The Impact of Artificial Intelligence (ChatGPT) on Product and Service Innovation in Micro, Small, and Medium Enterprises (MSMEs) Among Generation Z Entrepreneurs

Mochammad Rakha Abimanyu[1], Istian Kriya Almanfaluti[2], Bayu Hari Prasojo[3]
[1,2,3]Muhammadiyah University of Sidoarjo, Indonesia

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Sections Info	ABSTRACT
	Objective: This study aims to analyze the effect of ChatGPT utilization on product and service innovation in Micro, Small, and Medium Enterprises (MSMEs) managed by Generation Z in East Java. The purpose is to determine whether the application of artificial intelligence can significantly enhance the creativity, efficiency, and market relevance of MSME products and services. **Method:** *The research employed a quantitative approach using a simple linear regression with the PLS-SEM method. A total of 99 respondents were selected through purposive sampling, focusing on Gen Z MSME owners who have used ChatGPT in their business activities. The data were analyzed using SmartPLS, which included measurement model testing (validity and reliability) and structural model testing (path coefficient, R^2, f^2, and significance).* **Results:** *The findings indicate that ChatGPT usage has a positive and significant influence on product and service innovation, with a path coefficient value of 0.507, R^2 of 0.257, and f^2 of 0.346. These results demonstrate that although the explanatory power of the independent variable is statistically limited, the substantive effect is considered strong. This suggests that ChatGPT can support innovation processes by improving efficiency and enabling new ideas that align with market needs.* **Novelty:** *This research highlights the empirical evidence of how generative AI tools like ChatGPT can be directly linked to innovation outcomes among young entrepreneurs in Indonesia. The study contributes by emphasizing the role of AI adoption as a strategic driver of competitiveness for MSMEs in the digital era.*

INTRODUCTION

The development of technology today is growing rapidly. Artificial Intelligence (AI) is one of the most remarkable advancements in this field. AI refers to the ability of a system to accurately interpret external data and manage it for specific purposes [1].

The presence of AI, particularly ChatGPT, has become increasingly significant. ChatGPT has emerged as a new phenomenon, even surpassing Google, which in Indonesia is popularly referred to as "Grandfather Google," a colloquial expression symbolizing Google as a trusted source of knowledge. Developed by OpenAI, ChatGPT is part of the GPT-3 model designed to generate human-like responses to text-based prompts. This aligns with its tagline, "get instant answers, find creative inspiration, and learn something new." [2].

The business world is becoming increasingly intelligent and innovative with the guidance of AI [3]. Entrepreneurs are assisted in developing innovations in the products and services they provide. This demonstrates the significant role of AI in business, as it can generate positive outcomes for organizations. Moreover, its benefits are not limited

to large enterprises but also extend to micro, small, and medium enterprises (MSMEs) seeking to innovate.

MSMEs play a vital role in Indonesia's economy as they contribute significantly to job creation, economic growth, and income distribution [4]. However, MSMEs often face obstacles in innovating their products and services. One of the main challenges they encounter is the limitation of human resources and the lack of broad access to technology [5].

MSMEs today must be able to adapt to the presence of AI technology. In reality, however, only a limited number of MSMEs have utilized AI to support innovation in developing their products and services. Therefore, the younger generation—commonly referred to as Generation Z—has sought to introduce this technology to MSME entrepreneurs [6].

Generation Z refers to the cohort born between 1995 and 2010. This generation is also commonly known as the Net Generation or the Online Generation, as they were born in the era of the Internet and gradually integrated it into their daily lives [7]. Generation Z is expected to be increasingly innovative and creative in developing MSMEs. They often rely on consumer preferences and current trends to create products or services that are relevant to the market [7].

In this regard, the authors intend to discuss the role of artificial intelligence in business, specifically focusing on MSMEs and Generation Z as entrepreneurs.

Problem Formulation : The impact of Artificial Intelligence (ChatGPT) on product and service innovation in MSMEs Among Generation Z, as well as how simple regression analysis can provide an accurate overview in this study.

Research Question : How does Artificial Intelligence (ChatGPT) influence product and service innovation in MSMEs Among Generation Z through the application of simple regression analysis?

