Green Competitive Advantage in The Tourism Industry

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<table>
<thead>
<tr>
<th>ABSTRACT</th>
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<td>Despite the significant growth of Indonesia’s tourism sector, its competitive standing in the industry is still comparatively disadvantaged when compared to neighboring countries like Singapore, Malaysia, and Thailand. Previous empirical studies have identified a significant truth: the emergence of green tourism and a shift in tourism demand. Our research endeavors to formulate a sustainable tourism development strategy for Indonesia with the ultimate goal of attaining a green competitive advantage. Mixed methods were employed to conduct this study. For model analysis, Structural Equation Modeling (SEM-PLS) is utilized. Primary data were obtained directly from research subjects via questionnaires and interviews administered to 60 samples. SEM-PLS was utilized to manage the collected data. Secondary data were obtained from literature from previous studies. In conjunction with the Analytical Hierarchy Process (AHP), the outcomes of the analysis are utilized to ascertain policy priorities for the development of strategies pertaining to the tourism industry in Indonesia. The implications of these results extend beyond the realm of corporate strategic management and its practical implementations to the dynamic tourism sector, where GCA can be obtained. Policy proposals in priority areas were additionally put forth with the aim of fostering the growth of Indonesian tourism.</td>
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| Keywords: Environmental Sustainability, Green Competitive Advantage & Green Tourism, Hotels, Tourism Industry, Travel & Tourism |
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INTRODUCTION

The tourism sector has a very important role in the Indonesian economy. According to Prof. Dr. H.M. Ahman Sya, Deputy for Tourism Institutional Development, said the growth of the Indonesian tourism sector exceeded 10%, exceeding the average national economic growth of only 5.2% (Halilintar, 2018). As proof of commitment, the tourism sector is a national priority in the National Medium Term Development Plan 2015 - 2019. In addition, the tourism sector is expected to be able to generate state foreign exchange earnings of US$ 24 billion, which even exceeds the oil and gas, coal and Palm oil. Although foreign exchange earnings from the tourism sector have not exceeded palm oil, in 2018, the tourism sector managed to contribute foreign exchange earnings of US$ 19.2 billion. With this
achievement, Bank Indonesia (BI) underlines the importance of the tourism sector as the second highest contributor to the country's foreign exchange, after palm oil (Karmilah et al., 2014).

In Southeast Asia, since 2008 Indonesia's ranking has been below that of Singapore, Malaysia and Thailand. However, every year Indonesia experiences improvements, namely; ranked 80th in 2008, ranked 74th in 2011, ranked 70th in 2013, ranked 50th in 2015, ranked 42nd in 2017, and ranked 40th in 2019.

Figure 1 Singapore Positions 13th in Tourism Performance.

In the 2019 Travel & Tourism Competitiveness Report, Indonesia was ranked 42nd out of 140 countries surveyed. Even though improvements have been achieved, there are challenges that must be overcome to turn Indonesia into one of the best destinations in the world. In particular, environmental maintenance, cleanliness and safety must be a priority to increase Indonesia's tourist attraction in the eyes of foreign tourists. Through collaborative efforts and strong commitment, Indonesia can strengthen the role of the tourism sector in the country's economic growth.

Figure 2 Indonesia is in 42nd position in tourism performance

In Figure 1.2 it can be seen that Indonesia is superior in natural resources and cultural resources and business travel compared to Singapore in Figure 1.1. This can be utilized in developing tourism performance in Indonesia.

Tourist areas in Indonesia, especially Nusa Dua, Bali & Yogyakarta, are tourist destinations that attract a lot of interest from foreign tourists, where both areas have their own characteristics and culture, so they can be used as models for tourism in Indonesia. Tourism in Nusa Dua Bali has also become a model for national tourism development that
tests the criteria of enabling environment, infrastructure, and natural & cultural resources (Utama et al., 2023). The many uniqueness and characteristics of Yogyakarta make this city the second tourist destination after Bali.

PREVIOUS STUDY

From the various reference studies above, a research model was built which will be analyzed within the scope of the tourism industry. GCA is achieved with DC originating from DMC (Zameer et al., 2022). To achieve GCA, a DMC that has environmental capabilities is required. (Vuorio & Torkkeli, 2023) stated that DMCs with environmental capabilities will be able to form companies that have Environmental Capabilities (EC). In this research, the influence of DMC on EC is the first hypothesis, which will be analyzed simultaneously.

