



THE IMPACT OF HUMAN RESOURCE ACCOUNTING ON FIRM PERFORMANCE: EVIDENCE FROM LISTED MATERIALS SECTOR COMPANIES IN SRI LANKA

W.M.R.Y.K Siriwardhane^a, J.M.N Wijekumara^{b*}

^{a b}Department of Accountancy & Finance, Faculty of Management Studies, Rajarata University of Sri Lanka.

ABSTRACT

Human Resource Accounting (HRA) is an emerging topic in modern academic and business society due to the increased necessity of accounting for the worth of human resources as a result of their capacity to affect the firm's performance through their skills and capabilities. However, Sri Lankan businesses struggle to adopt HRA into their organizational practices due to a lack of assurance about how it affects the performance of firms as a result of the unavailability of the proper guidelines for HRA and the scarcity of research related to its effects on performance. This study attempted to answer this problem with the objective of investigating the impact of human resource accounting on the firm performance of listed material sector companies listed in Colombo Stock Exchange (CSE). The research model was conceptualized by using the independent variable, human resource accounting, and the dependent variable, firm performance. A quantitative approach was used for this study, and a sample of eighteen companies was drawn from the population of listed companies operating in the material industrial sector in Sri Lanka using the purposive sampling method. The published annual reports in the CSE for a five-year period (2017–2022) were used to collect the data, and four hypotheses were formulated to conduct the research. Descriptive statistics, correlation analysis, and panel regression analysis were used as analytical techniques. Results of the study revealed that the current degree of adoption of human resource accounting among the listed material sector companies was within the moderate level, while the panel regression analysis depicted that human resource accounting has a significant effect on the performance of listed material sector companies. These results imply the necessity of increasing the level of adoption of human resource accounting practices to boost the firm performance of listed material sector companies. Moreover, these results have numerous implications for employees, labor unions, regulatory authorities, accounting standard-setters, and policymakers.

Keywords: Financial Performance, Human Resource Accounting, Material Companies

*Corresponding nishantha@mgt.rjt.ac.lk

© Faculty of Commerce and Management, Eastern University Sri Lanka. All rights reserved.

1. Introduction

In modern commercial settings, the complicated costs and hidden benefits related to human resources make it harder for management to make choices related to them without having a proper and comprehensive assessment of the costs and benefits related to human resources (Khan, 2021; Boudreau, 1990). Therefore, cost-benefit analysis has become a potent instrument to evaluate a wide variety of organizational opportunities as it enables organizations to control and minimize costs and make the most of opportunities (Khan, 2021). Additionally, this cost-benefit analysis has been utilized to produce and compute favorable

outcomes compared to the associated costs of investments in several human resource activities, such as staff development, HR modernization technologies, etc., throughout different organizations (Armstrong & Taylor, 2020). Although the majority of businesses nowadays are fully confident in the recognition and measurement of costs associated with human resources due to the cost-benefit analysis, they encounter difficulties when examining their advantages in terms of financial worth, which makes it problematic for those firms to justify those HR expenses (Cascio & Boudreau, 2010). Moreover, unless the HR departments change their perspective from procedural expenses to monetary rewards and advantages, it is complicated to defend the investment in human resources (Steen et al., 2011). As a result, a strong strategy towards managing the financial perspective of human resources is a must for the organization to reap the most of their human resources and to defend the expenditure on them (Khan, 2021).

The HRA strategy is essential to achieving the common goals of an organization as it aids in reducing the disparities between the cost associated with human resources and the strategic advantages, they offer the organization (Mahmoodi et al., 2014). Moreover, HRA promises to assist HR departments in developing alternate comparisons (Khan, 2021). In light of this, HR managers who are employed in different business entities are developing cutting-edge HR models for their HR operations to use in an effort to better serve their staff and organizations, thereby standing out in the marketplace with a keen awareness of the potential advantages of better management of human resources. (Rahaman et al., 2013). This inspired most academics in the domains of accounting and finance as well as human resources to learn more about HRA and determine which aspects had logically been demonstrated to be the influencing factors in the HRA sphere (Khan, 2021). However, there have only been a few efforts, particularly in Sri Lanka, to address research issues such as the reasons for which companies take HRA into account, what it is used for, and its impact on earnings, despite the immense beneficiaries and global insight towards HRA. As a result, there is a knowledge gap regarding how HRA impacts the performance of firms in Sri Lanka. Therefore, this study tends to examine the impact of HRA practices on the firm performance of listed companies operating in Sri Lanka.

Problem Statement

Although HRA is a significantly prominent idea in the modern community, it is not typically accepted in the current commercial arena, and most business entities are still struggling to cognitively comprehend the concept of HRA (Augustine et al., 2013; Khan, 2021). Since there are no monetary or legal standards, norms, or guidelines that guide and influence the inclusion of HR features under financial statements and non-financial disclosures, HRA practices are often acknowledged after other financial conceptions in the current commercial context (Khan, 2021).

