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## Sustainable Innovation And Competitive Advantage In Improving The Marketing Performance Of Waste-Base Sculpture In Bali

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To increase competitive advantage, all companies have unique strategies to improve their marketing performance. Competition is very competitive in this digital era, making management to motivate themselves and business people to always maximize service to their customers in order to remain loyal customers. Likewise, the business in the art of sculpture made from stone waste which will be traded to be able to increase its superiority in a sustainable manner. The excellence or strength of the sculpture business is able to produce creative and innovative products in the form of ideas and ideas in creating new products. To win the competition, a company must always be creative and innovative so that it is able to meet consumer needs according to changing tastes and times. There is fore a marketing strategy model is needed that is in accordance with the company's conditions with sustainable innovation so that in the future it is hoped that the sculpture business made from waste rock can be more developed and the company's goals can be achieved both short too long term goals. This study aims to determine the indicators used in increasing competitive advantage so as to improve marketing performance. The population in this study amounted to 100 sculpture businesses and used saturated samples. The analytical tool used in this research is Smart PLS. 3.0. The findings of this study are that sustainable innovation is able to increase competitive advantage in stone-waste sculpture businesses, Sustainable innovation is not able to increase direct marketing performance, Sustainable innovation is able to improve marketing performance mediated by competitive advantage. The limitation of this research is that this research only examines the art of sculpture made from stone waste found in Bali, so it is not able to generalize. The recommendation in this study is that future researchers are expected to investigate other business fields with a larger number of samples.

Keywords: Diffusion innovation, sustainable innovation, competitive advantage, marketing performance, sculpture.

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## Introduction

A company in determining targets and improving its marketing performance must have excellent tricks and strategies by increasing its competitive advantage. Companies that do not have an advantage in competing will be crushed by time, and changes that occur now and in the future. In increasing competitive advantage, continuous innovation is needed. Innovation is not only from the product but also from the process of consuming the product so that customer satisfaction is fulfilled and the improvement of people's welfare. Competition is very competitive in the business world and the rate of environmental change is increasingly making every company look for the right strategy to overcome it. The tourism sector has a very broad influence on social life. The higher the competition and uncertain changes that force the company to seek competitive advantage, the company is required to use the right strategy to win the competition. In the porter's five forces model competition strategy to analyze industry revenue performance (Glenn Baxter 2019). Competitive advantage can be realized if the company can achieve strategic advantage, tactical advantage and operational excellence (Leod et al., 2011). Competitive advantage in a company, must formulate a strategy that is suitable for the internal and external environment to be implemented in competition and create advantages in a sustainable manner. Urbancova (2013) states that competitiveness based on skills and abilities will not lose in competition if it is done with innovation to produce cheaper and quality products. Wang (2014) states that competitive advantage is obtained when the organization is able to develop activities that outperform its competitors. Wang et al. (2017) revealed that the comparative relationship with competitiveness helps improve products and adjust marketing strategies.

The superiority or strength of sculpture products is able to produce creative and innovative products in the form of ideas and ideas in creating new products, as a local cultural heritage, positive image, sharpness of carving, international market share, quality of materials in the form of original faces, and able to raise the economic growth of the community. Product or service innovation aims to develop new technical, products and services that contain the concept of sustainability, as a means of differentiation (Fisk, 2010: 144). The company provides a product or service with a positive contribution to the natural or social environment. Paying attention to the internal and external environment is the best way to formulate a strategy in facing competition.

Very competitive competition forces companies to maximize their marketing performance in increasing sales and be able to compete in the global market, in creative and innovative ways so that the resulting products are in line with expectations. This strategy is very important considering that no matter how good the segmentation, target market, and market position that is carried out will not be successful if it is not followed by the right strategy.

Innovation is able to improve marketing performance as stated in the research of Calantone et al. (2002), Ho (2010), Morales et al. (2010), Hilmi et al. (2010), Slavkovic and Babic (2013), Setyanti et al. (2013), Prakosa (2005) shows that the results of product innovation have a positive and significant effect on marketing performance. Wahyono (2002) in his research stated that innovation has a positive and significant effect on marketing performance, meaning that if innovation is continuously developed it will increase sales results.

