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Human Capital Downturn Effect on Firm Performance in Tourism and Hospitality Industry

Arya Aji Aditya[1]*, Cindy Olivia Angkasaputra[2], Hesti Wahyuni[3]
[1,2]Accounting Department, Airlangga Univeristy, Indonesia
[3]Accounting Department, State Polytechnic of Malang, Indonesia

Abstract

The objective of this study was to investigate the relationship between human capital and firm performance in the hotel, restaurant, and tourism industry periode 2019-2020. This is quantitative study that provides use of the mutilple linear regression method. The secondary data collection was obtained at www.idx.co.id, including income statement and financial statement notes for period 2019-2020. The analysis result show that human capital has an effect on a firm performance. Based on the analysis result, we can conclude the COVID-19 pandemic has forced firms to implement human capital strategic planning such as layoffs, voluntary salary reductions, and reduced working hours, all of which have a detrimental effect on firm performance.

Keywords: firm performance; human capital; hospitality industry; tourism industry

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**Corresponding author: arya_ajiaditya@yahoo.co.id*

Introduction

The hotel, restaurant, and tourism industry is critical to Indonesia's economy. According to the Ministry of Tourism (2019), the tourism industry contributed approximately 4.9% of the national GDP and earned IDR 239 trillion in foreign exchange. However, the spread of the Novel Coronavirus in Wuhan, China, in December 2019 and the virus's transmission into Indonesia in March 2020 shook the entire business industry. Firms operating in the hotel, restaurant, and tourism industries are not immune to financial losses, operational inefficiencies, and service disruptions (Ministry of Tourism, 2020). This is reflected in Lokadata (2020) provisional data, which estimate the tourism industry's contribution to the national GDP at only 4%, down 0.9% from the previous year.

Economic performance of the government cannot be divorced from the community's economic cycle. Through the provision of hotel rooms, the provision of travel services, and the production of handicrafts, the role of hotel, restaurant, and tourism business actors promotes economic turnover movement (Zaenuri, 2012). Naturally, the market infection caused by COVID-19 shook the firm performance, which had an effect on the government's economic performance. According to Taouab & Issor (2019), firm performance refers to the accomplishment or outcome of management, economics, and marketing in ensuring the competitiveness, efficiency, and effectiveness of the firm. Financial ratios can be used to evaluate a firm performance, one of which is return on assets (ROA). According to Yi & Ifft (2019), cost efficiency is linked to firm performance, emphasizing the importance of managerial strategies that improve the overall efficiency of employee use, rather than just minimizing total employee costs or employee costs per employee. Due to the firm's financially distressed state as a result of the COVID-19 pandemic, management was forced to implement managerial strategies to cut expenses, maintain operations, and grow the business. Reduced employee as a cost-cutting measure is one of the firm's strategies; at the start of the COVID-19 pandemic, as many as 15.6 percent of employees aged 15-24 years were laid off, and approximately 24 million employees had their working hours

reduced (Dewi et al., 2020; Ngadi et al., 2020).

The firm has established targets and strategies to achieve its performance. The employee serves as the implementer of goals and strategies. According to Mahsud et al. (2011), human capital has an effect on long-term firm performance; this demonstrates that investing in employees can result in increased efficiency and innovation for businesses. Human capital refers to how humans invest in themselves through education, training, and other activities that improve their long-term earnings. (Woodhall, 1987). Macroeconomically, human capital is critical for community development, including the enhancement of lives and incomes, the expansion of knowledge, skills, and product capacity, economic growth, and poverty reduction Pasban & Nojedeh (2016). According to Alnachef & Alhajjar (2015), there is compelling evidence that the "combination of increasing human capital" in organizations and developing innovation and performance results in positive firm performance when larger firms' human capital is considered.

Measurement of human capital requires incremental progress from a strong database in order to analyze and interpret the data's true meaning for various internal and external stakeholders (Baron, 2011). That is, it requires the collection of data from a variety of sources and accounts for not only human capital but also other forms of capital such as structural capital and capital employed. Pulic (1998) established the value added intellectual coefficient (VAIC) modelling approach for the efficiency of human capital, structural capital, and capital employed to calculate the added value of tangible and intangible assets. Pulic's measurement model has been extensively used in study on the impact of managing tangible and intangible assets, including work by Babajee et al. (2020); Soewarno & Tjahjadi (2020); Weqar et al.(2020); Xu & Liu (2020).