However, it is widely held that the intellectual capital of a business organization is its workforce because the competencies and abilities of the labor force determine the entire performance of organizations (Bokeno, 2011). As a result, some of the corporations invested a substantial amount of funds they generated internally from their business operations on workforce development initiatives such as teaching and learning, training initiatives, the welfare of employees, and health care, which is evident by having large amounts of expenses

as staff expenses in their monetary statements (Khan, 2021; Flamholtz, 1999). Most of them viewed those expenses as transitory business expenditures that have an influence on the firm's value and profitability similar to the impact of physical or intangible investments on other resources (Rao, 2000).

However, the most difficult challenge for any commercial entity in terms of HRM is not to spend a large amount of money on employee development but to assess the organizational worth and commercial value of the workforce (Flamholtz et al., 2002). Thus, the implementation of a system of recognizing and measuring the worth of human resources came into discussion, thereby giving rise to the notion of 'Human Resource Accounting (HRA)' (Khan, 2021). A well-established HRA system might compensate not only for inner administrative actions such as recruitment, training and development, performance appraisals, and grievance handling but also for external stakeholder behaviors (Fajana, 2002). As an example, Rao (2000) highlighted that potential stockholders may swiftly determine which organizations to fund by assessing their workforce performance and utilization. Therefore, a well-established HRA system may help the firm easily attract and retain potential investors. Despite these beneficiaries of the adoption of HRA into organizational practices, only some of the business organizations operating in a few developed and emerging nations have incorporated the notion of HRA into their organizational and reporting practices (Akinjare et al., 2019). As a result, most of the scholars highlighted the importance of the global discussion to identify and normalize HRA with the intention of making positive variations in the financial reporting practices of business organizations (Khan, 2021).

However, measurement of the worth of the workforce for a complete financial reporting period might be problematic due to the complications of forecasting how long a business entity can sustain its workforce despite the easy computation of the worth of employees in terms of experience, credentials, and contribution to the organization (Flamholtz, 1999; Khan, 2021; Akinjare et al., 2019). This made the majority of the scholars concentrate on developing models to measure the worth of human resources, such as the replacement cost approach, original cost approach, and present value approach, thereby allowing business entities to adopt at least some of the HRA practices within their reporting processes. (Meshack et al., 2013).

Despite these efforts, HRA is still an emerging topic in the contemporary business environment, which is lacking in concern by the majority of commercial entities (Khan, 2021). As a result, some of the scholars argued that even though the HRA indirectly boosts performance, the firms do not yet fully realize its impact on profitability, thereby directing them to investigate how the HRA practises affect firm performance (Michael, 2013). The majority of them found that HRA practises are capable of enhancing the profitability of business organisations operating in a highly competitive business environment (Perera & Tharikawala, 2012; Akinjare et al., 2019; Asika et al., 2017; Michael, 2013).

Despite the emerging trend of firms adopting HRA practises and extensive research into the impact of the concept of HRA on firm performance, Chathurika and De Silva (2019) highlighted that there is a significant research gap in the human resource accounting field in Sri Lanka, including explorations regarding the

association between corporate performance and human resource accounting when compared to the rest of the world. Chathurika and De Silva (2019) also reported that overall financial performance and human resource accounting disclosure have a negative link, and Herath and Priyadarshini (2021) suggested that a lack of and improper implementation of HRA practices due to a lack of management awareness regarding the notion of HRA is the main cause of such an adverse effect. As a result, it is obvious that HRA is a new idea in the context of Sri Lanka, with a scarcity of research investigating the influence of HRA on company performance. Therefore, this research study is intended to address the question,

“Whether there is any impact of human resource accounting on the firm performance of listed material sector companies operating in Sri Lanka?”

Research Questions

- ❖ Whether there is any impact of human resource accounting practices on the return on assets of the listed material sector companies operating in Sri Lanka?
- ❖ Whether there is any impact of human resource accounting practices on the return on equity of the listed material sector companies operating in Sri Lanka?
- ❖ Whether there is any impact of human resource accounting practices on the share prices of the listed material sector companies operating in Sri Lanka?
- ❖ Whether there is any impact of human resource accounting practices on the Tobin’s Q of the listed material sector companies operating in Sri Lanka?

Research Objectives

- ❖ To examine the impact of human resource accounting practices on the return on assets of the listed material sector companies operating in Sri Lanka.
- ❖ To examine the impact of human resource accounting practices on the return on equity of the listed material sector companies operating in Sri Lanka.
- ❖ To examine the impact of human resource accounting practices on the share prices of the listed material sector companies operating in Sri Lanka.
- ❖ To examine the impact of human resource accounting practices on the Tobin’s Q of the listed material sector companies operating in Sri Lanka.

2. Literature Review

Although the most crucial component of every corporation is its people (Yukl & Lepsinger, 2005), the traditional methods of accounting were incapable of recognizing them as an asset of the organization due to the difficulty of estimating the intrinsic value of an employee (Kucharcikova, 2011). Most scholars have debated the significance of accounting for human resources despite the lack of conclusive evidence that proves the role of human resources in generating organisational value (Okpako et al., 2014), resulting in

numerous definitions of HRA that share similar characteristics. The American Accounting Society Committee (AASC) (1973) denoted HRA as a process of recognising and estimating the data regarding the human resource and conveying this information to the stakeholders. This consists of matching the income and expenses related to the human resources of a firm and disseminating that information among the interested parties in an organised manner (Sarker & Koilakos, 2021).

