



From ideals to action: Pancasila's impact on micro business antifragility in Indonesia through performance enhancement

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ABSTRACT

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Keywords

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This research aims to evaluate the impact of Pancasila-based performance on the antifragility level of micro and small enterprises (MSEs) in Indonesia. It specifically figures out the most important aspects of Pancasila-based performance that are linked to antifragility and checks how much using Pancasila values in managing MSEs makes them better at handling problems and disasters. The study used a quantitative research approach. Meanwhile, we collected the data through a questionnaire from 220 MSEs in two cities in East Java, Indonesia, using proportional random sampling. Structural Equation Modelling (SEM) was employed to analyze the data. The finding indicated that Pancasila-based performance positively and significantly influences the antifragility level of MSEs in Indonesia. The research provides a new and original contribution to developing more sustainable, inclusive, and nationally appropriate business strategies for assessing antifragile business performance. Our research provides valuable insights into the significance of enhancing antifragility levels for Indonesia's MSEs. By measuring antifragile business performance, this study contributes to developing more sustainable, inclusive, and nationally aligned business strategies.

Contribution/Originality: This research makes a new contribution by developing a Pancasila-based performance concept that not only includes financial and operational aspects but also the moral and ethical values reflected in Pancasila. This concept can be a strong basis for measuring sustainable and inclusive performance for micro- and small-companies in Indonesia.

1. INTRODUCTION

Indonesia is in the Ring of Fire and is susceptible to a variety of natural and non-natural disasters (Isnaini, Pandin, Waloejo, & Sunyowati, 2022). These disasters impact various sectors, including the economy (Prakoeswa et al., 2021; Pramukti et al., 2022; Pramukti et al., 2020). Similarly, the COVID-19 pandemic has imparted valuable lessons, particularly in the economic sector (Kustiyahningsih, Rahmanita, Rochman, Amalina, & Sobri, 2022; Munir & Pandin, 2022). Consequently, the Indonesian government strongly promotes the micro, small, and medium-scale enterprise (MSME) sector to support the nation's economy (Tjahjadi, Soewarno, Ismail, Kustiningsih, & Nafidah, 2023).

Indonesia's micro, small, and medium-scale enterprises have demonstrated rapid adaptability during disasters (Fauji, Pratikto, & Handayati, 2022). However, the development of MSMEs is not aligned with their performance progress, as MSMEs still lag in establishing complex systems. The main challenges faced by MSMEs are

generally associated with human resources and the costs of designing, testing, deploying, operating, and maintaining effective systems (Alkhoraf, Rashid, & McLaughlin, 2019). As the performance of MSMEs serves as a pivotal gauge for their sustainability (Soetjipto, Handayati, & Hanurawan, 2023), assessing their performance in Indonesia holds significant importance (Winarno & Wijijayanti, 2018). Further, the majority of MSMEs still experience considerable fluctuation in their business sustainability, with many of them lasting for only approximately 42 months on average (GEM, 2018; Kennon, 2017). Because of their unique traits, MSMEs require a performance measurement tool to effectively respond to the volatility within their external or internal environments due to their distinctive characteristics (Latifah, Setiawan, Aryani, & Rahmawati, 2021). The urgency for MSMEs to measure their performance stems from its impact on their ability to make informed business decisions and confront forthcoming challenges and impediments, thereby striving to become resilient entities. The unique resilience capacity of Indonesian MSMEs is responsible for these particular characteristics (Churiyah, Susanti, Pratikto, & Malang, 2021). This uniqueness is evident in the predominant characteristics of Indonesian society, which remains deeply rooted in customs, local wisdom, and a value system based on Pancasila principles. Hence, performance measurement grounded in the principles of national life and state ideology is of utmost importance. As highlighted by Hendratmi, Agustina, Sukmaningrum, and Widayanti (2022) performance measurement is significant in managing issues of social sustainability and post-pandemic supply chain resilience to enhance the competitiveness of Micro Small Enterprises (MSE's).