Vermaeulen et al. (2005). conducted research related to the effect of product innovation on performance in 90 small and medium enterprises in the financial sector in the Netherlands. The results show a negative influence on company performance. Darroch's (2005) research results on small and medium enterprises in New Zealand, which have an average of 50 employees, show that innovation does not have a significant effect on organizational performance. The innovations applied to SMEs in New Zealand have not yet been accepted by employees or their organizations. SMEs have limited resources, so they require adaptation in the application of innovation. The implementation of these innovations requires a lot of costs so that they are not supported by the potential and capabilities of the resources owned and can negatively affect organizational performance. Research by Ardyan et al, (2016) states that the success of product innovation is not able to significantly improve business performance. This is possible because the way the production process is still manual or traditional. Entrepreneurs must be willing to invest in technology. Using technology is expected to reduce production costs.

Based on this phenomenon, the tendency of the sculpture industry made from stone waste in Gianyar is abandoned by its consumers. This encourages to make the sculpture industry made of stone waste as an object of research by using Porter's Theory Competitive Advantage (1996), with its generic strategy to achieve competitive advantage, namely 1) cost advantage that emphasizes standard products at very low costs intended for potential consumers who are sensitive to price, 2) differentiation with the aim of making and providing a unique product for consumers who do not really care about price, which usually consumers are looking for high quality, 3) focus on industries that have high idealism to focus on one products as the core of the company in competitive advantage. In this

study, the problem formulation is, 1) how is sustainable innovation in increasing competitive advantage in stone waste sculpture businesses? How is sustainable innovation in improving marketing performance? How is the role of competitive advantage in mediating sustainable innovation on marketing performance in art businesses? sculpture made from waste rock in Bali?

## Literature Review

## Theory of Competitive Advantage

Business strategy is a strategy used by the industry to achieve predetermined targets or goals. The strategy is designed to maintain a competitive position and improve organizational or business performance. The most well-known business strategy is the industrial strategy from Porter (1980) which is designed to increase industrial competitiveness in a competitive industrial environment triggered by external and internal industry factors. Competition in an industry is competition between two or more similar or similar industries to provide products, services, prices, distribution and promotion (Adnan et al., 2016). The intensity of competition in the industry depends on the number of competitors in the same market, the frequency of technological changes in the industry, new product introductions, price reductions, changes in regulations and policies from the government (Chong and Rundus, 2004). Competition in an industry affects performance so that the industry must be able to adapt to environmental changes that occur to maintain a competitive position (Huang and Lee, 2012; De Haan, 2015). Porter (1980) states that industrial competition reduces the rate of return generated by an organization in a perfectly competitive industry. Thus, the industry must develop a strategy to maintain a competitive position.

## **Competitive Advantages**

In achieving competitive advantage, strategies are needed in various ways in running a business, be it a small business, a medium business, let alone a larger business. Strategy is a process of determining top leaders' plans that focus on the long-term goals of the organization, along with the preparation of a method or effort to achieve these goals. The concept of sustainable competitive advantage is one of the central issues of a marketing strategy that is developed to produce sustainable marketing performance. The concept of competitive advantage is very well known in the realm of strategy theory which is well defined by Porter (Ferdinand, 2005) which then becomes one of the main references regarding strategy, especially marketing strategy. Finally, competitive advantage is seen as one of the strategic objectives to mediate as a process to produce good marketing performance. According to Zhou et al. (2009) that competitive advantage is a set

of factors that differentiate a product from its design product. Competitive advantage comes from a variety of company activities including designing, producing, marketing, delivering and selling products

According to Kanagal (2015), the strategy is carried out to achieve a sustainable competitive advantage over sustainable competitive advantage (SCA). Excellence or the strength of an artist is able to produce creative and innovative products in the form of ideas and ideas in creating new products. There are five competitive strategies that influence competition in an industry, which consists of: (1) Threats from newcomers, this threat occurs in the sculpture industry with millennials who are more capable of leading the market, more innovative and able to master technology so it needs to be anticipated.; (2) The threat of substitute products or services, the number of substitute products of the same type and function but different price and quality also affects competition. Such as sculpture made from a mixture of face powder and cement which produces the same product or is often called casting; (3) Bargaining power of suppliers, the lower the price obtained from suppliers or suppliers, both suppliers of raw materials and finished goods, greatly affect the price sold to consumers. Price competition often occurs in consumers who care about price regardless of the quality in it; (4) The bargaining power of the buyer, with the existence of similar products and the same but different products greatly influences the consumer's interest to buy the product in a sustainable manner; (5) Competitive competition among industry members, competition in the same industry causes prices to fall further until the end point of the breakeven point so that the price and artistic value of the product decreases (Porter, 2007: 2).

