

Article

Indonesian Hotels' Dynamic Capability under the Risks of COVID-19

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Abstract: The effects of COVID-19 on tourism are irreversible, with potential reductions in income, job losses, shifting working landscapes, and visible health-related fears. These adversities are reinforced in the hospitality business, particularly for hotels, the income streams of which rely on individual movements. This study investigates the process undertaken by the hotel industry in Indonesia to face the current challenges, particularly in terms of the dynamic capabilities possessed by hotel businesses. This construct discusses the potentiality of maximizing existing resources and its impact on innovation norms to leverage hotel dynamics. A total of 329 hotel managers responded to the survey, and the data were finalized by employing PLS-SEM. The findings primarily support the hypothesized direct relationships, but refute the presence of indirect relationships. The results amplify how past investments in sustainable resources are easily deployed assets during COVID-19 and create a welcoming environment for dynamic innovation among hotels during periods of change.

Keywords: dynamic capability; existing resources; innovation norms; hotel; strategy; Indonesia



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1. Introduction

As the COVID-19 pandemic has spread worldwide, new business practices have been developed, particularly in the hotel industry. Individual movements in public spaces have been partially or entirely restricted, resulting in a significant reduction in hotel occupancy. In some scenarios, McKinsey reports an estimated decline in growth of 20% through 2023. Research in Europe indicates the negative impact on essential tourist destinations (Napierala et al. 2020). It is reinforced by data from the hospitality business in China and Indonesia (Rahma and Arvianti 2020). Indonesia records a 12.6% decrease in Y.o.Y. occupancy rates from international tourists, with an estimated USD 6 billion lost only in the first half of 2020 (statista.com, accessed on 20 October 2021). The Indonesia Ministry of Tourism mentioned that 400 thousand people have become unemployed, with 900 thousand workers being temporarily laid off, while 12.91 million have had their working hours decreased (Ministry of Tourism Press Release). These negativities create extreme environmental pressure on businesses, and thus require immediate managerial actions.

Some studies have highlighted the success and failure factors in combating COVID-19. Early risk management strategies advocate the importance of strict government in imposing restrictions or lockdowns, as evidenced by some Asia-Pacific countries (Ling et al. 2021; Şahin et al. 2020). Other studies insisted on the importance of testing and tracking in countries in decreasing the spread of the virus (Dobrowolski 2021; Marcel et al. 2020). On the contrary, strict lockdowns lead to country-wide economic damage. Thus, a strategic approach towards the pandemic was proposed, which involves the partial lifting of restrictions to create herd immunity (de Vlas and Coffeng 2021). Despite higher mortality rates, this policy was found to accelerate the country's recovery (Chancharoenthana et al. 2021).

The implementation of this plan requires an extensive fund allocation to meet the associated public health costs, such as hospital beds, oxygen ventilators, filtered air conditioners, vaccination rollouts, and human resources (Coccia 2022). Despite the debates surrounding this approach, the risk communication strategy must be perceived and transmitted to every community in an ongoing process (Adebisi et al. 2021). It is worth noting that decisive leadership, which can undertake strategic action amid the pressure of this pandemic, is crucial (Al Saidi et al. 2020; Drozdowski et al. 2021). We argue that possessing integrated dynamic capability (D.C.) is critical for hospitality business during adversity, but requires several prerequisite foundations, i.e., existing resources and innovation norms within the organization.

Teece et al. (1997) introduced D.C. as a strategic management theory. It has attracted academics and practitioners who have attempted to dissect this concept (Gutiérrez-Gutiérrez and Antony 2020). Hoskisson et al. (1999) position this approach as a balancing of the contrasting perspectives of proponents of external (Porter 1979) and internal views (Wernerfelt 1984). It focuses on strengthening the internal capacity for environmental opportunities and challenges. It is a loose concept. Authors have described D.C. as an information system (Talaftidaryani 2021) and also in terms of sustainability (Amui et al. 2017), big data savviness (Rialti et al. 2019), innovation (Hanchi and Kerzazi 2020), and other extensive applications. Researchers have expressed critiques regarding its theoretical basis and suggest a focus on other existing, more established theories that have been tested theoretically (Arend and Bromiley 2009). Zahra et al. (2006) stated some problems with the conceptualization of D.C. First, there is no agreement on whether D.C. is the company's ability to deal with various changes or whether D.C. is the company's ability to make changes in response to business shocks. Second, the combination of internal and external factors in observations can be confusing when analyzing resource changes. However, they argue that D.C. can fill the gap in transformations, where various strategic steps are employed to respond to the shifting business landscape. The context of COVID-19 presents an environmental revolution and, arguably, is in line with the theory.

