Sustainable Competitive Advantages in Developing Theoretical Models of Business Performance

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ABSTRACT

This study was conducted to analyze and test the effect of innovation and intellectual capital on sustainable competitive advantages and its impact on business performance. In addition, the current research was also performed to develop a theoretical model of business performance by creating sustainable competitive advantages and antecedents of innovation and intellectual capital. Six hypotheses were developed and tested within the research sample framework of 145 Jember rice industry. The findings of this study indicate a significant contribution of sustainable competitive advantages as the mediator of innovation and intellectual capital in improving company business performance.

Keywords: sustainable competitive advantage, theoretical model, business performance

1. INTRODUCTION

The staple diet of Indonesian society is rice. Almost everyone in the country eats rice daily. After China and India, Indonesia is the third-largest rice producer in the world. If rice output in 2020 is converted to rice, Indonesian rice production in 2020 will be 26.06 million tons, a reduction of 856.49 thousand tons or 3.185 per cent from 2019 [1].

East Java has the most significant rice production and production per capita in Indonesia. According to the results of the bps survey (2020:1-5): Official Statistics News No.79/10/Th. XXIII, October 15, 2020, using the K.S.A. technique, rice production in East Java in 2020 was 10.02 million tons-GKG, up 0.43 million tons-GKG from Central Java's 9.59 million tons-GKG. As a result, rice output in East Java grew by 0.44 million tons-GKG in 2020, compared to 9.58 million tons-GKG in 2019.

East Java produced 5.76 million tons of rice in 2020, 0.28 million tons more than Central Java, which had 5.48 million tons. As a result, rice production in East Java increased by 0.26 million tons, or 4.51 per cent, in 2020 compared to 5.50 million tons in 2019.

With the advancement of time and the tightening of competition, organizations and business people are being pushed to improve their competitive advantage to survive and win the commercial rivalry. The realization that the ability to compete is based not just on the possession of material assets but also on innovation, information systems, organizational management, and human resources. In a time of increasing business competition, industrial development is seen as the economy's driving force. Its role will be encouraged because it has been proven to contribute to national development. However, given its strategic importance, the industrial sector must improve its performance. Various corrective attempts have been made to address the impact of the economic crisis on the collapse of industrial sector performance. Still, it does not appear that the commission has fully recovered. Its position in the international economy characterizes this condition; every business is expected to have a competitive edge and to be able to demonstrate the existence of market pressures.

Today's intense business competitiveness necessitates the ability to run as productive and efficient a company management process as feasible and provide products or services in line with market preferences and meet higher quality standards than competitors. Thus, it is not enough for small firms to have comparative advantages; they must also have the superiority of long-term competitiveness.
The urgency of this research stems from the fact that rice is an essential food element in Indonesian society, the increased level of competition among enterprises and business people, and the deterioration of the industrial sector's performance. With the research subject of the Jember rice industry, the goal is to learn more about the role of sustained competitive excellence in mediating the impact of innovation and intellectual capital on business success.

2. CONCEPTUAL BACKGROUND

2.1. Theoretical Basis

Innovation is a creative process that necessitates the development of a new invention into a product or service that is economically beneficial [2]. Companies utilize innovation strategy as one of their policies to deal with commercial competitiveness. Rather than destroying their competition, organizations should focus on increasing product and process innovation as part of their innovation strategy. A corporation examines its external environment, finds its opportunities, decides talented resources, and chooses the proper method to produce a sound output to attain strategic competitiveness and generate above-average returns [3].

In general, there are two models for innovation activities: the first is a source-based model, which is based on the perspective of the developer or source of innovation. Developers create new products or services from the concept to the marketing of the finished product. Second, a user-oriented stage model based on the wearer's point of view. They develop innovation processes based on user demands or change opportunities to link innovation to user behaviour [4].

Inovasi is a multifaceted notion that may be defined in leadership approach, innovation kind, innovation source, and level of investment in innovation. The leadership orientation of a company determines whether it was the first to enter the market (first to market), the second to enter the market (second to market), or the last to enter the market (final to market) (late entrant). This sort of innovation entails a combination of manufacturing and product innovation, i.e. the company's production method and products. The location of innovation activities in a corporation is referred to as a source of innovation. Financial, technological, and human resource capital investment factors linked with innovation activities are included in the degree of investment in innovation [5], [6].

