

The Role of Creativity in Mediating Absorptive Capacity and Human Capital to Increase Product Innovation in Creative Industry MSMEs

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Abstract: - This article aims to analyze the role of creativity as a mediating factor in enhancing product innovation within the context of the culinary creative industry MSMEs in Indonesia. This study adopts a quantitative approach and utilizes a survey method for primary data collection through questionnaires from 162 MSMEs. The collected data were analyzed using PLS-SEM. The study's findings indicate that absorptive capacity and human capital have a more direct influence on product innovation compared to the mediation of creativity. Creativity partially mediates the influence of absorptive capacity, while the influence of human capital on product innovation cannot be mediated by creativity

Key-Words: - Creativity, Absorptive Capacity, Human Capital, Product Innovation, PLS-SEM, MSMEs, culinary creative industry, Indonesia

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1 Introduction

The creative industry encompasses various economic endeavors centered on creativity, expertise, and aptitude, possessing the capacity to generate prosperity and employment through the creation and utilization of creative and cultural goods, services, and intellectual property, [1].

One of the fields within the creative industry is culinary, which involves innovation primarily in recipe development and food presentation, [2]. Consumers perceive food and drink as art, and the culinary industry provides opportunities for enterprises to express their creativity, especially for micro, small, and medium enterprises (MSMEs).

The growth of MSMEs in the culinary creative industry has continued to increase in recent years, [3]. This is attributed to the high interest of consumers in innovative, unique, quality, and character-filled food and beverages. Innovative products needed in the creative industry are closely related to the presence of creativity. However, creativity does not always manifest easily within MSMEs, [4].

Creativity has a significant influence on innovation, [5]. Creativity, defined as the capacity to generate fresh and unique concepts, plays a crucial

role, while innovation involves putting these ideas into practice to create novel value. In the absence of creativity, individuals or organizations face challenges in generating new ideas that can be translated into innovative outcomes. Numerous studies have demonstrated that creativity significantly enhances the capacity to generate innovative ideas, [6], [7], [8], [9], [10]. Individuals with high levels of creativity are more likely to generate implementable and innovative ideas. Moreover, creativity enables individuals to think beyond conventional boundaries and approach problems from diverse perspectives, thereby leading to the emergence of unprecedented ideas, [11]. However, creativity alone is insufficient for fostering innovation. Innovation can also depend on the ability to gather information from the external environment and apply it internally, as well as on empowering human resources.

Individuals, as human resources, displaying higher levels of creativity are more likely to develop innovative solutions to problems study, [12]. Prior studies also show a positive correlation between both absorptive capacity and human capital in relation to innovation. Organizations with stronger absorptive capacity are more likely to engage in innovation activities, generate novel ideas, and

translate knowledge into innovative outcomes, [13]. Organizations that invest in developing and nurturing their human capital are more likely to experience higher levels of innovation and remain competitive in today's rapidly evolving world, [14].

However, it would be very interesting to investigate the ability of creativity to mediate both absorptive capacity and human capital in the context of innovation, since creativity has a close relation to innovation, [15]. There are basic assumptions regarding the relationship between absorptive capacity, human capital, and creativity. Studies have shown that education and expertise, cognitive abilities, experience and domain knowledge, learning, and adaptability within human capital are positively correlated with creativity, [16]. Studies have also found that knowledge diversity and the integration of new knowledge within absorptive capacity positively influence creativity, [17]. Therefore this study adopts a quantitative approach to investigate the research question: to what extent does creativity mediate absorptive capacity and human capital on product innovation in the context of culinary creative industry MSMEs?

2 Literature Review

2.1 Creativity

Creativity plays a crucial role in driving innovation, fostering progress, and bringing about positive change. It refers to the ability to generate new, original, and valuable ideas through a mental process that involves creative thinking, problem-solving, and the generation of novel solutions or concepts that have not been previously conceived, [15].

Creativity is often associated with thinking outside the box, transcending conventional boundaries, and generating unconventional combinations of ideas. Guilford's creativity model encompasses "divergent thinking," which involves generating multiple ideas or solutions simultaneously, and "convergent thinking," which relates to identifying the best solution within a given context, [18].