Operationalizing D.C. requires specific resources; furthermore, maximizing existing resources is the most visible strategy during a crisis, as generating fresh income, funds, and investment is constrained (Fukawa et al. 2021). The capacity of hotels to expand into multiple strands of business, redesign their offered products, employ digital approaches, and respond to market upheaval are four critical factors related to curbing the pandemic-related economic problems in China (Hao et al. 2020). Strategic resources such as cognitive, emotional, and structural resources must be preserved in critical times (Richtner and Löfsten 2014). This literature review serves as the reasoning for this study's investigation of the dynamic approach to essential resources, i.e., hotels' technological support and infrastructures (Lee et al. 2009). These resources would enhance the innovative capacity of firms in times of turbulence (Schweitzer et al. 2011). Hotels must reinforce innovation to capture precise customer responses, especially during COVID-19 (Díaz and Duque 2021).

This study investigated a seemingly neglected issue in the interaction of resources, innovation, and dynamic capability in the context of the COVID-19 crisis. We propose that technological support and infrastructure can be approached as existing and manageable resources from past investments. The supporting environments of hotels represent innovation norms and require awareness in seeking out new business endeavors. These constructs create direct and indirect relationships, leading to dynamic capability. This study contributes to the strategic management conversation in the hospitality business in Indonesia during global turbulence.

Helfat and Peteraf (2009) define dynamic capability (D.C.) as an organization's capacity to intentionally create, expand, and modify its resource base, whether tangible, intangible, or human assets with which the organization is in control can be accessed at any time. Hoskisson et al. (1999) stated this concept as a connector between two contradicting schools of thought in strategic management, the internal and external paradigms. Other academics propose it as a collective activity pattern by which organizations systematically create

and modify operating routines to achieve increased organizational effectiveness (Zollo and Winter 2002). The company can reconfigure the company's resources and practices according to a shared pattern and is considered necessary by the highest decision-makers. However, they also remind that companies' strategy is not to rely solely on it alone, as it does not necessarily result in superior financial performance. Eisenhardt and Martin (2000) define it as the company's process of using resources—particularly integrating, configuring, acquiring, and releasing resources—to achieve or even create market change.

The last definition marks the connection between this strategic course and the current COVID-19 agenda. As it creates massive turbulence, especially in the hospitality business, the possession of dynamic management to maximize previous resources and enhance them to tone down the challenges is inevitable. A study on technological firms suggests building a creative intensity environment as a dynamic open-source firm (Fukawa et al. 2021). In the open innovation era, the capacity to shape the existing knowledge and use it to sense and seize the opportunity is mandatory (Patrício et al. 2021). In a time of dire condition, the government's support may facilitate a better knowledge in the dynamic capabilities possessions as an effort to increase the economic outcome (Liu 2021). The capacity of previous technological controls may leverage the recovery position of the hotel and be more dynamic under the turbulence of COVID-19 (Liu and Yang 2021). The resource-based view theory (R.B.V.), the seminal work of Birger Wernerfelt (Wernerfelt 1984), was first introduced as the contender to Michael Porter's proposition of an externally focused strategy. Initially, the inspiration came from Chester Barnard in 1938, Philip Selznick in 1959, or Edith Penrose in 1959 (Hoskisson et al. 1999). This theory focused on the effort to possess strategic resources capable of creating a hard-to-get advantage over competitors. The possession of hard-to-imitate human resources, skills, and marketing would be the key to achieving distinctive competencies, leading to competitiveness (Eden and Ackermann 2000; Cappelli and Crocker-Heffer 1996; Smart and Conant 2011). Barney (1991, 2001) divided excellent resources into a range of characteristics, such as valuable, rare, inimitable, and non-substitutable. In the context of the hotel business, the potential of excellent resources is visible in terms of room cleanliness, the professional appearance of employees, and other competitive internal and service offers (Choi and Chu 2001).

In the context of COVID-19, hotels must be able to elaborate their existing resources to the maximum, as fresh investments are potentially improbable (Fukawa et al. 2021). This study proposes the technological support (Ray et al. 2004) and hotel infrastructure (Choi and Chu 2001) are the past capacity possessions that can be established to support hotel innovation norms and dynamic capability. Technical support is indispensable in changing business (Powell and Dent-Micallef 1997). It serves as the foundation for creating innovative organizational norms, necessitating its place in digital transformation (Gurbaxani and Dunkle 2019). However, previous studies discussing the potential relationships between hotels' technological support and supportive environment are still inadequate, providing possible discussions in the field.

Hypotheses

Studies have deduced that data-driven firms successfully encourage the innovative culture, be it in process or product, supporting the role of upgraded technology in the business environment (Chatterjee et al. 2021; Ponciano and Amaral 2021) and further amplified in the e-businesses (Soto-Acosta et al. 2016). Technology also creates the foundation to be aware of potential opportunities. It presents an indiscriminate tool for obtaining sufficient knowledge, creating organizational agility (Ravichandran 2018). It also helps increase awareness in developing new products or services (Scutto et al. 2017). These factors prescribe a dynamic capability within firms (Karimi-Alagheband and Rivard 2019; Rezazadeh et al. 2016), even inseparable (Mikalef and Pateli 2017; McLaughlin 2017). These arguments serve as the foundation for the hypothesis formulation.