Intellectual capital (modal intelektual) adalah aset tidak berwujud yang berfungsi untuk meningkatkan kemampuan bersaing, serta dapat meningkatkan kinerja perusahaan. According to the International Federation of Accountants, there are several types of intellectual capital, including intellectual property, intellectual asset, and knowledge asset, all of which are classified as stock or equity based on a company's knowledge.

Human capital, structural capital or organization capital, and relational capital or customer capital are the three categories of intellectual capital. Human capital is a place in a firm where beneficial information, skills, and compensation can be found, and it symbolizes the organization's collective ability to provide the best solutions based on the knowledge held by its employees. The power of an organization or firm to meet the company's standard processes and structures that support employees' efforts to create optimal intellectual and overall performance is referred to as structural capital. A harmonious relationship/association network possessed by the firm with its partners, both from dependable and competent suppliers, and the company's interaction with the government and the community, is referred to as relational capital. This relational capital is a component of intellectual capital that adds genuine value to the organization and might come from various sources outside the corporate context [7].

Every company and every product in the competition it entered seeks to gain a competitive advantage. When a company joins a highly competitive market, the competitive advantage becomes extremely crucial [8]. Continuous competition's superiority results from a better strategy based on success in developing a base for round, ways for competition, and administration of superior competition arenas, all of which are anchored in the three dimensions of strategic management practices. The selection of relevant assets, utilization of competencies, and appropriate capabilities serve as the foundation for competition. Its connection with competing means will be defined by the functional strategies chosen, strategic decisions made, and their implementation. The competitive arena depicts product, market, and competitor dimensions [9].

The evidence demonstrates that the primary source of the difference in excellence between enterprises is the superiority of competitors, not the external environment, which concentrates their attention based on competitive advantage. Market forces are also depending on the company's resources, according to more in-depth assessments. The market's fundamental condition is that there is a restriction to the entrance. These entry barriers are based on patent economies of scale, experience, brand recognition, or other assets controlled by the company.

According to strategic management literature, the essential elements and advantages of continuous rivalry are the sustainability of a product's key attributes and durability, rather than the superiority of intangible resources over what competitors have. Thus, the aspects of durability (long durability), imitability (difficulty level to copy), and convenience can be used to construct
long-term competitive advantages (not easy to match the assets owned by the company) [10].

Financial and non-financial performance can be measured in a business. The financial performance of a corporation is primarily focused on the short term to maximize profit. The company's non-financial performance is more long-term in nature, intending to create value and keep the organization alive, growing, and growing. Long-term orientation refers to a company's life cycle that spans more than one year. Financial measures are used to describe a variety of acts that occur outside of the financial world. For example, increased consumer confidence in the company's products or services and increased cost-effectiveness of internal business procedures utilized to produce items and boost productivity. Staff devotion is all factors that contributed to the increase in financial return [11].

The four elements of a company's performance are relevance, effectiveness, efficiency, and financial viability. Relevance refers to the degree to which the company’s stakeholders regard it as they see fit. The degree to which a corporation succeeds in accomplishing previously defined goals is referred to as effectiveness. Efficiency is measured by how well a corporation uses its resources to achieve its objectives. Finally, financial viability is a measure of a company's financial worth, and it indicates the company's profitability in the short and long term [12].

Resource-Based Theory and Knowledge-Based Theory are used in this study. Resources-based Theory is a theory that analyzes its advantages in commercial rivalry using a resource-based approach. Then, in strategic management and competitive advantage, this idea emerges in enterprises that study and interpret organizational resources to determine how they create long-term competitive advantage. Humans are thought to be the critical business agents, while tangible assets like physical products and assets are consequences of human plans and actions. Human competence is the primary intangible resource in a knowledge-based strategy. Routines, job descriptions, plans, tactics, and cultures are all products of human knowledge. [13]. Individual knowledge is regarded as a strategic resource that cannot be devalued compared to other economic productive variables. The essential character of intangible and dynamic knowledge is formed preferably with causal dependencies and ambiguities, which are the foundation of the construction of knowledge-based perspectives for businesses.

