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STAR RATED HOTEL BUSINESS SUSTAINABILITY DURING COVID-19 IN BANDUNG CITY

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ABSTRACT

The prolonged Covid-19 has tested the resilience and sustainability of the hospitality industry. This research aims to develop a sustainable hotel business model by examining the role of multi-capital and resilience in the sustainable star hotel industry during the Covid-19. This study employs exploratory quantitative approaches at three and four-star hotels in Bandung. Purposive cluster sampling was used to determine the sample with respondents included General Managers (GM), Human Resources Managers (HRM), and various levels of management. The acquired data were examined using Structural Equation Modelling (SEM), and then based on SEM result will be reprocessed with Importance-Performance Map Analysis (IPMA) using the Smart PLS Version 3.0. The findings revealed that the multi capital had a positive and significant impact on business sustainability. However, human capital could not directly play the antecedent role to business sustainability; resilience as an intermediary is required so human capital could play a vital role in developing a sustainable business. This study provides the practical implication for stakeholders to improve low-performance indicators for business sustainability.

INTRODUCTION

Resilience is the key to the sustainability of the tourism industry during the Covid-19 crisis. Due to a prolonged crisis, dynamic environmental changes pose a big challenge for every sector to think hard about surviving during an uncertain situation. Therefore, the ability to adapt and innovate is essential for companies. The magnitude of the impact caused by the pandemic makes every organization seek to utilize existing resources to continue to live. As one of the tourism

industries, the hotel business is a firm that is directly impacted and is estimated to be the last to recover.

In Indonesia, the impact of the Covid-19 pandemic on the tourism sector has the potential to lose foreign exchange up to USD 4 billion or equivalent to Rp. 54.8 trillion (www.Indonesia.go.id, 2020). Based on data published by the Ministry of Tourism and Creative Economy (2020) as of March 20, 2020, Covid-19 breaks the average room rate and room occupancy rates of minus 25 to 50 percent; room sales price minus 10 to 25 percent; and total hotel revenue decreased by 25 to 50 percent. From March to June 2020, 1,266 hotels in Indonesia's 31 provinces were shuttered due to the Covid-19. With 320 hotels, of which were in West Java Province. As the capital of West Java Province, the hotel business in Bandung is an area that has been affected quite high due to the Covid-19 outbreak. Data from the Indonesian Hotel and Restaurant Association in West Java Branch noted that the classification of three (3) star hotels experienced the most temporary closures. This sudden business closure is the effect of the regional quarantine and the spread of cases infected with the Covid-19 virus, which reduces the mobility of residents. Although the pandemic has been going on for more than a year, it is uncertain when the situation will return to normal. Indeed, the hospitality industry is highly vulnerable to crises and greatly influenced by internal and external hazards.

Studies of the tourism ecosystem, specifically the industry, have not been widely carried out, especially in dealing with disasters and health crises (Luthe & Wyss, 2014). The Covid-19 pandemic is a historical record with the most significant impact on the hotel industry compared to previous crises or disasters. The different pandemic conditions in each region make the impact felt relatively long. These impacts include decreased occupancy rates, a drop in room prices, temporary hotel closures, and bankruptcy. The scarcity of guests and the high operational cost burden tested the hotel's resilience during times of crisis. Of course, the higher resilience is expected to strengthen a sustainable hotel business (Espiner, Orchiston, & Higham, 2017).

The sustainable hotel industry may be regarded from numerous perspectives, including economic, social, and environmental issues (Mihalic, Zabkar, & Cvelbar, 2012). In the context of disasters and crises, the concepts of resilience and sustainability are interrelated. As a corporate organization, hotel resilience is inextricably linked to various deciding elements: capital. According to Mayunga (2007), the essence of the capital approach is because of its components that support sustainable development. The multi capital is employed because this idea is in line with sustainability (Smith et al., 2001). A multi capital can also improve understanding of the extent to which a disaster impacts a business and what elements are most likely to play a role in recovery. Brown et al. (2018) classify capital into six (6) categories: human capital, social capital, cultural capital, economic capital, organizational capital, and environmental capital.

Fillimonau et al. (2020) emphasize four (4) approaches of capital that can be applied, i.e., human, social, economic, and physical. Further explained that some capital categories might overlap and have different roles (Brown, 2019).

Cultural capital, for example, may be observed in social conduct, while human capital can be seen in the social networks built by firms and workers. The economic sector of the Covid-19 pandemic tragedy is the most struck for the survival of the tourism sector, particularly in the city of Bandung.

Although the Covid-19 is not the same as prior disasters, the experience of previous disasters may educate hotel businesses to constantly be attentive by providing resources to avoid future catastrophes (Orchiston, 2016). According to Ivkov et al. (2019), particular literature frequently links this method with the ideas of catastrophe resilience and sustainability. Furthermore, it is thought to be capable of increasing hotel resilience, allowing it to survive, adapt, and innovate during disasters or crises (Dahles & Susilowati, 2015). However, no research examines in detail the effect of the supporting capital on hotel resilience and which capital is considered the most significant influence on hotel resilience. A hotel can be considered successful and sustainable if it can manage all of the adverse effects triggered by Covid-19. The organization's readiness ability reflects its adaptive capability as an aspect of resilience (Orchiston, 2013). The hotel has to manage the occupancy and income levels, and on the other side, they need to maintain service quality to guests and employees.

According to Lew et al. (2017), resilience and sustainability have similarities in highlighting changing environments. The sustainability concept is based on preservation and resource management that provide equity across generations, whereas resilience responds to adaptability and innovation. According to Espiner et al. (2017), resilience is a factor that improves sustainability. So, in this case, the believes that resilience is critical (Dahles & Susilowati, 2015) for maintaining a sustainable hotel business (Mihalic et al., 2012). Previous studies have stated that capital is a determinant of resilience (Mayunga, 2007; Sydnor-Bousse, 2012; Brown et al., 2018; Ivkov et al., 2019), but there has been no study that directly reviews the role of the capital approach to sustainability, particularly in the hotel sector. This study aims to develop a hotel sustainable business model in Bandung City during the Covid-19 outbreak by investigating the effect of the multi capital on sustainable business and the resilience mediation on the multi capital to sustainable business. Furthermore, this research attempts to examine an essential capital strategy practiced in enhancing the sustainability of the hotel industry through the level of importance and its performance.

