource expenditures which had a unique effect on decision-making. Stephenson and Franklin (1982) provided the macro-level perspective of HRA by studying different models, which covered the real-world consequences on valuation of HRA. The study analyzed that many organizations need a systematic record of the number of employees for the management. It was discovered that in the near future, organizations will understand the importance of HRA and sooner will start reporting it.

Flamholtz et al. (2002) explained and studied HRA based on Swedish applications concerning the measurement of intellectual capital and human assets. The research is based on a survey based on developments in HRA in management schools. The study explained HRA as a means to improve management and estimation of human resources and concluded that the managers assimilate the impact on human capital on HRA for their decision-making which will further strengthen the profitability. Al Mamun (2009), in his study of 55 enterprises in Bangladesh examined the level of HRA disclosures and found 25% of all HRA components disclosed by them. Their results also revealed significant relationship between HRAD and size, its profitability and the types while no correlation was found between company age and HRAD. Another study on the same lines was carried out by Ullah et al. (2020) in Pakistan on 96 firms listed on Stock Exchange in Pakistan. The study aimed to analyse the impact of HRAD on the profitability of firms and revealed that such information disclosure has a major beneficial effect on the company's performance, evaluated in terms of return on assets.

Batra (1996) analysed the auditing practices and HRA in some of the selected public sector enterprises in India like BHEL, SAIL, etc. The study employed both primary as well as secondary data. A model for computing the value of the organization's human assets, and human valuation is suggested. Seth (2009) revealed that measurement and recording of HRA in India was increasing and Lev and Schwartz model was more commonly being used to determine the value of its human resource. Several Indian organizations have already adopted HRA and other accounting models to provide facts and figures about human resources in their balance sheets. Sharma and Lama (2014) emphasized on the importance Indian companies were giving to human resource accounting by making efforts to use HRA in their financial statements. The study disclosed that many Indian companies were conscious of various advantages of HRAand concluded that to encourage the development and applicability ofHRA, amendments are required to be made by the controlling bodies both at national and global levels. Kaur, Raman, and Singhania (2014) endeavoured to estimate the degree of measurement of human resource and recording practices in some selected Indian companies. Based on the importance of reporting HRA in the annual reports of the companies, the research analyzed these companies and rank them accordingly. Secondary data was used for this research using an experimental research design. Though the measurement and broadcasting of the human resource information is quite subjective, still companies are trying to adapt to the available models of assessment of HRA.

Moreover, many empirical studies in India aimed to examine the extent of presence of HRA disclosure practices and their impact on the corporate performance (Enofe et al., 2013;

Sharma & Bansal 2019). Joshi and Mahei, 2012, in their study attempted to compare the HRAdisclosure practices of 4 Indian companies by identifying and analysing the variables from their annual reports. (Enofe et al., 2013)'s study examined 50 financial and non-financial companies quoted on the Stock exchange in Nigeria to assess firstly, the relationship between their financial performance and HRA disclosures and secondly, the differences in their reporting levels. Micah et al., 2012 examined the association between HRADI and firm' s financial performance of companies in Nigeria for 5 years and concluded that firm's financial performance explained around 75% of variations in HRA disclosures. Another study by Onyekwelu & Ironkwe (2021), based on the data of insurance companies listed on the same exchange from 2012 to 2017, assessed the impact of human resources on their financial performance using three measures of HRA (disclosure index, training costs, and staff numbers, along with salary increments) and two financial performance metrics (return on assets and return on equity). Their findings suggested that insurance firms should enhance their HRA disclosures to boost stakeholder confidence and improve performance. Further, their results revealed that financial companies (banks and insurance firms) in Nigeria were ahead in disclosing HRA information than the non-financial ones.

Further, the data of another study (by Sharma & Bansal 2019) was obtained from primary and secondary sources from selected public sector corporate units and their detailed HRA disclosure practices were discussed. Another study undertook a two-stage analysis to examine the HRA disclosure levels for companies listed on Indian stock exchange and concluded that disclosure practices in India were still optional. Therefore, the disclosure practices adopted by them were very different (Jindal and Kumar (2012).Sindhu & Singh (2017) studied the relationship between HRA disclosure with 7 variables, namely, age of company, Net Worth, PAT, ROTA, RONW, MCP and compensation over a period of 10 years, from 2005 to 2015 of seventy public and private sector companies. Using descriptive statistics, correlation and simple linear regression of seven different variables, the paper revealed that employee compensation is positively and significantly associated to the HRA disclosure practices.