2.2. Hypothesis

Through the introduction of new technologies, the launch of new products, the application of new products and services, and the development of new products, innovation is one of the strategies for building and developing organizations. An arena of innovation is formed by the combination of many facets of creation [14]. The word "innovation" connotes "doing" and "getting it done." [15]. Problem-solving, integration and blending new technological methods and processes, performing experiments and producing prototypes, absorbing technology from outside the organization, and developing new goods are all examples of innovation [14].

Innovation is a new concept, product, or procedure. [5]. The relevant adoption unit defines innovation as "new" ideas, practices, and materials [16]. In a broader sense, innovation is defined as successfully applying a creative theory in a business [17]. Only marketing and innovation are crucial for business; the others have cost. Innovation is one of the two essential things in business. By innovating, a corporation can set itself apart from its competition. Companies can benefit from innovation by improving the attainment and sustainability of their competitive advantages [18]. Innovative organizations often establish a sustained competitive advantage because they can exploit and expand their critical strengths in a unique and superior way [19].

True innovation is not limited to producing new products and services. Therefore opinions regarding it are considered incomplete. The development of the company's core skills is also linked to innovation. Companies often require core capabilities to achieve a long-term competitive advantage. Innovasi is a multidimensional notion that may be defined in leadership orientation, types of innovation, sources of creation, and the amount of money invested in innovation [5], [6]. A corporation can instantly take a stance to gain a competitive advantage, monitor innovation from competitors, decrease the risks connected with new product innovation, and develop a durable competitive advantage by focusing on numerous elements of creation [20], [21]. Hence it can be inferred that innovation can lead to the benefits of long-term competitiveness [14], [18], [19], [22]–[30]. As a result, the following Theory is put forth:

**Hypothesis 1:** Innovation has a significant and favourable impact on long-term competitive advantage.

Intellectual capital consists of valuable, imitable, and non-replaceable resources and competencies that provide a long-term competitive edge and superior performance [19], [31]. This intellectual capital is similar to a company's resource-based thesis, claiming that competitive advantage can only be gained by utilizing scarce, intangible, and company-specific assets [32]. In relevant circumstances, intellectual capital is critical in determining a company's current and future competitiveness and value growth [33]. In medium and small businesses, the internal resource base of the organization, particularly its intellectual capital, is a driver of competitive performance [34]. According to
the research, companies that successfully mobilize their intellectual assets in knowledge, technological skills, experience, and strategic competencies obtain a competitive advantage.

The existing literature also claims that a company's intellectual capital has a significant impact on its competitive advantage and performance [19], [31], [34]. However, empirical research on the practical function of competitive advantage in the link between intellectual capital and performance is woefully lacking. There is little research on the mediation impact of competitive advantage and the extent to which it relates intellectual capital to financial performance. The effect of competing benefits on the relationship between intellectual capital and organizational performance has been disregarded in most earlier studies [35], [36]. The impact of intellectual capital on a company's competitive edge is significant and favourable. Human capital, structural capital, and relational capital are all examples of green capital. There are three parts of green intellectual capital that significantly impact the competitive advantages of small and medium-sized electronic enterprises in Taiwan. [37].

In case studies at AinTuta cement firm in Batanah, the role of intellectual capital in obtaining competitive advantage in economic institutions in the context of knowledge economics. According to the study, in AinTuta cement firms, intellectual capital plays a role in achieving a competitive advantage in the knowledge-based economy. The study discovered a strong correlation between intellectual capital and profit competitiveness in the organizations analyzed. It suggested that companies pay more attention to intellectual capital and manage it as a valuable resource for gaining a competitive edge [38]. Research at a Jordanian telecoms business looked at the impact of intellectual capital on competitive advantage. The study looked into how intellectual capital affects competitive advantage. The study discovered that intellectual capital, in the form of structural and relational capital characteristics, has a significant impact on a company's competitive edge [39]. Internally generated intangible assets (development costs and patents) impact pharmaceutical company market value in Jordan. Financial employees (auditors, analysts, and accountants) working for Jordanian pharmaceutical businesses were studied. The findings revealed that investing in intangible assets increased the market value of pharmaceutical firms in Jordan and maintained the confidentiality of patent-making information to keep pharmaceutical companies compete for a long time. Jordanian pharmaceutical businesses could use development costs and patents to boost their competitiveness, according to the report [40]—the impact of intellectual capital on an organization's competitive advantage in Egyptian hospitals. The findings revealed that structural money and competitive advantages are pretty important. Furthermore, intellectual capital is associated with a competitive advantage [41].