LITERATURE REVIEW

Business Sustainability

The sustainable hotel business is an extension of the concept of sustainable tourism. Since it was initially presented to the World Commission on Environment and Development, this concept has evolved (WCED, 1987). "Sustainability" is recognized as the Brundtland Report or "Our Common Future" in various formal contexts. The United Nations World Tourism Organization (2004) defines sustainable tourism based on three pillars: economic, social, and environmental factors. Shortly after its launch, various fields widely adopted this notion, including tourism. Although the idea of

sustainable development has been employed for a long time, in tourism science, the use of sustainable concepts is more focused on the domain of destinations. The essence of the idea of sustainability is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The purpose of sustainability is to ensure fairness throughout generations.

The same rationale applies to the realm of business. In general, managers and entrepreneurs want their companies to maintain or enhance their profitability. Elkington (1998) defines the 'triple bottom line' (TBL) or the 3Ps - People, Planet, Profit - as a method of measuring long-term value in businesses. These three pillars assess the firm's performance based on economic, environmental, and social factors. Based on this logic, business sustainability may be described as a company's capacity to satisfy its financial demands within a specific time frame without compromising the ability to meet the company's future needs (Bansal & Desjardine, 2014). The idea of sustainability is becoming a popular term in strategic management, although its definition might be challenging to understand (Bansal & Desjardine, 2014). Sustainable is a developing theory and can be applied in various fields.

Resilience and Sustainability In Tourism

Disasters that have occurred in the last decades have put the tourism industry's resilience to the test, leading tourism scholars to seek the best framework for shaping the industry's resilience. According to the United Nations, International Strategy for Disaster Reduction (UNISDR, 2009), resilience is defined as the ability of a system, community or society exposed to a hazard to resist, absorb, accommodate, and recover from the impact of a risk in a timely and efficient way.

Resilience and sustainability are two topics that are still under academic debate. According to some academics, sustainable tourism is a method for building and maintaining resilience; it is also argued that implementing sustainability will help resilience (McCool, 2015:233). Moreover, evidence from the literature suggests that many scholars argue that sustainability and resilience are two distinct concepts. Instead, several researchers believe that resilience and sustainability are the same ideas (Adger, 2003; Edwards, 2009; Farrell & Twining-Ward, 2005) or that resilience is a crucial indicator of sustainability (Magis, 2013; Schianetz & Kavanagh, 2008). Furthermore, sustainability is a broad societal goal that might be achieved through resilience.(Anderies et al., 2013; Fiksel, 2006).

According to Espiner et al. (2017), resilience is a trait that mitigates uncertainty and unpredictability via practical social and commercial adaptation. In contrast to sustainability, resilience is concerned with how tourist firms become robust and adaptable in the face of rapid and unpredictable change. Put another way, and the most resilient tourist enterprises are the most sustainable. Although resilience is vital for long-term sustainability, it is insufficient (Espiner et al., 2017).

The application of resilience and sustainability in tourism is becoming more prominent due to the large number of tourist activities and visits worldwide that influence humans and natural systems and the anticipation of change. These concepts have numerous similarities and have significant relationships. Both connect to the response system or highlight the necessity for predicting and minimizing the adverse effects of tourism on a destination and its community by stressing change in the context of disasters and crises (Cooper et al., 2018). The sustainability strategy is primarily concerned with conservation, preservation, and restoration, whereas resilience is concerned with adaptability and innovation (Lew and Cheer, 2017).

Some academics advocate for the idea of resilience and sustainability in tourism. However, other experts pull it down to the level of tourism enterprises to apply it to the hospitality sector. Sustainability can refer to how a company can survive longer at the industry and corporate levels, for example, a hotel business (McCool, 2015). It can be related to the company's internal or external conditions. According to Espiner et al. (2015), the link between resilience and sustainability is that resilience can be thought of as an enabling agent for sustainability.

In the context of an organization, resilience is a function associated with overall situation awareness, vulnerability management, and adaptive capability in a complex, dynamic, and interconnected environment (McManus, 2008). Marchese et al. (2018) propose three frameworks for the relationships between resilience and sustainability: 1) resilience as a component of sustainability; 2) sustainability as a component element of resilience; and 3) sustainability and resilience as distinct notions. This viewpoint is reinforced by (Ahern 2013; Blackmore and Plant, 2008), who argue that a system would only experience unstable sustainability if it lacks resilience. This study takes the point of view of a framework that implies resilience may assist companies in achieving sustainability.

Multi Capital in Building Hotel Resilience

The multi capital has been widely used in various scientific domains, including management. Bourdieu (1986) proposed 'capital form,' arguing that capital is more than a single point of view. Bourdieu discusses social and intellectual capital, intending to demonstrate how other types of capital play an important but less quantifiable role in the economy. Capital may also be defined as a bundle of resources utilized to get new resources (Miles, 2015; Norris et al., 2008), community resources, and a business's assets.

Previous researchers conducted studies on strengthening hotel resilience using multi capital. The multi-capital approach may be employed as a framework to strengthen the system when it comes to resilience. A multi capital is considered essential in understanding and evaluating disaster resilience. Mayunga (2007), Sydnor-Bousse (2012), Brown et al. (2018; 2019), Ivkov et al. (2019), Filimonau et al. (2019) conducted numerous research adopting a multi capital in developing resilience (2020). The results of this study agree that in a crisis, hotels use capital to survive. Brown et al. (2018) developed a previously carried out framework

(Mayunga 2007) by applying this concept in building hotel resilience. He argues that building resilience can help hotels reduce the impact when a disaster occurs more quickly to their original operational condition, such as a negative impact on the economy. The capitals are considered as determinants of resilience in the context of disasters are human capital, social capital, economic capital, physical capital, environmental capital and cultural capital (Brown et al. 2018).

In the context of sustainability, the multi-capital also plays a role in increasing sustainable business (Sun et al., 2017). There is a tendency for business development to reduce resources or capital, which can be easily measured, such as financial gains and losses. The forms of capital that are easily measured are economic capital and the availability of human resources. It means that the higher the capital a business owns, it can increase business sustainability. However, not all of these capitals positively and significantly impact hotel resilience. For example, Filimonau et al. (2020) research found that physical and social capital have a relatively small contribution to resilience compared to other types of capital. It proves that disaster situations and political issues significantly affect organizational resilience.