Hypothesis 1. *Hotels' existing technology supports the capacity of environmental support in innovation.*

Hypothesis 2. *The possession of superior technology enables the hotels to be more aware of potential innovative opportunities.*

Hypothesis 3. *Technology is the essential driver of hotels' dynamic capability.*

The most important capital of hotels is their infrastructure, as it is the playground for their service. This physical manifestation is evident from the reviews of literature that mention its significant contribution as the perceived value (El-Adly 2019; Sürücü et al. 2019) or even brand image (Kandampully and Suhartanto 2000; Wai Lai 2019). Hotels with sustainably attributed infrastructures also shape customer loyalty (García de Leaniz and Rodríguez 2015). From the management perspective, the existing hotel infrastructures shape the service workers' capacity to create substantial innovation, especially in a crisis. However, the last pieces of literature discussing this nexus are still elusive. Han et al. (2021) examined the potential management infrastructure in hotels to adopt innovative mobile technology. Other studies mention innovative workplace design to boost creativity/smart working (Errichiello and Pianese 2020; van der Voordt 2003) and service climate (Al-Hawari et al. 2019; Ghosh 2015). The supporting infrastructure may play a role in cultivating innovative behavior (Singh and Sarkar 2019) from workers' happiness (Bani-Melhem et al. 2018). Ziyae et al. (2021) posit that the existing infrastructure is essential in creating dynamic capability in the hotel industry, manufacturing business (Anand et al. 2009), or real estate business (Stehn et al. 2021). These conversations add positive support for hypothesis formulation.

Hypothesis 4. *Hotels' infrastructure is the supporting environment of innovation.*

Hypothesis 5. *Hotels' existing infrastructure is essential in securing the dynamic capability.*

The organization's innovation norms—supporting environment to innovation and opportunity awareness—closely interact with the dynamic capability. These tenets refer to the environmental condition to support innovative behavior within firms (Russell and Russell 1992). This study proposes the relationship of supporting the environment within an organization toward opportunity awareness. This supportive condition may present from anything like managerial support, leadership, innovative environment, or funds. This nexus does not have too much attention from previous researchers. However, a study in data science indicated that data-driven culture leads to better opportunity sensing (de Medeiros et al. 2020). Non-location bound firm-specific advantages also increase the sensing process (Matysiak et al. 2018). Another study reveals that an immature environment requires other firms' openness to benefit the opportunities (Abidi and Koichi 2020). A supporting precondition of entrepreneurial and market orientation is crucial in the opportunity-seeking behavior (Bengesi and Roux 2014). This fact reiterates the importance of a dynamic environment to knowledge integration in finding potential innovation and even multiplied to firms focusing on radical innovation (Schnellbacher and Heidenreich 2020). Hotels' supporting environment toward creation leads to more dynamic capability (Seo et al. 2021; Coreynen et al. 2020). It presents as the inherent innovative environment critical in executing active strategies (Russell and Russell 1992). Finally, the opportunity-seeking behavior would enhance the hotel's capacity in obtaining dynamic capabilities, as one foundational function of D.C. is the sensing quality (Kump et al. 2019; Baden-Fuller and Teece 2020; Zhou et al. 2019). Through these literature discussions, we present some hypotheses.

Hypotheses 6. *Hotels' supporting environment, which encourages creativity, is essential in the workers' opportunity awareness.*

Hypothesis 7. *By the presence of a supportive environment for innovation, the dynamic capability follows.*

Hypothesis 8. *Opportunity awareness also serves as the basis for dynamic hotels under turbulence.*

Hypothesis 9. *Supporting environment and opportunity awareness mediate the relationship of technological support and dynamic capability.*

Hypothesis 10. *Supporting environment and opportunity awareness mediate the relationship of infrastructure and dynamic capability.*

2. Materials and Methods

2.1. Design

This study approaches the solutions to the proposed hypotheses by quantitative method. At best, this study is still exploratory by forming inferential statistics for the variable relationships. We develop a reflective model with five variables. Two independent predictors (technological support and infrastructure) construct direct and indirect relationships with three dependent variables (supporting environment, opportunity awareness, and dynamic capability). These interconnected variables are some strategic defensive stances that we believe to be critical during the adverse of COVID-19 (see Figure 1). An online questionnaire is selected to simplify the data collection using Google form with a 5-point Likert scale. Provided this study was still in exploration, we employ a variance-based partial-least-square structural-equation-modeling for the analysis. This statistical method allows a more appropriate approach for this study's purposes with a loose assumption of normality in a theoretical development setting (Hair et al. 2017).