Clarity the relationship between intellectual capital and competitive advantage in telecommunications firms to understand better the availability of intellectual capital and its function in sustaining competitive advantage. The study discovered that interest in intellectual capital has waned, which is reflected in the competitive advantages of such businesses [42]. As a result, the following Theory is put forth:

**H1:** Intellectual capital has a favourable and significant impact on long-term competitive advantage

Innovation significantly influences its performance when it comes to basic operations or activities connected to products and processes. As a result, businesses must generate new ideas by providing innovative products and service enhancements that please customers. In addition, efforts to suit consumer preferences will result in increased sales volume, which will boost the company's success [43].

Companies are needed to prepare unique and rare resources that competitors do not own, according to resource-based Theory. These one-of-a-kind resources are supposed to result in a product or procedure that no one else can duplicate. Companies that can develop items or processes that are difficult to copy and distinct from their competitors will easier gain market share. Companies that can produce and use distinctive resources will have better market share due to their innovation [19].

Companies that can utilize all of their resources will have an easier time locating existing innovations, including product, process, and administrative innovations [44]. The company's ability to execute organizational learning will inspire it to fully use all available resources based on what it has learned [45]. Businesses will find it easier to build effective innovation strategies as a result of their initiatives. The steps taken to determine the best innovation strategy will impact how well resources are used to create the best results. Product innovation's impact on corporate performance, mainly when product innovation techniques can boost sales volume. [46]. As a result, the following Theory is put forth:

**H2:** The impact of innovation on corporate performance is significant and favourable

Intellectual capital will be shaped by the integration of human capital, structural capital, and relational capital. For example, suppose a company has high-ability employees, good competence, satisfied employees, good organization, clear organizational structure and processes, good organizational culture, marketing capabilities, happy customers, good market
intensity, and good public relations. In that case, the company's business performance can be improved. Thus, intellectual capital is essential and has a favourable impact on corporate results. The study's findings revealed that relational capital has the highest importance value [47]. According to previous studies, there is a positive and significant association between intellectual capital and firm performance [48]. Other research has found that each of the intellectual capital characteristics affects corporate success similarly [49].

Several scholars have empirically demonstrated the link between intellectual capital and corporate performance using diverse methodologies in various nations. Intellectual capital is thought to be crucial in increasing a company's worth and financial success. Intellectual capital has a significant and favourable impact on the financial performance of a corporation [33], [50], [51]. Because intellectual capital is a measurable resource for improving competitive advantages, it will contribute to its financial performance [33], [52]. Conservatism accounting methods place a premium on the company's investment in intellectual capital, which is reflected in the financial statements when the disparity between market and book value grows [53]. For example, if the market is efficient, investors will value enterprises with more intellectual capital [50], [54]. On the other hand, intellectual capital is thought to impact a company's value and performance significantly. As a result, the following Theory is put forth:

**H1:** The impact of intellectual capital on business success is significant and good

The competitive advantage arises from a company's ability to value its customers more significantly than its expense. There are several things a firm may do to gain a competitive advantage that will last. Organizations must establish core skills to acquire a lasting competitive edge. These competencies are different capabilities that enable organizations to achieve efficiency, quality, innovation, or customer response, generating superior value and competitive advantage. [22], [55]. Core competencies differentiate a company's competitiveness and reflect its personality as a source of competitive advantage. Core competencies frequently emerge from organizational processes, including the accumulation and learning of various resources and talents. Core competencies are activities that a firm conducts exceptionally effectively compared to competitors and through which the organization adds unique value to its goods and services over time. Value creation systems are core competencies for achieving competitive advantage and above-average earnings [22].