HYPOTHESES DEVELOPMENT

H1: Human capital, social capital, economic capital, and physical capital have a positive and significant effect on sustainable business

H2: Hotel resilience has a positive and significant effect on sustainable business

H3: Hotel resilience mediates the relationship of human capital, social capital, economic capital and physical capital to sustainable business.

RESEARCH METHOD

Sampling & Survey

This study's population is a medium-scale star hotel, precisely three and four-star hotels in Bandung, West Java. The following are some of the reasons for the above classification include; 1). Three and 4-star hotels dominate the number of hotels in Bandung; (2) The room proportion majority come from those classifications; (3) the high-income tax of tourism sector contributions. The proportional cluster sampling technique obtained the sample in this study. Based on data from the Hotel Association of Indonesia Hotels West Java Branch, the population of 3 and 4-star hotels in Bandung is 111. The sample size was established using Slovin's formulas with 91 Respondents. The respondents were General Managers (GM), Human Resource Managers (HRM), or other management levels.

Questionnaire Design

The first section of the questionnaire contains respondent characteristic data. The second section includes questions concerning latent variables such as human capital, social capital, economic capital, physical capital, hotel resilience, and sustainable business. All latent variables were measured using a 5-point

Likert scale (1 = strongly disagree; 5 = strongly agree). Then the questionnaire was tested on several samples of hotel manager respondents.

The measuring item was chosen based on a literature study and previous research. Table 1. lists the variables, indicators, and research reference sources in detail. Human capital, social capital, economic capital, and physical capital are exogenous variables. As a mediating variable, hotel resilience is used, whereas sustainable business is utilized as an endogenous variable. Various measuring indicators are aligned with the factors proposed by experts, and the selected question items are adjusted to the Covid-19 pandemic's circumstances. A pre-test was done to ten professionals before the questionnaire circulated to ensure the validity of each item and, if required, to adjust the questions. Three (3) to six (6) question indicator items indicate each variable.

Table 1: Construct and Indicator

Construct	Code	Item Indicator	Sources
<i>Human Capital</i>	HC1	Employment Commitment	Cutter et al., 2008
	HC2	Knowledge & Skills	Sydnor-Bousoo et al.,
	HC3	Strong Leadership	Lee et al., 2013
<i>Social Capital</i>	SC1	Connectivity with communities, associations and government	Biggs et al., 2012
	SC2	Stakeholder Input	Ritchie, 2004
	SC3	Inter and Intra-organizational	Bruneau et al., 2003
	SC4	Communication Trust between stakeholders	Khazai, 2016
<i>Economy Capital</i>	EC1	Insurance Availability	Birkmann et al., 2013
	EC2	Source of Income	Malhotra & Venkatesh
	EC3	Marketing	Ritchie, 2004
	EC4	Disaster Budget	Sawalha et al., 2013
<i>Physical Capital</i>	PC1	Life Safety	Cutter et al., 2008
	PC2	Hotel Design	Khazai, 2016
	PC3	Hotel Location	Khazai, 2016
	PC4	Evacuation Route	Ivkov, 2019
<i>Hotel Resilience</i>	HR1	Pay for hotel operations (salary, M&E)	Dahles, 2015
	HR2	Alternative revenue (non-tourism or tourism related)	Dahles, 2015
	HR3	Health Protocol SOP	Sutton & Tierney, 200
	HR4	Production Process Innovation	Diaconu, 2011
	HR5	Service Process Innovation (delivery)	Diaconu, 2011
<i>Business Sustainability</i>	BK1	Average Room Rate	Michalich, et al. 2012
	BK2	Occupancy rate	
	BK3	Service Quality	
	BK4	Guest Loyalty	
	BK5	Employee Satisfaction	
	BK6	Participation in Social organizations	

RESULT

SEM Analysis

The model estimation is demonstrated using Partial Least Squares (PLS)-SEM, which is a covariant-based structural equation approach (CB-SEM), Rigdon (2017). There are several reasons for selecting PLS-SEM, including the

following: the model in this study is very complex, consisting of direct and mediating relationships; CB-SEM can be relied on in exploratory studies with limited supporting theory; and another consideration is that PLS can be used to measure the relationship between variables with a relatively small sample (Hair et al., 2014; Hopkins, 2015). PLS-SEM path modelling has become the analysis most frequently cited by professionals because of its reliability in predicting theoretical causal models and empirical evidence. Furthermore, PLS-SEM may be utilized to test confirming theories (Hair et al., 2011). With its flexibility and relatively high power, PLS applications are suited for SEM research intended at prediction or theory construction, such as in studies focusing on identifying crucial success (Höck & Ringle, 2010). In addition to demonstrating a direct effect, PLS generates results indicating an indirect effect between study variables. In simple terms, the role of the mediating variable can be seen from the significance of the relationship between variables, as shown in the indirect effect analysis. In this study, the type of mediation relates to Zhao's (2014) theory, which offers five choices. There are three types of mediation: complementary, competitive, and indirect only. The following two forms are not referred to as mediation: direct only mediation and non-effect no mediation.

IPMA

Importance-Performance Map Analysis (IPMA), commonly known as the importance-performance matrix, is a method for expanding the path standard findings from the PLS-SEM correlation coefficient using an analysis dimension that considers the average value of the latent variable scores. IPMA verifies the total effect, which shows the importance of developing a model construct, using the mean scores of the latent variables to indicate their performance. IPMA's objective is to guide researchers in obtaining explanations and results that have management implications (Nawanir, 2018). Furthermore, IPMA can discover critical elements in the construct since it has a significant overall effect on developing the model but low yields; in other words, the mean value of the latent variable is low (Ringle and Sarstedt, 2016). IPMA is not limited to construct level but may also identify more specific areas for improvement at the indicator level. According to Ringle, Wende & Becker (2015), five steps must be followed to analyze IPMA with Smart-PLS software.3.0 version. IPMA analysis procedure includes; 1) Requirements Check; 2) Computation of the Performance Values; 3) Computation Importance Values; 4) Importance-Performance Map Creation, and 5). Extension of The IPMA on Indicator Level.