The plethora of available literature proves the need for human resource disclosures to be adopted for financial reporting. This provides a base for Indian companies to incorporate human resource accounting into their standard accounting principles. This leads to the scope of further research and understanding as to the level of disclosures that Indian companies have so far adopted and their impact on their financial performance. The study endeavours to analyse the extent and determinants of disclosure levels of human resources for companies listed in India in this two-stage analysis.

## Methodology

### Research Questions

The increased disclosure requirements globally (Global Reporting Initiative GRI) and mandatory in India (Business Responsibility and Sustainability Report (BRSR) by SEBI in its constant endeavour to improve environment, social and governance (ESG) objective, may have resulted in increased disclosures for HRA also. Therefore, the most important research question here is to assess the level of information disclosure on companies' human resources in their annual reports and then analyse its impact on financial performance of the company. The detailed objectives of the study are:

- Is there any association between HRA disclosure index (HRADI) and profitability of the company (ROA)?
- Does employee training expense(ETE) have an impact on financial performance of the companies?
- Does profitability of the company get affected by number of employees (NOE)?
- Does increment in employee's salary (IES) influencethe company's profitability?

**Accordingly, the following Hypotheses will be tested:**

**$H_0$:** HRADI, ETE, NOS, and IES do not affect ROA of companies significantly.

**$H_1$:** HRADI, ETE, NOS, and IES have significant effect on ROA of companies

### Definition of Sample, Data Collection and Analysis Technique

The present work is a detailed analysis of the impact of HRAD practices in India (specifically measured in terms of the disclosure index (computed with the help of sixteen HRAD indicators adopted in some prior studies), employee training expense, number of employees and incremental salaries on the organisational profitability for the 50 NSE-listed companies chosen for the study for 5 years from 2019-20 to 2023-24. After thorough examination of the annual reports of each NSE listed company, the complete data could be procured from 39 companies only.The analysis has been carried out in two steps.

The first step required calculation of human resource accounting disclosure index (HRADI) by examining the presence or absence of the 16 HRAD indicators [Table 1] defined and adopted in many earlier studies (Mamun 2009; Micah et al., 2012; Wiyadi et al., 2021; Onyekwelu & Ironkwe, 2021). The data was collected by detailed examination of annual reports of each of the sample companies for last 4 years from 2020-21 to 2023-24. The value of "0" was assigned when the information about the HRAD indicator was not available in the annual report and the value of "1" was assigned where the information was reported (Khan and Ali, 2010; Haji and Ghazali, 2012).

The HRADI was calculated as follows:

HRADI = Total score obtained ÷ Maximum score obtainable * 100

**Table 1: Measurement of HRADI Indicators**

| Serial Number | Items Disclosed | Meaning and Inclusion |
|---|---|---|
| 1 | Separate HRA statement (I) | Separate statement/report giving all the details of exclusively human resources |
| 2 | Total Cost of Human resource (II) | Total amount spent on human resources |
| 3 | Number of employees (III) | Number of employees who have worked effectively in the year |
| 4 | Human resource policy (IV) | Specific and exclusive actions for development of people |
| 5 | Training and development (V) | Amount spent by companies in training and development of its employees |
| 6 | Management succession plan (VI) | Career planning done for employees in their hierarchical model proposed for them |
| 7 | Employment report (VII) | Report of employee's movement, their turnover rate in the organization |
| 8 | Value addedto Employees (VIII) | How much value addition of the company was shared with the employees |

| | | |
|---|---|---|
| 9 | Human resource development fund (IX) | How much fund, if any, has been earmarked specifically for employee's policies |
| 10 | Employees fund (X) | Special provisions for responding to employee's contingent demands (say loans etc.) |
| 11 | Employee categories (XI) | Internal classification of employees for various purposes |
| 12 | Managerial remuneration (XII) | Compensation paid to top managerial level of employees (including stock options) |
| 13 | Retirement benefits (XIII) | Compensation to employees for their retirement |
| 14 | Performance Recognition (XIV) | Rewards for excellence in performance |
| 15 | Superannuation fund (XV) | Health insurance etc. paid to employees |
| 16 | Other employees' benefits (XVI) | Human resource-based actions and investments (for their well-being) |

Source: "Mamum 2009";"Wiyadi et al., 2021"

In the second step, we define the measurement of variables used in the study. Flamholtz (1974) defined "HRA as the process, which involves measuring the cost incurred by business firms and other organisations to recruit, select, hire, train and develop human asset". Hence, the disclosure variables defined in the study included employee training expenses (ETE), number of employees (NOE) and the incremental employee salaries (IES), the data of which was obtained from CMIE prowess for the 4 year period under study.