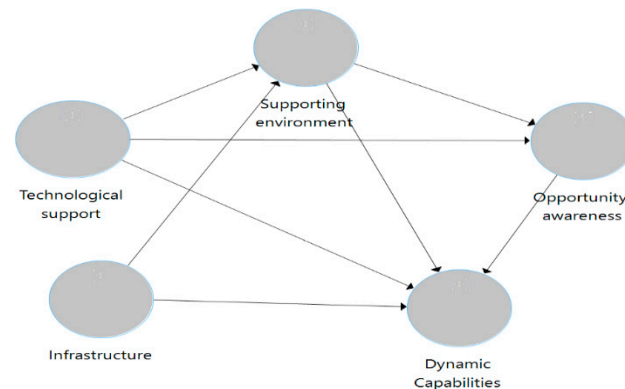


Figure 1. Conceptual framework (Source: authors' formulation).

This study's statistical measurements require several paths. Firstly, we need to clarify whether the indicators can represent the variables by the outer model quality. The deletion of the indicators has to consider the convergent validity tests like their Cronbach's alpha, rho_a, composite reliability, and average variant extractor. A deletion without an improvement in the model's validity is not advised. Furthermore, this study assured the model did not present a multicollinearity problem by its variant-inflation factors to be no higher than 3. Finally, we check the model discriminant validity by its heterotrait-monotrait test, with an expected value below 0.9. This test ensures that all indicators only represent the said variable instead of other unrelated constructs. These validity and reliability tests are the backbone for conducting the inner model measurement to observe the answers to the proposed hypotheses. All steps will be further explained in the result section.

2.2. Sample

The strategic formulation in a firm is usually an outcome of the thoughtful planning of the managers; thus, this study obtains the responses from a minimum of strategic-business-

unit regulators. The hospitality business, especially the hotel industry, suffers the most from the adversities of COVID-19. Therefore, hotel management explores a myriad of defensive strategies to face these challenges. Another consideration for strategic data information is highly classified within firms; thus, we present a formal research letter from the university to the tourism department in Makassar. The agency then distributed it to the H.R.D. Managers. We also attach the letter in the questionnaire to convince them that our study only collects behavioral survey responses, and no credential data is required for the study. This gentle approach allows us to code 329 supervisory and above responses with a convenient sampling method. All managerial positions are considered equal in the responses with no further specifications in the statistical measurement. This sample size is sufficient from the perspective that the exact number of managerial populations is unknown. This dataset is larger than the ten times indicator rule for PLS-SEM, as this study has 18 scales in the investigation (Hair et al. 2016, 2010) and higher than the 200 cut-off points for structural-equation modeling (Boomsma 1985; Kline 1998). Table 1 compiles the demographic background of these decision-makers. No data went missing, as this study used Google Forms to ensure precision. This study obtained 329 usable responses from upper-level management. They vary in their positions, with several demographic characteristics as follows:

Table 1. Demographic characteristics.

Descriptions	n	%	Descriptions	n	%
Sex			Positions		
Male	197	59.88	GM	33	10.03
Female	132	40.12	Accounting Manager	27	8.20
Total	329	100	HRD Manager	72	21.88
Age			Marketing Supervisor	52	15.80
18–30	39	11.85	F&B Manager	67	20.36
31–45	203	61.70	Room Manager	23	6.99
46–60	87	26.44	Supervisor	55	16.71
Education			Tenure		
High school	32	15.6	1–3 years	46	13.98
D1	42	4.9	4–6 years	117	35.56
D3	63	20.5	7–10 years	97	29.48
Bachelor	192	58.8	>10 years	69	20.97

Source: Respondents' profile in the survey.

The respondents' responses reveal some demographic information, with the sample being dominated by men, 197 people, representing 59.88% of the data. They are also generally productive age, i.e., 31–45 years, possessing a bachelor's degree. HRD Managers would screen the research permit and the questionnaires first; thus, they present as the highest respondents, followed by the food and beverage managers and supervisors in various positions. Respondents have generally served for 4–7 years.

2.3. Measures

This study investigates five variables of interest and obtains the indicators from several previous research articles. All exogenous variables (technological support and infrastructure) are what we believe as accumulated past competitive resources pertaining to support the formation of innovative norms and dynamic capabilities of a firm (Suddaby et al. 2010). As the hotels would not be able to add current investment and use what is available, this past possession serves as an added value compared to competitors. Technological supports follow the indicator formulation with three items. This construct explains how management has compiled a range of technological resources to support the service offerings. While information system capacity is critical, previous competitiveness also presents how different the hotels' physical offerings are. Thus, this study places the hotel's infrastructure as essential to provide guests with a primary and standardized ambiance. It is accumulated

in the vibrant atmosphere of the infrastructure. It follows how hotels manage to fortify the continuity of service offerings' quality and serve the hotel's identity (Choi and Chu 2001). These two constructs will provide the landmark for the innovation capacity in maintaining the dynamic capabilities within firms.