Furthermore, the importance of incorporating the performance measurement based on Pancasila lies in its intrinsic connection to the core values upheld by the Indonesian state. By integrating these dimensions into business performance measurement, companies can manifest their commitment to national values. The values of Pancasila play a pivotal role in supporting the principles of sustainable development. Additionally, by taking into account non-financial aspects like social contributions, environmental impact, and ethics that conventional metrics often overlook, these Pancasila-based dimensions enrich performance measurement. The utilization of Pancasila-based performance measurement dimensions in business evaluation can also enhance the business's relevance to various stakeholders, such as the community, government, and local environment. These dimensions stimulate businesses to seek innovations and solutions that align better with local values, thereby bolstering adaptability and competitiveness within the complex business landscape. Considering these conditions, it is necessary to explore the influence of Pancasila-based performance measurement on the concept of Anti-fragile MSE's).

As presented in the aforementioned discussion, there is a significant research gap regarding the influence of Pancasila-based performance measurement on the concept of "Antifragile MSEs" in the context of Indonesian MSMEs. While there is recognition of the importance of integrating Pancasila values in business performance measurement to support sustainable development principles and increase MSME resilience to disasters and crises, such as the COVID-19 pandemic, there is a lack of in-depth understanding of the practical application and direct impact of performance-based measurement on MSME resilience. This gap reflects the urgent need for empirical research that evaluates the extent to which Pancasila-based performance measurement can contribute to the realization of "antifragile MSEs." In the future, the "antifragile MSME" should not only survive but also thrive in the face of challenges. Therefore, this research is crucial for identifying specific Pancasila-based practices to be adopted into the MSME business strategies, thereby enabling them to not only meet profit goals but also contribute to social development and environmental sustainability.

To fill this gap, this research analyzes the factors that influence the successful integration of Pancasila values in measuring MSME performance. This research also formulates strategic recommendations for stakeholders in the MSME sector, government, and business community to facilitate widespread adoption of a performance measurement oriented to Pancasila values, thereby strengthening the concept of "Antifragile MSEs" in Indonesia.

1.1. Research Purposes

In order to gain a deeper understanding of their relationship and the impact of Pancasila-based performance on business sustainability, this study assessed the influence of Pancasila-based performance on the anti-fragility level of Indonesian micro and small enterprises (MSEs). Subsequently, the secondary objectives include analyzing the dimensions of Pancasila-based performance offering the greatest impact on anti-fragility and evaluating the extent to which the application of Pancasila values in managing micro and small businesses can influence their capacity to confront challenges and disasters.

2. LITERATURE REVIEW

2.1. The Development of Fragility in Business Sectors

The term "Anti-fragile" was introduced by Taleb (2012) as a concept that goes beyond mere strength and resilience against shocks and disruptions but also thrives and improves under pressure. Although the application of the anti-fragile concept in business has not been as widespread as in other fields, such as philosophy or statistics, several principles of anti-fragility hold relevance and potential benefits in the business context (Mardaras, Artola, Duarte, & Otegi-Olaso, 2021). Existing literature suggest that the business domain can apply anti-fragility to aspects like adaptive business strategies, sustainable innovation, proactive risk management, organizational learning focus, robust networking and partnerships, human resource development, and the use of technology for monitoring and prediction (Aven, 2015; Fauji et al., 2022; Kennon, 2017; Thekdi & Aven, 2016).

Currently, the concept of anti-fragility is still in the growth phase and has recently extended beyond philosophy and statistics into other fields. Table 1 presents the systematic development of anti-fragility.

Table 1. Research on antifragility.

Database	Elsevier
Last search	30 October 2022
Keyword use	"Antifragility", "antifragile", "anti-fragile"
Inclusion criteria	Article published in the English language
The number of articles found	44 articles

Among the forty-four articles, we mapped them and found that only four articles specifically discuss the fields of business, management, and accounting, as illustrated in Figure 1.