SDGs Category : Based on the introduction above, the problem formulation in this study is aligned with the Sustainable Development Goals (SDGs) within the economic development pillar, particularly Goal 8: Decent Work and Economic Growth.

Artificial Intelligence

Artificial intelligence has become a major driving force of change across various sectors, bringing remarkable innovation and efficiency. In an era where technology plays a central role, artificial intelligence emerges as a powerful force with the potential to generate significant impacts. Artificial intelligence refers to the development and implementation of computer systems capable of performing tasks that typically require human intelligence. The primary objective of artificial intelligence is to create machines that can perform tasks efficiently and autonomously, thereby enhancing efficiency, accuracy, and problem-solving capabilities in multiple sectors. Furthermore, the

continuous application of AI raises the need for ethical and responsible considerations [8].

Previous studies have shown that the adoption of artificial intelligence among MSMEs in Indonesia remains relatively low. However, some MSMEs have already integrated certain AI applications. For example, Sri Ratu Laundry utilizes a no-code WhatsApp Business chatbot platform as a system for communication, record-keeping, and scheduling delivery services efficiently. AI can play an important role in assisting MSMEs with supply chain management, demand forecasting, stock optimization, and reducing the risks of overstocking or understocking that may harm the business. Benefits and Risks of AI Adoption and Digital Transformation for MSMEs [8].

ChatGPT

Previous research has highlighted several benefits of using ChatGPT for MSME entrepreneurs. First, it enhances customer retention. ChatGPT enables MSMEs to expand direct interactions with customers. By utilizing chatbots, MSMEs can provide quick and relevant responses to customer inquiries, requests, and concerns, ultimately increasing customer loyalty and satisfaction.

Second, ChatGPT improves operational efficiency. It can be integrated into communication service systems to deliver automated responses to frequently asked questions, reduce response time, and minimize stress for customer service representatives. This, in turn, reduces manual workload and allows businesses to focus more on their core activities.

Third, there is potential for cost savings. By adopting ChatGPT as a virtual assistant, MSMEs no longer need to recruit additional employees. ChatGPT can effectively provide 24/7 service without incurring extra costs [9].

Product and Service Innovation

Previous studies have shown that product innovation has a positive and significant effect on the performance of MSMEs. This implies that the more frequently innovation is carried out, the more the business objectives of MSMEs can be achieved. In today's business landscape, the demand continues to grow and has become a necessity for many communities. The more entrepreneurs pay attention to the process of product and service innovation, the greater the improvement in MSME performance in line with their intended goals. Furthermore, increasing service innovation also enhances customer satisfaction [10].

Micro, Small, and Medium Enterprises (MSMEs)

MSMEs are one of the development priorities in every country due to their significant contributions, particularly in the economic and social sectors. Moreover, MSMEs play an important role in income distribution, especially in rural areas. Their impact is not only evident in developing countries but also in developed nations, where MSMEs contribute substantially to economic growth.

Previous research has emphasized that MSMEs are a key focus of development across nations. In Indonesia, the main challenges faced by MSMEs are primarily internal in nature. According to Bank Indonesia (2015), external challenges include the business

climate, infrastructure, and access to resources. Both internal and external barriers should be addressed with government support to enable MSMEs to grow and compete more effectively [11].

Generation Z

Generation Z has been identified as "*the communaholic*", a generation that is highly inclusive and eager to engage in various communities by leveraging technological advancements to maximize the benefits they wish to provide. They are also referred to as "*the dialoguer*", a generation that values the importance of communication in conflict resolution and believes that change can be achieved through dialogue.

In addition, Generation Z is open to diverse perspectives and enjoys interacting with individuals and groups from different backgrounds. Furthermore, they are described as "*the realistic*", a generation that tends to be more pragmatic and analytical in decision-making compared to previous generations. Generation Z enjoys independence in the process of learning and information-seeking, which enables them to take control of their own decisions. They are also aware of the importance of achieving financial stability in the future [12].

Regression Analysis Technique

Regression analysis is a statistical method used to measure the relationship or influence between variables, in which one variable essentially depends on another. There are two types of linear regression: simple linear regression (with one independent variable) and multiple linear regression (with two or more independent variables). Regression is also effective for forecasting trends, analyzing correlations, and systematically evaluating the degree of change between variables [13].

Research Gap

Table 1. Research Gap.