This study proposes two innovation norms within the organization as the mediating variables to sustain dynamic capabilities, i.e., supporting the environment and opportunity awareness. The construct measurements follow categorization as how proposed innovation norms, i.e., knowledge awareness, attitude toward innovation, the process of innovation, and its implementation within the organization, are critical for a dynamic workplace (Russell and Russell 1992). As such, they are some of the substantial foundations for the establishment of dynamic capability. The construct measurements are adapted from Wu (2007), which compile the capability to integrate resources, the capacity to reconfigure resources, the ability to learn, and the ability to respond to rapid changes in the business environment. As this study employs the measurement from previous publications which have passed the data quality requirements, the initial ground for the study presentation can be laid out for the context of market turbulence under COVID-19.

3. Results

Descriptive information from the response data is shown in Table 2.

Table 2. Mean, standardized deviations, and correlations of constructs.

No	Constructs	Mean	SD	1	2	3	4	5
1	Opportunity awareness	4.289	0.939	1.000				
2	Supporting environment	4.164	1.045	0.550	1.000			
3	Technological support	3.872	1.164	0.307	0.350	1.000		
4	Infrastructure	4.212	0.782	0.367	0.497	0.496	1.000	
5	Dynamic capabilities	4.041	0.958	0.356	0.481	0.536	0.607	1.000

Correlation above 0.15 is significant at 0.05, and 0.20 is significant at 0.01. Source: Adapted Smartpls 3 output.

Data analysis using PLS-SEM divided the analysis stages into two parts: the outer and inner models. The outer model provides information about the validity and reliability of the data proposed in the study. Thirty-one initial scales were reduced into 18 final indicators by the composite confirmatory analysis (C.C.A.) stage, which has become the identity of PLS-SEM (Schuberth et al. 2018). These items must meet several criteria: the loading factor's quality, convergent validity, discriminant validity, and collinearity. Table 3 summarizes outer model findings.

The C.C.A. study confirmed the support for the outer structure of this research model. This fact comes from a variety of information. The final 18 indicators have a loading value that is not lower than 0.6. Hair et al. (2014b) provide a standard that, ideally, the loading value should be higher than 0.7; however, this level is not mandatory. They do not suggest removing the indicator if it does not improve the alpha or average variance extractor (AVE). The nature of this research, which tends to explore the theory, also supports a low loading value, as long as it is not less than 0.5. Therefore, these 18 indicators can be proposed to the subsequent validity and reliability test.

The convergent validity test in this study observes the Cronbach's alpha, rho-a, composite reliability, and the AVE of the data. Except for AVE (>0.5 is expected), all of these measures are required to have a value above 0.7. Table 3 provides information that the opportunity awareness and dynamic capability variables do not meet the 0.7 level. It can be explained that some alternative criteria such as composite reliability and AVE provide support for models with values above 0.7 and 0.5 in the overall construct. Moreover, exploratory-based research also does not need a high alpha value (Taber 2018). On the other hand, the AVE itself is seen as one of the more stringent measures of validity quality than Cronbach's alpha (Hair et al. 2014a). Thus the convergent validity test is sufficient, and the investigation of multicollinearity can be performed.

Table 3. Measurement specifications of outer model.

Construct	Indicators	Loading	Alpha	rho_A	CR	AVE	VIF
Dynamic Capabilities	DynCap1	0.823	0.639	0.637	0.806	0.582	1.628
	DynCap2	0.768					1.598
	DynCap3	0.691					1.089
Infrastructure	Infr1	0.638	0.706	0.748	0.819	0.534	1.401
	Infr2	0.855					1.790
	Infr3	0.768					1.565
	Infr4	0.640					1.328
Opportunity awareness	OppA1	0.618	0.579	0.601	0.774	0.537	1.237
	OppA2	0.805					1.350
	OppA3	0.762					1.126
Supporting environment	SupEnv1	0.845	0.897	0.898	0.924	0.708	2.743
	SupEnv2	0.858					2.822
	SupEnv3	0.821					2.213
	SupEnv4	0.865					2.665
	SupEnv5	0.819					2.108
Technological support	TechCS1	0.947	0.803	0.927	0.881	0.720	3.715
	TechCS2	0.949					3.722
	TechCS3	0.602					1.261

Source: Adapted Smartpls3 output.

Table 3 provides information on the potential for collinearity in the data. The test results indicate the absence of this problem with a variance inflation factor (V.I.F.) value above 0.2 and below ten on all final data indicators. V.I.F. also provides information about the standard method bias (Podsakoff et al. 2003). The TechCS1 and TechCS2 hands have a V.I.F. above 3, but it is still considered moderate because it is still below the five thresholds (Kock 2015). Based on the information in Table 3 above, the research data has met the PLS-SEM outer criteria, leaving the discriminant validity test as in Table 4.