The aim of this study is to investigate the relationship between human capital efficiency and firm performance in the hotel, restaurant, and tourism industries from 2019 to 2020. The hotel, restaurant, and tourism industries were chosen as study subjects because the COVID-19 pandemic forced businesses in these industries to develop managerial strategies to survive. One way to accomplish this is to reduce operational costs by reducing the number of employees. The question is whether the employee reduction indicated by the reduction in salary payments and employee benefits in 2019-2020 will have an effect on the firm's performance. The ordinary least squares regression method used as analytical techniques in this study.

Literature Review

In the words of Wenerfelt (1984), resource-based theory (RBT) defines resources as "anything that can be considered a strength or a weakness of an organization." To maximize resource potential, according to Barney (1991), it is necessary to emphasize four characteristics of resources: they must be valuable, rare, non-imitable, and non-substitutable, in order for them to become the firm's competitive advantage.

It is an "inside-out" approach to the formulation of competitive strategies, in which internal capabilities are first assessed and then applied to external threats and opportunities (Davis, 2017). Investing in employees is important to RBT because it helps to reinforce the firm's values (Assensoh-Kodua, 2019). Enterprises can gain a competitive advantage and achieve a superior market position and performance through the acquisition of valuable and privileged resources (Xu & Liu, 2020).

Human resources are a critical component of any organization's success. Human resources must be managed effectively in order for the organization's effectiveness and efficiency to be maximized. Human resource management (HRM) is a broad term that refers to any approach to people management or to a distinct approach to people management that is significantly different from traditional personnel management practices in terms of its ability to contribute to both

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organizational performance and employee commitment (Boxall et al., 2009; Storey, 2007). According to Price, (2007), human resource management (HRM) is a "philosophy of people management based on the belief that human resources are uniquely critical to long-term business success." A business gains a competitive edge by effectively utilizing its people, leveraging their expertise and ingenuity to accomplish clearly defined goals. Human resource management aims to recruit capable, adaptable, and committed individuals, manage and reward their performance, and develop key competencies.

Wilton (2016) distinguishes between two types of human resource management. First, soft HRM places a premium on human capital development and investment, employee loyalty cultivation, and providing well-compensated and fulfilling work. This perspective emphasizes the critical nature of developing a positive employer–employee relationship founded on mutual trust. This relationship is fostered through employee participation and involvement in organizational decision-making, employee empowerment, collaboration, and teamwork, as well as a stakeholder approach that values all stakeholders' interests equally. Second, hard human resource management is frequently associated with exploitative practices such as long hours, low pay, and job insecurity, all of which contribute to low employee commitment. On the other hand, hard and soft approaches to human resource management are not mutually exclusive, as organizations can use soft practices to achieve their business goals.

When measured in terms of knowledge, employees are considered human capital (Soewarno & Tjahjadi, 2020). It is the ability of a person to generate tangible and intangible assets through the application of his or her ideas and knowledge that is referred to as human capital (Subramaniam & Youndt, 2005). These concepts add value to the firm and enable it to compete more effectively in the market. However, despite the fact that human capital consists of three components: competence; attitude; and intellectual agility; businesses with strong human capital have higher productivity; income; and market value than those with weak human capital (Darby et al., 2004; Yu et al., 2015).

It is widely acknowledged that human capital is the lifeblood of intellectual capital, and that it serves as a source of innovation and improvement for businesses. Human capital is a measure of an organization's collective ability to generate the best solutions possible based on the knowledge that exists within the organization (Bontis, 2002; Pujianto et al., 2016). In order to treat human resources as valuable assets that require ongoing attention and development in response to changes in the business environment, the firm's management should be more proactive in this regard. Here on justification of this assumption, it is possible to conclude that investing in human capital is essential, because the experience, skills, and knowledge of human resources have a high economic value for businesses seeking to increase productivity and adaptability.

The aim of Tran & Vo (2020) study is to determine the contribution of human capital efficiency to firm performance in 12 different business sectors throughout Vietnam. According to the study's findings, the generalized method of moments (GMM) model is valid for evaluating human capital efficiency in relation to return on assets in the banking, technology, oil and gas, insurance, education, aviation, and food sectors (ROA). Human capital efficiency and return on equity are closely related in a variety of industries, including banking, technology, oil and gas, insurance, securities, education, and food and beverage. Human capital effectiveness has an effect on a firm's performance.