DMC also influences GIC. Edquist and Johnson (1997) examined human resource behavior from the microfoundation level of analysis to the level of innovation systems in organizations. His research shows the influence of microfoundations on GIC. While innovation systems studies have largely paid attention to structural and functional analysis at the system or meso level, little effort has been made to systematically explore the micro level of the innovating organization. In fact in Figure 2.2, actors or organizations are assigned a key role in the innovation system concept (George et al., 2022) and empirical findings report the influence of certain actors' strategic decisions or the interests of entrepreneurs and key drivers (Alves & Carvalho, 2023). In this research, the influence of DMC on GIC is the second hypothesis, which will be analyzed simultaneously.

The DMC framework is a construct that influences GCA (Martí-Ballester, 2017). In this research, the influence of DMC on GCA is the third hypothesis, which will be analyzed simultaneously. EC formed by DMC that has environmental insight will influence GIC (Lin, 2002). The company's EC will be able to increase GIC (Mitchell et al., 2021).

GIC represents the capacity (or ability) of an organization to use resources for certain purposes, in this case the achievement of GCA (Calza et al., 2017). (Stancu et al., 2016) states that capabilities are processes that are high-level routines (or sets of routines) which, together with the input flow of their implementation, provide organizational management with a series of decision options to produce certain outputs, in this case GCA (see Figure 2.2).

References regarding hypothesis H5 have not been found, and this shows that the relationship between constructs in the research model has a theoretical basis that is not strong enough. The partial relationships found in the studies were only found in less than two studies and there was one relationship whose reference had not been found. Therefore, the quantitative method used in this research is Partially Least Square (PLS) (Hair, 2010), which will be discussed in the next chapter.

The systems approach sees the relationship of all components and constructs as a model that interacts with each other in an integral manner (Ekaterine Gigolashvili, 2022). This research model was built using a systems approach, where all constructs are seen in their relationship to one another, forming a system. GCA is the outcome of the system in question. Actions and reactions between constructs are seen naturally and are simultaneous and integrated relationships. The simultaneous model is one of the novelties of this research.
THEORITIC
Green Competitive Advantage (GCA)

An organization is a system while a company is an organization. Competitive advantage can only be obtained from organizational resources that carry out organizational processes, because both input and output are the same elements, but with changing conditions caused by the process (“Competitive Advantage and Performance, The Role of Value and Rareness of Resources and Capabilities: The Case of Lebanese SMEs,” 2020). This approach is an approach called Resources-Based View (RBV) (Lubis, 2022). RBV identifies the relationship between organizational resources (firm resources) and competitive advantage (CA).

Green Competitive Advantage is the competitive advantage of company products related to the environment. Based on Signaling Theory, high competitive advantage will indicate the company's current situation and the company's potential for progress in the future. Meanwhile, Signaling Theory is the perception of management regarding the company's future improvements, which can influence investors or potential investors in determining their investment decisions (Barbeisch & Krishnan, 2022). With competitive advantage, it is hoped that it can provide additional value to products, both in the form of goods and services produced by the company. They will try to gain Competitive Advantage (Gupta, 2021).

It can be concluded that Green Competitive Advantage is a company's competitive advantage that can provide additional value to products, whether goods or services, by developing and implementing environmental practices that cannot be imitated by competitors. Organizations/companies take the lead in environmental management or green innovation with environmental strategies.

Competitive advantage can be obtained by maintaining Dynamic Capability (DC) (Yuan et al., 2017). DC maintenance is based on management actors as described in Dynamic Managerial Capabilities (DMC). For a company in the tourism business, its DMC has unique characteristics. Companies in the tourism business must try to implement green activities to obtain Competitive Advantage (CA) (Chang and Chen, 2004).

Dynamic Managerial Capabilities

Dynamic Managerial Capabilities (DMC) is the manager's ability to build, integrate and reconfigure organizational resources and competencies (Suddaby et al., 2020). DMC is an advanced concept of Dynamic Capability (DC) which focuses on the role of individual managers (FUKUZAWA, 2015). (Bris et al., 2021) introduced the DMC concept on the basis of time varying which is an important aspect in companies when determining strategic decisions. In order to respond to changes in the business environment in the same way, company executives can determine different strategic decisions. The decisions taken by executives can be different, because the decisions depend on the assessment system and capabilities of each executive.
(Haarhaus & Liening, 2020) concluded that three factors that influence DMC are managerial cognition, managerial social capital (Wong & Ngai, 2023), and managerial human capital (Eggers & Kaplan, 2009).