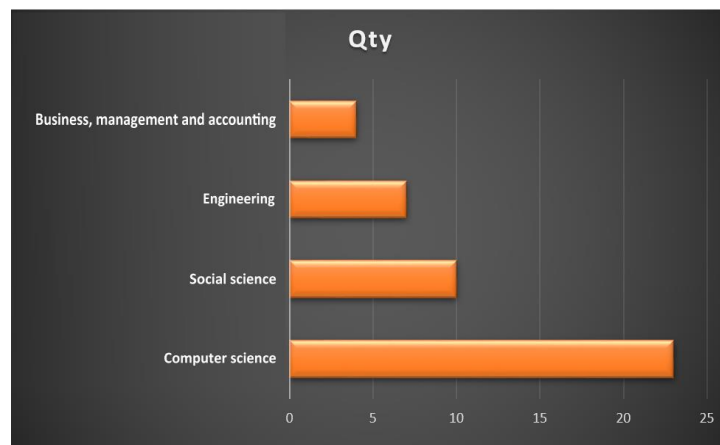


Figure 1. Analysis of the research field on antifragility.

Upon closer inspection, we can view the shift from fragility to anti-fragility as a mechanism to react to unanticipated situations. These responses encompass:

- a) Fragility

Fragility refers to a concept that dislikes volatility or loses functional value during an unexpected, sudden, and undesired event or condition (Johnson & Gheorghe, 2013).

b) Resilience or Strength

Resilience represents a response that absorbs, adapts, or swiftly recovers from undesired occurrences (Francis & Bekera, 2014).

c) Anti-fragility

In his book "Antifragile: Things that Gain from Disorder," (Taleb, 2012) introduces a concept that stands in opposition to fragility. Anti-fragility represents a system that thrives during challenging times and provides a broader perspective aimed at an anti-fragile system. Antifragility, on the other hand, entails strategies to confront stressors while minimizing their negative aspects.

Although the "Anti-fragile" concept holds the potential to offer valuable insights into the business context, there are several gaps that have not been fully explored or widely addressed. These include methodologies for measuring Anti-fragility levels, adaptation across different scales, ethical and social implications, resource constraints, decision-making complexity, cultural resistance, dependence on technology and data, accurate modeling, and practical frameworks. As a result, this study aims to fill the gaps in the realm of performance measurement based on Pancasila principles concerning anti-fragility.

One of the primary critiques revolves around the ambiguity and complexity of anti-fragility measurement. Unlike resilience, which can be quantified through recovery times and the ability to maintain functionality during disruptions, anti-fragility encapsulates a system's capacity to benefit from and grow from disorder. This qualitative difference poses significant challenges for developing standardized metrics and methodologies to reliably assess anti-fragility levels within businesses. Furthermore, the adaptation of anti-fragility principles across different business scales—from small enterprises to multinational corporations—remains underexplored. The scalability and contextual adaptability of anti-fragile strategies necessitate further empirical investigation to understand their efficacy and applicability across diverse business models and environments.

2.2. Collaboration of Pancasila Values in Developing Antifragile MSMEs

The adoption of Pancasila values in the realization of anti-fragile MSMEs can serve as a robust approach in Indonesia (Tjahjadi et al., 2023). Indonesia, as a nation, views Pancasila as a moral and spiritual foundation in all policies and national developments related to law, economy, politics, and culture (Dimiyati et al., 2021).

The ethical and social implications of pursuing anti-fragility in business practices are the subject of a critical debate. There are concerns that the drive towards becoming anti-fragile might encourage aggressive risk-taking or the exploitation of volatile situations, which could have negative impacts on corporate responsibility, stakeholders, and the environment. Furthermore, incorporating Pancasila values into the development of anti-fragile MSMEs adds complexity by combining cultural, ethical, and national principles with business performance measurement. While this approach has the potential to be enriching, it requires a delicate balance between upholding national values and creating an environment that promotes anti-fragility. The risk of cultural resistance and the challenge of aligning Pancasila principles with global business practices highlight the need for nuanced strategies that respect local identities while promoting innovative growth.