Sustainable competitive advantage is obtained when the advantage faces attacks from competitors (Bharadwaj, 1993). In other words, the skills and resources that underlie the competitive advantage of a company must have differences from other companies. Companies gain a competitive advantage when actions in an industry or market create economic value and when several competing companies engage in similar actions (Barney, 2010: 9). Competitive advantage is expected to be able to achieve profit according to plan, increase market share, increase customer satisfaction, and continue the survival of a business (Saiman, 2014: 128). Strategies to gain an advantage in the right competition in the form of uniqueness, competitive prices, rarely found, not easily imitated by Bharadwaj et al. (2013). Kotler (2018) states that strategy is a process where a company engages customers, builds good relationships with customers, and creates value for customers, so as to get value or feedback from customers in order to increase customer profit and equity, and be able to develop,

maintain harmony between objectives. companies, company resources, and market opportunities that are constantly changing, can achieve excellence and a favorable growth rate.

## Diffusion of Innovations theory

Is a theory about how an idea or ideas and new technology are spread in a culture (Everett Rogers, (1964). Diffusion as a process by which an innovation is spread through various channels within a certain period of time in a social system. Innovation is an idea, practice, or object that is considered new. In this theory it is believed that an innovation diffuses throughout society in a predictable pattern. Diffusion is a type of communication that is related to the dissemination of messages as new ideas, while communication is defined as the process by which actors create information and exchange information to achieve common goals. The diffusion innovation theory is very important related to research in the sculpture industry. The emphasis is on the ability to disseminate media messages to create knowledge, ideas, new discoveries, and persuade targets to adopt innovations so that they are able to have advantages that are not owned by others and are able to improve marketing performance.

## Sustainable innovation

According to Jimenez and Valle (2011), innovation as a broader concept that discusses new ideas, products or processes and innovation is the ability to maintain competitive advantage with administrative innovation, technological innovation, product innovation, process innovation as indicators. For the company's long-term success in a business environment, especially in a highly competitive market, innovation is a key factor (Jahangir et al., 2013).

The organization must be able to maintain competitiveness in a competitive business environment. More innovative industries can cope with challenges and a changing market environment compared to industries that are less creative. Bekmezci (2015) states that sustainable innovation can provide a competitive advantage while turning today's social and environmental challenges into opportunities, so that companies can grow in a profitable way while providing added value to society and the environment by using creativity, technical innovation, design change. , changes in the distribution system, and the payment administration system. Thus, innovation can be used as a source of a company's competitive advantage. The findings of Machfoedz's (2015) research state that innovation is a process of turning opportunities into marketable ideas.

Innovation is a better idea. An idea plays an important role, and a creative mind can develop into a valuable

idea. Product innovation refers to the development and introduction of new or developed products that are successfully marketed. Maslucha and Sanaji (2013) state that innovation has a positive effect on marketing performance. Likewise, the research findings of Killa's (2014) study show that product innovation has a positive and significant effect on marketing performance in the handicraft industry in Yogyakarta, Solo, and Bandung. The results of research findings from Utaminingsih (2016) state that innovation has a positive and significant effect on marketing performance in the Small and Medium Rattan Handicraft Industry in Teluk Wetan Village, Wagian District, Jepara Regency.

## **Marketing Performance**

Marketing performance is defined as an effort to measure the level of performance including sales volume, number of customers, profit and sales growth (Voss and Voss, 2000) in Mudiantono and Khamidah (2005: 67). Marketing performance is a concept for measuring a company's performance in the market for a product. Supranoto (2009) states that marketing performance is a measure of the achievement of a company or organization's marketing process activities. Marketing performance can be viewed as a concept used in measuring the market performance that a company has achieved. Mudiantono and Khamidah (2005: 67) state that marketing performance is something that the company wants to achieve in making the company more effective, increasing market share, and profitability. Marketing performance is a measure of achievement obtained from the overall marketing process activities of a company or organization. There are four indicators used to measure marketing performance (Ferdinand, 2002) in the study, namely as follows, sales turnover, increased sales return, the reach of marketing areas in the sculpture business made from waste stone in developing its business in achieving its goals

Marketing performance is a construct commonly used to measure the impact of implementing corporate strategy. However, the problem of performance measurement becomes a classic problem and debate because as a construct, marketing performance is multidimensional in which it contains various objectives and types of organizations. Therefore, performance should be measured using multiple measurement criteria (multiple measurement). Using single measurement criteria will not be able to provide a comprehensive understanding of how a company is actually performing (Prasetya, 2002: 227; Eryanafita, 2008).