This study categorizes creativity into two main concepts, namely improvisational creativity and compositional creativity, [19], [20]. Improvisational creativity pertains to generating novel ideas that significantly diverge from existing ideas, ultimately leading to the creation of entirely new products that have never been available before, [21]. Meanwhile, compositional creativity involves the development of existing or previously proposed ideas, often

entailing modifications and enhancements to refine existing ideas. This concept can result in variations and adaptations that enhance existing products, [22].

2.2 Absorptive Capacity

Absorptive capacity encompasses the capability to identify, assimilate, integrate, and apply fresh insights from the external environment into an organization's internal operations and procedures. It essentially involves the process of studying existing knowledge or information and leveraging it to enhance performance, foster innovation, and gain a competitive advantage, [23]. Organizations endowed with robust absorptive capacity can proactively predict shifts in the business landscape, seize emerging opportunities, and effectively address challenges.

This study breaks down absorptive capacity into four components, specifically: acquisition, which pertains to the capacity to discover, identify, and procure external knowledge; assimilation, encompassing the activities of analyzing, processing, interpreting, comprehending, and absorbing external knowledge; transformation, referring to the ability to blend external knowledge with internal expertise; exploitation, signifying the aptitude to apply newly acquired knowledge to a company's product strategies, [13], [24], [25].

2.3 Human Capital

Human capital refers to the economic value derived from the knowledge, skills, experience, and individual attributes present in a population or organization, which can serve as valuable assets in the process of production and economic development, [26]. Similar to physical capital, human capital can be enhanced through investment and development.

This study divides the concept of human capital into two categories namely, general human capital and specific human capital, [27].

General human capital encompasses transferable knowledge, skills, and attributes that possess broad applicability across various job contexts and industries. Examples of general human capital include effective communication skills, problem-solving proficiency, time management expertise, and analytical capabilities.

On the other hand, specific human capital pertains to knowledge, skills, and experience that are specialized or tailored to a particular job or industry, directly addressing specific tasks, skills, or requirements within that particular context. Instances of specific human capital encompass proficiency in a particular programming language

for computer coding, specialized expertise in the legal or financial sectors, or specialized work experience within a specific industry.

2.4 Product Innovation

Product innovation is a concept regarding the development and implementation of new ideas or technology in a product. Product innovation allows companies to modify existing products into something new, or create new products that can provide added value for consumers and enable them to open new market opportunities.

This study identifies four forms of innovation as indicators of the existence of innovation in a company, namely incremental innovation, modular innovation, architectural innovation, and radical innovation.

Incremental innovation is an innovation involving small changes or gradual improvements to existing products that require repeated adjustments and refinements to improve existing product features, [28].

Modular innovation is an innovation that occurs when a product or system is broken down into separate, smaller components that can be used or replaced independently, allowing for the replacement or improvement of one component without affecting the entire product or system, [29].

Architectural innovation is an innovation that changes the relationships and interactions between components, as well as changing the shape of a product or system which requires modification of the design, structure, or features of an existing product or system, [30].

Radical innovation is an innovation with significant differences that involves innovation in components, forms, and interactions between components in a product or system, which often provides a new paradigm in the related industry [31].

2.5 Hypotheses Development

The importance of absorptive capacity in facilitating innovation and organizational learning has been discussed, where a greater ability to absorb and assimilate external knowledge can help organizations gain competitive advantage through innovation, [23]. Contrasts in relative absorptive capacity among organizations can affect their ability to learn from the outside environment and share information with business partners, which in turn influences their capacity to foster collaborative innovation and achieve a competitive advantage, [32]. Absorptive capacity plays a significant role in encouraging the access and utilization of outside

information for organizational innovation, [13]. Furthermore, a positive relationship between absorptive capacity and innovation performance indicates that organizations with stronger abilities to access, understand, and integrate new knowledge tend to achieve better innovation outcome, [33]. High absorptive capacity empowers organizations to access, comprehend, and apply new knowledge, thereby driving innovation. The research model of this study is presented in Figure 1.