Measurement of financial performance of an organisation could be regarded as most important determining factors to measure its success or failure. Although several researches specify certain performance related issues, its definition has been challenging to many researchers. The present study has used the classic measure of Return on Assets (ROA) for the same. This important financial ratio is an indicator of the efficiency in terms of revenue generation with company's assets. Higher ROA assures increased rate of return on investment of the company. ROAhas been used to measure financial performance in many of the earlier studieson HRA (Enofe et al., 2013; Onvekyu & Ironkwe, 2021; Shukuhian and Ashraf, 2019; Mukolo*et al*, 2022; Khan, 2021; Sari et al., 2024). It has been measured as:

ROA = Profit before Tax/ Total assets

**Model Specification**

The regression model has been used to study the relationship between the HRADI, ETE, NOE, IES and the company's performance in terms of ROA of the company and multiple regressions have been run to analyse their relationship using SPSS version.

$ROA = \int(HRAD1_{it}, ETE_{it}, NOE_{it}, IES_{it})$(i)

The econometric model specified is as follows:

$ROA = \beta_{oit} + \beta 1_{it} + HRADI_{it}, \beta 2\ ETE_{it} + \beta 3\ NOE_{it} + \beta 4\ IES_{it} + \mu_{it}$(ii)

Where: $ROA_{it}$ = Return on assets (iii)

$HRADI_{it}$ = HRAdisclosure index (iv)

$ETE_{it}$= Employee training expenses(v)

$NOE_{it}$ = Number of employees (vi)

$IES_{it}$ = Increment in employee salary(vii)

**Empirical Results**

The analysis of the data is categorised into two sections: Firstly, descriptive statistics of the data is presented to understand the reporting levels of each disclosure indicator over the 4 year time period and the reasons for the same and secondly, the impact of each independent variable (HRADI, ETE, NOE, IES) on profitability of the companies defined in terms of ROAare presented to examine the effect of HRA on company's performance.

- **Descriptive Statistics of HRADI**

Tables 2, 3, 4 and 5 present the reporting levels of HRA disclosure indicators of sample companies for 4 years from 2020-21 to 2023-24 respectively.

**Table 2: Levels of Human Resource Disclosure (Year 2020-21)**

| Score Dimension | No of Companies | No of Company (%) | Cumulative Score % |
|---|---|---|---|
| 0-20 | 04 | 10.26 | 10.26 |
| 20-40 | 27 | 69.23 | 78.49 |
| 40-60 | 08 | 20.51 | 100 |
| 60-80 | 0 | 0 | 100 |
| 80-100 | 0 | 0 | 100 |
| Total | 39 | 100 | 100 |

**Table 3: Levels of Human Resource Disclosure (Year 2021-22)**

| Score Dimension | No of Companies | No of Company % | Cumulative Score % |
|---|---|---|---|
| 0-20 | 1 | 2.56 | 2.56 |
| 20-40 | 10 | 25.64 | 28.2 |
| 40-60 | 16 | 41.03 | 69.23 |
| 60-80 | 12 | 30.77 | 100 |
| 80-100 | 0 | 0 | 100 |
| Total | 39 | 100 | 100 |

**Table 4: Levels of Human Resource Disclosure (Year 2022-23)**

| Score Dimension | No of Companies | No of Company % | Cumulative Score % |
|---|---|---|---|
| 0-20 | 0 | 0 | 0 |
| 20-40 | 1 | 2.56 | 2.56 |
| 40-60 | 15 | 38.47 | 41.03 |
| 60-80 | 23 | 58.97 | 100 |
| 80-100 | 0 | 0 | 100 |
| Total | 39 | 100 | 100 |