## Framework And Hypotheses

This research was built with a frame of mind that in getting a profit and maintaining the company through a strategy with competitive advantage mediates sustainable innovation in improving marketing performance that has an impact on company goals.

Thinking about strategies with competitive advantage mediates Sustainable innovation in improving marketing performance, according to background, phenomena, response gaps, and empirical findings about previous research. The more sustainable innovation that is carried out, the more unique it is in competitive advantage, the more it will be able to improve marketing performance. The research findings of Pardi et al. (2014) show that product innovation has a positive and significant effect on marketing performance which is supported by the findings of research by Killa (2014) which states that innovation has a significant positive effect on marketing performance in Batik SMEs in Central Java. The results of research findings from Utaminingsih (2016) show that innovation has a positive and significant effect on marketing performance. The results of research by Asashi and Sukaatmadja (2017) show that product innovation has a positive and significant effect on marketing performance.

The research findings of Ardyan et al. (2016) show that the success of product innovation is not able to significantly improve business performance. This is possible because the way the production process is still manual or traditional. Entrepreneurs must be willing to invest in technology. Using technology is expected to reduce production costs. The results of research from Susilowati and Kaharti (2019) show that innovation has no effect on the business performance of UMKM Kebumen.

## **Research Concept Framework**

The phenomenon of the occurrence of environmental changes both internally and externally is increasingly eroded by the activity or skill of sculpting from waste rock materials so that it has an impact on the disappearance of an increase in the people's economic welfare. Based on this, a conceptual framework can be described as shown in Figure 1 below.

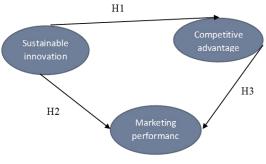


Figure 1. conceptual framework

Based on Figure 1 it can be explained, as follows. The waste-based sculpture business to improve marketing

performance requires a variety of strengths that must be possessed, in accordance with changes that occur in the environment both internally and externally. Especially in the internal environment to achieve increased marketing performance, it is necessary to have continuous innovation and competitive advantage.

#### **Research Hypothesis**

The influence of Sustainable innovation on Competitive Advantage

According to Jimenez and Valle (2011), innovation is a broader concept that discusses new ideas, products or processes and innovation is the ability to maintain competitive advantage with administrative innovation, technological innovation, product innovation, process innovation.

For the company's long-term success in a business environment, especially in a highly competitive market, innovation is a key factor (Jahangir et al., 2013). Based on the description, it can be formulated that;

H1: Sustainable innovation has a positive and significant effect on competitive advantage.

Sustainable innovation has an effect on marketing performance

More innovative industries can cope with challenges and a changing market environment compared to industries that are less creative. Bekmezci (2015) states that sustainable innovation can provide a competitive advantage while turning today's social and environmental challenges into opportunities, so that companies can grow in a profitable way while providing added value to society and the environment by using creativity, technical innovation, design change. , changes to the distribution system, and the payment administration system

The findings of Machfoedz's (2015) research state that innovation is a process of turning opportunities into marketable ideas. Innovation is a better idea. An idea plays an important role, and a creative mind can develop into a valuable idea. Product innovation refers to the development and introduction of new or developed products that are successfully marketed. Maslucha and Sanaji (2013) state that innovation has a positive effect on marketing performance. Based on the description, it can be formulated that;

H2: Sustainable innovation has a positive and significant effect on marketing performance.

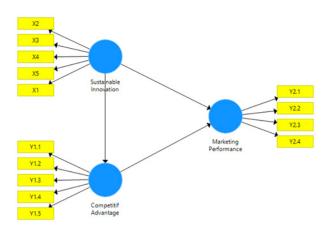
Competitive advantage affects marketing performance Marketing performance is a concept for measuring a company's performance in the market for a product. Supranoto (2009) states that marketing performance is a measure of the achievement of a company or organization's marketing process activities. Marketing performance can be viewed as a concept used in measuring the market performance that a company has achieved. Mudiantono and Khamidah (2005: 67) state that marketing performance is something that the company wants to achieve in making the company more effective, increasing market share, and profitability. Marketing performance is a measure of achievement obtained from the overall marketing process activities of a company or organization. There are four indicators used to measure marketing performance (Ferdinand, 2002) in the study, namely as follows, sales turnover, increased sales return, the reach of marketing areas in the sculpture business made from waste stone in developing its business in achieving its goals Based on this description, it can be formulated that:

H3: Competitive advantage has a positive and significant effect on marketing performance.