H1. Absorptive Capacity significantly and positively affects Product Innovation

High-quality human capital and optimal organizational task structures mutually influence each other in enhancing the innovation capacity of organizations, [14]. This highlights the importance of effectively managing and optimizing human capital and designing task structures that foster productive collaboration, ultimately leading to higher levels of innovation. Human capital, including the skills, knowledge, experience, and creative capacity of its employees, significantly influences the company's ability to innovate, [34]. Previous study showcased that when companies or organizations invest their resources in the development and enhancement of human capital, such as education, training, and employee skills development, it contributes to an increase in their level of innovation, [35]. Moreover, heterogeneity in human capital has implications for corporate innovation, specifically focusing on educational and functional backgrounds, [36]. Higher human capital, whether in the form of education, skills, or experience, has a positive relationship with a higher level of innovation.

H2. Human Capital significantly and positively affects Product Innovation

The support provided by organizations to employees in encouraging creativity, which includes a supportive work environment, employee training and development, resources provided, and recognition for creative contributions, influences the resulting innovations, [37]. However, the barriers that impede creativity within SME companies affect a company's ability to innovate. These barriers can include internal factors such as lack of resources or expertise, as well as external factors such as regulatory constraints or lack of access to networks and collaboration, [5]. Previous study revealed that level of creativity in a country can affect the effectiveness of innovation and productive

efficiency at the national level where creativity refers to the ability to produce new and original ideas, while the effectiveness of innovation relates to the degree to which the innovations produced achieve goals and provide added value for organizations or communities, [38]. Organizations can develop capabilities to simultaneously carry out exploration which includes experimentation and the creation of new knowledge, and exploitation which involves utilizing and mastering existing knowledge, through mechanisms of creativity that affect the success of innovation, [39]. Creativity is an important factor driving innovation where the ability to generate new ideas and think creatively forms the foundation for successful innovation.

H3. Creativity significantly and positively affects Product Innovation

High absorptive capacity has the potential to influence organizational creativity by enabling organizations to acquire new knowledge and integrate it into their innovation and creativity processes, [17]. Another study also indicates the impact of absorptive capacity on creativity, where creativity is closely related to job performance, [40]. Furthermore, absorptive capacity with knowledge integration has an impact on team creativity and fully mediates external knowledge search, [41]. Individual absorptive capacity influences individual creativity, and mediates creative self-efficacy, individual knowledge, and IT support toward individual creativity, [42]. Absorptive capacity plays a crucial role in promoting organizational and individual creativity. By possessing a strong ability to access, understand, and integrate new knowledge, organizations can create an environment that supports and nurtures creativity.

H4. Absorptive Capacity significantly and positively affects Creativity

A prior study has demonstrated that factors such as freedom in the workplace, supervisory support, and adequate resources contribute to increased individual creativity in the work environment, [7]. Additionally, there is a positive relationship between individuals' creative self-efficacy and their creativity. Factors such as previous experience in generating ideas, environmental support, and belief in one's abilities played crucial roles in boosting creative self-confidence, [43]. Another study shows that job dissatisfaction can stimulate individual creativity through the mechanism of voice expression. When individuals are allowed to express

dissatisfaction and provide constructive suggestions for work situations, it can encourage creative thinking and innovation, [44]. Moreover, factors such as relevant knowledge and skills, intrinsic motivation, a challenging environment, and social support can enhance individual creativity, [16]. Human capital can influence creativity as it encompasses the interaction between knowledge, skills, experience, and individual cognitive abilities, which are all essential components in the creative process.

H5. Human Capital significantly and positively affects Creativity

The mediating effect occurs through specific causal pathways between the independent variables and the dependent variable. In this case, the mediating variable acts as an intermediary or mediator, explaining part or all of the relationship between the independent variables and the dependent variable. This can be attributed to the significant relationship between the independent variables (absorptive capacity and human capital) and the mediating variable (creativity, and also the relationship between the mediating variable and the dependent variable (product innovation) as the mediating variable significantly influences the dependent variable, [45], [46].