In addition, the available literature also reveals a significant gap in terms of resource constraints, particularly for MSMEs striving for anti-fragility. The dependence on technology, data, and human capital for developing and implementing anti-fragile strategies may disproportionately burden smaller enterprises lacking the necessary resources. This disparity underscores the importance of developing practical frameworks and support systems that enable all businesses, regardless of their size, to pursue anti-fragility without exacerbating existing inequalities.

In conclusion, the debate over the progression of anti-fragility business, particularly within the context of Indonesian MSMEs and Pancasila values, underscores a rich area for future research. Addressing the identified

gaps requires a multi-disciplinary approach that combines empirical research, theoretical innovation, and practical application. By exploring these dimensions, scholars and practitioners can contribute to a deeper understanding of anti-fragility as a transformative concept in business resilience and sustainability.

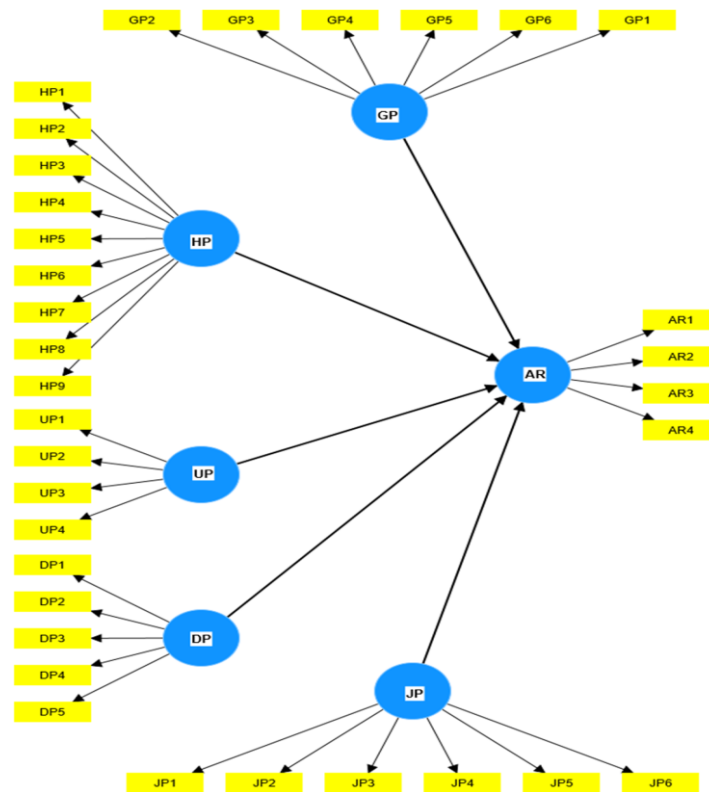


Figure 2. Research model.

The following research questions were formulated based on the research model presented in Figure 2:

1. Does Performance based on the God-based Performance (GP) influence the Anti-fragility (AR) of MSEs?
2. Does Humanity-based Performance (HP) influence the Anti-fragility (AR) of MSEs?
3. Does Unity-based Performance influence the Anti-fragility (AR) of MSEs?
4. Does Deliberation-based Performance (DP) influence the Anti-fragility (AR) of MSEs?
5. Does Justice-based Performance (JP) influence the Anti-fragility (AR) of MSEs?

2.3. Method Overview

The study used a quantitative approach to look into the connection between Pancasila-based performance dimensions and the level of anti-fragility in micro, small, and medium enterprises (MSEs). The Structural Equation Modeling (SEM) approach was utilized, aligning with the research objectives, thereby allowing for the modeling of causal relationships between identified variables. SEM's comprehensive analytical capability facilitates a deeper understanding of the complex interactions and impacts of Pancasila values on MSME anti-fragility.

2.4. Research Design

Within the research design sub-chapter, detailed descriptions of the SEM approach, participant selection, data collection instruments, and analysis techniques provided a comprehensive overview of the methodology. This part stresses that the study will carefully look into how Pancasila-based performance dimensions affect the resilience of small and medium-sized businesses in Kediri, which will add to the body of knowledge on sustainable business practices.