Table 4. The heterotrait–monotrait (HTMT).

HTMT		1	2	3	4	5
1	Dynamic Capabilities					
2	Infrastructure	0.862				
3	Opportunity awareness	0.422	0.508			
4	Supporting environment	0.620	0.626	0.719		
5	Technological support	0.717	0.639	0.439	0.409	

Source: Smartpls 3 output.

This study seeks to ensure that all indicators in the survey can represent their variables within the framework of discriminant validity analysis. Table 4 provides information on the research using the heterotrait–monotrait test (HTMT), which supports the proposed model and indicators. All variables have values below 0.9 based on the recommendations of PLS-SEM use (Henseler et al. 2015). As all validity and reliability pre-tests meet the requirements, the analysis shifts to the path coefficients and the bootstrapping results. The statistical tests reveal the findings as in Table 5.

Table 5. The Summary of significance and relevance tests.

Relationships	Effect	t-Value	p-Value
Technological support -> Supporting environment	0.165	2.271	0.023
Technological support -> Opportunity awareness	0.113	2.007	0.045
Technological support -> Dynamic capabilities	0.290	5.129	0.000
Infrastructure -> Supporting environment	0.424	6.448	0.000
Infrastructure -> Dynamic capabilities	0.369	6.458	0.000
Supporting environment -> Opportunity awareness	0.494	7.881	0.000
Supporting environment -> Dynamic capabilities	0.201	3.100	0.002
Opportunity awareness -> Dynamic capabilities	-0.035	0.500	0.617
Tech. support -> Supp. envrmt -> Opp. awrn -> Dyn. capabilities	0.003	0.433	0.665
Infrastructure -> Supp. envrmt. -> Opp. awrn -> Dyn. capabilities	0.007	0.494	0.622
R ² to Supporting environment		0.277	
R ² to Opportunity awareness		0.299	
R ² to Dynamic capabilities		0.467	

Source: Adapted Smartpls3 output.

Table 5 reveals the acceptance of nearly all hypotheses directly, but the relationship of opportunity awareness and dynamic capability. This study also provides the empirical path model as observed in Figure 2.

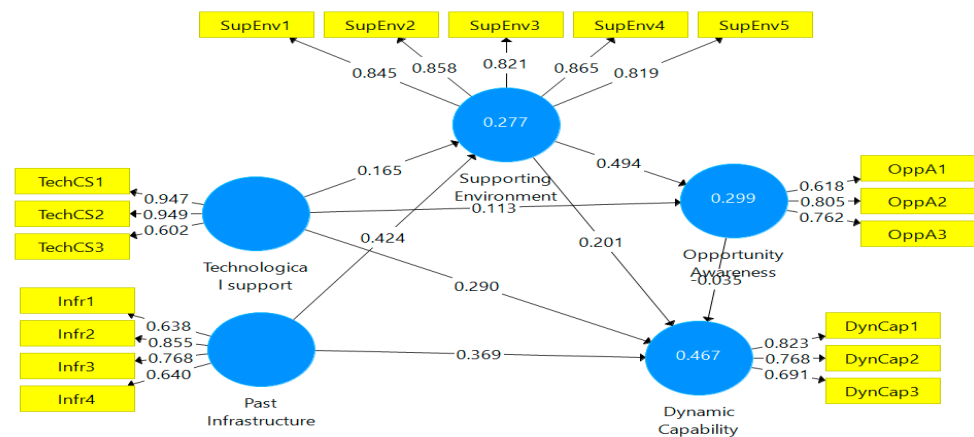


Figure 2. The path model (Source: Smartpls3 output).

All significant relationships satisfy the 1.96 minimum requirement for a 5% margin of error. The R² of the three endogenous variables varies with the dynamic capability to obtain the highest value. This revelation is understandable as all paths finally end in this variable; thus, the number of relationships is advised (see Figure 2, the statistical path revelation). The statistical tests support the central idea formulation of past resource advantages in pushing the innovative norms and dynamic capabilities in a turbulent time and will be discussed further.

4. Discussion

The dynamics of competition in the hospitality business face enormous challenges from significant environmental changes such as COVID-19. Loss of revenue in the hotel sector and job losses are saddening phenomena (Razak 2020). Therefore, maximizing existing resources is one of the steps commonly taken by managers to mitigate the problems (De Belvis et al. 2012). This study examines the interaction between resource ownership, innovation norms, and the dynamic capability of the hospitality industry to defend itself in times of crisis. Two critical resources inherent and unchanged in the hotel business are ownership of the information technology structure and hotel infrastructure. These two investments are generally owned before COVID-19 strikes, so adopting the right technology (Tavitiyaman et al. 2020) and the quality of infrastructure is a strategic position in turbulent times (Assaf et al. 2015).