Human Resource Accounting and Financial Performance

Since some of the theories suggested that the adoption of HRA practices is capable of enhancing the profitability of an organization through boosting the effectiveness of its human capital, some scholars attempted to explore the truth of this speculation in the real world and revealed a substantial connection between HRA practices and their disclosures on the financial performance of firms operating under different social, political, and commercial backgrounds.

Lin et al. (2012), for example, conducted an empirical study on 428 Taiwanese firms to assess the impact of knowledge capacity on firm performance. This study discovered a strong and positive association between HRA disclosures and return on assets (ROA), thereby leading the scholar to conclude that the firms that adopted HRA practises within their operations had utilized their assets more efficiently to boost profits than the firms that did not adopt HRA practices within their operations. Moreover, another empirical study carried out in the context of Kuwait, which is a Middle Eastern nation, also found that human resource reporting practices have a substantial and favorable impact on financial performance as measured in terms of return on assets (Alfraih, 2018). Furthermore, a similar study carried out in the context of Saudi Arabia which is another middle Eastern Nation inferred that the firms who adopted HRA practices are more capable of boosting the wealth of their stockholders by increasing the level of profitability through effective asset utilisation as the study analytics witnessed a strong favorable association between HRA and return on assets (ROA) and return on equity (ROE) which are commonly used proxies in measuring the financial performance of a business entity (Khan, 2021).

Apart from the global context, some Sri Lankan scholars have in the recent past also attempted to investigate the effect of human resource accounting on the financial performance of Sri Lankan business entities. Herath and Priyadarshini (2021) concluded that firms that adopted HRA practices were more profitable than those that did not adopt HRA after statistically observing a significant and positive association of human resource accounting with return on assets and return on equity of sampled firms. This association is further confirmed by the studies conducted by Perera and Thrikawala (2012), Chathurika and De Silva (2019), Kantha and Weligamage (2020), and Anil et al. (2022), which also discovered a strong and constructive link between human capital investments, HRA practices, and disclosures on the financial performance of the enterprises operating in Sri Lanka. As per the above empirical evidence, it is clear that HRA affects financial performance substantially in both local and global contexts.

Human resource accounting and market performance

Apart from seeking the association between HRA and financial performance, some scholars are interested in seeking the extent and nature of the effect of adopting HRA practices and disclosing those practices on the investor's intentions, thereby leading them to investigate the associations between HRA and market value of firms operating under diverse commercial, cultural, and political settings. Remarkably, most of them empirically witnessed a strong and favorable link between the adoption and disclosure of HRA and the market value of firms. For example, an empirical study conducted by Dummy and Tull (2007) on companies listed on the Australian Stock Exchange (ASX) revealed a significant and constructive relationship between human capital disclosures and the share prices of a price sensitive company, as they observed a strong variation in the abnormal returns of the share prices upon the dividend announcements of price sensitive companies, which include information about human capital.

Furthermore, a similar study performed on the listed corporations in the Indonesian stock exchange also found that the firms that disclosed information regarding intellectual capital had a higher level of market performance, which was measured in terms of Tobin's Q, than the firms that did not disclose information regarding their intellectual capital (Subaida et al., 2018). Moreover, another empirical study conducted by Salvi et al. (2022) on 125 firms that adopt integrated reporting practises with the aim of seeking the financial results of human resource disclosures found a statistically substantial and positive association between the human resource disclosures and market value. Similarly, a study conducted by Doong et al. (2011) in the context of Taiwan stated that human capital disclosures have a strong and constructive effect on the market value of firms, which was measured using the Tobin's Q.

Apart from the global context, some Sri Lankan scholars have in the recent past also attempted to investigate the effect of human resource accounting on the market performance of Sri Lankan listed corporations. First and foremost, Herath and Priyadarshini (2021) concluded that firms that adopted HRA practises had a greater level of market value than those that did not adopt HRA after statistically observing a significant and favourable association of human resource accounting with earnings per share (EPS) and Tobin's Q. This association is further confirmed by the studies conducted by Perera and Thrikawala (2012), which also discovered a strong and constructive link between HRA practices and the share prices of the enterprises operating in Sri Lanka. As per the above empirical evidence, it is clear that HRA affects market performance substantially in both local and global contexts.