2.5. Technique Analysis

Data analysis was performed using Structural Equation Modeling (SEM) through SmartPLS software. The analysis focused on various fit indices to evaluate the model's compatibility with the collected data, ensuring an accurate representation of the hypothesized relationships between variables. Using SEM and SmartPLS facilitated a nuanced examination of the underlying structures that influence MSME anti-fragility, guided by Pancasila values.

2.6. Participants

The study focused on micro-businesses within the MSME sector who were members of an association in the City and Regency of Kediri, East Java, Indonesia. We selected Kediri due to its recognition as one of the top ten most sustainable cities in 2023, underscoring its relevance and potential as a model for sustainable MSME development. The sample comprised 220 MSME owners who were active members of an MSME association. The selection process utilized proportional random sampling, ensuring a representative distribution of participants across the region. This sampling approach received ethical approval from the Ethics Committee of the State University of Malang, Indonesia, under reference number 16.8.33/UN32.20/PB/2023.

2.7. Data Collection Instrument

Data collection was conducted in June 2023, employing a Likert scale questionnaire to measure variables, with the scale ranging from 1 (strongly disagree) to 5 (strongly agree). The development of the questionnaire instrument guidelines, which involve several stages:

1. Item Pool Creation: Initial identification of existing scale items relevant to the research themes.
2. Expert Interviews: Engaging with experienced professionals to ensure the contextual appropriateness of the collected items and the identification of potential additional items.
3. Validity and Reliability Testing: Conduct confirmatory factor analysis (CFA) to evaluate the instrument's validity and reliability, ensuring the items accurately represent the research constructs.

3. RESULT

3.1. Hypothesis Test

We conducted hypothesis testing in this study using Partial Least Squares Structural Equation Modeling (PLS-SEM), a sophisticated and flexible analytical method in quantitative research. PLS-SEM enables the evaluation of complex relationships between latent variables in the conceptual model in this study. Using PLS-SEM, this study simultaneously assessed both measurements and structural models while observing the dynamics of relationships between variables. The results of the PLS-SEM analysis, shown through statistical T values and P values, are presented in [Table 2](#).

Table 2. Path coefficient.

Effect	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
GP -> AR	0.104	0.092	0.046	2.251	0.024
HP -> AR	0.283	0.286	0.114	2.479	0.013
UP -> AR	0.282	0.283	0.112	2.525	0.012
DP -> AR	0.271	0.274	0.108	2.513	0.012
JP -> AR	0.102	0.09	0.05	2.043	0.041

Source: Data processing results (2023).

[Table 2](#) shows the analysis results for direct influence of the independent variable on the dependent variable. The conclusions from those results are discussed in the following.

1. God-based performance positively affects Anti-fragile with a statistical T of 2.251 (p-value 0.024<0.05). This suggests that the null hypothesis is rejected. Therefore, there is a positive influence of 0.104 from the god-based performance variable on Anti-Fragile performance.
2. Humanitarian-based performance positively affects Anti-fragility with a statistical T of 2.479 (p-value 0.013<0.05). Consequently, the null hypothesis is rejected, and thereby, there is a positive influence of 0.283 from the Humanitarian-based performance variables on Anti-Fragile performance.
3. Unity-based performance positively affects anti-fragility with a statistical T of 2.525 (p-value 0.012<0.05). Thus, the null hypothesis is rejected, so from the results of this study, it can be concluded that there is a positive influence of 0.282 of the Union-based performance variables on Anti-Fragile.
4. Deliberation-based performance positively affects Anti-fragile with a statistical T of 2.513 (p-value 0.012<0.05). This means that the null hypothesis is rejected, showing a 0.271 positive influence of the Consultative-based performance variables on Anti-Fragile.
5. Justice-based performance positively affects Anti-fragility with a statistical T of 2.043 (p-value 0.041<0.05), indicating that the null hypothesis is rejected. Therefore, there is a positive effect of 0.102 from the Justice-based performance variable on Anti-Fragile.

Figure 3 presents a graphic overview of the influence of the independent variable on the dependent variable.