Topic	Research Gap
Potential Impact of Artificial Intelligence on Small and Medium Enterprises Innovation in the EU: A Perspective from Poland.	This study discusses the influence of AI on MSME innovation, the challenges of AI adoption (including costs, human resource skills, and risks), and the need for supportive policies. The study emphasizes that while AI enhances innovation, its implementation in MSMEs remains constrained by the lack of direct empirical data from real MSME cases [14].
AI-Powered Ideation in Start-ups: a Study on ChatGPT's Impact on Open Innovation Strategy.	The focus is on the role of ChatGPT in the processes of ideation and open innovation within startups and MSMEs. ChatGPT is considered to accelerate innovation by serving as a low-cost assistant in developing business ideas, both in products and services, particularly for startups driven by young entrepreneurs [15].
Leveraging ChatGPT for Empowering	A case study on the implementation of ChatGPT in MSME operations. This study outlines the benefits of ChatGPT in

| MSMEs: A Paradigm Shift in Problem Solving.	enhancing problem-solving efficiency, cost savings, and productivity, as well as the challenges related to data bias, limitations in business-specific contexts, and ethical considerations [16].

Previous studies have discussed the benefits and challenges of using AI, including ChatGPT, in MSMEs; however, few have highlighted its direct impact on product and service innovation. The research gap lies in the lack of empirical data from Generation Z entrepreneurs who utilize ChatGPT in MSME operations. This study aims to address that gap by focusing on the experiences of Gen Z as AI-driven innovators.

Research Hypotheses

1. H0 (Null Hypothesis): The use of ChatGPT has no effect on product and service innovation Among Generation Z entrepreneurs.
2. H1 (Alternative Hypothesis): The use of ChatGPT has an effect on product and service innovation Among Generation Z entrepreneurs.

Conceptual Framework

This study examines how the adoption of ChatGPT, as a form of artificial intelligence, can drive product and service innovation in micro, small, and medium enterprises (MSMEs) managed by Generation Z. ChatGPT is positioned as the independent variable, while product and service innovation serves as the dependent variable, with Generation Z entrepreneurs as the subjects of the research.
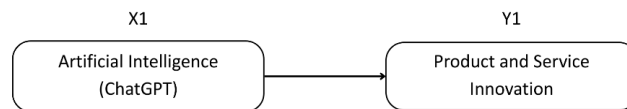
Figure 1. Conceptual Framework

RESEARCH METHOD
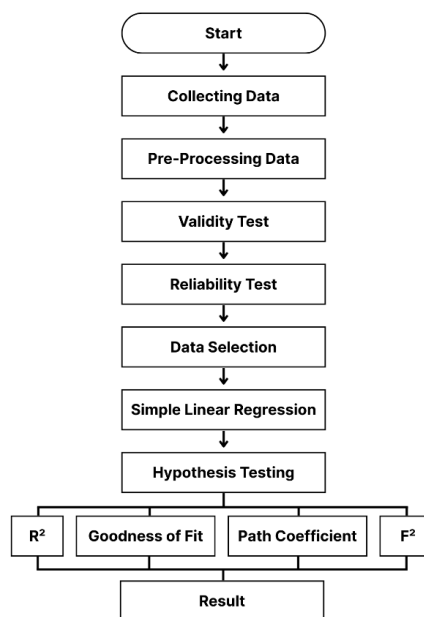
Figure 2. Research Method

This study employs a quantitative research method using Simple Linear Regression with two variables: the independent variable (ChatGPT usage) and the dependent variable (product and service innovation). A survey design was adopted, as it enables the researcher to collect numerical data that can be statistically analyzed to identify patterns and relationships between variables. This research is a quantitative study with an associative approach, aiming to examine the effect of ChatGPT usage on product and service innovation in MSMEs.

Population

Population refers to the entire group of members—whether human, animal, event, or object—that collectively reside in a certain place and are deliberately targeted as the basis for drawing conclusions in a study's final results [17]. The population in this research consists of MSME actors from Generation Z (aged 15–30 years) residing in East Java who have used ChatGPT to support product and service innovation in their businesses.