This study confirms the formulation of Hypothesis 1 that technology support is critical in developing an innovative environment that supports the adaptability of its employees. The organization must conduct various interventions to form a strategic environment that can help team members creatively deal with market demand (Mumford 2000). Technological support is essential in shaping a creative work environment (Zhou and Verburg 2020; Aydalot and Keeble 2018). A study on 340 companies in China supports that the readiness of technological resources is an essential factor in creating and safeguarding a competitive work environment for organizational performance (Zhang et al. 2020). As a supporter of an innovative environment, technology will play a crucial role in the knowledge generation process, forming a competitive advantage in service firms (Macau et al. 2016). However, knowledge is not always essential or strategic. When possession of knowledge cannot drive competitive advantage, Grover et al. (2009) propose finding and strengthening other distinctive factors within the organization.

Technological support as a strategic resource is also an element of forming innovative norms in the form of a work environment that is aware of various opportunities and strategic strengths to overcome threats and weaknesses for the organization. The results of the Hypothesis 2 test significantly confirm the above conceptualization that technological support is crucial for establishing opportunity awareness. The relationship between these variables has not been studied in depth from previous studies. However, lessons from previous research indicate that being aware of change is essential when in an environment experiencing disruptive changes in technology (Birkinshaw et al. 2018). Their research confirms that the most prominent investment will be in late-mover companies, leading to the loss of competitiveness in the process. Other studies indicate the importance of a decision support system for technology to assist in a better environmental scanning process (Villalobos et al. 2019). Further studies in education support technology's role in shaping adaptive personalities in learning (Järvenoja et al. 2020), thus providing cues for future research.

Dependable technology ownership is one of the backbones in creating a dynamic organization. This argument is evident from the confirmation of Hypothesis 3, namely, the role of technical support in improving dynamic hotel capabilities. Previous research has indicated the role of big data-based technology capacity in Norway in shaping active organizations and leading to organizational competitive advantage (Mikalef et al. 2020). The shift towards mobile technology has also created a new offering in the hotel business (Han et al. 2021). The experience of the company's past exponential development in South Korea stems from the adoption of qualified technology for proponent innovation in the world (Kim and Lee 2002). Technological support in the industry is the basis for the value creation of a dynamic company (Chen et al. 2015). However, the hotel's technical capacity is meaningless without the possession of adequate infrastructure resources.

Hotel infrastructure is a fixed asset serving as the leading offers to customers (Chu and Choi 2000; Choi and Chu 2001). These resources accumulate past investments that confirm the hotel's position and become the starting point for the hotel's performance. The flexibility of maximizing the use of hotel infrastructure in shaping a supportive work environment to innovation is one of the relationships in this study with the most significant effect (42%), confirming Hypothesis 4. Notably, the relationship between these variables has not been studied in depth from previous studies. A proxy study found that adequate infrastructure capability is essential in shaping an innovative environment (Chuang et al. 2016). Continuous infrastructure improvement is the basis for hotel innovation in producing more attractive customer offers (Bondarenko et al. 2019). These results provide a strong argument that hotels with more established ownership of infrastructure resources will make it easier for employees to design more attractive service offerings to customers. The results of a cross-country study also find that internal infrastructure capacity is more critical in innovative processes for companies in developing countries than in developed countries (Dwivedi et al. 2015). The potential for developing hotel infrastructure in the future could consider the development of extra-sensory experiences, hyper-personalized

experiences, and beyond-automation experiences (Buhalis et al. 2019). The continuous process of updating infrastructure will strengthen the dynamics of hotel offerings (Sadeghi), especially in times of crisis.

Hotels with infrastructure that enable dynamic strategic offerings for customers can grow much better, as evident from the findings of this study that hotel infrastructure is a driving element of dynamic capability hotels, confirming Hypothesis 5. This finding is supported by qualitative research from previous researchers (Ziyae et al. 2021). Good infrastructure also facilitates business flexibility responsive to various opportunities in the acquisition and merger process, even during integration between companies (Benitez et al. 2018). On the other hand, a commitment to good infrastructure ownership will be essential in becoming a dynamic organization that can sense and respond to various potential offers in the market (Roberts and Grover 2012). Commitment to energy-friendly infrastructure may also play a role in a more dynamic hotel (Crapolicchio et al. 2020). In times of crisis, when all efforts must be maximized, the ownership of strategic resources that are easy to configure will be an essential element in maintaining a dynamic hotel business.