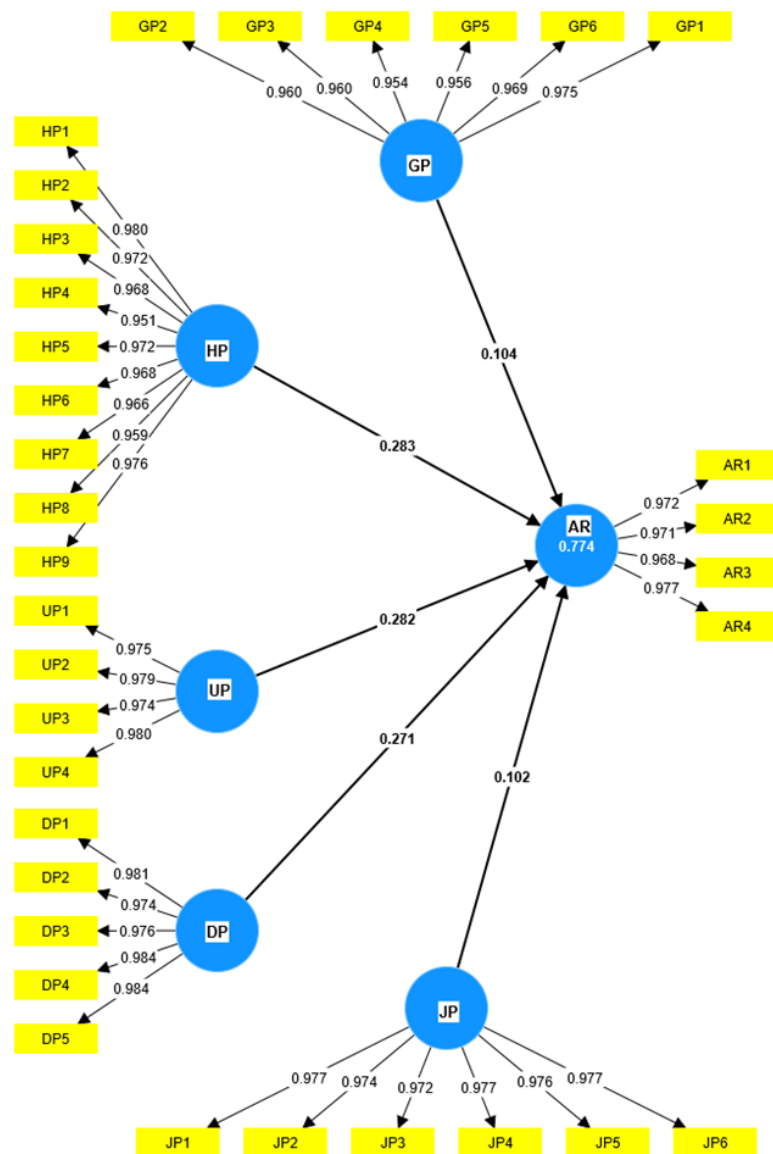


Figure 3. The relationship between the independent and dependent variable.

3.2. Test Coefficient of Determination

In this sub-chapter, the results of the Coefficient Determination test are discussed. In the context of *Partial Least Squares Structural Equation Modeling* (PLS-SEM), efficient determination presents an important role in assessing the effectiveness and strength of the model. The results of the determination coefficient test are shown in Figure 3.

Table 3. Coefficient determination.

Variable	R-square	R-square adjusted
AR	0.779	0.774

Source: Data processing results (2023).

Table 3 displays the coefficient of determination for the variable AR, which signifies the percentage of variance in the dependent variable that the independent variable can forecast. The R-square value for the AR variable is 0.779, suggesting that 77.9% of the variance in the AR variable can be explained by the independent variable in the model. R-square is a statistical measure commonly used to demonstrate how well data fits regression models. Higher scores indicate a better fit. In this context, a value of 0.779 indicates a reasonably good fit between the model and the data.