A study conducted by Rahim et al. (2017) in Malaysia's technology sector looked into the relationship between human capital efficiency and firm performance. The study looked at a random sample of companies that were listed on the main market and the ace market of the Malaysian Stock

Exchange in 2009. When paired t-tests were used, it was discovered that there was little variation in the value of human capital efficiency across the sample examined, and that there was a statistically significant positive correlation between human capital efficiency and firm performance as measured by return on assets (ROA).

Zhong et al. (2021) conducted a literature review in order to identify emerging human resource issues related to the COVID-19 pandemic and to propose related practices for resolving these issues. They stated that as a result of the COVID-19 pandemic, organizations have suffered significant losses in terms of human capital. Yarovaya et al. (2021) investigated the relationship between human capital efficiency and equity fund performance, and they concluded that putting a greater emphasis on human capital would increase the fund's resilience in the face of unexpected changes. Additionally, Mirza et al. (2020) investigate the performance of equity funds in Latin American countries that have been severely impacted by macroeconomic shocks, concluding that equity funds should increase their human capital efficiency in order to maintain resilience in the face of macroeconomic shocks. The COVID-19 outbreak has also had an impact on human capital in the auditing industry, with firms such as Deloitte canceling monthly training and professional development sessions, as well as workshops for all levels of staff (Albitar et al., 2021). Lee & Choi (2020) assert that the South Korean government responded quickly to the COVID-19 pandemic by enacting new legislation to protect the healthcare industry, which is suffering from a loss of human capital. A hypothesis can be developed based on observed phenomena and the findings of prior study:

H1: Human capital have an effect on the firm performance

Methods

This study provided use of secondary data sources in the form of annual reports from firms, which can be accessed via www.idx.co.id. The population for this study is the hotel, restaurant, and tourism industries that are 44 companies listed on the Indonesian Stock Exchange (IDX). The sample is drawn from annual reports published by hotel, restaurant, and tourism industry firms between 2019 and 2020. Purposive sampling is used in this study and resulted 31 companies as research sample with 62 firm-year observation.

While there are 62 firm-year observations in total, we discover a number of data with abnormally high scores (outlier). We chose to delete data with extremely high scores, deleting up to 17 firm-year observations. To ensure that study findings are representative, 45 firm-year observations were kept.

Table 1. Sampling Procedure

Description	Total
Number of hotels, restaurants, and tourism firms listed in IDX	44
Number of hotels, restaurants, and tourism firms listed in the IDX for the year after 2018	(7)
The firms has not yet reported its financial statement for the year 2020	(5)
Employee cost (EC) is not disclosed in the firm financial statement	(1)
Total number of study subject	31

Source: Processed data

Value added is calculated as the difference between the firm's output and input. To calculate value added (VA) using the formula below:

$$VA = OP + EC + D + A$$

Value added (VA), according to Pulic (2004) is the sum of operating profit (OP), employee costs (EC), depreciation (D), and amortization (A).

Then, human capital is calculated using the following formula:

$$HCE = Value\ Added/Human\ Capital$$

Human capital is represented in those formulas by total salaries and wages. HCE is the independent variable that was used in this study.

The dependent variable in this study is ROA (return on asset). The return on assets (ROA) metric quantifies a business's ability to profit from both current and non-current assets. The greater the value of this ratio, the more effectively the

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firm can utilize these assets to generate net income. ROA can be expressed as follows:

$$ROA = Net\ income/Total\ assets$$

The control variable is controlled in such a way that the independent variable's influence on the dependent variable is not influenced by unobserved external factors. The control variable's purpose is to ensure that calculation results are not skewed. Two control variables were used in this study: leverage (LEV) and firm size (SIZE). Leverage is a financial term that refers to the amount of capital raised through debt (loans) or the ability of a business to meet its financial obligations. The leverage ratio can be expressed as follows:

$$LEV = Total\ debts/Total\ assets$$

While the formula for calculating the size of a business is as follows:

$$SIZ = log(Total\ assets)$$

In this study, the regression equation refers to Pulic (2004) conventional VAIC study model by excluding the SCE and CEE component, which is expressed as follows:

$$ROA = \beta_0 + \beta_1 HCE + \beta_2 LEV + \beta_3 SIZ + \varepsilon$$

Results and Discussion

Over a two-year period, outliers were removed from a sample of 31 firms, resulting in a final sample of 45 firm years. As Hair et al. (2014) point out, outliers can be caused by a variety of factors, one of which is that an outlier is an observation that is the result of an extraordinary event, which distinguishes it from the entirety of the observations. The extraordinary event sample contains variables with significantly different values than those found in other samples, in this case the ROA and HCE values. Additionally, Hair et al. (2014) stated that when a sample's mix of values across variables is unique, sample outliers can develop. Outliers can be excluded from the sample if they are not representative of the population.