H6. Creativity significantly and positively mediates Absorptive Capacity toward product innovation

H7. Creativity significantly and positively mediates Human Capital toward product innovation

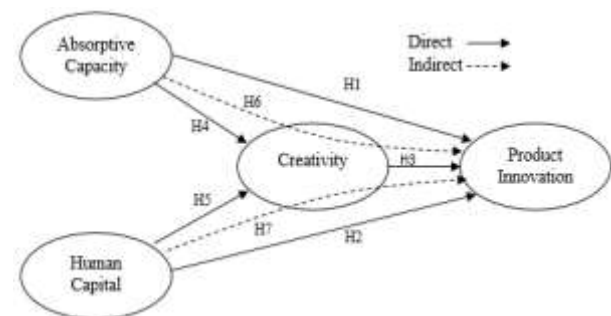


Fig. 1: Research Model

3 Methodology

This study employed a descriptive approach alongside a quantitative methodology to establish the hypothesized relationships. Utilizing a

quantitative methodology allows for the identification of patterns, relationships, and trends within the data, facilitating generalizations about the population being investigated. On the other hand, the descriptive approach serves as a means to accurately portray the characteristics, features, or behavior of the specific population, sample, or phenomenon, [47].

The data for this study were collected through a cross-sectional survey, utilizing a 7-point Likert scale questionnaire consisting of 16 items derived from literature reviews. The questionnaires were distributed among specific populations represented by randomly selected samples. The objective was to gather comprehensive information regarding perceptions, views, or attitudes related to the proposed topic, [48].

The research sample comprised owners, leaders, and employees within the culinary creative industry's MSMEs (micro, small, and medium enterprises) in Indonesia. The overall sample consisted of 162 individuals, meeting the minimum sample size adequacy, [46].

Absorptive capacity was measured using 4 items, [13], human capital was measured using 4 items, [27], creativity was measured using 4 items, and product innovation was measured using 4 items, [30].

The determination of the sample size was based on a proportionate sampling of the total creative economy MSMEs in the culinary sector across three provinces: DKI Jakarta with a total of 338.093 MSMEs, West Java with a total of 1.078.743 MSMEs, and East Java with a total of 984.288 MSMEs, [49]. The proportion percentage for each province is 14%, 45%, and 41%, and following the rule of thumb, [46], resulting in a minimum number of samples of 160. Ultimately, the data collected consisted of 162 samples, with 23 samples from DKI Jakarta, 73 samples from West Java, and 66 samples from East Java. The profile samples are presented in Table 1.

In this study, the data were analyzed, and the hypothesis was tested using SmartPLS 3.0, a software that employs the PLS-SEM method as one of the analytical techniques within Structural Equation Modeling (SEM). Partial Least Squares (PLS) is the underlying principle used to assess the validity and reliability of the constructs and to evaluate the structural model.

Table 1. *Profile of samples*

| Position of respondent | |
|----------------------------------|-------|
| Owner | 56,2% |
| Leader | 39,5% |
| Employee | 4,3% |
| Education of respondent | |
| Master | 4,3% |
| Bachelor | 31,5% |
| Diploma | 38,9% |
| High school | 25,3% |
| Age of respondent | |
| 17 – 25 years old | 21,0% |
| 26 – 35 years old | 46,3% |
| 36 – 45 years old | 25,3% |
| 46 – 55 years old | 7,4% |
| Company age | |
| < 1 year | 4,3% |
| 1 - 3 years | 42,6% |
| 3 - 6 years | 30,2% |
| > 6 years | 22,8% |
| Number of employees | |
| 1 - 4 (micro) | 42,0% |
| 5 - 19 (small) | 34,6% |
| 20 - 99 (medium) | 23,5% |
| Number of product variant | |
| 1 - 5 variant | 84,6% |
| 6 - 10 variant | 11,7% |
| 11 - 15 variant | 1,2% |
| 16 - 20 variant | 2,5% |

Validity ensures that the measurement instrument or method used accurately measures the intended concepts, thereby ensuring that the measurement results reflect the concepts being measured.

Reliability ensures that the measurement instrument or method used is consistent and dependable, guaranteeing that the measurement results obtained will be similar when measurements are taken at different times. The evaluation of the structural model (R^2 , f^2 , Q^2) facilitates better decision-making in testing the compatibility between empirical data and existing theory, [45], [46].