**Table 5: Levels of Human Resource Disclosure (Year 2023-24)**

| Score Dimension | No of Companies | No of Company % | Cumulative Score % |
|---|---|---|---|
| 0-20 | 0 | 0 | 0 |
| 20-40 | 1 | 2.56 | 2.56 |
| 40-60 | 15 | 38.47 | 41.03 |
| 60-80 | 23 | 58.97 | 100 |
| 80-100 | 0 | 0 | 100 |
| Total | 100 | 100 | 100 |

Thorough examination of these 4 tables reveal that disclosure of HRA indicators has increased almost double in the last 4 years. From around 70% companies reporting only 40% of the HRA disclosure indicators in their annual reports of 2019-20, now we have 60 % of companies reporting 80 % of these indicators in 2023-24. To understand the reason for the rapid change in disclosure levels over the years, Table 6 defines the disclosure indicators which have gained importance from 2022-23.

**Table 6: Indicators of Human Resource Accounting Disclosures (in Percentage)**

| Serial No. | Disclosure Indicator | 2020-20 | 2021-22 | 2022-23 | 2023-24 | Average |
|---|---|---|---|---|---|---|
| 1 | I | - | - | - | - | Zero |
| 2 | II | 100 | 100 | 100 | 100 | 100 |
| 3 | III | 72 | 100 | 100 | 100 | 93 |
| 4 | IV | 38 | 67 | 54 | 64 | 223 |
| 5 | V | 85 | 100 | 100 | 100 | 96.25 |
| 6 | VI | 02 | 05 | 05 | 05 | 4.25 |
| 7 | VII | 05 | 13 | 100 | 100 | 54.5 |
| 8 | VIII | - | - | - | - | Zero |
| 9 | IX | - | - | - | - | Zero |
| 10 | X | - | - | - | - | zero |
| 11 | XI | 69 | 87 | 100 | 100 | 89 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 | XII | 61 | 77 | 100 | 100 | 84.5 |
| 13 | XIII | 100 | 100 | 100 | 100 | 100 |
| 14 | XIV | 05 | 27 | 79 | 79 | 47.5 |
| 15 | XV | 13 | 59 | 68 | 72 | 53 |
| 16 | XVI | 05 | 49 | 55 | 61 | 42.5 |

It can be seen that there are specifically 7 HRA disclosure indicators **X2**, **X3, X5, X7, X11, X12,** and **X13** being reported fully after the financial year 2022-23**.** The indicators are*, total value of HRA, no of employees, training and development expenses, employee categories, managerial remuneration, and retirement benefits.*

However, there are few indicators namely, X1, XVIII, IXand X which have not been disclosed by any company. Primarily, none of the sample companies have prepared Separate HRA statement. The analysis of annual reports revealed that there is still no mandatory requirement of presenting a separate HRA statement.

**Analysis of Research Hypotheses**

The results of regression analysis using fixed-effects and random-effects model are presented in Tables 7 and 8.

**Table 7: Fixed-Effects (Within) Regression Results**

***(Dependent Variable: ROA)***

| Variable | Coefficient | Std. Error | t-value | p-value | 95% Confidence Interval |
|---|---|---|---|---|---|
| HRADI | 0.0057 | 0.0206 | 0.28 | 0.781 | -0.0351 to 0.0466 |
| NOE | 0.00002 | 0.00001 | 1.37 | 0.173 | -0.000009 to 0.000048 |
| IES | -0.0006 | 0.00099 | -0.62 | 0.539 | -0.00256 to 0.00135 |
| ETE | -0.0007 | 0.00047 | -1.49 | 0.138 | -0.00164 to 0.00023 |
| Constant | 3.0512 | 1.1627 | 2.62 | 0.010 | 0.7434 to 5.3591 |

**Model Statistics**

- **Number of Observations:** 136
- **Number of Groups:** 36
- **$R^2$ (within):** 0.0363
- **$R^2$ (between):** 0.0091
- **$R^2$ (overall):** 0.0122
- **$F(4,96)$:** 0.90 ($p = 0.4646$)
- **rho:** 0.6287 (fraction of variance due to individual effects)
- **F-test ($u_i = 0$):** $F(35, 96) = 3.33$ ($p = 0.0000$)