## **Research Method**

This study used a descriptive design and analyzed qualitatively and quantitatively. Descriptive analysis was carried out to provide an overview of the characteristics of the respondent's response to each of the questions posed. Statistics are used to state a collection of facts, which are generally in the form of figures arranged in tables or diagrams that describe or describe a problem (Riduawan and Sunarto, 2009).

The research location was carried out entirely in the art of sculpture made from stone waste in the Gianyar regency, Bali. The scope of this research is Sustainable Innovation as a Strategy for Competitive Advantage to Improve Marketing Performance of Statues Made from Stone Waste in Bali. The population of this research is the art of sculpture made from stone waste with a total of 100 entrepreneurs. This study used a census method, so that the number of respondents in this study was 100 people. The technique of collecting data by interviewing entrepreneurs of statues made of stone waste, for literature study data in the form of journals, photos and buildings that use statues both as decorations and as offerings, and distributing questionnaires. Inferential analysis techniques are used to test the hypothesis. The analysis technique used is PLS (Partial Least Square) with second order confirmatory analysis on several latent variables. The following is Figure 2, a research model on the stone waste sculpture business in Bali



Picture 2. Stone Waste Sculpture Research Model in Bali

The variables used in this study consisted of exogenous variables (independent) and endogenous variables (dependent) as well as several indicators (manifest variables). In inferential statistical analysis, the results of the analysis will be divided into 3 (three) parts, including the following. Sustainable innovation, competitive advantage, marketing performance.

Evaluation of the measurement model (outer model)
a) Convergent validity

Convergent validity is the correlation between the item score component and the score construct. According to Chin (1988) the value is considered sufficient between 0.50 to 0.60 for development research and 0.70 is considered high.

## b) Discriminant validity

Discriminant validity can be done by examining the cross loading and its latent variables or by comparing the square root of avarage variance extrated (AVE) values of each latent variable with the correlation between other latent variables in the model.

## c) Composite reliability and Chronbach alpha

Test construct reliability with composite reliability criteria. The indicator group that measures a variable has a good composite reliability if it has a value above 0.70.

## 2) Evaluation of the Structural Model (inner model)

Measuring the Goodness of Fit model using R. square predictive relevance, which is measuring how well the observation value is generated by the model and also its parameter estimation. This is to determine the variation of the independent variable on the dependent variable. 3) Hypothesis Testing

The hypothesis is tested by t test (t-test). If the test obtained p-value <0.05 ( $\alpha$  5 percent), then the test results are significant. The hypothesis formulation is as follows.

H0:  $\beta i$ ; i = values of social capital, innovation, competitive advantage = 0 which states that the value of social capital, sustainable innovation or competitive advantage has no effect on marketing performance.

Ha:  $\beta$ i; i = the value of social capital, sustainable innovation, competitive advantage> 0, that is, it is said that the hypothesis of the value of social capital, sustainable innovation, or competitive advantage has a positive effect on marketing performance.

4) Analysis of direct effects and indirect effects to determine direct and indirect side effects of the construct. The results of the direct and indirect effect analysis are the basis for knowing the role of mediation. If the coefficient value of the direct effect is smaller than the indirect effect, it shows that there is no role of mediation and vice versa.

5) Effect size analysis (f2) to determine the effect caused by not including one of the constructs in the model. The effect size coefficient value shows the high and low role of the variables in shaping the model.

## **Research Results and Discussion**

## Validity Test Results

The results of the research instrument test showed the chronbach alpha coefficient> 0.50 so that all instruments were reliable. The validity test is measured by the correlation coefficient value between each indicator score and the total construct score, and the results of the validity test are significant if they have a value> 0.30. Reliability and validity test results show all instruments are valid and reliable (Sugiyono, 2012: 178).

## **Result of Inferential Analysis**

Data processing for model analysis in this study uses the analysis method of Structural Equation Modeling-Partial Least Square (SEM-PLS). The analysis stage of the research model consists of two measurement models / outer models and a structural model / inner model. The measurement model stage or the outer model is carried out to determine the validity and reliability of the indicators of each latent variable. The validity of an indicator is indicated by a number of criteria, namely through convergent validity, discriminant validity, composite reliability and Chronbach alpha. The structural model or inner model is carried out to determine the accuracy of the research model. The accuracy of the research model in this case is carried out through a number of approaches, namely using R. square, Q2 predictive relevance, Goodness of Fit (GoF). 5.3 Evaluation Results of the Measurement Model (Outer Model)

Evaluation of the measurement model (outer model) is carried out to determine the validity and reliability of indicators on each variable, namely social capital, sustainable innovation, competitive advantage and marketing performance. All indicators in this study are reflective, so that the evaluation of the measurement model is based on the criteria of convergent validity, discriminant validity, composite reliability and Chronbach's alpha.