Table 2. Reliability Test

| Construct | Indicators | Indicator Loading (Outer Loading) | Construct Reliability (Cronbach's Alpha & Composite Reliability) |
|---------------------|------------|-----------------------------------|--|
| Absorptive Capacity | AC1 | 0,842 | 0,846 & 0,896 |
| | AC2 | 0,823 | |
| | AC3 | 0,829 | |
| | AC4 | 0,810 | |
| Creativity | Cr1 | 0,814 | 0,834 & 0,889 |
| | Cr2 | 0,814 | |
| | Cr3 | 0,803 | |
| | Cr4 | 0,834 | |
| Human Capital | HC1 | 0,779 | 0,775 & 0,855 |
| | HC2 | 0,811 | |
| | HC3 | 0,737 | |
| | HC4 | 0,761 | |
| Product Innovation | PI1 | 0,843 | 0,866 & 0,908 |
| | PI2 | 0,844 | |
| | PI3 | 0,872 | |
| | PI4 | 0,815 | |

Table 3. Validity & Collinearity Test

| Construct | Indicators | Convergent Validity (AVE) | Collinearity Test (VIF) |
|---------------------|------------|---------------------------|-------------------------|
| Absorptive Capacity | AC1 | 0,682 | 2,434 |
| | AC2 | | 1,996 |
| | AC3 | | 2,102 |
| | AC4 | | 1,623 |
| Creativity | Cr1 | 0,667 | 1,581 |
| | Cr2 | | 1,838 |
| | Cr3 | | 1,405 |
| | Cr4 | | 1,675 |
| Human Capital | HC1 | 0,597 | 1,788 |
| | HC2 | | 1,732 |
| | HC3 | | 1,857 |
| | HC4 | | 1,996 |
| Product Innovation | PI1 | 0,711 | 2,286 |
| | PI2 | | 2,999 |
| | PI3 | | 2,612 |
| | PI4 | | 2,719 |

Table 4. Discriminant Validity - Fornell-Larcker Criterion

| Construct | Fornell-Larcker Criterion | | | |
|---------------------|---------------------------|-------|-------|-------|
| | AC | Cr | HC | PI |
| Absorptive Capacity | 0,826 | | | |
| Creativity | 0,505 | 0,817 | | |
| Human Capital | 0,304 | 0,585 | 0,772 | |
| Product Innovation | 0,479 | 0,575 | 0,624 | 0,843 |

Table 5. Discriminant Validity - HTMT

| Construct | HTMT | | | |
|---------------------|-------|-------|-------|----|
| | AC | Cr | HC | PI |
| Absorptive Capacity | | | | |
| Creativity | 0,592 | | | |
| Human Capital | 0,403 | 0,720 | | |
| Product Innovation | 0,513 | 0,667 | 0,755 | |

Table 2 and Table 3 presents several steps of the validity and reliability tests. Indicator loadings greater than 0,708 indicate that the indicators effectively and positively measure the intended latent construct. Construct reliability between 0,70 and 0,95 shows the extent to which the indicators that make up the construct collectively measure the construct accurately. Convergent validity, with an Average Variance Extracted (AVE) greater than 0,5 indicates that the constructs significantly contribute to explaining variations in the indicators. A collinearity test with a Variance Inflation Factor (VIF) value less than 3 suggests that multicollinearity is not significant in the model, [45], [46].

Table 4 and Table 5 demonstrate discriminant validity using the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio. According to the Fornell-Larcker criterion, it is expected that the square root of each construct's AVE is larger than its highest correlation with any other construct. While, the HTMT values less than 0,90 indicate no potential issues with discriminant validity, [45], [46].