Continuous competitive achievement and excellence are the foundations of a company's long-term success [56]. When other companies are unable to reproduce the benefits of a well-developed strategy, it becomes a lasting competitive advantage [19], [57], [58]. When a company employs a value creator strategy, and a competitor does not consistently apply it to imitate the benefits of that strategy, the company has a sustainable competitive advantage [22]. Only when its competitors' attempts to replicate its process have failed is a firm thought to have a persistent competitive edge [19]. Although a corporation can gain a competitive advantage, it can usually only keep that advantage for a limited time. Competitive advantage or supremacy will last as long as a unique strategy can give value to clients and competitors can't duplicate it.

According to the strategic management literature, the essential features of sustained competitive advantage are the durability of a product's key attributes and the superiority of untangling resources above competitors have. The dimensions of imitability (difficulty level to be copied), durability (length of time it can keep competitors away), and ease of matching strategic assets owned by the organization can all be used to develop the benefits of continuous rivalry. To preserve its competitive advantage and be perceived as competitive by its stakeholders, a company must sustain and improve its performance [10]. Thus, there is a link between intellectual capital and business performance. This link means that if the company's intelligent capital management is improved, the company's performance will improve as well [33]. As a result, the following Theory is put forth:

**H2:** The impact of a long-term competitive edge on corporate performance is significant and good

All significant variables that can add value to a company's competitiveness are included in the function of innovation in enhancing business performance [59]. The size of the costs that must be invested is the worry of enterprises when implementing the invention. This worry is unfounded because innovation does not begin with high-tech and high-cost solutions but with standardized, consistent, and long-term solutions. The company's most valuable assets have shifted from tangible assets to intellectual capital, consisting of one key component: thinking ability or knowledge. Information and knowledge are driving new economic changes, resulting in a greater focus on intellectual capital [35], [51], [60]. Intellectual capital's advantages as a tool for determining a company's value have piqued the interest of several academics and practitioners [51], [60]. Intellectual capital is becoming increasingly critical, and it has recently played a vital part in efforts to increase value in many firms. This effort is due to recognizing that intellectual capital is the bedrock of a company's ability to succeed and develop. This awareness is exemplified, among other things, by the rising use of the term "knowledge-based corporation" in corporate discourse. The phrase refers to businesses that emphasize managing intellectual capital as a resource and on long-term growth. A knowledge-based company
is staffed by people who have knowledge, expertise, and skills. Another distinguishing feature is that this company emphasizes learning to improve its competitiveness, i.e., by spending more on intellectual capital. As a result, the intellectual capital that knowledge-based businesses own and control determines their worth. The importance of intellectual capital is highlighted, with the idea that companies in Indonesia will compete if they take advantage of competitive advantages gained through corporate intellectual capital's innovative inventions [61].

According to Information-Based Theory, knowledge is the essential resource for a company's long-term viability. According to proponents of this hypothesis, knowledge resources are pretty sophisticated and challenging to copy by competitors. The diversity of information and competencies determines corporate firms' performance and continuing competitive advantage [62]. This knowledge is embedded and carried through several entities, including the organization's culture and identity, policies, routines, documents, systems, and employees, with economic changes characterized by knowledge and the application of knowledge management, so a company's prosperity will be determined by the creation of knowledge transformation and capitalization [53], [62]. All employee and company knowledge that contributes to the company's sustained competitive advantage is intellectual capital [13]. All personnel, firms, and their potential to bring value to the organization are considered intellectual capital. Intellectual capital is the amount of information and technology produced by the three primary aspects of an organization, namely human capital, structural capital, and customer capital, that can deliver more value to the company in the form of competitive advantages [63].

The role of innovation is critical in the interaction between intellectual capital and competitive excellence. It looks at how learning moderation affects the relationship between intellectual capital and innovation and intellectual capital and competitive excellence. The research will also look into the influence of intellectual capital on competitiveness and business performance. The analysis is based on a literature survey on the role of innovation, intellectual capital, competitive advantage, and corporate performance [64]. As a result, the following Theory is put forth:

\[ H_5: \text{Sustainable competitive advantage helps to moderate the impact of innovation and intellectual capital on corporate performance in a meaningful and positive way} \]

3. RESEARCH METHODS

This study falls under the category of quantitative analysis research, which entails employing hypothesis testing to understand the influence of variables or causal links between variables. This research uses the census approach, which is applied to the entire 145-company Jember rice business.