## 1) Convergent validity

Convergent validity is a criterion for determining the validity of indicators on each of its latent variables. An indicator is said to be valid if the outer loading coefficient is greater than 0.50 and the p-value <0.05 and the level of significance (t-statistics> 1.96) (Hair et al., 2010). Outer loading coefficient shows the magnitude of the indicator's contribution to the variable. This means that the greater the outer loading coefficient indicates the greater the contribution of the indicator to other latent variables. Based on the results of the validity test of the results of the validity test for sustainable innovation the results of the validity test of the competitive advantage variable, the validity test results of the marketing performance variables, all indicators whose outer loading is already in above 0.7. Based on the table, it can be illustrated in Figure 3 below.

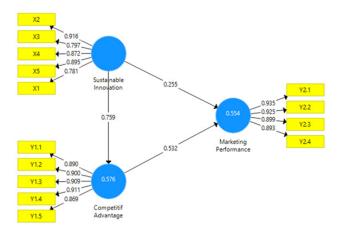


Figure 3. Outer Loading Evaluation Results

## 2) Discriminant validity

Discriminant validity is a validity criterion which is carried out by comparing the coefficient of the square roof of variance extracted ( $\sqrt{AVE}$ ) of each variable with the correlation coefficient between variables in the research model (Fornel and Larcker, 1981). The indicators of a variable can be said to be valid based on discriminant validity criteria, if the value ( $\sqrt{AVE}$ ) is greater than the correlation coefficient between latent variables in the model. The results of calculating the discriminant validity of this study are shown in Table 1 below.

AVE	X1	Y1	Y2
	0,854		
		0,896	
			0,913
	AVE		0,854

Table 1. Discriminant Validity

Variable Sustainable Innovation, Competitive Advantage, Marketing Performance

3) Composit reliability and Cronbachs alpha

Composit reliability and cronbachs alpha are measurements of the reliability between indicator blocks of the variables that make up the research model. Composite reliability and Cronbachs alpha are said to be good if the value is above 0.70 (Chin et al., 1999). Based on the results of data processing with the Smart PLS 3.0 program, the composite reliability and cronbachs alpha values are obtained as shown in Table 2

31	0.007
J 1	0,906
53	0,939
53	0,933
	53

Source: Processed data

Table 2. Discriminant Reliability and Cronbachs Alpha Variable Sustainable Innovation, Competitive Advantage, Marketing Performance

Table 2 shows that the composite reliability and cronbachs alpha for each research variable has a value above 0.70 so that the reliability between indicator blocks is declared to have good reliability. The evaluation results of the measurement model (inner model) which is based on the criteria of convergent validity, composite reliability and Cronbachs alpha show that it has met the validity and reliability testing criteria.

# Evaluation Results of the Structural Model (Inner Model)

Measurement of the structural model (inner model) is carried out to determine how well the research model is formed with a variable. The measurement model testing criteria in this study are shown based on a number of criteria, namely R. square, Q2 predictive relevance, Goodness of Fit (GoF). Referring to the results of Smart PLS 3.0 data processing in Table 3 below.

Variable	R-Squuere (R <sup>2</sup> )	Description
Competitive advantage (Y1)	0,576	Strong
Marketing performance (Y2)	0,554	Strong

Source: Processed data

Table 3R-Square (R2) Variable Sustainable Innovation, Competitive Advantage, Marketing Performance

1) R-Squuere (R2)

Based on Table 3, the R-Square (R2) value for the competitive advantage variable is 0.576, meaning that the sustainable innovation variable explains 57.6% of the variation of the competitive advantage variable, while 42.4% is explained by other variables not included in the model. The coefficient of determination (R2) of marketing performance amounting to 0.554, which means the variable of sustainable innovation, and competitive advantage explains 55.4% of the variation of the marketing performance variable, while 44.6% is explained by other variables not included in the model. R-Squuere predictive relevance (Q 2)

R-Square predictive relevance (Q 2) is a measure of how well the observations that can be generated by the research model (Q 2) have a range of values ranging from 0 (zero) to 1 (one). The closer to the value of one, it means that the model has better observations. The criteria for the strength of the model are measured based on the Q-Squuere predictive Relevance (Q 2) according to Lathan and Ghozali (2012), namely 0.35 (strong model), 0.15 (moderate model), 0.02 (weak model). The evaluation of the structural model (inner model) with predictive relevance (Q 2) performance is based on the R2 value for each endogenous variable as shown in Table 12 and calculated by the following formula.