3. Research Methodology

Conceptual Framework

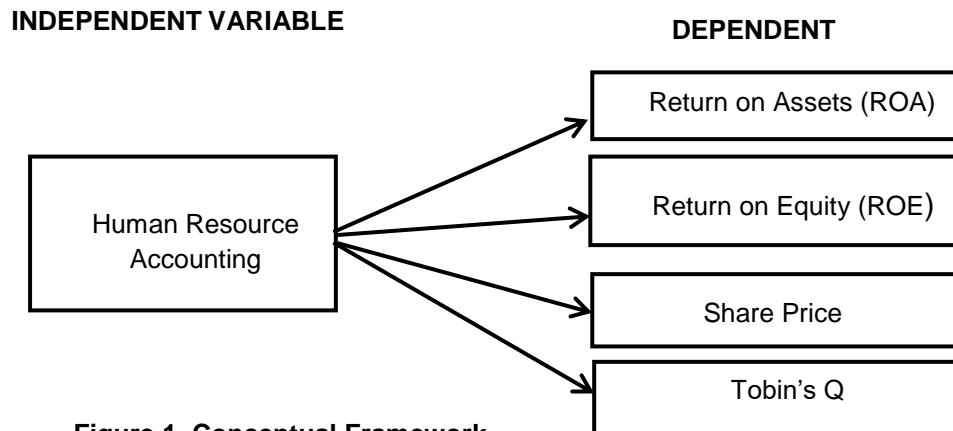


Figure 1. Conceptual Framework

Source: Herath & Priyadarshini (2021)

Research Hypotheses

H₁ : There is a significant impact of human resource accounting practices on return on assets of listed material sector companies operating in Sri Lanka.

H₂ : There is a significant impact of human resource accounting practices on return on equity of listed material sector companies operating in Sri Lanka.

H₃ : There is a significant impact of human resource accounting practices on share price of listed material sector companies operating in Sri Lanka.

H₄ : There is a significant impact of human resource accounting practices on Tobin's Q of listed material sector companies operating in Sri Lanka

3.3 Data Collection & Sampling

The population of a study includes all of the components that can be unified under the sample criteria (Sekaran & Bougie, 2016). The target population of this study consists of all the public limited companies quoted on the Colombo Stock Exchange (CSE) in Sri Lanka who are operating under the material sector in accordance with the Global Industry Classification Standards (GICS). According to the company directory of the CSE, there are 19 companies representing the material segment of the CIGS industry groups as of December 30, 2022 (CSE, 2022).

The sample of a research study comprises all of the elements chosen from the population that meet the sample requirements for further examination (Sekaran & Bougie, 2016). With the intention of maintaining the accuracy of the study results, the researcher has selected the listed material sector companies that have been continually listed at the CSE and whose monetary and non-monetary information have been available during the five-year research period (2017–2022) (none of the firms that are newly quoted at the CSE or delisted during the period are included in the study sample with the intention of avoiding the distortions arising from the data inaccessibility).

4. Analysis and Discussion

Descriptive Statistics

This section focuses on explaining the analytical results obtained through the descriptive analysis with the intention of determining the nature and extent of each variable considered under this study, thereby educating the users of this report regarding the nature of the study sample. Initially, it describes the degree of HRA adoption by the listed corporation operating in the material segment in Sri Lanka and then focuses on describing the nature and extent of performance of those firms during the considered five-year period. The results obtained from the descriptive analysis are presented in Table 1.

Table 1: Descriptive statistics

Description	Obs	Mean	SD	Maximum	Minimum
HRAI	90	0.5431	0.1340	0.8300	0.3000
ROA	90	0.0917	0.0652	0.2121	0.0009
ROE	90	0.1316	0.0937	0.3048	0.0130
PCS	90	71.46	51.33	183.90	3.50
TQ	90	0.9812	0.4063	2.0000	0.6000

Source: Constructed by the Author (2023)

Table 2: Test of Normality – Skewness and Kurtosis

Variable	Skewness	Kurtosis
HRAI	0.2805	2.2611
ROA	0.5560	2.1949
ROE	0.5577	2.2123
SP	0.3783	2.1750
TQ	1.5905	4.6762

Source: Constructed by the Author (2023)

According to the results in Table 2, the skewness of all the variables remains between 0.2 and 1.6, which is less than the aforementioned threshold of +2 and -2, and the kurtosis values under each variable reported are between +2 and +5, which is less than the aforementioned threshold of +7 and -7. Accordingly, it can be concluded that the data set is normally distributed and thus suitable for further statistical analysis. The next section will discuss the association between autonomous variable and dependent variables through correlation assessment.

Correlation Analysis

Table 3: Correlation Matrix

	HRAI	ROA	ROE	SP	TQ
HRAI	1.0000				
ROA	0.4052*	1.0000			
ROE	0.4086*	0.9944*	1.0000		
SP	0.3259*	0.3481*	0.3772*	1.0000	
TQ	0.3287*	0.5000*	0.5242*	0.1346*	1.0000

Note: * Correlation is significant at the 0.05 level (2-tailed)

Source: Constructed by the Author (2023)

According to the analytical outcomes, the correlation coefficient related to HRAI and ROA was reported as 0.4052 under the probability score of 0.05, demonstrating that human resource accounting (HRA) is positively correlated with the return on assets of the sampled firms during the considered period. Moreover, the correlation coefficient related to HRAI and ROE was recorded as 0.4086 under the probability score of 0.05, indicating that there is a substantial and favourable association between HRA and return on equity. This ultimately reveals that more adoption of HRA practises and disclosure of them to the public can boost the effective utilisation of assets to generate earnings, thereby increasing the wealth of its stockholders.