The following is a list of the study's variables: (1) innovation as the first exogenous variable, as measured by indicators of leadership orientation, type of

![Figure 1. Conceptual Framework](image-url)
innovation, source of innovation, and level of investment in innovation; (2) As measured by measures of human capital, structural capital, and relational capital, intellectual capital is the second external variable; (3) sustainable competitive advantage as an intervening variable, as measured by indicators of human capital, structural capital, and relational capital; and (4) business performance as endogenous factors monitored using relevant effective, efficient, and feasible financial indicators. The Likert scale or summated rating approach measures variable innovation, intellectual capital, sustainable competitive advantage, and company performance. The measurement results are presented as data with interval scales. In-person interviews with the entire management of the Jember rice industry are used to acquire primary data. Secondary data is derived from affiliated agencies and literature books, scientific journals, and other publications specified in the bibliography. Data quality tests, such as validity and reliability tests and data analysis techniques, such as multiple linear regression analysis and route analysis to examine mediation effects, were all carried out using the IBM SPSS 21 program. Path analysis is a type of regression analysis that analyses and tests the direct and indirect effects of a set of exogenous variables on endogenous variables via intervening variables.

4. RESULTS AND DISCUSSION

4.1. Results

Table 1. Multiple Linear Regression Analysis (I)

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>Beta</td>
<td>2.240</td>
<td>.027</td>
</tr>
<tr>
<td></td>
<td>.265</td>
<td>4.156</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>.605</td>
<td>9.498</td>
<td>.000</td>
</tr>
</tbody>
</table>

Dependent variable: SCA

Table 2. Multiple Linear Regression Analysis (II)

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>Beta</td>
<td>-.374</td>
<td>.709</td>
</tr>
</tbody>
</table>

Multiple linear regression analysis is used to examine and assess the influence of various variables simultaneously and test the hypothesis of inter-variable effects partially. Two multiple linear regression analysis models are used to test this hypothesis.

Obtain a regression equation that explains the relationship between the variables under consideration, such as:

\[ Z = 0.265 X_1 + 0.605 X_2 \]
\[ Y = 0.694 Z + 0.168 X_1 + 0.142 X_2 \]

Tables 3 and 4 show the results of a simultaneous significance test (statistical test F).

Table 3. Statistical Test F (Model I)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Square</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>256.218</td>
<td>128.109</td>
<td>118.752</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>153.189</td>
<td>1.079</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>409.407</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent variable: (S.C.A.)
b. Predictors: (Constant), (I.N.O.V.), (I.C.)

Table 4. Statistical Test F (Model II)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Square</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>619.897</td>
<td>206.632</td>
<td>273.455</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>106.545</td>
<td>.756</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>726.441</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent variable: (BP)
b. Predictors: (Constant), (INOV), (IC), (SCA)

The statistical test results of F model 1 yielded an F value of 118.752 with a significance level of 0.000, as shown in Table 3. The sig value is calculated using the significance value. The F model 1 is a smaller version of the F model 2. (0.05). I.N.O.V. and I.C. variables significantly impact S.C.A., which indicates they have a significant effect on S.C.A. The statistical test results of F model 2 yielded an F value of 273.455 with a significance level of 0.000, as shown in Table 4. The sig value is calculated using the significance value. The
F model 2 is a smaller version of the F model (0.05). This test suggests that I.N.O.V., I.C., and S.C.A. have a considerable impact on blood pressure.

The statistical test determines how well an independent variable can explain the dependent variable. Model 1 was used to test hypotheses 1 and 2 in the study, while model 2 was used to test hypotheses 3, 4, and 5. When t-count > t-table, an independent variable is considered to have a positive influence, as evidenced by its significance value, i.e. ‘ ’ (0.05).