Table 6. Coefficient of Determination

| Target variable | R ² | Result |
|--------------------|----------------|----------|
| Creativity | 0,460 | moderate |
| Product Innovation | 0,502 | moderate |

Table 7. Cross-validated Redundancy

| Target variable | Q ² | Result |
|--------------------|----------------|------------|
| Creativity | 0,369 | acceptable |
| Product Innovation | 0,442 | acceptable |

Table 6 presents the main metrics for evaluating the structural model and the predictive relevance of the model. The coefficient of determination, with a higher value approaching one, indicates the model's ability to explain variations in the dependent variable (target variable). While, a positive blindfolding value in Table 7, suggests that the model has a better predictive ability for the dependent variable (target variable) compared to random predictions, [45], [46].

Table 8. *Effect Size*

| Relations | f^2 | Effect |
|-----------|-------|--------|
| AC → Cr | 0,219 | medium |
| AC → PI | 0,092 | small |
| HC → Cr | 0,380 | large |
| HC → PI | 0,249 | medium |
| Cr → PI | 0,041 | small |

Table 8 presents the strength and significance of the effects of the independent variables on the variation of the dependent variable (target variable). The f^2 value ranges from zero, and a higher f^2 value indicates a greater influence of the predictor variable on the dependent variable, [45], [46].

The assessment of validity, reliability, and evaluation of the structural model indicate that both the measurement model and the structural model are considered reliable enough to test and validate hypotheses regarding the relationships between variables. The Research Model by SmartPLS is presented in Figure 2.

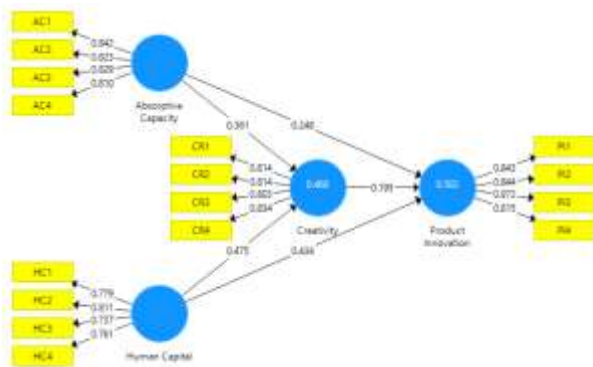


Fig. 2: *Research Model by SmartPLS*

4 Result and Discussions

4.1 Results

The regression results obtained using SmartPLS 3.0 based on data collected from MSME actors in the culinary creative industry indicate a positive and significant influence of absorptive capacity, human capital, and creativity on product innovation.

Table 9. *Direct Effect Structural Model Test*

| Hypotheses | Path Coefficient | t-Values | p-Values |
|-------------|------------------|----------|----------|
| H1: AC → PI | 0,248 | 2,665 | 0,008 |
| H2: HC → PI | 0,434 | 8,507 | 0,000 |
| H3: Cr → PI | 0,195 | 2,182 | 0,030 |
| H4: AC → Cr | 0,361 | 6,028 | 0,000 |
| H5: HC → Cr | 0,475 | 5,328 | 0,000 |

Table 9 displays the specific effects of each variable on product innovation. Absorptive capacity is found to have a positive and significant effect on product innovation, as evidenced by a path coefficient value of 0,248, a t-value greater than 1,96, and a p-value less than 0,05 at a 95% confidence level. Therefore, hypothesis 1 is accepted. Similarly, human capital demonstrates a positive and significant effect on product innovation, with a path coefficient of 0,434, a t-value of 8,507, and a p-value of 0,000. Creativity also exhibits a positive and significant effect, although it has the lowest path coefficient value and a p-value close to 0,05 compared to absorptive capacity and human capital. Hence, hypotheses 2 and 3 can also be accepted. Nevertheless, human capital exerts the strongest influence on product innovation.

This study considers creativity as a potential mediator between absorptive capacity and human capital toward product innovation. Mediation requires the presence of independent variables that affect the mediating variable and mediating variables that influence the dependent variable, [50]. Thus, after confirming the acceptance of hypothesis 3, it becomes necessary to analyze hypotheses 4 and 5.

Hypothesis 4 can be accepted that absorptive capacity has a significant effect on creativity where the t-value is greater than 1.96 and the p-value is less than 0.05 at the 95% confidence level. Similarly, human capital is found to significantly influence creativity, with a t-value of 5,328 and a p-value of 0.000, confirming the acceptance of hypothesis 5.