**Environmental Capabilities**

According to (Lee & Chandra, 2020) in an article published in the Journal of Business Ethics, Environmental Capabilities (EC) is an organization's ability to assimilate, transform and exploit environmental knowledge to improve environmental sustainability. This capability can be developed through developing environmentally responsible management competencies, such as the ability to recognize and obtain external knowledge. However, according to (Dzhengiz & Niesten, 2020) in an article published in the International Journal of Business and Social Science, Environmental Capabilities are an organization's ability to manage environmental resources effectively and efficiently to achieve environmental sustainability goals.

**Green Innovation Capabilities**

The field of innovation systems is a key study for organizational actors to carry out its development. Very few efforts have been made to conceptually combine this system understanding into a system framework, for example including elements of resources, capabilities, and strategy creation at the organizational level. (Laub, 1999) explored the relationship between organizational resource reasoning and innovation systems in the field of management studies. The basic idea is to examine human resource behavior from the microfoundation level of analysis to the innovation system level in the organization (Sandra V. B. Jardim*, 2013), define and compare resources at the organizational, network and system levels, and focus on the fact that some types of resources can only be “produced” at a certain level. Green Innovation (GI) is a strategy as a solution for companies to develop their business without violating government regulations (Sezen and Çankaya, 2013).

The existence of this framework allows for a comparative analysis of the role of various actors in the organization and their contribution to the performance of the innovation system (Govindan et al., 2018), the relationship between GIC and resource-based concepts in the strategic management literature is explored.

**Structural Equation Modelling**

Structural Equation Modeling (SEM) analysis method using the Smart-PLS program. According to (Hooper et al., 2008), SEM is a set of statistical techniques that allow testing a series of relatively complex relationships simultaneously. The hypothesis will be tested at an error rate of 5% and a significance level of 95%. Using this method, because SEM is a collection of statistical techniques that allows testing a relatively complex series of relationships simultaneously. Another advantage of SEM is its ability to confirm the dimensions of a concept or factor, and at the same time measure the influence or degree of relationship between factors whose dimensions have been identified (Ferdinand, 2006), and has advantages compared to path analysis and systems of simultaneous equations,
namely can be used to analyze structural models (relationships between complex variables) and involve latent variables (Hair et al., 2014).

DISCUSSION

Research Conceptual Framework

This research was conducted to recommend strategies for developing the tourism industry in Indonesia to achieve competitive advantage by studying and analyzing factors to obtain Green Competitive Advantage in the tourism industry in Indonesia.

Research Model

Based on the image in the research model above, it shows the following hypotheses:
H1: Dynamic Managerial Capabilities have a positive effect on Environmental Capabilities.
H2: Dynamic Managerial Capabilities have a positive effect on Green Innovation Capabilities.
H3: Dynamic Managerial Capabilities have a positive effect on Green Competitive Advantage.
H4: Environmental Capabilities have a positive effect on Green Innovation Capabilities.
H5: Environmental Capabilities have a positive effect on Green Competitive Advantage.
H6: Green Innovation Capabilities have a positive effect on Green Competitive Advantage.

In all of this research, the measurement of the construct was carried out by evaluating a list of statements (questionnaire) filled in by the respondents. Constructs cannot be measured directly, but through measuring indicators. The measurement scale uses a Likert scale with five scales, to provide responses to statements with a normal level of difficulty. Five scales were used because the direction of the questionnaire was a relatively high level of education, and a high level of activity as well.
**Dynamic Managerial Capabilities**

By still paying attention to its composition, Dynamic Managerial Capabilities (DMC) is derived from three indicators, namely: Managerial Cognition (MC), Managerial Human Capital (MHC), and Managerial Social Capital (MSC) (Haapanen et al., 2020) the characteristics of this construct influence the strategic and operational decisions of managers of all lines. Apart from that, there are two other reasons why these three indicators need to be paid attention to, namely:

1. Enough has been discussed in the literature so it is safe to produce a scale for the construct, and
2. These constructs have characteristics that are easy to measure.