Variable I.N.O.V. multiplied variable I.C. multiplied when the value t is used. The value of t-the count on each variable exceeds the value of the t-the table, which is 1.977 (= 0.05). I.N.O.V. and I.C. variables have a significance of 0.000 when assessed from significance values, indicating that both variables have a significance level less than 0.000. (0.05). This result means that hypotheses H1 and H2 have been accepted, indicating that innovation and intellectual capital positively impact long-term competitive advantage.

The I.N.O.V. variable is 3,962, the I.C. variable is 2,769, and the S.C.A. variable is 13,164, according to Nilai’s t-calculation. The value of t-the count on each variable exceeds the value of the t-the table, which is 1.977 (= 0.05). The I.N.O.V. variable has a significance of 0.000. The I.C. variable has a significance of 0.006. The S.C.A. variable has a significance of 0.000, so all three variables have a significance level less than 0.000. (0.05). This result signifies that the hypotheses H3, H4, and H5 have been accepted, stating that innovation, intellectual capital, and long-term competitive advantage significantly impact business success.

Table 5. Coefficient of Determination R² (Model I)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.791</td>
<td>.626</td>
<td>.621</td>
<td>.000</td>
</tr>
</tbody>
</table>

c. Dependent variable: (SCA)
d. Predictors: (Constant), (INOV), (IC)

Table 6. Coefficient of Determination R² (Model II)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.924</td>
<td>.853</td>
<td>.850</td>
<td>.000</td>
</tr>
</tbody>
</table>
e. Dependent variable: (BP)
f. Predictors: (Constant), (INOV), (IC), (SCA)

Each dependent variable receives an error value based on the coefficient of determination in the table, namely:

\[
\sqrt{(1 - R^2 \ 1)} = 1 - 0.621 = 0.616 \\
\sqrt{(1 - R^2 \ 2)} = 1 - 0.850 = 0.387
\]

Total Coefficient of Determination, namely:

\[
= 1 - P2e1 \times P2e2 \\
= 1 - (0.616^2) (0.387)^2 \\
= 1 - (0.379) (0.150) \\
= 0.943
\]

Based on the results of the computation, the total determination coefficient value price of 0.943 was derived. This result shows that 94.30 per cent of corporate performance can be explained by characteristics such as innovation, intellectual capital, and long-term competitive advantage, with the remaining 5.70 per cent explained by variables not addressed in the study.

It is intervening in a variable that mediates the link between independent and dependent variables. For example, the research model indirectly influences innovation and intellectual capital against corporate performance through sustainable competitive advantage. The following path analysis is used to conduct the intervening test:

**Figure 2. Path Analysis (Model I)**

Analysis of the impact of innovation on business performance through sustained competitive advantage: known direct impact of innovation on business performance of 0.168. While the indirect impact of innovation on business performance via sustained competitive advantage is 0.184 (= 0.265 x 0.694), the overall impact of innovation on business performance is 0.352 (= 0.168 + 0.184). The value of t-count > t-table, which is 3.962 > 1.977 with a significance of 0.006, shows that the effect of innovation on business performance through sustainable competitive advantage is stronger than the direct influence of innovation on business performance. This result indicates that innovation has a large and positive impact on business success through sustained competitive advantage.
The impact of intellectual capital on long-term competitive advantage is examined: 0.142 is the known direct impact of intellectual capital on corporate performance. The indirect effect of intellectual capital on business performance through sustainable competitive advantage is 0.420 (0.605 x 0.694), resulting in a total impact of intellectual capital on business performance of 0.562 (0.142 + 0.420). These findings show that the indirect effect of intellectual capital on business performance is greater than the direct impact of intellectual capital on business performance, which is 0.420 > 0.142, and that the value of t-calculate > t-table is 2.769 > 1.977, with a significance of 0.000 (Sig.0.05). It suggests that intellectual capital has a significant and favourable impact on corporate performance, resulting in a long-term competitive advantage.

The results of the tests revealed that there was a positive and significant effect. The findings of this study are consistent with studies that show that interest in intellectual capital is waning, which is reflected in the competitive advantages of such businesses [42]. In addition, other research suggests that intellectual capital, which includes measures of human capital, structural capital, and customer capital (Customer Capital), has a simultaneous impact on competitive advantages [67], [70], [72], [73].