Sample

A sample can be briefly defined as a subset of a population that serves as the actual source of data in a study. In other words, a sample represents a portion of the population to reflect the characteristics of the entire population. The sampling technique employed in this study is purposive sampling, a method of sample selection based on specific criteria [17], namely:

1. Generation Z, aged 15–30 years (born 1995–2010), who are active MSME actors.
2. Individuals who have used or are currently using ChatGPT in their business activities.

The determination of the sample size in this study refers to Lemeshow's formula [17].

$$n = \frac{Z^2 . P . (1 - P)}{d^2}$$

Description:
1. n = minimum sample size
2. Z = Z-value at a 95% confidence level (1,96)
3. p = population proportion (0,5)
4. d = margin of error (0,1)

$$n = \frac{(1{,}96)^2 . 0{,}5 . (1 - 0{,}5)}{(0{,}1)^2}$$
$$n = \frac{3{,}8416 . 0{,}25}{0{,}01}$$
$$n = \frac{0{,}9604}{0{,}01}$$
$$n = 96{,}04$$

The sample size was determined using Lemeshow's formula, as the exact population size was unknown. With a 95% confidence level (Z = 1.96), a population

proportion (p) of 0.5, and a margin of error (d) of 0.1, the minimum required sample size was calculated to be 96 respondents. This number was then rounded up to 100 respondents to meet the requirements of data analysis. The sample size is considered sufficient to provide a representative overview of the influence of artificial intelligence (ChatGPT) on product and service innovation among Generation Z entrepreneurs in MSMEs.

Data Collection Technique

Data were collected through an online questionnaire distributed to Generation Z MSME entrepreneurs via social media platforms such as Instagram, WhatsApp, and digital MSME community groups. The questionnaire was designed using a five-point Likert scale (1–5). The Likert scale is commonly employed in social and educational research to measure attitudes, perceptions, and skills of respondents toward a particular topic or activity [18].

Research Instrument

Table 2. Artificial Intelligence Variable Research Indicators.

Variable	Dimension	Indicator	Question
Artificial Intelligence [19].	AI Management Capability.	Management support in the use of AI for product and service development.	My business supports the use of technology, such as AI (ChatGPT), for innovation.
		Business strategies using AI to develop new innovations.	The business plans to use AI to enhance products and services.
		Management invests in AI to enhance product and service design.	The business is willing to invest in implementing AI technology.
	AI Personal Expertise.	Team capability in using AI to develop new products/services.	The team can use AI technology in business operations.
		Staff experience with AI in identifying customer needs.	AI has been used to understand customer preferences.
		Staff training in AI to support innovation.	I have attended AI training or self-learning.
	AI Infrastructure Flexibility.	Systems available for AI-driven product/service personalization.	Business systems are compatible with AI technology.
		Digital platforms allow flexible AI integration	My business applications or platforms can be integrated with AI.

| | | for product development. | |
| | | Infrastructure supports customer data analysis for innovation. | Business technology assists in analyzing customer data. |

Table 3. Research Indicators for Product and Service Innovation Variables.

Variable	Dimension	Indicator	Question
Product and Service Innovation [20].	Product/service novelty and uniqueness.	Products/services are distinct from competitors.	Offered products/services have unique features.
		New features that attract customer attention.	New features are introduced to attract customers.
		Product/service innovations refresh the offering.	I often add new touches to my products or services.
	New products/services are customer-oriented.	Products/services meet customer needs.	Products/services are developed from customer feedback.
		Product adaptations align with market trends.	Products/services are adapted to trends and customer needs.
		Customer convenience is prioritized.	Innovations aim to improve customer comfort and satisfaction.
	Customer value in products/services.	Products/services deliver real value to customers.	Products/services deliver real value to customers.
		Pricing reflects product/service quality.	Pricing matches the quality of products/services.
		Customer satisfaction is achieved after use.	Customer satisfaction is achieved after use.

Data Analysis Technique

This method involves processing and analyzing quantitative data to determine the extent to which certain independent variables can affect dependent variables. The approach is to identify how the dependent variable in a hypothesis is influenced by one or more independent variables [21].

1.   Dependent Variable (Product and Service Innovation): the main factor being studied or predicted.
2.   Independent Variable (Artificial Intelligence – ChatGPT): the factor hypothesized to impact the dependent variable.

The collected data will be analyzed using the statistical software SmartPLS. Subsequently, it will be determined whether there is an effect between these two variables.