Table 10. *Mediating Effect of Creativity*

| Hypotheses | Path Coefficient | t-Values | p-Values |
|------------------|------------------|----------|----------|
| H6: AC → Cr → PI | 0,070 | 2,073 | 0,039 |
| H7: HC → Cr → PI | 0,093 | 1,910 | 0,057 |

Table 10 shows the regression results of the mediation effect where hypothesis 6 is accepted which shows that creativity mediates the effect of absorptive capacity on product innovation. Meanwhile, hypothesis 7 is rejected because the t-value is smaller than 1.96 and the p-value is greater than 0.05, so creativity is declared unable to mediate human capital toward product innovation. However, even though the mediation effect occurs, it can be seen that the mediation effect is smaller than the direct effect of creativity.

4.2 Discussion

This study discusses innovation in products which can be influenced by 3 variables as shown in the research model, where creativity is a factor that mediates absorptive capacity and human capital on product innovation in micro, small, and medium-sized enterprises (MSMEs) in the culinary sector of the creative industry in Indonesia

This study provides results where absorptive capacity, human capital, and creativity have a positive and significant influence on product innovation. Human capital has the greatest influence on product innovation, followed by absorptive capacity, while creativity has the smallest influence on product innovation.

Absorptive capacity is an organization's ability to identify, obtain, apply, and utilize new knowledge from the external environment where high absorptive capacity further increases the possibility of achieving product innovation. Human capital is the knowledge, skills, experience, and abilities of individuals who contribute significantly to an organization's ability to create successful product innovations. Creativity, on the other hand, is the mental ability to generate new ideas, innovative solutions, and original thinking. It plays a crucial role in generating new ideas, problem-solving, combining existing concepts, and driving innovation in the product development process. These findings align with previous research highlighting the importance of absorptive capacity, human capital, and creativity in supporting innovation, which in this study is a product, [33], [34], [37].

The study also reveals that absorptive capacity influences creativity. A strong absorptive capacity can foster creativity by providing new inputs, stimulating associative thinking, enriching knowledge, and creating a conducive learning environment for innovation. Similarly, a diverse and capable human capital within an organization provides a solid foundation for individual creativity. Supportive knowledge, skills, experience, and organizational culture broaden perspectives, stimulate innovative thinking, and encourage ongoing creativity in generating useful solutions and ideas for innovation, [16], [17].

The discussion of the results centers on the role of creativity as a mediating variable. Partial mediation occurs in the relationship between absorptive capacity and product innovation, where creativity acts as the mediator. Absorptive capacity helps organizations absorb relevant knowledge for innovation, and creativity plays a crucial role in how this knowledge is generated, selected, and implemented into effective and impactful product

innovations. However, the direct effect of absorptive capacity on product innovation is more significant than when it is mediated by creativity. In contrast, the results indicate an insignificant effect when examining the relationship between human capital and product innovation mediated by creativity. Human capital encompasses various aspects, including knowledge, skills, and experience. While strong human capital provides a solid foundation for creativity, it is possible that the skills and knowledge possessed by individuals or organizations are not directly related to creative aspects, leading to a lack of basis from human capital to achieve product innovation.

5 Conclusion

In conclusion, this study highlights the role of creativity in strengthening the relationship between absorptive capacity and human capital toward product innovation. However, the findings indicate that the impact of creativity as a mediating factor is limited. The relationship between absorptive capacity and product innovation, mediated by creativity, shows a small effect, while the relationship between human capital and product innovation, mediated by creativity, does not show any mediation effect. Therefore, creativity is not suggested as a significant mediating factor in this context. Achieving product innovation relies more on direct factors such as the processes of identifying, absorbing, applying, and utilizing new knowledge from the external environment, as well as the quality and competence of individuals.

Despite the overall findings, it is important to acknowledge certain limitations of this study. First, this study applies only to the population in the context of the culinary creative industry MSMEs in Indonesia. Further research can be directed at broader research subjects. Second, many factors can influence product innovation, but this research only limits the variables as shown in the research model. Future research could explore other factors that can influence product innovation, such as learning or leadership.

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