Moreover, the statistical analysis reported a positive value of 0.3259 as the correlation coefficient linked to the HRAI and PCS, demonstrating that HRA is positively correlated with the value of the common stocks of the sampled firms. Similarly, the correlation coefficient connected to the HRAI and TQ was reported as 0.3287 under the probability score of 0.05, indicating that human resource accounting is positively correlated with Tobin's Q. Both results equally indicate that adoption of HRA and disclosure of information regarding HRA to the investors eventually boost their confidence about the firm's ability to generate future earnings through using its workforce as a competitive edge, thereby leading them to buy more of the shares, which increases the market value of the firm. However, none of the coefficient scores of HRAI were reported to be greater than 0.5, showing that HRA only had a mediocre effect on the firm's performance during the last five-year period.

4.4. Regression Analysis

Table 4 : Hausman Test

	Model 01: ROA	Model 02:ROE	Model 03: PCS	Model 04:TQ
Chi-Sq. Statistic	13.66	13.93	0.3028	0.0106
Prob. > Chi Sq.	0.0002	0.0002	0.5821	0.9178
Selection	Fixed	Fixed	Random	Random

Source: Constructed by the Author (2023)

Table 4 presents the results of the Hausman test for all four models, which is used to determine whether the fixed effect model or the random effect model is preferable for this research topic. As per the statistical results, the probability value of the Chi-square statistic of the first two models (model 1: ROA and model 2: ROE) was reported as 0.002, which is less than the significance value of 0.05, thereby leading the researcher to reject the null hypothesis and accept the alternative hypotheses under both models. As a result, the researcher used the fixed effect mode to investigate the effect of HRA on return on assets and return on equity. However, the probability value of the Chi- square statistic of the last two models (model 3: PCS and model 4: TQ) was reported as 0.5821 and 0.9178, respectively, which is greater than the significance value of 0.05, thereby leading the researcher to accept the null hypothesis and reject the alternative hypotheses under both models. As a result, the researcher used the random effect mode to investigate the effect of HRA on return on share price and Tobin's Q.

Regression estimations – Model 01 – ROA

Table 5: Regression estimates – ROA

Variable	Coefficient	Std. Error	T	Prob.
HRAI	0.3675	0.0611	6.0129	0.0000
_cons	-0.1079	0.0334	-3.228	0.0019
R ²		0.7521		
F Statistics		9.2388		
Prob. (F - Statistic)		0.0000		

Note: Significant level at 5%

Source: Constructed by the Author (2023)

The coefficient estimates of model 01 reported a positive value of 0.3675 along with a probability score of 0.000, which is less than the significance level of 0.05, indicating that HRAI has a substantial and favourable effect on the return on assets of the sampled organisations. This indicates that a higher level of HRA results in a higher amount of earnings, while low earnings compared to its total assets are directly affected by the low degree of HRA adoption. Accordingly, it can be concluded that HRA practices adopted by the listed

companies operating in the material industrial segment in Sri Lanka positively and strongly affect their annual return on assets.

Regression estimations – Model 02 – ROE

Table 6: Regression estimates – ROE

Variable	Coefficient	Std. Error	T	Prob.
HRAI	0.5373	0.0867	6.1967	0.0000
Cons	-0.1602	0.0474	-3.377	0.0012
R ²		0.7583		
F Statistics		9.5564		
Prob. (F - Statistic)		0.0000		

Note: Significant level at 5%

Source: Constructed by the Author (2023)

The coefficient estimates of model 02 reported a positive value of 0.5373 along with a probability score of 0.000, which is less than the significance level of 0.05, indicating that HRAI has a substantial and favourable effect on the return on equity of the sampled organisations. This indicates that a higher level of HRA results in a higher amount of net earnings for the equity holders, while low earnings for them are directly affected by the low degree of HRA adoption. Accordingly, it can be concluded that HRA practises adopted by the listed companies operating in the material industrial segment in Sri Lanka positively and strongly affect their annual return on equity.

Regression estimations – Model 03 – PCS

Table 6: Regression estimates – PCS

Variable	Coefficient	Std. Error	T	Prob.
HRAI	158.1504	19.0113	8.3188	0.0000
Cons	-14.4366	15.5938	-0.925	0.3571
R ²		0.4402		
F Statistics		69.2018		
Prob. (F - Statistic)		0.0000		

Note: Significant level at 5%

Source: Constructed by the Author (2023)

The coefficient estimates of model 03 reported a positive value of 158.1504 along with a probability score of 0.000, which is less than the significance level of 0.05, indicating that HRAI has a substantial and favorable effect on the share prices of the sampled organizations. This indicates that a higher level of HRA results in a

higher level of market value for a common share, while lower share prices are directly affected by the low degree of HRA adoption. Accordingly, it can be concluded that HRA practices adopted by the listed companies operating in the material industrial segment in Sri Lanka positively and strongly affect the prices of their common shares traded in equity markets.