Validity Test

1.   Outer Loading

Outer loading (or loading factor) is considered high if its value is greater than 0.7. A loading factor above 0.7 is considered ideal, meaning that the indicator is valid as a measure of the construct [22].

2.   Average Variance Extracted (AVE)

The AVE value is recommended to be greater than 0.50, which means that 50% or more of the variance of the indicators can be explained [22].

3.   Discriminant Validity

Discriminant validity can be assessed using the Fornell-Larcker criterion and cross-loading. To test discriminant validity with reflective indicators, the cross-loading value for each variable should be greater than 0.70. Another method to assess discriminant validity is by comparing the square root of the AVE for each construct with the correlation values between constructs in the model [22].

Reliability Test

1.   Cronbach's Alpha

Cronbach's alpha is used to measure questionnaires with scores other than 1 or 0. A questionnaire instrument is considered reliable if the Cronbach's alpha coefficient is greater than 0.60. If the Cronbach's alpha coefficient is less than 0.60, the questionnaire instrument is considered unreliable [23].

2.   Composite Reliability

This reliability test is intended to measure how relevant and consistent respondents are in answering or completing the questionnaire, in relation to the provided questionnaire [24].

Structural Model Analysis (Inner Model)

The inner model illustrates the relationships between latent variables based on substantive theory. Assessing the inner model involves evaluating the hypotheses proposed in this study. The purpose of testing the inner model is to describe the relationships among latent variables [22].

1.   R-Square (R^2) Value

The criteria for R-Square values are as follows: an R-Square value greater than 0.75 indicates a strong model, an R-Square value greater than 0.50 indicates a moderate model, and if the R-Square value is 0.25 or less, the model is considered weak [22].

2. Goodness of FIT

The goodness of fit for the PLS model is assessed using the SRMR value. A PLS model is considered to meet the goodness of fit criteria if the SRMR value is less than 0.10, and the model is considered a perfect fit if the SRMR value is less than 0.08 [25].

3. f-Square (f^2) Value

The effect size (f^2) test is conducted to determine changes in the R^2 value of endogenous constructs. Changes in the R^2 value indicate whether exogenous constructs have a substantive effect on endogenous constructs. The criteria for effect size values are: 0.02 (weak effect of exogenous latent variable), 0.15 (moderate effect of exogenous latent variable), and 0.35 (strong effect of exogenous latent variable) [22].

4. Path Coefficient Test

The path coefficient test aims to determine the magnitude of the effect of independent variables on dependent and mediating variables. The path coefficient ranges from -1 to 1, where values between 0 and 1 are considered positive, and values between -1 and 0 are considered negative [25].

RESULTS AND DISCUSSION

Results

Respondent Characteristics

The respondents in this study were Gen Z entrepreneurs who have used ChatGPT in their business activities. All respondents met three main criteria:

1. Active MSME entrepreneurs.
2. Aged 15–30 years (Generation Z).
3. Users of ChatGPT, either for product or service innovation.

The total number of respondents was 99, in accordance with the Slovin's formula calculation.

Validity Test

1. Outer Loading

Table 4. Outer Loading (Initial Model).

	Product and Service Innovation	Artificial Intelligence (ChatGPT)
X1		0.675
X2		0.672
X3		0.779
X4		0.734
X5		0.658
X6		0.768
X7		0.825
X8		0.778
X9		0.728
Y1	0.675	
Y2	0.734	
Y3	0.734	

Y4	0.527
Y5	0.627
Y6	0.687
Y7	0.683
Y8	0.546
Y9	0.641

In the initial model, most indicators had outer loading values above 0.70; however, some indicators had values below 0.70 (e.g., X1 = 0.675) and were subsequently eliminated in the next model to meet the convergent validity criteria.

Table 5. Outer Loading (Modified Model).

	Artificial Intelligence (ChatGPT)	**Product and Service Innovation**
X2	0.842	
X3	0.820	
X4	0.863	
X5	0.801	
X1	0.851	
Y2		0.854
Y1		0.913

Based on the data processing results, all indicators used in this study had outer loading values above 0.70, and therefore can be considered valid. Some indicators with outer loading values below 0.70 were eliminated. After the elimination process, construct X retained 5 indicators (X1 to X6) and construct Y retained 2 indicators (Y1 and Y2). This still meets the minimum requirement for reflective indicators, which is ≥ 2 indicators per construct. This indicates that all indicators used are able to adequately reflect their respective constructs.