An innovative internal structure serves as a strategic resource that can sustainably support the hospitality business's performance in a turbulent market (Cheah et al. 2018). The reason is that innovation norms are the basis for preparing the adaptive business model in a crisis. The hotel business environment that facilitates and supports the innovation process of its employees will increase their sensing and capture potential opportunities, confirming Hypothesis 6. The relationship between these variables reveals the most extensive influence (49%) in this study, emphasizing its essential role. These findings highlight the vital role of innovation norms in the adaptive creativity of employees (Russell and Russell 1992). Being aware of various changes is a necessary key in initiating strategic actions on time, and therefore requires good internal capabilities in responding to these changes (Al-Kwafi et al. 2020). The ownership of open culture to innovation encourages creating an adaptive organization in sensing and seizing potential opportunities (Duarte Alonso et al. 2020; Matysiak et al. 2018). This study confirms Hypothesis 7 that an environment that supports the innovation process is crucial in a dynamic organization. Management openness to embracing a wide range of innovation activities will increase successful innovation in improving organizational financial performance (Piening and Salge 2015).

On the other hand, the awareness of potential opportunities does not automatically lead to dynamic capability, leading to the rejection of Hypothesis 8. The study indicates that taking action is crucial as the information may overwhelm the decision-makers, making them not dynamic (Purnomo 2018). Opportunity identification is not enough without appropriate adaptation (Marhraoui and Manouar 2017). Adequate investment in the opportunity sensing process is crucial (Giudici et al. 2016). This insignificant relationship can also get a more in-depth explanation in future research by accommodating these various factors.

Statistically, the insignificant relationship between opportunity awareness to dynamic capability makes all indirect connections through these two constructs trivial, rejecting Hypotheses 9 and 10. Exceptions can be made if the opportunity variable becomes the last dependent construct in indirect relationships or does not become a mediating variable. Measurement improvement or review may clarify the findings of this study. All results confirm that resource ownership is vital in shaping the innovative environment in the organization and leads to a dynamic organization. However, business competition does not always have to be at constant fights. Cooperation between competing businesses within the impacted industry seems to be an inevitable strategy to survive the challenges (Crick and Crick 2020).

One highly prized solution for this pandemic is the vaccination program. The faster the jabs, the earlier the dream to new-normal life arrives, and thus, requires immediate pressure from the community to do the job (Smith 2021). Even when there is a vaccine shortage, a targeted vaccination in Indonesia seems to do the job just right (Fuady et al. 2021). This strategy faces news misinterpretation, hoaxes, fallacy, and other misinformation

(Dzinamarira et al. 2021; Sallam et al. 2021; French et al. 2020), and thus requires extensive communication strategy from all levels of communities (Adebisi et al. 2021; Alwi et al. 2021; Kurniansyah et al. 2021). Several efforts are administered to speed up the vaccination program in the context of tourism. Vaccine tourism is the new approach taken by countries like the USA to restart the ill sector and has gained some popularity (Gulati 2021; Higgins-Desbiolles et al. 2021). Whatever the cases, an intensive vaccination program is undoubtedly the aspired holy grail to curb the severely impaired tourism sector (Williams et al. 2021).

The confusion of COVID-19 to early risk management in the tourism sector is evident (Radic et al. 2020), thus requiring new approaches (Škare et al. 2021). Along with the speed of the vaccination program (Smith 2021; Fuady et al. 2021), aggressive marketing efforts have to be established to secure the business position (Lee et al. 2021). This study proposes that an internally innovative environment may ensure the competitive edge in the transition to new-normal (Caballero-Morales 2021). The new risk management must accommodate integrating a public health strategy and risk management system (Kim 2020). Management must ensure workplace health to support the workforce's confidence to return to the office (Dennerlein et al. 2020). Whatever the solutions, this global health turbulence necessitates a new approach in designing a novel risk-management system. This COVID-19 pandemic has displayed the many efforts of business organizations to sustain life, as so do we, humans.

5. Conclusions

This study indicated that the hotel industry needs to regulate itself within an adaptive organization framework. Possessing past strategic resources, i.e., technological support and infrastructure, becomes an inevitable strength when new investment is dire. They are foundational to creating innovative norms, i.e., supporting the environment and opportunity awareness within the organization. Finally, all constructs are the backbone of the hotels' dynamic capability. While the strategic resources may present from every corner of the company, the formulation of this study that limits the two variables may improve with the addition of some predictors—specific skills, cooperation, or even the hotel chain. Innovation norms also require concrete action and knowledge in the process, further indicating the presence of potential intermediaries. We leave this to other aspiring authors.

This study came with certain limitations. Firstly, the data set was only in one developing region, so generalization must be addressed carefully. Future studies could gain further insight by increasing the area under observation. Secondly, this study encountered issues of collecting more extensive data, as the number of managers is limited. Future studies could gain more information by comparing developing and developed regions, as this study is still exploratory. Thirdly, this study assumed all managerial responses to be equal, while the hotels differed in size, assets, local/international chain hotels, and the star level. These weaknesses may decrease the explanatory power of the research. We leave this to future studies.

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