### 4.2. Discussion

#### 4.2.1. Innovation's Effect on Long-Term Competitive Advantage

The results of the tests revealed that there was a positive and significant effect. Innovation and competitive advantage have a favourable and robust link [65]. According to other studies, more creative innovations are provided by companies in the packaging of varying flavours, displays, and variations. It will pamper consumers by allowing them to choose products that fit what they want and will positively affect the level of the company's competitive advantage in the eyes of consumers. [66]–[72].

#### 4.2.2. Intellectual Capital's Impact on Long-Term Competitive Advantage

The results of the tests revealed that there was a positive and significant effect. The findings of this study are consistent with studies that show that interest in intellectual capital is waning, which is reflected in the competitive advantages of such businesses [42]. In addition, other research suggests that intellectual capital, which includes measures of human capital, structural capital, and customer capital (Customer Capital), has a simultaneous impact on competitive advantages [67], [70], [72], [73].

#### 4.2.3. The Effects of Innovation on Business Results

The results of the tests revealed that there was a positive and significant effect. The findings of this study are consistent with other research that claims that innovation is still one of the essential value-creating and competitive weapons for international businesses [74]–[76]. Another study has demonstrated that invention can improve and strengthen export competitiveness, eventually leading to long-term export performance [46], [77].

#### 4.2.4. Intellectual Capital's Impact on Business Performance

The results of the tests revealed that there was a positive and significant effect. The findings of this study are consistent with previous research, which indicates that intellectual capital is thought to have a critical role in increasing a company’s value and financial performance, as evidenced by considerable and favourable influence results [50]. Other studies have demonstrated that good intellectual capital management can create resilient resources that improve not only present performance but also predict future performance [67], [69], [70], [78], [79].

#### 4.2.5. The Effects of Long-Term Competitive Advantage on Business Results

The results of the tests revealed that there was a positive and significant effect. There's a connection between intellectual capital and corporate success. The means that if the company's intellectual capital management is improved, the company's performance will improve [33]. Competitive advantage has also been found to have a positive impact on performance in other studies [66], [67], [69], [70], [73], [78], [80].
4.2.6. The Impact of Innovation and Intellectual Capital on Business Performance: The Role of Sustainable Competitive Advantage

The test findings revealed a mediating ability as well as positive and significant influences. The impact of intellectual capital on competitive excellence and corporate success and the relationship between intellectual capital and competitive advantage [64]. Other studies have found that intellectual capital and sources of innovation positively impact a company's performance. Intellectual capital and sources of innovation have a positive effect on competitive advantage. Competitive advantage significantly mediates the relationship between intellectual capital, sources of innovation, and corporate performance. [67], [69], [70], [72], [78], [81].

5. CONCLUSION

Many studies have looked into the benefits of constant rivalry. However, each region has its peculiarities in terms of durability, difficulty to imitate, and ease to match the company's assets. Furthermore, the focus of the problem studied is that previous researchers have done little to address the benefits of sustainable competition in the rice industry, which has implications for performance and is closely related to differences in conditions in terms of innovation and intellectual capital. Each of the research above publications contributes content to build state of the art tied to a collection of theories and references that support or refute research. As for the rest, everything was completed so that the study might be utilized as a reference. According to state of the art, nothing particularly describing the influence of innovation and intellectual capital may produce a durable competitive advantage and have consequences to improve company performance in the Jember rice industry.

Strengthens the underlying notion of resources and knowledge, namely, that innovation and intellectual capital are strategic antecedents that effectively generate long-term competitive advantages that have implications for the company's business performance. Therefore, to create a sustained competitive advantage and improve the commercial version of the Jember rice sector, innovation and intellectual capital plays a significant role and are the keys to success. As a result, it can be concluded that this study is relatively new and that prior researchers have not done much work on it.

AUTHORS’ CONTRIBUTIONS

T.H., R.S.M., E.S. and B.P.Y.K. contributed to the design and implementation of the research, the analysis of the results, and the manuscript's writing.

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