The descriptive statistics in Table 2 pertain to the variables used in this study, which are ROA, HCE, LEV, and SIZ. The average ROA is -0.02967, with a standard deviation of 0.041634, indicating that there is a greater degree of variability in ROA. HCE has a mean of 1.23936 and a standard deviation of 1.799674, which means that HCE has a bigger variation. With an average LEV of 0.77267 and a standard deviation of 0.857246, there is more variation. The average SIZ value is 11.94222, with a standard deviation of 0.584663, indicating small variation.

Table 2. Descriptive Statistics

	Mean	Std. Deviation	N
ROA	-.02967	.041634	45
HCE	1.23936	1.799674	45
LEV	.77267	.857246	45
SIZ	11.94222	.584663	45

Source: Processed data

The partial correlation coefficients are shown in Table 3. The correlation coefficient between ROA and HCE and the control variables LEV and SIZE is 0.610. The correlation coefficient indicates that there is a relationship between ROA and HCE and the control variable. The result of the two-tailed test at a significance level of 5% indicates that there is a correlation between ROA and HCE.

Table 3. Partial Correlation

Control Variables			ROA	HCE
LEV & SIZ	ROA	Correlation	1.000	.610
		Significance (2-tailed)	.000	.000
		df	0	41
	HCE	Correlation	.610	1.000
		Significance (2-tailed)	.000	.000
		df	41	0

Source: Processed data

A multiple linear regression analysis was performed, and the results are shown in Table 4. However, the significance levels for HCE and LEV are less than 0.05, whereas the significance level for SIZ is greater than 0.05. In terms of significance, the HCE and LEV variables have a statistically significant effect on ROA, whereas SIZ has no significant effect on ROA. In addition, the F value of 16.44 indicates that HCE, LEV, and SIZE all have an impact on ROA at the same time.

According to the Adjusted-R^2, 51.3% of the variance in the independent variable can be explained by the dependent variable, with the remaining 48.7% explained by unobserved variables. On the basis of the data in Table 4, it can be concluded that the hypothesis that HCE has a positive effect on ROA is accepted.

Table 4. Results of Multiple Regression Analysis

Variables	ROA	t	Sig.
HCE	.489	4.930	.000
LEV	-.362	-4.493	.000
SIZ	.371	2.706	.010
F	16.44		
Adjusted-R^2	.513		
N	45		

Source: Processed data

The values of HCE in 2019 and 2020 are shown in Table 5. In 2019, the average HCE is 2.03739, and in 2020, it is 0.55894. When comparing HCE in 2019, the standard deviation is 1.809151, while it is 2.143858 in 2020, this indicates that HCE is noticeably more varied in 2020.

Table 5. Group Statistics

	THN	N	Mean	Std. Deviation	Std. Error Mean
HCE	2019	31	2.03739	1.809151	.324933
	2020	31	.55894	2.143858	.385048

Source: Processed data

Following the findings of Table 6, the variance of the variable relating to human capital efficiency is homogeneous between the two groups, namely 2019 and 2020 (p-value = 0.916 greater than 0.05). The difference in average human capital efficiency between 2019 and 2020 is 1.478452 between the two years. As shown by this table, the efficient use of human capital have decreased by 1.478452 by the year 2020.

Table 6. Independent Sample Test

	F	Sig.	t	Sig. (2-tailed)	Mean Difference
Equal variances assumed	.011	.916	2.934	.005	1.478452
Equal variances not assumed			2.934	.005	1.478452

Source: Processed data

In our study, we discovered that the efficiency of human capital in the industries of the hotel, restaurant, and tourism industries has decreased as a result of the COVID-19 pandemic. HCE's decline was due mainly to a decline in value of VA and HC. Between 2019 and 2020, the VA rate dropped due to a decline in operating profit. In a sample of 31 firms, the average decrease in operating profit was 203%, while the value of human capital decreased by 16%. Smart et al. (2021) show that the majority of the impact is noticed by hotel and restaurant employees, who've been forced to adjust to the service-intensive nature of the work. They must interact directly with customers, but with this, they are at risk of contracting viruses. According to Zhong et al. (2021), the COVID-19 pandemic is a major human resource management crisis that involves urgent attention in order to avoid a large-scale setback and the ongoing uncertainty regarding the end date of the pandemic.