Regression estimations – Model 04 – TQ

Table 7: Regression estimates – TQ

Variable	Coefficient	Std. Error	T	Prob.
HRAI	1.0894	0.0738	14.766	0.000
Cons	0.3895	0.1024	3.8061	0.000
R ²		0.7125		
F Statistics		218.0509		
Prob. (F - Statistic)		0.0000		

Note: Significant level at 5%

Source: Constructed by the Author (2023)

The coefficient estimates of model 04 reported a positive value of 1.0894 along with a probability score of 0.000, which is less than the significance level of 0.05, indicating that HRAI has a substantial and favourable effect on the Tobin's Q of the sampled organisations. This indicates that a higher level of HRA results in a higher level of market value for a total asset than its replacement cost, while a lower market value than the replacement cost of assets is directly affected by the low degree of HRA adoption. Accordingly, it can be concluded that HRA practices adopted by the listed companies operating in the material industrial segment in Sri Lanka positively and strongly affect the market value of the assets owned by the firm.

Discussion

These outcomes are consistent with the findings of the majority of previous research investigations conducted in a variety of organisational and cultural settings. As an example, a study conducted by Alfraih (2018) found that HRA practices have a strong favourable effect on the return on assets of firms operating in the Kuwait context. Furthermore, the studies carried out by Khan (2021), Oladele (2018), Yahaya et al. (2022), Chathurika and De Silva (2019), Kantha and Weligamage (2020), and Anil et al. (2022) also stated that HRA has a substantial and favourable effect on the return on assets of listed firms operating in both Asian and African contexts. Based on the above discussion, it is both statistically and empirically visible that there is a substantial and favourable effect of human resource accounting (HRA) on the return on assets of the listed organisations operating in the material industrial segment in Sri Lanka.

These results in relation to the second hypothesis are consistent with the findings of the majority of previous research investigations conducted in a variety of organisational and cultural settings. As an example, Amahalu et al. (2017) found a significant favourable effect of HRA on the return on equity of corporations

operating in an African context. Moreover, similar studies carried out by Herath and Priyadarshini (2021), Micah (2012), Khan (2021), and Saeed et al. (2013) also found that HRA has a constructive and substantial impact on the net earnings of listed firms. Based on the above discussion, it is both statistically and empirically visible that there is a substantial and favourable effect of human resource accounting (HRA) on the return on equity of the listed corporations operating in the material industrial segment in Sri Lanka.

These results in relation to the third hypothesis are consistent with the findings of the majority of previous research investigations conducted in a variety of organisational and cultural settings. For example, an empirical study conducted by Dummy and Tull (2007) on companies listed on the Australian Stock Exchange (ASX) revealed a substantial and constructive connection between human capital disclosures and the market value of common shares of price-sensitive corporations. Moreover, similar empirical studies conducted by Bismuth (2008) and Appuhami (2007) also found that HRA has a strong favourable impact on the value of common shares of listed corporations. Based on the above discussion, it is both statistically and empirically visible that there is a substantial and favourable effect of human resource accounting (HRA) on the market value of shares of listed corporations operating in the material industrial segment in Sri Lanka.

These discoveries in relation to the fourth hypothesis are consistent with the conclusions of the majority of previous research investigations. For example, an empirical study conducted on the listed corporations in the Indonesian stock exchange found that the firms that disclosed information regarding intellectual capital had a higher level of market performance, which was measured in terms of Tobin's Q, than the firms that did not disclose information regarding their intellectual capital (Subaida et al., 2018). Similarly, a study conducted by Doong et al. (2011) in the context of Taiwan stated that human capital disclosures have a strong and constructive effect on the market value of firms, which was measured using Tobin's Q. In line with the above findings, Cormier et al. (2009) and Vomberg and Homburg (2014) also found a strong favourable impact of HRA on the market value of the firm. Based on the above discussion, it is both statistically and empirically visible that there is a substantial and favourable effect of human resource accounting (HRA) on the market worth of listed corporations operating in the material industrial segment in Sri Lanka.

5. Conclusion

In Conclusion, this research study was investigated the impact of human resource accounting on the firm performance of listed material sector companies operating in Sri Lanka. Under the major problem in discussion, the researcher attempted to investigate the effect of human resource accounting on the return on assets, return on equity, share prices, and market value of listed material sector companies in Sri Lanka. The study adopted a quantitative study design under the deductive approach, which is purely based on the positivistic research philosophy, to achieve its intentions. The population of this study consists of all the listed material sector companies in Sri Lanka, while only 18 out of them

were selected as the study sample under the purposive sampling technique, which is covered under the non-probability sampling method. The human resource accounting was measured using a thirty-disclosure index, while the firm's performance was measured through four quantitative measurements known as return on assets, return on equity, share price, and Tobin's Q ratio. The research findings underscore a notable relationship between human resource accounting (HRA) practices and firm performance within Sri Lanka's listed material sector companies. Despite a moderate level of HRA adoption observed among these firms, the study reveals significant positive impacts on key performance indicators. Specifically, higher levels of HRA adoption correlate with increased return on assets (ROA), return on equity (ROE), share prices, and Tobin's Q ratio. These outcomes suggest that effective utilization and disclosure of human resource information enhance decision-making processes, potentially improving investor confidence and ultimately contributing to the overall market value of these firms. Thus, advocating for more comprehensive HRA integration could facilitate enhanced organizational performance and investor relations within Sri Lanka's material sector.