<table>
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<th>No.</th>
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<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>MC</td>
<td>Managerial Cognition.</td>
</tr>
<tr>
<td>2.</td>
<td>MHC</td>
<td>Managerial Human Capital.</td>
</tr>
<tr>
<td>3.</td>
<td>MSC</td>
<td>MSC Managerial Social Capital.</td>
</tr>
</tbody>
</table>

The three constructs MC, MHC, and MSC are statements that relate to the general characteristics of respondents. To include many statements into one value in the indicators according to Table 3.2 above, weighting will be carried out which is multiplied by the value of the respondent's answer, using the weighted average method.

Managerial Cognition (MC) is the first indicator of Dynamic Managerial Capabilities (DMC). Managerial Cognition (MC) consists of human mental activities in obtaining and processing information, and which is closely related to individual beliefs and knowledge (Colman, 2006). In human activities, cognition can come in various forms, for example perception, attention, patterns of recognition, learning, memory, language processing, problem solving, reasoning, and thinking (Ambrosini & Altintas, 2019).

Managerial Human Capital (MHC) is the second indicator of Dynamic Managerial Capabilities. The work of Adner and Helfat (2003) was also used as a basis for other studies (Corrêa et al., 2019). According to (Widianto et al., 2021), the skills, expertise and knowledge (innate and learned) of a manager or group of managers in a company are called managerial human capital. As an intangible and specific ability of each individual, managerial human capital results in different decision making and performance by different manager teams, even though they face the same (Dyduch et al., 2021).

Managerial Social Capital (MSC) is the third indicator of Dynamic Managerial Capabilities. related to values related to social relationships (Helfat & Martin, 2015). The source of social capital is not individual but relationships within groups, and its existence increases the resources available to individuals within the group (Ferreira & Coelho, 2017). Social Capital is a driver that builds trust and collaboration, leading to an environment that supports collectivity and collective development (Mergel, 2012).
**Environment Capabilities**

The Environmental Capability (EC) construct is measured with twelve measures taken from Font et al. (2014). Measurements were carried out using a Likert scale with five scales.

<table>
<thead>
<tr>
<th>No.</th>
<th>INDIKATOR</th>
<th>KETERANGAN</th>
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<tbody>
<tr>
<td>1.</td>
<td>EC01</td>
<td>Observe environmental impacts.</td>
</tr>
<tr>
<td>2.</td>
<td>EC02</td>
<td>Resource saving development.</td>
</tr>
<tr>
<td>3.</td>
<td>EC03</td>
<td>Using recycled resources.</td>
</tr>
<tr>
<td>4.</td>
<td>EC04</td>
<td>Use environmentally friendly products.</td>
</tr>
<tr>
<td>5.</td>
<td>EC05</td>
<td>Suppliers are selected that respect environmental stewardship.</td>
</tr>
<tr>
<td>6.</td>
<td>EC06</td>
<td>Provide employee training on environmental themes.</td>
</tr>
<tr>
<td>7.</td>
<td>EC07</td>
<td>Consumers are directed to save resources.</td>
</tr>
<tr>
<td>8.</td>
<td>EC08</td>
<td>Consumers are directed to use environmentally friendly products.</td>
</tr>
<tr>
<td>9.</td>
<td>EC09</td>
<td>Consumers are invited to participate in environmental stewardship.</td>
</tr>
<tr>
<td>10.</td>
<td>EC10</td>
<td>Consumers are asked to maintain the natural environment within the environment.</td>
</tr>
<tr>
<td>11.</td>
<td>EC11</td>
<td>Consumers are asked to maintain the natural environment around them.</td>
</tr>
<tr>
<td>12.</td>
<td>EC12</td>
<td>Development of practices to protect the natural environment.</td>
</tr>
</tbody>
</table>

Source: Lopez-Gamero et al. (2007)

**Green Innovation Capabilities**

Innovation is the application of new methods in products, services or processes. Methods can be new or old that are significantly modified, either in business practices, workplace organization, or external relations. Green Innovation Capabilities (GIC) can be defined as the capability to improve and manage existing technologies, capabilities and knowledge to create new ones. In an ambient environment dominated by high-tech applications with rapid changes, it is very important for businesses to develop GIC, as this enables companies to achieve GCA (Ostermann et al., 2022). The Green Innovation Capabilities construct is measured by the indicators in the table below.

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>GIC01</td>
<td>Environmentally friendly packaging design for hospitality products/services.</td>
</tr>
</tbody>
</table>
2. GIC02 Environmentally friendly hospitality product/service development plans.
3. GIC03 Apply environmentally friendly resource technology
4. GIC04 Use of environmentally friendly resources.
5. GIC05 Use of environmentally friendly materials.
6. GIC06 Minimize material use.
7. GIC07 Reducing emissions of hazardous materials.