Firms have developed new techniques to maximize the efficiency of their human capital and, consequently, their revenue. Hemmington & Neill (2021) propose for two methods of innovation: increased reliance on technology and direct personal touch. Through the use of social media, increased marketing innovation, online ordering, and the introduction of new delivery models, technology can be leveraged to overcome customers' behavioral shifts during a pandemic, while non-contact delivery options provide direct personal contact. Additionally, firms can invest in the human capital of redundant workers by providing training and skill development and actively involving employees in job-to-job activities, resulting in shorter unemployment periods and a higher rate of reemployment (Borghouts – van de Pas et al., 2021). Both approaches are applicable to the hotel and restaurant industry.

Farzanegan et al. (2021) mention several recommendations in the tourism industry. Additional controls on the tourism industry's health aspects are required, as is accountability for

the industry's major players regarding health and safety standards compliance. To avoid contamination, airports, aircraft, cruise terminals, and ships should be disinfected more frequently. Coordination between health and immigration authorities is also required, as is political will and border surveillance.

When facing financial difficulties, hospitality firms attempt to maintain relationships with governments, travel agencies, and other businesses in the industry. After experiencing financial difficulties, the hotel and restaurant industry has urged governments to take comprehensive measures in order to ensure the long-term viability of human resource practices during a pandemic (González-Torres et al., 2021; Singh & Neog, 2020). The Ministry of Tourism and Creative Economy, on behalf of the Government of the Republic of Indonesia, has anticipated the impact of the COVID-19 pandemic on the tourism and creative economy industries by employing the concepts of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA). People who have been confirmed positive for COVID-19 will be housed in a self-isolation room provided by the hospitality industry as part of the National Economic Recovery Program, which received funding from the IDR 329 billion 2020 budget (Ministry of Tourism, 2020). Support provided to the hospitality industry by the Ministry of Tourism and Creative Economy should be commended for its efforts to mitigate financial losses caused by the precipitous decline in room occupancy rates.

When it comes to preserving the human capital of critical employees, the government should support efforts to strengthen collective bargaining power. According to Zhong et al. (2021), the firm is expected to survive the pandemic through the implementation of confident strategies and the provision of safety leadership. Firm policies such as voluntary leave without pay, voluntary salary reduction, temporary layoffs, and non-standard employment are all examples of leadership strategies that allow businesses to continue to operate even when human capital efficiency is compromised. Leaders are faced with the challenge of effectively communicating with employees while ensuring that the goals and objectives of the leadership strategy are not misunderstood (Sanders et al., 2020).

Instead of working behind a desk to develop leadership strategies, frontline employees work in front of a desk to meet their customer service responsibilities. Insecurity in the workplace and the possibility of being fired if they become infected and unable to perform their job duties have increased frontline staff's mental exhaustion as a result of COVID-19 fear, which has triggered mental exhaustion among frontline workers (Baum et al., 2020; Chen & Eyoun, 2021). In the beginning periods of the COVID-19 pandemic, it is estimated that 1 million formal industry workers in the tourism and creative industries were laid off; this is a significant number of people (Ministry of Tourism, 2020). Governments must respond quickly to the pandemic and implement regulations to prevent industries from losing human capital in order to protect the most vulnerable workers in specific industries (Lee & Choi, 2020; Zhong et al., 2021). Most importantly, regulations meet basic standards for the protection of employees' health, safety, and well-being across all industries and work settings. Because of the existence of a guarantee of protection, mental employees will feel more secure in their work. Employees infected with COVID-19 should not be threatened with termination for failing to meet their responsibilities, rather they should be provided with access to online training programs and recreational activities during self-isolation, which will benefit both the firm and the employees (Chen, 2020).

Another human resource practice that the government can encourage is digital training for the purpose of human resource development and employment creation (Zhong et al., 2021). Both the government and industry can make

investments in human capital through programs such as job training, skill development, participation in a variety of job roles, and safety training. According to Williams (2021), the government should establish a temporary fund to provide financial support to affected businesses in order to mitigate the operational difficulties caused by the COVID-19 pandemic, which is currently underway. It is expected that the firm will continue to invest in human capital in order to maintain its efficiency as a result of this financial assistance. On the other hand, the Ministry of Tourism and Creative Economy provides digital training support in the form of tourism and creative economy competency certification, which is available online (Ministry of Tourism, 2020). During this pandemic, it is expected that an increase in trade traffic, particularly e-commerce, will result from competency certification and digital training programs.