References

- Augustine, O. E., Mgbame, C., Otuya, S., and Ovie, C. (2013), "Human resources accounting disclosures in Nigeria quoted firms". *Human Resources*, Vol. 16, No.11, pp. 1-15.
- Akinjare, Y. S., Idowu, M. A., and Sule, T. O. (2019), "The impact of Human Resource Accounting (HRA) on the Performance of Nigerian firms". *JABU International Journal of Social and Management Sciences*, Vol.07, No.01, pp. 252-264.
- Alfraih, M.M. (2018), "Intellectual capital reporting and its relation to market and financial performance". *International Journal of Ethics and Systems*, Vol. 34, No. 03, pp. 266–281. doi:<https://doi.org/10.1108/ijoes-02-2017-0034>.
- Amahalu, N., Agbionu, C. and Obi Chinyere (2017), *Effect of Human Resource Accounting on Profitability of Selected Quoted Telecommunication Firms in Nigeria*. Social Science Research Network.
- Armstrong, O. S., and Taylor, K. O. (2020), "Equity share price determinants: A survey of literature". *Arabian Journal of Business and Management Review (OMAN Chapter)*, Vol. 05, No. 03, pp. 38-50.
- Anil, S., Sudharani, R., and Suresh, N. (2022), "A Study on the Impact of Human Resource Accounting on Firm's Value with Respect to Companies Listed in National Stock Exchange". *Bulletin Monumental*, Vol. 21, No. 08, pp. 38-45.
- Appuhami, B. R. (2007), "The impact of intellectual capital on investors' capital gains on shares: An empirical investigation of Thai banking, finance & insurance sector". *International Management Review*, Vol. 03, No. 02, pp. 14-25.
- Asika, E. R., Chitom, J. A. R., and Chelichi, I. F. (2017). "Appraisal of human resource accounting on profitability of corporate organization". *Economics*, Vol. 06, No. 01, pp. 1-10.

- Bismuth, A., and Tojo, Y. (2008), "Creating value from intellectual assets". *Journal of Intellectual Capital*, Vol. 09, No. 02, pp. 228-245.
- Bokeno, R. M. (2011), "Putting people first: Employee retention and organizational performance". *International Journal of Development*, Vol. 25, No. 01, pp 25-27.
- Cascio, W., and Boudreau, J. (2010), *Investing in people: Financial impact of human resource initiatives*. Ft Press.
- Chathurika, H. L. D. J., and De Silva, R. T. V. (2019), "Impact of Expenditure on Human Capital and Human Capital Accounting On Firms' Financial Performance in Sri Lanka". *Asian Journal of Multidisciplinary Studies*, Vol. 7, No.02, pp. 1-22.
- Cormier, D., Aerts, W., Ledoux, M. J., and Magnan, M. (2009), "Attributes of social and human capital disclosure and information asymmetry between managers and investors". *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, Vol. 26, No. 01, pp. 71-88.
- Doong, S. C., Fung, H. G., and Wu, J. Y. (2011), "Are social, financial, and human capital value enhancing? Evidence from Taiwanese firms". *International Review of Economics & Finance*, Vol. 20, No. 03, pp. 395-405.
- Dummy, F., and Tull, A. (2007), "Sustainability and stakeholder management: The need for new corporate performance evaluation and reporting systems". *Business Strategy and the Environment*, Vol. 15, No. 05, pp. 296-308.
- Fajana, S. (2002), *Human Resource Management: An Introduction*. Lagos: Labofin and Company.
- Flamholtz, E. G., Bullen, M. L., and Hua, W. (2002), "Human resource accounting: A historical perspective and future implications". *Management Decision*, Vol. 40, No. 10, pp. 947-954.
- Flamholtz, E. G., Kannan – Narashimhan, R., and Bullen, M. L. (2004), "Human resource accounting today: Contributions, controversies and conclusions". *Journal of Human Resource Costing & Accounting*, Vol. 08, No. 02, pp. 23-37.
- Herath, H. M. D. K. K., and Priyadarshani, W. A. N. (2021), "The Impact of Human Resource Accounting on Firm Performance: Evidence from Listed Companies in Sri Lanka". *Journal of ARSYM*, Vol. 02, No. 01, pp. 28-39.
- Homburg, C., Vomberg, A., and Bornemann, T. (2014), "Talented people and strong brands: The contribution of human capital and brand equity to firm value". *Strategic Management Journal*, Vol. 36, No.13, pp. 2122-2131.
- Kantha, W. N. R. A., and Weligamage, S. S. (2020), "Impact of Labor Costs and Investment in Human Capital on Financial Performance: Evidence from Listed Companies in Sri Lanka". *Journal of Business and Technology*, Vol. 04, No. 02, pp. 70-80.
- Khan, S. (2021), "Impact of human resource accounting on organizations' financial performance in the context of SMEs". *Accounting*, Vol. 07, No. 03, pp. 621-628.