Measurement Model/ Outer Model

The reliability test threshold for the loading factor value is greater than 0.70. However, in exploratory studies, the loading factor value between 0.4 to 0.6 or more is still acceptable (Wong, 2013), although the Cronbach alpha value is presented to test the consistency of reliability; however, Hair et al. (2011) suggested the use of composite reliability (CR) as a surrogate. A CR of 0.6 or higher means a high level of internal consistency reliability. The validity results with the loading factor showed in Table.2 that all questions were valid > 0.7. Then, the PLS-Algorithm was re-analysed.

Table 2: Validity and Reliability test

Construct	Item	Outer Loading	Cronbach Alpha	CR	AVE
<i>Business Sustainability</i>	BS1	0,646	0,6549	0,6632	0,542
	BS2	0,542			
	BS3	0,620			
	BS4	0,603			
	BS5	0,639			
	BS6	0,624			
<i>Economic Capital</i>	EC1	0,598	0,6306	0,65	0,545
	EC2	0,619			
	EC3	0,609			
	EC4	0,634			
<i>Human Capital</i>	HC1	0,611	0,5972	0,6347	0,542
	HC2	0,626			
	HC3	0,603			
<i>Hotel Resilience</i>	HR1	0,638	0,651	0,661	0,556
	HR2	0,625			
	HR3	0,600			
	HR4	0,633			
	HR5	0,608			
<i>Physical Capital</i>	PC1	0,648	0,619	0,642	0,525
	PC2	0,620			
	PC3	0,535			
	PC4	0,606			

Fornell and Larcker Criterion

Table 3. show the discriminant validity test that was tested using the Fornell and Larcker Criterion's accuracy. If the value is more than 0.7, the construct is considered to be valid. Table 6. Shows that each concept is distinct from the others, indicating that discriminant validity satisfied the study model's requirements.

Tabel.3: Discriminant Validity

	BS	HR	EC	PC	HC	SC
BS	0.883					
HR	0.837	0.894				
EC	0.823	0.704	0.886			
PC	0.804	0.765	0.662	0.869		
HC	0.736	0.880	0.610	0.711	0.884	
SC	0.738	0.718	0.583	0.681	0.684	0.885

In Table 4. presents the results of hypothesis testing. The first hypothesis shows that social capital, economic capital, and physical capital, have a positive and significant effect on sustainable hotel business with t-values > 1.645 and P-Values 0.05, whereas human capital does not affect sustainable business. Human capital negatively affects sustainable business, contrary to common sense, theory, and correlation coefficients indicating a favorable relationship. These inconsistent findings may indicate an issue with multicollinearity in multiple regression analysis (Hair et al. 2014).

Table.4: Hypothesis Testing

Hypot thesis	Path	Std Beta	Std- Dev	T- Statistics	P - Values	Decision
Direct Path						
H1	HC -> BS	-0.066	0,07917	0,4	0,19583	Not Supported
	SC -> BS	0,11528	0.068	2.441	0.007	Supported
	EC -> BS	0,26389	0.068	5.614	0.000	Supported
	PC -> BS	0,16389	0.063	3.759	0.000	Supported
H2	HR -> BS	0,22708	0,09583	2.377	0.009	Supported
Indirect Path						
	Path	Std Beta	Std- Dev	T-Statistics	P -Values	Type of Mediation
H3	SC-> HR -> BS	0.034	0.028	1.208	0,07917	Direct only Mediation
	EC -> HR -> BS	0.060	0.033	1.812	0.035	Complimentary
	HC -> HR -> BS	0,13333	0.087	2.195	0.014	Indirect only Mediation
	PC -> HR -> BS	0.051	0.033	1.548	0.061	Direct only Mediation

Note: one Tailed Test, Significance Level 95%

The second hypothesis test revealed a significant relationship between resilience and sustainable business, with t-values of 2.377 and p-Values of 0.05, indicating that the stronger the resilience, the higher the sustainable hotel business.

The third hypothesis proposes that resilience mediates the relationship between sustainable business practices. The indirect effect test results show the resilience of mediating human capital and economic capital to sustainable business with t-values > 1.645. According to Zhou (2010), the pattern of human capital to sustainable business through resilience is categorized as indirect only mediation, which means that human capital can only enhance sustainable business if hotels

implement resilience actions. Guided by Zhou (2010), the structure of the relationship between economic capital and sustainable business through hotel resilience is classified as complimentary mediation, which has a substantial effect both directly and indirectly. On the side, hotel resilience did not mediate social capital and physical capital to business sustainability, or the type of mediation is the direct only mediation.

Importance-Performance Map Analysis

According to Ringle and Sarstedt (2016), Importance-Performance Map Analysis (IPMA) attempts to enhance research results and give prioritized insight into the importance of variables to improve the targeted construct. IPMA can investigate variables at the indicator level and display relevance and performance at the variable level. As a result, it can facilitate the identification of priorities in order to raise the dependent variable.

Table 5. shows the latent variable index values and performance values based on the criteria provided by Ringle and Sarstedt (2016). as an illustration of the hotel resilience variable, every improvement in hotel resilience (HR) performance is expected to increase business sustainability performance through the index value (0,386).

The analysis results show that economic capital has a high importance value but low performance compared to other capitals. Human capital shows the lowest importance compared to other capitals, while the performance of human capital and social capital tends to be high towards the target of sustainable business constructs. This result is in line with the high loading factor of the two variables, where social capital and human capital show significant factor loading.

Table.5 Latent Variable Index Values and Performance of the Target Construct Sustainability

	HR	EC	PC	HC	SC
LV Index Values	0.386	0.500	0.405	0.188	0.301
LV Index Performances	83.523	75.266	85.746	85.967	87.575

The results of the importance-performance analysis (IPMA) at the indicator level shown in Table 5. reveal several variables with significant low performance but high importance values, such as in EC2; "Hotels have a diverse customer base as a source of income" (importance value = 0.095, Performances = 56,044); EC3: "marketing and promotion activities are prioritized to strengthen a diverse customer base" (importance value = 0.128, Performances = 75.549); HR2: "Hotels have alternative income in the tourism and non-tourism sectors" In addition, Table 6. has a summary of the examination of indicators for developing business sustainability, with a range of important values (IV) 0.53 to 0.142, and a performance values (PV) ranging from 56.044 to 91.484.