Q <sup>2</sup>	$= 1 - \{(1 - R1^{2}) (1 - R1^{2}) \dots (1 - Rn^{2}) (5.2)\}$
$Q^2$	$\begin{bmatrix} 1 - \{(1 - 0.576^2) (1 - 0.554^2) \end{bmatrix}$
$Q^2$	$1 - \{(1 - 0,332) \ (1 - 0,307)\}$
$Q^2$	- 0,975

The results of Q2 research show a value of 0.975, which means that 97.5 percent of the relationship between exogenous and endogenous variables can be explained well by the research model. This implies that 97.5 percent of the competitive advantage variable can be explained by the sustainable innovation variable, while 2.5 percent is another factor outside the research model. According to Chin (1998), that the value of Q square is getting closer to 1, indicating that the model has good predictive relevance.

## 2) Goodness of Fit (GoF)

Goodness of Fit (GoF) is a criterion to determine the level of accuracy (fit) of the model. GoF has a value range between 0 (zero) to 1 (one). The closer to the value of one, the better the GoF is. The GoF calculation is based on the R2 value and the AVE value for each variable shown in Table 10 and Table 12. The GoF calculation formula is as follows.

 $GoF = \sqrt{(AVEx R^2)} (5.3)$ GoF =  $\sqrt{(AVEx R^2)} \{(0,854+0,896+0,913)/3 \times (0,576+0,554)/2\}$ GoF =  $\sqrt{0,887 \times 0,565}$ GoF = 0,532

The results of the GoF calculation show a value of 0.532, based on the GoF criteria according to Akter at al. (2019). Enabling a transformative service system by modeling quality dynamics. International Journal of Production Economics, 207, 210-226. A value above 0.532 is considered a large GoF. This means that the research model has a high degree of model accuracy. Based on the results of the evaluation of the structural model (inner model) as measured by the criteria of R-Square (R2) R-Square predictive relevance (Q 2) and Goodness of Fit (GoF), the measurement results can be stated in the large category. All the criteria for the structural model used (R2) (Q 2), Goodness of Fit (GoF) show good results, so the research model that develops sustainable innovation variables, competitive advantage and marketing performance is a good model. Based on the two stages of model evaluation, namely the measurement model stage or the outer model and the structural model stage or inner model, in which both stages have provided results that meet the criteria, so that it can be continued at the next stage, namely testing the research hypothesis.

#### 3) Path Analysis and Hypothesis Testing

In testing the hypothesis, it is expected that H0 is rejected or the sig value <0.05 (statistical t value> 1.96 if the test is with a significant level of 0.05). Path analysis and testing as shown in Table 4 below.

The influence of sustainable innovation on competitive advantage

Based on statistical tests, it shows the effect of sustainable innovation on positive and significant competitive advantage. The significance is indicated by the t statistic value of 18.213 which is greater than the t table 1.96. The effect of sustainable innovation on competitive advantage is a significant positive, supporting hypothesis 3, which states that sustainable innovation has a positive and significant effect on competitive advantage.

The influence of Sustainable innovation on marketing performance.

Based on statistical tests, it shows that the effect of sustainable innovation on marketing performance is negative, meaning that it does not have a strong influence. This relationship has no effect as indicated by the t statistic value of 1.872 which is smaller than the t table 1.96. The effect of sustainable innovation on marketing performance is negative, it does not support hypothesis 4 which states that sustainable innovation has no effect on marketing performance.

The effect of competitive advantage on marketing performance

Based on the results of statistical tests, it shows that the effect of competitive advantage on marketing performance is positive and significant. The significance shows that the t statistic value of 3.577 is greater than the t table 1.96. The effect of competitive advantage on marketing performance is positive and significant supports hypothesis 5 which states that competitive advantage has a significant positive effect on marketing performance. The relationship between each variable

Construct	Original sample	Sample Mean	Standar Deviation	T Statistic	P Value	Description
<i>Sustainable innovation</i> $\rightarrow$ competitive advantage	0,759	0,766	0,042	18.213	0,000	Significant
Sustainable innovation $\rightarrow$ Marketing performance	0,255	0,263	0,136	1,872	0,062	No significant
Competitive advantage $\rightarrow$ Marketing performance	0,532	0,524	0,149	3,577	0,000	Significant

Source: Processed data

Table 13. Path Analysis and Statistical Testing

can be seen from the results of the t statistical test presented in Figure 4 below.