- Kucharčíková, A. (2011), "Human capital—definitions and approaches". *Human Resources Management & Ergonomics*, Vol. 05, No.02, pp. 60-70.
- Lin, L. S., Huang, C., Du, P. L., and Lin, T. F. (2012), "Human capital disclosure and organizational performance: The moderating effects of knowledge intensity and organizational size". *Management Decision*, Vol. 50, No.10, pp. 1790-1799.
- Mahmoodi, P., Babaei, F., and Mohamade, J. (2014), "Human resource accounting: From theory to practice". *European Online Journal of Natural and Social Sciences: Proceedings*, Vol. 02, No. 03, pp. 22-49.
- Meshack, I. S., Paymaster, B., and Lyndon, E. (2013), "An assessment of human resource capital and goodwill: A study of selected commercial banks in Nigeria". *Journal of Business & Management*, Vol. 02, No. 04, pp. 36-48.
- Micah, L. C., Ofurum, C. O., and Ihendinihu, J. U. (2012), "Firms financial performance and human resource accounting disclosure in Nigeria". *International Journal of Business and Management*, Vol. 07, No. 14, pp. 67 – 70.
- Michael, O. (2013). Comparative analyses of human resource accounting disclosure practices in Nigerian financial service and manufacturing companies. *IOSR Journal of Humanities and Social Science*, Vol. 16, No. 01, pp. 20-26.
- Okpako, P. O., Atube, E. N., and Olufawoye, O. H. (2014), "Human resource accounting and firm performance". *Global Journal of Commerce and Management Perspective*, Vol. 03, No.04, pp. 232-237.
- Oladele, P. O. (2018). "An empirical study of human resource accounting disclosure on financial performance of selected listed firms in Nigeria". *Journal of Accounting and Management*, Vol. 08, No. 02, pp. 70-82.
- Perera, A., and Thrikawala, S. (2012). "Impact of human capital investment on firm financial performances: An empirical study of companies in Sri Lanka". *International Proceedings of Economics Development and Research*, Vol. 54, No. 03, pp. 11-16.
- Rahaman, M., Hossain, M. A., and Akter, T. (2013), "Problem with human resource accounting and a possible solution". *Research Journal of Finance and Accounting*, Vol. 04, No. 18, pp. 1-10.
- Rao, T. V. (2000), *Human Resource Development: Concept and Background, Human Resources Development: Experiences, Interventions and Strategies*. New Delhi: Sage Publications.
- Saeed, F., Shekoofeh, F., and Mahnaz, K. (2013), "Impact of intellectual capital on financial performance". *International Journal of Academic Research in Economics and Management Sciences*, Vol. 02, No. 01, pp. 6-17.
- Sarker, N., and Koilakos Chouzouris, G. (2021), "A comparative analysis between traditional accounting and human resources accounting (HRA) practices on HR managerial decision-making process". Umea University.

- Salvi, A., Raimo, N., Petruzzella, F. and Vitolla, F. (2021), "The financial consequences of human capital disclosure as part of integrated reporting". *Journal of Intellectual Capital*, ahead-of-print(ahead-of-print). doi:<https://doi.org/10.1108/jic-03-2021-0079>.
- Sekaran, U. and Bougie, R. (2016), *Research Methods for Business: A Skill-building Approach*. 7th ed. Chichester, West Sussex, United Kingdom: John Wiley & Sons.
- Steen, A., Welch, D., and McCormack, D. (2011), "Conflicting conceptualizations of human resource accounting". *Journal of Human Resource Costing & Accounting*, Vol. 15, No. 04, pp. 299-312.
- Subaida, I., Nurkholis, N. and Mardiaty, E. (2018), "Effect of Intellectual Capital and Intellectual Capital Disclosure on Firm Value". *Jurnal Aplikasi Manajemen*, Vol. 16, No. 01, pp.125–135. doi:<https://doi.org/10.21776/ub.jam.2018.016.01.15>.
- Yukl, G. and Lepsinger, R. (2005), "Why Integrating the Leading and Managing Roles is Essential for Organizational Effectiveness". *Organizational Dynamics*, Vol. 34, No. 04, pp.361–375. doi:<https://doi.org/10.1016/j.orgdyn.2005.08.004>.
- Yahaya, K. A., Salman, R. T., Abdulsalam, A. K., and Adegbayibi, A. T. (2022), "Human resource accounting contribution to the profitability of Nigerian publicly traded conglomerate companies". *Economic Horizons*, Vol. 24, No.02, pp.161–176. doi:<https://doi.org/10.5937/ekonhor2202161y>.