Table.6: Indicator’s Values of Importance and Performances to The Construct Business Sustainability

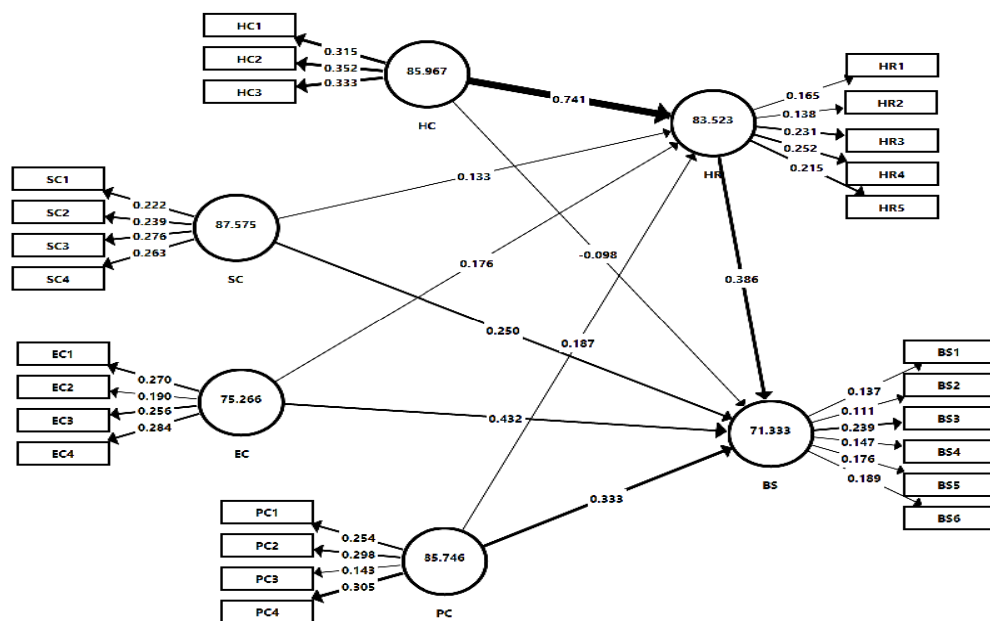
HR		EC		PC		HC		SC	
IV	PV	IV	PV	IV	PV	IV	PV	IV	PV
0.064	72.527	0.135	81.868	0.103	81.593	0.059	76.923	0.067	89.560
0.053	65.659	0.095	56.044	0.121	89.835	0.066	90.659	0.072	82.784
0.089	91.484	0.128	75.549	0.058	74.725	0.063	89.560	0.083	89.011
0.097	90.659	0.142	81.593	0.124	90.385			0.079	88.736
0.083	86.538								

Note:

IL= Importance Indicator Values

IF= Performances Values

Figure 1. demonstrates business sustainability based on importance and performance. The arrows with solid lines show an absolute level of importance. For example, human capital dominates in the formation of resilience (importance values = 0.741), but economic capital has the most significant value in forming sustainable business constructions (importance values = 0.432). On the other hand, social capital has the highest performance in constructing a sustainable business (performance = 87,575).



Picture 1.IPMA Model for Business Sustainability

DISCUSSION

This study aims to create a sustainable hotel business model during the Covid-19 by testing multi-capital, resilience to sustainable business. The results of this study are divided into three sub-topics; the effect of multi-capital on sustainable business, the effect of resilience on sustainable business, and the level of importance and performance of the multi capital to sustainable business.

Multi Capital on Business Sustainability

Every organization must become more resilient and sustainable as the environment changes. The above model provides a framework for four types of multi-capital (human, social, economic, and physical capital), resilience, and sustainability. This study's findings contribute to previous studies on the role of capital in resilience (Brown, 2018; 2019; Mayunga, 2007, Sydnor-Bouso, 2012). According to this study, Hotels must be resilient and sustainable amid a crisis. The star hotel model's sustainable business provides a practical workflow that can be used primarily to develop a sustainable hotel business.

Social capital, economic capital, and physical capital were all demonstrated to have a substantial impact on the long-term sustainability of a company. In the Covid-19 pandemic crisis in Bandung, human capital does not immediately contribute to long-term corporate sustainability. This research indicates that during the Covid-19 in Bandung, the human capital represented by star hotels could not efficiently grow the hotel's sustainable business.

This finding supports Smith's (2010) study, which claims that the multi-capital is consistent with the concept of sustainable development, which is based on the idea that what is accomplished today may be accomplished in the future. Not only in terms of production but also in terms of social welfare. As a result, maintaining capital is critical. Moreover, based on economic theory, Smith (2010) indicates the relevance of capital for the industry's long-term viability. This finding is also consistent with Bourdieu's (1986) capital theory, particularly the role of social capital in long-term sustainability.

This study also shows that resilience plays a mediating role in the relationship between human capital and sustainable business. Human capital will only play an ideal role in a sustainable company if there is no resilience in a crisis. According to star rated hotel Zhou (2010), indirect only mediation is the form of mediation on the connection of human capital to sustainable business via resilience. Meanwhile, the type of mediation in economic and physical capital is complimentary mediation. The two capitals can promote sustainable business with or without resilience. The relationship between sustainable business and social capital is only a direct effect.

Resilience on Business Sustainability

The study's findings reveal that hotel resilience has a favorable and substantial impact on the long-term sustainability of star hotels in Bandung during the Covid-19 outbreak. This finding suggests that working resilience successfully will increase the quality of a sustainable business of a hotel company. In coping

with a crisis, the hotel's capacity to endure, adapt, and innovate is critical. Hotel management must be able to respond to quick changes in the environment.

Hotel management must also continue developing and exploring innovation to survive in terms of both products and services. Hotel management exhibits ingenuity by exploring prospective niche markets that may be promoted. Such as catering packages with delivery services, food trucks, staycation or Work from Home (WFH) packages, pay now stay latest coupons, and self-isolation quarantine packages as well as other packages. Furthermore, hotels use technology to limit direct interaction with visitors (less touch) and less crowd, both in terms of products and services. Online check-in services, digital menus, and compendiums in guest rooms are just a few examples. The core of resilience is adapting so that the hotel company can continue to operate in crisis scenarios, such as health protocol modification. However, star-hotels still need develop the preparedness by adapting and innovating product and service through technology (Ervina, et al, 2021).