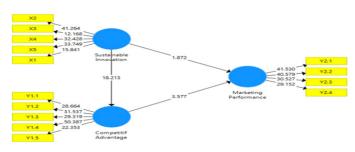


Figure 4. Result of t statistic test Source: Processed data

The Influence of Sustainable Innovation on Competitive Advantage in the Art of Sculpture made from waste rock in Bali

Based on the results of the analysis, it is explained that sustainable innovation has a significant positive effect on competitive advantage, which means that sustainable innovation can affect competitive advantage. In everyday life, the art of sculpture made from stone waste that is continuously innovated will have its own uniqueness and appeal to consumers. This study is in accordance with the results of research conducted by Bahren et al. (2019) which shows that innovating in a sustainable manner is seen as a source of competitive advantage. Supported by research findings from Gita (2015), it shows that innovation has a positive effect on competitive advantage. Continuous innovation will lead to the creation of competitive advantages.

The Influence of Sustainable Innovation on Marketing Performance in the Stone Waste Sculpture Business in Bali

Based on the results of the analysis of sustainable innovation, it is not able to directly influence marketing performance, but requires a competitive advantage. This means that when sustainable innovation is carried out in the waste-based sculpture business, it has a weakness in the sales return section, which means that many items are returned due to poor product durability. Sustainable innovation does not have the quality of the ingredients and only makes innovations without seeing product resilience and customer satisfaction so that it is unable to improve marketing performance. Based on the results of the analysis, this study supports the research findings of Ardyan et al. (2016) which shows that innovation has no significant effect on performance. Supported by the research findings of Zameer et al. (2020) stated that innovation in organizations does not have a strong effect on performance.

The Effect of Competitive Advantage on Marketing Performance in Waste-Based Sculpture Business in Bali The results of the analysis explain that competitive advantage has a positive and significant effect on marketing performance. This means that competitive advantage is able to affect marketing performance. The findings of this study support the findings of research conducted by Basuki and Widyanti (2015) which show that competitive advantage has a positive and significant effect on marketing performance. To create an increasing and constant marketing performance must have a competitive advantage.

Competitive Advantage Mediating Sustainable Innovation on Marketing Performance

Research that examines competitive advantage with sustainable innovation states that innovation is an absolute thing that must be done to create competitive advantage (Kuncoro and Suriani, 2017). Research that shows innovation to increase competitiveness, such as that conducted by Bayene et al. (2016) stated that successful management requires an innovation strategy to gain competitive advantage. Companies that carry out sustainable innovation are seen as a source of competitive advantage. Bahren et al. (2019). Sustainable innovation can turn social and environmental challenges into opportunities so that companies can grow in a profitable way while providing added value to society and the environment (Bekmezci, 2015).

## **Research Findings**

Competitive Advantage Mediating Sustainable Innovation on Marketing Performance

The results of the analysis explain that competitive advantage is able to mediate sustainable innovation on marketing performance positively and significantly, meaning that the more sustainable innovation is, the better the competitive advantage is obtained so that it can improve marketing performance. Competitive advantage is the main factor in improving marketing performance. Companies that carry out sustainable innovation are seen as a source of competitive advantage. Bahren et al. (2019). Sustainable innovation can turn social and environmental challenges into opportunities so that companies can grow in a profitable way while providing added value to society and the environment (Bekmezci, 2015).

## **Research Implications**

This research proves that sustainable innovation carried out by the company will be able to achieve a

competitive advantage well. The values in sustainable innovation which have the highest outer loading value are in the indicators of technical innovation, this means that in companies developing technical innovations, they will be able to increase competitive advantage so that it affects marketing performance.

### Conclusion

1) Sustainable innovation has a positive and significant effect on competitive advantage, meaning that the more frequent innovations that are sustainable will be able to increase competitive advantage.

2) Sustainable innovation does not have a positive and significant effect on marketing performance, meaning that sustainable innovation is not able to directly improve marketing performance.

3) Competitive advantage has a positive and significant effect on marketing performance, meaning that competitive advantage has a very strategic and important role in improving marketing performance.

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