The adjusted R-square value is 0.774. Adjusted R-square is a modified version of R-square that takes into account the number of independent variables in the model. Unlike R-square, which tends to increase with the addition of predictor variables regardless of whether they improve the model, adjusted R-square penalizes the addition of variables that do not make a significant contribution. The adjusted R-square value of 0.774, compared to the R-square value of 0.779, suggests that the variables included in the model provide relevant information and do not artificially increase the R-square.

In conclusion, the high and close R-square and R-square adjusted values for the AR variable indicate that the regression model used was a good fit with the data. Besides, it also suggests that the independent variables included in the model make a significant contribution to explaining the variance of the AR-dependent variable.

3.3. The Effect of Pancasila-Based MSE Performance on Anti-Fragile

3.3.1. The Effect of God-based Performance (GP) on Anti-Fragility

These findings show that God-Based Performance has a positive effect on Anti-Fragile, with a statistical T value of 2.251 and a p-value of 0.024, which is lower than the standard threshold of 0.05. This statistically shows a significant relationship between the two variables. Theories that study the relationship between spirituality and resilience can explain this within the framework of grand theory. For instance, positive psychology theory by Seligman (1998) links spiritual beliefs and religiosity with increased mental strength and psychological well-being. Belief in spiritual or religious values often provides a strong foundation for overcoming challenges, demonstrating how divine-based performance can increase an individual's resilience to difficult, or 'Anti-Fragile' situations. This positive influence reflects how spiritual or religious beliefs support the development of attributes such as fortitude, calmness, and a deeper understanding of life, all of which are important components in the concept of Anti-Fragility.

3.3.2. The Effect of Human-based Performance (HP) on Anti-Fragility

The findings suggest a significant positive correlation between Humanitarian-Based Performance and the concept of Anti-Fragility, with a statistical T value of 2.479 and a p-value of less than 0.05. A T value higher than 2 indicates a statistically significant difference, while a lower than 0.05 p-value indicates a probability of an error less than 5%. Thus, the study can reject the null hypothesis, stating that there is no relationship between Humanity-Based Performance and Anti-Fragility. This positive relationship, indicated by a positive influence of 0.283, signifies

that improvements in Humanitarian-Based Performance are likely to enhance resilience or Anti-Fragility capabilities. In the context of grand theory, this finding can be supported by theories that emphasize the importance of human factors and well-being in organizations, such as Social Capital Theory. The theory emphasizes how social relationships and networks can provide access to resources and information, facilitate cooperation, and establish beliefs and norms that benefit individuals and groups (Bourdieu, 1986). In an organizational context, social capital refers to collaborative networks among employees, involvement in professional communities, or organizational cultures that promote cooperation and knowledge sharing (Nurkhin, Fikriyah, & Widiyanto, 2022). This is considered important to achieve common goals, innovation, and overall organizational effectiveness, which will further affect the Anti-Fragility business. Furthermore, we can perceive humanitarian-based performance as an investment in social capital, enhancing an organization's resilience to change. On the other hand, these findings can be challenged by more traditional theories, such as scientific management theory, which tends to prioritize efficiency and standardization procedures over human aspects of performance.

3.3.3. The Effect of Unity-based Performance(UP) on Anti-Fragility

The results indicate that there is a positive correlation between Unity-based Performance and Anti-Fragility. A statistically significant T value of 2.525 and a p-value of less than 0.05 support this. It is important to note that T values higher than 2 in a statistical context indicate a significant difference and not just chance. In addition, a p-value lower than 0.05 confirms the likelihood of this finding occurring due to the very low random chance. Therefore, we can reject the null hypothesis, which states that there is no significant relationship between unity-based and anti-fragile performance. These results suggest that improvements in Unity-based Performance can positively affect an organization's ability to be anti-fragile, and thereby, the business not only survives but thrives in facing challenges. Supporters of this theory can refer to Social Capital Theory in the context of grand theory, which emphasizes the importance of social relationships, networks, and norms that are beneficial in improving organizational performance (Bourdieu, 1986). According to this theory, strong social relationships and effective cooperation within organizations can increase adaptability and resilience, representing the concept of Anti-Fragility. On the other hand, a theory that might challenge these findings is the Scientific Management Theory, which prioritizes processes and efficiency over social aspects and unity in organizations. This approach tends to view organizational performance from a mechanistic and procedural point of view, where social aspects such as unity may be perceived as less relevant or even impair operational efficiency.