Following the Covid-19 outbreak, the application of sustainable theory will have a broader influence. Previously, the notion of sustainability focused on environmental sustainability (Brundtland, 1987), and the Triple Bottom Line theory connected people, planet, and process issues, or the 3Ps (Elkington, 1998). Furthermore, the trend of altering quality tourism is shifting away from mass tourism and toward alternative types of tourism. However, the pandemic has induced behavioral shifts; people are not just more environmentally conscious and concerned about the future, but cleanliness, health, and safety are inextricably linked (Başer & Ehtiyar, 2021). Hotels present an action approach for increasing views of a decent social environment through a sustainable business. Hotels that apply a sustainable product and service development program appeal more attractive to customers, i.e., environmental health, safety, hygiene preparation, and consistency

The findings of this study in line with previous study on the role of resilience to sustainability (the Magis, 2013; Schianetz & Kavanagh, 2008). Moreover support the notion of company sustainability via innovation espoused by Schumpeter (1942) and Solow (1957)The implementation of hotel resilience techniques through the use of technology breakthroughs that can play a role in the sustainability of the hotel industry during the pandemic is one example of the hotel product and service innovation. Technology is the creative destroyer required to develop new goods and techniques. The existence of less contact' technology gives security for both visitors and staff; this is a new approach in hotel services that promotes the post-pandemic economy (Jiang & Wen, 2020; Lau, 2020); the design of hotel products and services with this new invention can encourage hotel guests to remain. The findings of this study support previous findings (Marchese et al., 2018; McCool, 2013; Espiner; Holladay & Powell, 2013; Ahern; 2013; and Anderies et al., 2013) showing there is a link between resilience and sustainability in the tourism science field.

These findings align with a previous study on the role of resilience to sustainability (Magis, 2013; Schianetz & Kavanagh, 2008). The results of this study support prior determinations (Marchese et al., 2018; McCool, 2013;

Espiner; Holladay & Powell, 2013; Ahern; 2013; and Anderies et al., 2013), showing there is a link between resilience and sustainability in the tourism science field. Moreover, support the notion of company sustainability via innovation espoused by Schumpeter (1942). The implementation of hotel resilience techniques through the use of technology breakthroughs that can play a role in the sustainability of the hotel industry during the pandemic is one example of the hotel product and service innovation. Technology is the creative destroyer required to develop new goods and techniques. The presence of 'less contact' technology gives a safe feeling for both visitors and staff; this is a new approach in hotel services that promotes the post-pandemic economy (Jiang & Wen, 2020; Lau, 2020); the design of hotel products and services with this new invention can encourage hotel guests to remain.

Business Sustainability based on IPMA

The Importance-Performance Map Analysis (IPMA) results prove the significance of the business sustainability model. IPMA identifies critical areas where hotel management needs to improve to grow a sustainable business strategy. According to the IPMA investigation, social capital delivers the best performance in the long-term company. However, social capital has the lowest importance weight among the other variables. On the other hand, economic capital has the highest importance weight but the lowest performance. Resilience is a variable that is considered desirable in terms of performance and importance. This means that resilience is critical to the star-rated hotel industry's long-term sustainability amid a crisis. The conclusions are common sense since the pandemic heavily damaged the economy, quarantine policies, mobility limitation, and residents' activities substantially impacted hotel operations. Due to a lack of guests, most hotels choose to close and cease operations. As a result, the hotel needs to develop a marketing breakthrough to increase revenue and take advantage of every possibility as adaptive capacity to environment changes (Smith & Wandel, 2006). Hotel operation should re-design source of other income, not only depending on room revenue but should create another product which is updated to the consumer behavior post-pandemic. Collaboration and innovation factors describe the organization's ability to use innovation and creatively respond to changes (Orchiston, 2016).

CONCLUSION

This study resulted in a conclusion in the form of a reference model that can improve the business sustainability of star-rated hotels during the Covid-19 crisis in Bandung City. In order to be sustainable, hotels need to implement a comprehensive multi capital, not only focusing on one part of the capital. Empirically the multi-capital has been proven to increase the sustainable hotel business. The results show that social capital, economic capital, and physical capital contribute to the hotel's sustainable business. In contrast, human capital has not made a significant contribution to sustainable business directly. It takes the role of resilience as a mediator so that the human capital owned by the hotel can play a significant role in increasing sustainable business. IPMA proves that economic capital remains the primary role in shaping a sustainable hotel business amid a crisis with the source of income; marketing is an indicator that needs improvement.

IMPLICATIONS

This study has both theoretical and practical implication. Theoretically, it will provide additional knowledge regarding the sustainable hotel business during crisis. According to previous research, three fundamental economic, social, and environmental sustainability pillars underpin the hotel industry. This study shows that resilience as a sort of adaptive capacity is required for a business to survive long term in times of crisis. This research adds to prior experts' views, such as the triple bottom line theory (Elkington, 1998) and the Hotel Sustainable Business Model (Mihalic, et al. 2012). Practically, Economic capital features such as alternate sources of revenue, marketing & promotion, disaster budgets, adaptation and innovation are critical to the hotel business's long-term sustainability.

LIMITATION & FUTURE RESEARCH

This research has several limitations. First, the star-rated hotel chosen as the sample is a hotel with a middle-class or higher clientele, and the sample size is modest. Therefore more research is needed to examine it more precisely. The ups and downs of the pandemic affect how hotel response to situation. Secondly, these studies disregard the crisis phase (pre-crisis, during crisis, and post-crisis). As a result, the dynamic crisis phase may affect the hotel's situation.