2.   Average Variance Extracted (AVE)

Table 6. Table AVE.

	Average Variance Extracted (AVE)
Artificial Intelligence (ChatGPT)	0.698
Product and Service Innovation	0.782

The AVE values for each construct were above 0.50, indicating that more than 50% of the variance of the indicators can be explained by their respective constructs. Thus, convergent validity is satisfied.

3.   Discriminant Validity

Table 7. Table Discriminant Validity.

	Product and Service Innovation	Artificial Intelligence (ChatGPT)
Product and Service Innovation)	0.884	
Artificial Intelligence (ChatGPT	0.507	0.836

The Fornell-Larcker criterion results showed that the square root of the AVE for each construct was greater than the correlations between constructs. For example, the independent variable construct had a value of 0.836, which is higher than its correlation with the dependent variable of 0.507. This demonstrates that each construct is clearly distinct from the others, thereby satisfying discriminant validity.

Reliability Test

4.   Cronbach's Alpha

Table 8. Table Cronbach's Alpha.

	Cronbach's Alpha	P-Values
Artificial Intelligence (ChatGPT)	0.893	0.000
Product and Service Innovation	0.725	0.000

The Cronbach's alpha values were 0.893 for the independent variable and 0.725 for the dependent variable. All values exceed the minimum threshold of 0.60, indicating that the research instruments are reliable.

5.   Composite Reliability

Table 9. Table Composite Reliability.

	Composite Reliability	P-Values
Artificial Intelligence (ChatGPT)	0.920	0.000
Product and Service Innovation	0.877	0.000

The composite reliability values were 0.920 for the independent variable and 0.877 for the dependent variable. All values are above 0.70, indicating that each construct has good internal consistency.

Structural Model Analysis (Inner Model)
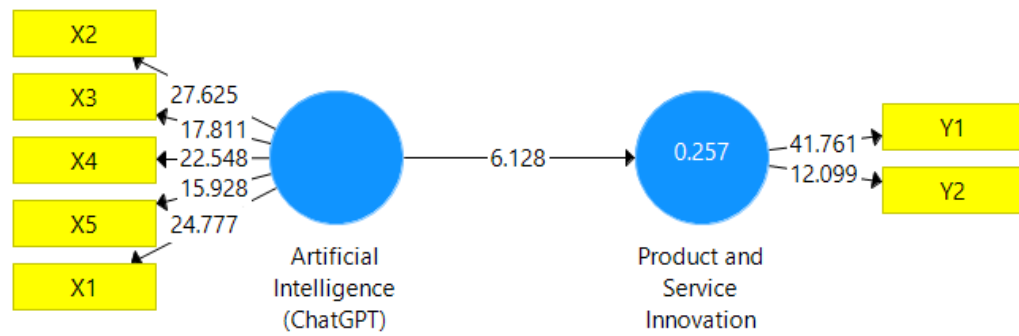
Figure 3. Inner Model.

6.   R-Square (R²)

Table 10. Table R-Square.

	R-Square	P -Values
Product and Service Innovation	0.257	0.001

The R² value for the endogenous construct was 0.257. This indicates that the independent variable is able to explain 25.7% of the variation in the dependent variable. Although this value falls into the weak category, it is still acceptable in social research, especially since the p-value of 0.001 indicates model significance.

7.   Goodness of Fit

Table 11. Table Goodness of Fit.

	Saturated Model	Estimated Model
SRMR	0.076	0.076
NFI	0.819	0.819

The SRMR value was 0.076, which is below 0.08, indicating that the model meets the criteria for a perfect fit. Meanwhile, the NFI value was 0.819, approaching 1, which indicates a moderate level of model fit.

8.   f-Square (f²)

Table 12. Table f-Square (f²).

	Product and Service Innovation	Artificial Intelligence (ChatGPT)
Product and Service Innovation		
Artificial Intelligence (ChatGPT)	0.346	

The f^2 value of 0.346 indicates an effect approaching the large category, suggesting that the independent variable makes a substantial contribution to the dependent variable.