The government should invest in human capital in the hotel, restaurant, and tourism industries. The purpose of the manpower inventory is to identify skills gaps in current employees in order to develop appropriate training programs to develop the specific skills required in the future. The data is critical in determining the strengths and weaknesses of the human resource situation. Thus, manpower inventory generates data that can be used for other management functions, such as economic development at the national level. Economic policy should be designed in such a way that it can effectively respond to significant changes in market conditions.

As previously discussed, the government can improve human capital in the hotel, restaurant, and tourism industries by establishing policies to protect health, safety, and employee welfare; providing financial support to affected businesses and employees; providing free training; and conducting employee inventories. The Government of the Republic of Indonesia, through its ministries, is currently implementing a number of programs targeted at improving and maintaining human capital. Apart from the government, firms can also make a contribution to human capital development by implementing the following:

Table 7. Suggestions for Firms

No.	Description	Industries
1	Sustained review of Standard Operating Procedures (SOP) in accordance with government directives	Hotel, restaurant and tourism
2	Together with industry associations, develop a strategy for revitalizing the industry.	Hotel, restaurant and tourism
3	Creating a virtual promotion for the outcomes of employee training	Hotel, restaurant and tourism
4	Promoting and providing travel health insurance in order to ensure safe travel	Hotel and tourism
5	Setting up accommodation services as a means of self-isolation	Hotel
6	Developing exclusive and limited non-room service offerings	Hotel
7	Facilitating catering services for COVID-19 patients in accordance with recommended food standards	Restaurant
8	Developing food and beverage products that meet current nutritional and quality standards	Restaurant
9	Creating a web series with a tourism storyline	Tourism
10	Involve non-formal employees in obtaining certification to ensure they are held to the same standards as formal employees	Tourism

Source: Processed data

Conclusions

The purpose of this study is to investigate the relationship between human capital efficiency and firm performance in the hotel, restaurant, and tourism industries from 2019 to 2020. The industries were chosen because it was impacted by the pandemic in terms of finance, operations, and service provision; and experienced performance declining, one of which was economic. ROA is used as a proxy for firm performance in this study, since the higher this ratio is, the more efficiently the organization can create net revenue from these assets. The study year was chosen due to the

COVID-19 pandemic phenomenon. The pandemic has put businesses at great risk, requiring the innovation of a survival strategy, one of which includes human resource management.

Partial correlation statistics show that there is a relationship between working capital efficiency and firm performance, as demonstrated by a ROA of 0.610. The F value of 16.44 indicates that the efficiency of human capital, leverage, and firm size simultaneously have an effect on ROA. The study hypothesis is supported by the fact that human capital efficiency has a positive effect on ROA. As a result of the COVID-19 pandemic, the efficiency of human capital in the hotel, restaurant, and tourism industries has decreased, as evidenced by statistical findings, namely the efficient value of human capital has decreased on average from 2019 to 2020.

Theoretically, this study provides evidence regarding the efficiency of human resources in the hotel, restaurant, and tourism industries in the context of the COVID-19 pandemic. The study findings confirm that human capital efficiency plays a critical role in a firm performance. As a result, this study broadens the scope of human resource management and can be used by stakeholders to develop regulations to protect employees' health, safety, and well-being during a pandemic.

Practically, this study enhances the relationship between theory and practice by advising corporate and government leaders on the critical nature of human resource efficiency. According to the findings of this study, the government should assist employees directly or indirectly through their employers during a pandemic. In order to save their firm, leaders put a greater surcharge on human resource practices such as leadership abilities, communication abilities, and negotiation abilities. In this case, a decrease in human capital results in a decline in the firm performance. This study suggested that people in the hotel, restaurant, and tourism industries are particularly hard hit, and they require a safety net. This must be done in order to avoid a decline in foreign exchange earnings from the tourism industry, which has historically provided the government with a significant amount of foreign exchange through tourism and the creative economy.

There are a number of limitations from this study. First, the sample size is quite small. As a consequence, we must be cautious in our explanations of the study findings. For future study, we recommend using a larger sample size by broadening the scope of the industry or industry. Second, the study model, which continues to be based on the VAIC study model. It is necessary to conduct a separate study on the topic of human capital efficiency. They can ensure that their findings are more representative by developing their own study model.

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