REFERENCE

- Adger, W. N. (2003). Building resilience to promote sustainability. *IHDP Update*, 2, 1-3.
- Ahern, J. (2013). 'Urban landscape sustainability and resilience: The promise and challenges of integrating ecology with urban planning and design', *Landscape Ecology*. doi: 10.1007/s10980-012-9799-z.
- Anderies, J. M., Folke C., Walker B., & Ostrom E. (2013). Aligning key concepts for global change policy: Robustness, resilience, and sustainability. *Ecology and Society*, 18: 8. doi:10.5751/ES-05178-180208
- Bansal, P. and DesJardine, M. (2014) 'Business sustainability: It is about time', *Strategic Organization*, 12(1), pp. 70–78. doi:10.1177/1476127013520265.
- Başer, G., & Ehtiyar, R. (2021). The effects of COVID-19 on the hotel physical environment from the perspectives of tourists and hotel employees. In *COVID-19 and the Hospitality and Tourism Industry*. <https://doi.org/10.4337/9781800376243.00009>.
- Biggs, D., Hall, C. M. and Stoeckl, N. (2012) 'The resilience of formal and informal tourism enterprises to disasters: Reef tourism in Phuket, Thailand', *Journal of Sustainable Tourism*. doi: 10.1080/09669582.2011.630080.
- Birkmann, J., Cardona, O. D., Carreño, M. L., Barbat, A. H., Pelling, M., Schneiderbauer, S., et al. (2013). Framing vulnerability, risk and societal responses: The Move framework. *Natural Hazards*, 67(2), 193–211. <https://doi.org/10.1007/s11069-013-0558-5>.
- Blackmore, J.M., Plant, R.A.J., (2008). Risk and resilience to enhance sustainability with application to urban water systems. *J. Water Resour. Plan. Manag.* 134:224–233. [https://doi.org/10.1061/\(ASCE\)0733-](https://doi.org/10.1061/(ASCE)0733-)

- 9496(2008)134:3(224).
- Bourdieu, Pierre. (1986). *The Form of Capital. The Sociology of Economic Life*. 3rd Edition Routledge.
- Brown, N. A. et al. (2017) 'Exploring disaster resilience within the hotel sector: A systematic review of literature', *International Journal of Disaster Risk Reduction*. doi: 10.1016/j.ijdr.2017.02.005.
- Brown, Nancy A. et al. (2018) 'An integrative framework for investigating disaster resilience within the hotel sector', *Journal of Hospitality and Tourism Management*. Elsevier Ltd, 36(January), pp. 67–75. doi: 10.1016/j.jhtm.2018.07.004.
- Brown, N. A., Rovins, J. E., Feldmann-Jensen, S. and Johnston, D. (2019) 'Disaster resilience in {Wellington}'s hotel sector: {Research} update and summary.', *Australasian Journal of Disaster and Trauma Studies*, 23(2), pp. 77–81.
- Brundtland, G. H. (1987). *Report of the world commission on environment and development: Our common future*. New York, NY: United Nations. Retrieved from <http://www.un-documents.net/ourcommon-future.pdf>.
- Bruneau, M., Chang, S. E., Eguchi, R. T., Lee, G. C., O'Rourke, T. D., Reinhorn, A. M., et al. (2003). A framework to quantitatively assess and enhance the seismic resilience of communities. *Earthquake Spectra*, 19(4), 733–752. <https://doi.org/10.1193/1.1623497>.
- Cooper, C. et al. (2018). 'Sustainability and Resilience: Two Sides of the Same Coin?', in *The SAGE Handbook of Tourism Management: Theories, Concepts and Disciplinary Approaches to Tourism*. doi: 10.4135/9781526461452.n24.
- Dahles, H. and Susilowati, T. P. (2015) 'Business resilience in times of growth and crisis', *Annals of Tourism Research*. Elsevier Ltd, 51, pp. 34–50. doi: 10.1016/j.annals.2015.01.002.
- Diaconu, M. (2011) 'Technological Innovation: Concept, Process, Typology and Implications in the Economy', *Theoretical and Applied Economics*, 10(563)(10(563)), pp. 127–144.
- Edwards, C. (2009). *Resilient nation*. London: Demos
- Elkington, J. (1998). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. New Society Publishers, Gabriola Island, Stony Creek.
- Ervina, E., Taufiq, R., & Masatip, A. (2021). Guest Satisfaction on Star Hotel Preparedness In New Normal Era of Covid-19. *APMBA (Asia Pacific Management and Business Application)*, 10(1), 21-38.
- Espinier, S, Orchiston & Higham. (2017) 'Resilience and sustainability: a complementary relationship? Towards a practical conceptual model for the sustainability–resilience nexus in tourism', *Journal of Sustainable Tourism*, 25(10), pp. 1385–1400. doi: 10.1080/09669582.2017.1281929.
- Farrell, B. H., & Twining-Ward, L. (2005). Seven steps towards sustainability: Tourism in the context of new knowledge. *Journal of Sustainable Tourism*, 31, 109-122
- Fiksel, J. (2006). Sustainability and resilience: Toward a systems approach. *Sustainability: Science Practice and Policy*, 2, 1421.
- Filimonau, V. and De Coteau, D. (2020) 'Tourism resilience in the context of integrated destination and disaster management (DM2)', *International*

- Journal of Tourism Research. John Wiley and Sons Ltd, 22(2), pp. 202–222. doi: 10.1002/jtr.2329.
- Filimonau, V., Derqui, B. and Matute, J. (2020) ‘The COVID-19 pandemic and organisational commitment of senior hotel managers’, *International Journal of Hospitality Management*. Elsevier Ltd, 91(August), p. 102659. doi: 10.1016/j.ijhm.2020.102659.
- Hair, J. F., Ringle, C. M. and Sarstedt, M. (2011), "PLS-SEM: Indeed a Silver Bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-151.
- Hair, J., Sarstedt, M., Hopkins, L., et al. (2014) Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*, 26, 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>.
- Höck, C., Ringle, C. M. and Sarstedt, M. (2010), "Management of Multi-Purpose Stadiums: Importance and Performance Measurement of Service Interfaces", *International Journal of Services Technology and Management*, Vol. 14 No. 2/3, pp. 188-207.
- Irawan, D. et al. (2021) ‘Operational Resilience and Human Capital Toward Corporate Sustainable Longevity in Indonesian “Jamu” Industry’, *Journal of Asian Finance, Economics and Business*, 8(3), pp. 1035–1044. doi: 10.13106/jafeb.2021.vol8.no3.1035.
- Ivkov, M. et al. (2019) ‘Natural Disasters vs Hotel Industry Resilience: An Exploratory Study among Hotel Managers from Europe’, *Open Geosciences*, 11(1), pp. 378–390. doi: 10.1515/geo-2019-0030.
- Jiang, Y., & Wen, J. (2020). Effects of COVID-19 on hotel marketing and management: a perspective article. *International Journal of Contemporary Hospitality Management*, 32(8), 2563–2573. <https://doi.org/10.1108/IJCHM-03-2020-0237>
- Khazai, B. (2016). Hotel resilient. Paper presented at the Asian Business Forum 2016, Bangkok, Thailand http://www.adpc.net/igo/contents/blogs/ABF2016/download/presentation/Day%20_21%20Apr%202016/04_Technical%20Session%204/01_AsianBusinessForum_Hanna%20Maier_Bijan%20Khazai_Hotel%20Resilient.pdf.
- Lau, A. (2020). New technologies used in COVID-19 for business survival: Insights from the Hotel Sector in China. *Information Technology and Tourism*, 22(4), 497–504. <https://doi.org/10.1007/s40558-020-00193-z>.
- Lee, A. V., Vargo, J. and Seville, E. (2013) ‘Developing a tool to measure and compare organizations’ resilience’, *Natural Hazards Review*. doi: 10.1061/(ASCE)NH.1527-6996.0000075.
- Magis, K. (2013). Community resilience: An indicator of social sustainability. *Society & Natural Resources: An International Journal*, 23, 401-416.
- Malhotra, R. and Venkatesh, U. (2009) ‘Pre-crisis period planning: Lessons for hospitality and tourism’, *Worldwide Hospitality and Tourism Themes*. doi: 10.1108/17554210910949896.
- Marchese, Raynold E., Bates, Mathew E, Morgan Heather, Spierre C, Susan, Igor Linkov (2018). ‘Resilience and sustainability: Similarities and differences in environmental management applications’, *Science of the Total Environment*. Elsevier B.V., 613–614, pp. 1275–1283. doi: 10.1016/j.scitotenv.2017.09.086.