9.   Path Coefficient

Table 13. Table Path Coefficient.

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Artificial Intelligence (ChatGPT) -> Product and Service Innovation	0.507	6.407	0.000

The path coefficient between the independent variable and the dependent variable was 0.507, with a T-statistic of 6.407 (> 1.96) and a p-value of 0.000 (< 0.05). These results indicate that the independent variable has a positive and significant effect on the dependent variable.

Discussion

The findings of this study demonstrate that ChatGPT usage has a positive and significant effect on product and service innovation among Gen Z entrepreneurs in East Java, with a path coefficient of 0.507. This result suggests that even though the explanatory power of the model is modest (R^2 = 0.257), the substantive impact of AI adoption on innovation is considerable.

In contrast to the findings of Wilczynska et al. [14] the European context, where financial barriers were dominant, this study reveals that Gen Z MSME owners in East Java are relatively more adaptive in adopting ChatGPT despite resource limitations. Similarly, Cappa et al. [15] highlighted the role of ChatGPT in supporting open innovation and low-cost ideation in start-ups, which aligns with the ability of Gen Z MSME owners in Indonesia to generate new business ideas through generative AI. Furthermore, the case study presented by Bapat et al. [16] confirmed that ChatGPT can empower MSMEs by reducing costs and improving problem-solving capacity, although it also pointed out limitations regarding bias and ethical issues.

Compared with these studies, the contribution of the present research lies in providing direct empirical evidence from the Indonesian MSME context, where Gen Z entrepreneurs are actively experimenting with ChatGPT to enhance product and service offerings. This reflects the adaptive capacity of young business owners in leveraging AI despite limited organizational resources. At the same time, the relatively low R^2 value indicates that other factors, such as digital literacy, entrepreneurial orientation, and organizational support, may also play a role in shaping innovation outcomes, which warrants further investigation.

From a practical perspective, these findings suggest that policymakers and business educators should not only promote AI adoption but also design capacity-building programs to strengthen digital skills and encourage the responsible use of AI among Gen Z MSME owners.

CONCLUSION

Fundamental Finding : This study confirms that the use of ChatGPT has a positive and significant effect on product and service innovation in Micro, Small, and Medium Enterprises (MSMEs) managed by Generation Z in East Java. With a path coefficient of 0.507, R^2 of 0.257, and f^2 of 0.346, the findings highlight that although the statistical contribution is modest, the substantive impact is strong. This finding emphasizes the importance of adopting artificial intelligence tools such as ChatGPT, which act as strategic enablers to enhance creativity, efficiency, and competitiveness in the MSME sector. **Implication :** The findings imply that integrating ChatGPT into business practices can be a practical approach for Gen Z entrepreneurs to achieve sustainable innovation. It suggests that AI adoption not only supports efficiency but also stimulates the creation of new product and service ideas that align with evolving market demands. Moreover, these results provide valuable insights for policymakers and institutions in designing training programs that accelerate AI literacy and adoption among young business owners. **Limitation :** This study is limited by its relatively small sample size of 100 respondents and the use of purposive sampling, which may restrict the generalizability of the findings. Additionally, the study only considered one independent variable—ChatGPT usage—without accounting for other potential factors such as digital literacy, entrepreneurial mindset, or organizational resources. **Future Research :** Future studies are encouraged to expand the scope by including larger and more diverse samples to strengthen external validity. It would also be valuable to explore additional variables, such as creativity, digital skills, and market orientation, as moderators or mediators to provide a more comprehensive understanding of how AI adoption influences innovation. Comparative studies across different regions or industries could also deepen insights into the role of generative AI in driving business transformation. This study not only provides empirical evidence for AI-driven innovation among Gen Z MSMEs but also serves as a reference point for policymakers and educators in promoting digital transformation.

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Mochammad Rakha Abimanyu
Muhammadiyah University of Sidoarjo, Indonesia
Email: rakhabimanyu8@gmail.com

*Istian Kriya Almanfaluti (Corresponding Author)
Muhammadiyah University of Sidoarjo, Indonesia
Email: istian.alman@umsida.ac.id

Bayu Hari Prasojo
Muhammadiyah University of Sidoarjo, Indonesia
Email: bayuhari1@umsida.ac.id