Source: Fatoki (2021)

Construct of Green Competitive Advantage

The origins of competitive advantage associated with dynamic capabilities start from the premise that the company's Resource-Based View (RBV) is static and does not fully explain how the company's resources are developed and integrated in a rapidly changing environment (Singh & Sharma, 2023). Dynamic capabilities discuss a company's ability to continue to adapt and innovate while trying to gain competitive advantage. Dynamic capabilities allow companies to adjust their strategies and resources in order to maintain competitive advantage (Pratono et al., 2019). Of course, in order to maintain a competitive advantage, the ability to adapt and innovate must be faster than environmental dynamics.

Tabel 4 Indikator konstruk Green Competitive Advantage

<table>
<thead>
<tr>
<th>No.</th>
<th>INDICATOR</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>GCA01</td>
<td>Low costs in environmental management.</td>
</tr>
<tr>
<td>2.</td>
<td>GCA02</td>
<td>High quality in environmental control.</td>
</tr>
<tr>
<td>3.</td>
<td>GCA03</td>
<td>High investment capability in the field of environmental development.</td>
</tr>
<tr>
<td>4.</td>
<td>GCA04</td>
<td>High environmental management capabilities.</td>
</tr>
</tbody>
</table>

Source: Fatoki (2021)

Research on green competitive advantage has emphasized the important role of managerial capabilities of firm resources such as in the RBV (Lian et al., 2022). From an organizational and empirical perspective, dynamic capabilities are processes embedded in the firm (Teece & Pisano, 1994).

CONCLUSION

The theoretical basis includes the definition of Green Competitive Advantage (GCA), which means competitive advantage related to environmental governance. Dynamic Managerial Capabilities (DMC) are managerial capabilities in building, integrating, and reconfiguring organizational resources. Environmental Capabilities (EC) is the ability to manage environmental resources in a sustainable manner, and Green Innovation Capabilities (GIC) is the ability to develop green innovation. Seen in the model, Promovendus creates arrow lines of relationships between constructs as in the image in this presentation slide, there are 6 relationship lines which state 6 hypotheses, each relationship
The relationship between constructs has a theoretical basis from previous research. The relationship between H1 DMC and EC is with Albertini, 2021. H2 DMC and GIC is Huang JW, 2014. H3 DMC GCA is Lampikowski, 2012. For H4 EC and GCA there is Amorez-Salvador et al, 2015. And finally H6 GIC and GCA is Zameer, 2020. For H5 EC and GCA there is no established theory as a basis, in this case according to Hair 2021, the appropriate analysis is to use SEM-PLS or Partially Least Square.

The novelty of this research is research that has theoretical novelty related to efforts to achieve Green Competitive Advantage (GCA) in the Indonesian tourism industry. This research has theoretical novelty with a strategy model that has the constructs of Dynamic Managerial Capabilities (DMC), Environmental Capabilities (EC), Green Innovation Capabilities (GIC), and Green Competitive Advantage (GCA). In previous studies there has been no integral and simultaneous discussion regarding achieving Green Competitive Advantage (GCA) in the tourism industry. This research simultaneously analyzes the working mechanisms of all constructs, so that it can naturally demonstrate the paradigm of achieving Green Competitive Advantage (GCA) in the tourism industry in Indonesia. This research is the basis for recommendations for policy formulation to support strategies for achieving Green Competitive Advantage (GCA) in the Indonesian tourism industry.

**The benefits of this research:**

a. **Academic Benefits**
   This research develops knowledge in the field of strategic management. The research results will enrich strategic management theory, focusing on the Dynamic Managerial Capabilities (DMC) theory, which is related to Green Competitive Advantage (GCA).

b. **Practical Benefits**
   From a managerial point of view, the results of this research can be used by companies in the dynamic tourism industry environment. This research focuses on the internal capabilities of companies that are environmentally conscious in increasing their ability to obtain Green Competitive Advantage (GCA).

c. **Benefits for Government and Regulators**
   This research reveals the preferences of the management of tourism industry companies to obtain Green Competitive Advantage (GCA). The model building that is formed can help to take part after recovering from the Covid-19 pandemic. Knowledge about company business behavior can be used to develop various policies that support the development of tourism businesses in Indonesia.

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