**Table 8: Random-Effects GLS Regression Results**

***(Dependent Variable: ROA)***

| Variable | Coefficient | Std. Error | z-value | p-value | 95% Confidence Interval |
|---|---|---|---|---|---|
| HRADI | -0.00002 | 0.01742 | -0.00 | 0.999 | -0.0342 to 0.0341 |
| NOE | -0.000001 | 0.000006 | -0.17 | 0.869 | -0.000013 to 0.000011 |
| IES | -0.0004 | 0.00094 | -0.42 | 0.671 | -0.00224 to 0.00144 |
| ETE | 0.0000194 | 0.00014 | 0.14 | 0.892 | -0.00026 to 0.00030 |
| Constant | 2.7096 | 0.9834 | 2.76 | 0.006 | 0.7821 to 4.6371 |

**Model Statistics**

- **Number of Observations:** 136
- **Number of Groups:** 36
- **$R^2$ (within):** 0.0010
- **$R^2$ (between):** 0.0061

- **$R^2$ (overall):** 0.0025
- **Wald $\chi^2(4)$:** 0.21 (p = 0.9947)
- **rho:** 0.3969 (fraction of variance due to individual effects)

**Table 9: Hausman Test for Model Selection**

| Variable | Fixed-Effects (b) | Random-Effects (B) | Difference (b - B) | Std. Error |
|---|---|---|---|---|
| HRADI | 0.0057 | -0.00002 | 0.00575 | 0.01096 |
| NOE | 0.00002 | -0.000001 | 0.00002 | 0.000013 |
| IES | -0.0006 | -0.0004 | -0.00021 | 0.00029 |
| ETE | -0.0007 | 0.00002 | -0.00072 | 0.00045 |

**Test Statistic**

- **$\chi^2(4) = 4.70$**
- **p-value = 0.3191**

**Choice of Fixed or Random Effects Model**

To determine the suitable panel regression model, the **Hausman test** was conducted, comparing the **fixed effects (FE) model** and the **random effects (RE) model**. The null hypothesis of the Hausman test states that individual-specific effects are uncorrelated with the regressors, making the **random effects model more appropriate**. Conversely, rejecting the null hypothesis suggests that the fixed effects model is the appropriate choice due to potential endogeneity.

The results of the study revealed no statistically significant difference between the coefficients of two models (Table 9) since **Hausman test yielded a chi-squared statistic of 4.70 with a p-value of 0.3191**. As the p-value exceeds the traditional limit of 0.05, random model appears more appropriate, so null hypothesis is accepted. This implies that unobserved heterogeneity across groups (firms) is likely **uncorrelated** with the independent variables, making the RE model a more suitable specification for this analysis. After these results, the hypotheses formulated in research is tested using random effect model.

**Regression Results and Interpretation (Random Effects Model)**

The random effects regression (Table 8) produced a **very low R-squared within value of 0.0010**, indicating that the model explains only **0.1% of the variation in ROA within firms over time**. The **Wald chi-squared test** was **not significant (p = 0.9947)**, indicating that the independent variables do not collectively explain variations in ROA. Individual coefficient estimates showed no significant relationships:

HRADI: (coefficient: **-0.0000217**, p = 0.999) had an extremely small and **insignificant effect**.

**No of Employees (NOE)** (coefficient: **-9.88e-07**, p = 0.869) was also **not statistically significant**.

**Incremental employee salary (IES)** (coefficient: **-0.0004**, p = 0.671) had a negative but **insignificant effect**.

**Employee Training Expense (ETE)** (coefficient: **0.0000194**, p = 0.892) showed a small positive coefficient but **was not significant**.

The **firm-specific effect (rho = 0.397)** suggests that **39.7% of the variation in ROA is due to differences across firms**, which is lower than in the fixed effects model.

The results indicate that none of the independent variables significantly impact ROA in either the fixed or random effects models, so the null hypothesis is accepted.

**Discussion and Conclusions**

HRA is the process of ascertaining the value of any company's human resources. Despite manifold technological advancements, the significance of human resources has not diminished in any way (Ratti, 2012). The imagination, skill, innovation, and talent of workforce cannot be replaced by machines (Pandurangarao et al., 2013). In fact the physical assets are unproductive without people (Sharma and Shukla, 2010). Furthermore, with the advent of the information economy, human capital is treated as invaluable asset of corporate enterprise (Sharma and Shukla, 2010). Consequently, measurement and disclosure of HRA information of an enterprise is considered essential for decision makers.