- Mayunga, J. S. (2007) 'Understanding and Applying the Concept of Community Disaster Resilience: A capital-based approach', Summer academy for social vulnerability and resilience building.
- McCool, S. (2015). Sustainable tourism: Guiding fiction, social trap or path to resilience? In T.V. Singh (Ed.), *Challenges in tourism research* (pp. 224–234). Bristol: Channel View Publications
- McManus, S. (2008). "Organisational resilience in New Zealand." Ph.D. thesis, Univ. of Canterbury, Christchurch, New Zealand
- Mihalič, T., Žabkar, V. and Cvelbar, L. K. (2012) 'A hotel sustainability business model: Evidence from Slovenia', *Journal of Sustainable Tourism*, 20(5), pp. 701–719. doi: 10.1080/09669582.2011.632092.
- Miles, S. B. (2015). Foundations of community disaster resilience: Well-being, identity, services, and capitals. *Environmental Hazards*, 14(2), 103–121. <https://doi.org/10.1080/17477891.2014.999018>
- Nawanir, G., Fernando, Y. and Teong, L. K. (2018) 'A Second-order Model of Lean Manufacturing Implementation to Leverage Production Line Productivity with the Importance-Performance Map Analysis', *Global Business Review*, 19(3_suppl), pp. S114–S129. doi: 10.1177/0972150918757843.
- Norris, F. H. et al. (2008) 'Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness', *American Journal of Community Psychology*, 41(1–2), pp. 127–150. doi: 10.1007/s10464-007-9156-6.
- Lew, A.A. and Cheer, J. (2017) 'Lessons Learned: Globalization, Change, and Resilience in Tourism Communities', *Tourism; Resilience; and Sustainability: Adapting to Social; Political and Economic Change*.
- Orchiston, C. (2016) 'Organizational resilience in the tourism sector', *Annals of Tourism Research*, 56, pp. 145–148. doi: 10.1016/j.annals.2015.11.002.
- Orchiston, C. (2013) 'Tourism business preparedness, resilience and disaster planning in a region of high seismic risk: The case of the Southern Alps, New Zealand', *Current Issues in Tourism*, 16(5), pp. 477–494. doi: 10.1080/13683500.2012.741115.
- Ringle, C. M. and Sarstedt, M. (2016) 'Gain more insight from your PLS-SEM results', *Industrial Management & Data Systems*, 116(9), pp. 1865–1886. doi: 10.1108/imds-10-2015-0449.
- Ringle, C. M., Wende, S. and Becker, J.-M. (2015), "SmartPLS 3", in. SmartPLS GmbH, Bönningstedt.
- Ritchie, B. W. (2004). Chaos, Crises and Disasters: A strategic approach to crisis management in the tourism industry. *Tourism Management*, 25(6), 669–683. <https://doi.org/10.1016/j.tourman.2003.09.004>.
- Sawalha, I. H. S., Jraisat, L. E., & Al-Qudah, K. A. M. (2013). Crisis and disaster management in Jordanian hotels: Practices and cultural considerations. *Disaster Prevention and Management*, 22(3): 210–228. <https://doi.org/10.1108/dpm-09-2012-0101>.
- Schianetz, K., & Kavanagh, L. (2008). Sustainability indicators for tourism destinations: A complex adaptive systems approach using systemic indicator systems. *Journal of Sustainable Tourism*, 16, 601–628.
- Schumpeter, J. A. (1942). *Capitalism, socialism, and democracy*.
- Smith, R., Simard, C. & Sharpe, A. 2001. *A Proposed Approach to Environment and Sustainable Development Indicators Based on Capital*. The National

Round Table on the Environment and the Economy's Environment and Sustainable Development Indicators Initiative

- Sun, J., Wu, S. and Yang, K. (2017) 'An Eco-systemic framework for business sustainability', *Business Horizons*. 'Kelley School of Business, Indiana University', 61(1), pp. 59–72. doi: 10.1016/j.bushor.2017.09.006.
- Sutton, J., & Tierney, K. 2006. *Disaster preparedness: Concepts, guidance, and research*. University of Colorado.
- Sydnor-Bouso, S. et al. (2011). 'Toward a resilience model for the hospitality & tourism industry', *Journal of Human Resources in Hospitality and Tourism*. doi: 10.1080/15332845.2011.536942.
- United Nations World Tourism Organization (UNWTO). 2004. *Indicators of sustainable development for tourism destinations: A guidebook*. Madrid
- Zhao, X., Lynch, J. G. and Chen, Q. (2010). 'Reconsidering Baron and Kenny: Myths and truths about mediation analysis', *Journal of Consumer Research*, 37(2), pp. 197–206. Doi: 10.1086/651257.