The present study was aimed at in-depth investigation of the level of HR disclosures in the annual reports of 39 BSE listed companies for the 4 year period 2020-21 to 2023-24 and its impact on their financial performance. that disclosure of HRA indicators has increased almost double in the last 4 years. From around 70% companies reporting only 40% of the HRA disclosure indicators in their annual reports of 2019-20, now we have 60 % of companies reporting 80 % of these indicators in 2023-24. However, compared to previous research, this situation indicates rapid progress. Previously, the maximum disclosure rate was 25% in Bangladesh (Mamun, 2009), 30-40% in Nigeria (Enofe et al., 2014), and 40% in Vietnam (Pham et al., 2021). Further, it can be seen that there are specifically 7 HRA disclosure indicators X**2**, **X3, X5, X7, X11, X12,** and **X13** being reported fully after the financial year 2022-23**.** The indicators are, *total value of HRA, no of employees, training and development expenses, employee categories, managerial remuneration, and retirement benefits.* However, there are few indicators namely, X1, XVIII, IX and X which have not been disclosed by any company. Primarily, none of the sample companies have prepared Separate HRA statement. The analysis of annual reports revealed that there is still no mandatory requirement of presenting a separate HRA statement.

However, the potential for comprehensive HRA disclosure continues to be heavily promoted through various government policies and programs. With the IFRS 19 accounting standard mandating disclosure of costs of all types of benefits given to the employees in their financial statements, the total cost of HRA including their retirement benefits is fully disclosed by all the companies. Further, India's framework for "environment, social and governance reporting"(ESG) known as "Business Responsibility and Sustainability Report" (BRSR) came into effect as a mandatory requirement for top 1000 listed Indian companies based on their market capitalization from the year 2022-23 (some companies voluntarily started disclosing their BRSR from 2021-22 only). This represented an evolution from the discretionary guidelines issued in 2009 by India's "Ministry of Corporate Affairs" and improved further in the "Business Responsibility Report" (BRR) of 2012. BRSR reporting has three main sections. This includes general disclosure, and management and process disclosure and Principle-wise performance disclosure. Each section of the BRSR reporting structure has a specific focus that helps companies cover all the bases in their reports. This mandatory statement includes disclosures about employee well-being, human rights, and other social aspects. These disclosures help companies demonstrate their commitment to sustainable development and social impact and have improved the voluntary disclosure levels of HRA since many of the indicators are now part of the mandatory BRSR.

Further, the empirical results revealed that the **random effects model is preferred** over the fixed effects model which is in conformity with other researches (Onvekyu & Ironkwe, 2021; Anil & Sudharani, 2020). However, this research does not identify any significant indices affecting ROA. The results indicate that **none of the independent variables significantly impact ROA in either the fixed or random effects models (Sari et al., 2024; Khan 2021)**. The low explanatory power of the models (R-squared values) suggests that **other unobserved factors may be influencing firm profitability**. The preferred random effects model suggests that firm-level heterogeneity does not drive systematic bias in the estimates. However, the lack of significant relationships suggests that further refinements, such as including additional control variables or using alternative estimation techniques (e.g., dynamic panel methods like the Arellano-Bond GMM estimator), may be warranted.

These findings contribute to the broader literature by highlighting the challenges in identifying robust predictors of firm profitability in panel data settings, especially when firm-specific characteristics do not seem to play a dominant role in explaining variations in financial performance. Future research could explore alternative measures of financial performance, incorporate industry-specific effects, or examine potential non-linear relationships between the predictors and ROA.

**Recommendations and Limitations**

Our descriptive findings revealed that due to mandatory requirement of disclosures of ESG and BRSR statements, the information content reported in the annual reports has increased. As a result, the findings are not in conformity with earlier studies where the level of disclosure4 is low to moderate. However, lot of research can still be done in this direction. A need for separate HRA statement cannot be substituted with various attributes of HRA being disclosed scatted in the annual report. There should be some criterion developed to measure human resources and report them together at one place. This is expected toimprove the quality and cost of human capital, and assure its better usage to the shareholders.

However, the results of the study aimed to understand the impact of various indicators of HRA on company's performance measured in terms of return on assets did not reveal any significant relationships so more research is required to be carried out to find out factors that could be hurting ROA through HRA across time and more companies and more time period to be included in it.

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