3.3.4. The Effect of Deliberation Based Performance (DP) on Anti-Fragility

The findings show the positive effect of Consultative Performance on Anti-Fragility with a statistical T of 2.513 and a p-value below 0.05, providing strong evidence for a significant relationship between the two variables. A T value greater than 2 indicates a statistically significant difference between the variables tested, while a p-value less than 0.05 indicates that this result did not occur by chance with high probability. Thus, the null hypothesis, stating the absence of a significant relationship, is rejected. In this regard, research shows that the practice of deliberation has a significant positive influence on the ability of organizations to be anti-fragile, leading the business to not only survive but also thrive amid challenges. This finding can be supported by social capital theory, which emphasizes the importance of relationships, social networks, and norms that support cooperation and trust among members of an organization or society (Balagué & Arimany Serrat, 2023; Bourdieu, 1986; Hendratmi et al., 2022). Deliberation, as a practice that promotes participation and consensus, can strengthen social capital by promoting cooperation, mutual understanding, and collective commitment, all of which are important factors in improving organizational resilience and adaptation. On the other hand, theories that may contradict this finding are Theory X and Theory Y developed by Douglas McGregor. Theory X, in particular, implies that control-centered

management and strict direction are more effective. With a consultative approach that is more democratic and participatory, it can significantly contribute to organizational performance, especially in the context of Anti-Fragile.

3.3.5. The Effect of Justice-based Performance (JP) on Anti-Fragility

The findings show that Justice-based Performance had a positive influence on Anti-Fragility, with a statistical T value of 2.043 and a p-value of 0.041, providing a statistically significant indication of a positive relationship between the two variables. A T value above 2 indicates a significant difference, and a lower than 0.05 p-value indicates the small probability of this result occurring by chance. Thus, the null hypothesis, stating the absence of a significant relationship, is rejected. These results show that fairness practices within organizations contribute positively to an organization's ability to be anti-fragile. Therefore, it provides better resilience and adaptability for businesses in the face of challenges. Organizational justice theory supports this findings, asserting that perceptions of fairness in organizations can increase employee commitment, job satisfaction, and performance. According to this theory, the application of fairness in decision processes and resource distribution helps build trust and commitment among employees, which in turn increases overall organizational resilience (Greenberg, 1987).

Based on the results of statistical analysis, all factors (GP, HP, UP, DP, JP) significantly influence AR. However, the magnitude of the relationship (as indicated by the value of C.R.) indicates that HP, UP, and DP have the strongest influence on AR, while GP and JP have a relatively weaker influence. This indicates that the Humanitarian-based Performance Factor is a humanitarian concept that focuses on the recognition of human dignity and human rights. This variable provides a basis for understanding and appreciating diversity in the context of 'Anti-Fragility', thus helping organizations or individuals be more adaptive and resilient to change. Furthermore, Unity-based Performance factors promote cohesiveness and togetherness. In stressful or uncertain situations, having a strong base of unity can help prevent rifts, as well as provide emotional and physical support, thereby increasing resilience. For Deliberation-based Performance variables, the ability to communicate, discuss, and negotiate solutions is essential in dealing with challenges and conflicts. Consultative communication also promotes collaborative and adaptive problem-solving that increases resilience to stress and uncertainty.

As for the Divine-based Performance factor, although spirituality and belief carry an important role in providing emotional support and meaning in many people's lives, the relationship with 'Anti-Fragile' may be more internal than external. In other words, while spiritual belief can provide inner strength, it does not necessarily directly affect a person's capacity to interact with the outside world in a formidable way. While fairness is crucial for ensuring ethical and just actions, other factors take precedence in the context of Anti-Fragility. It is important to note that fairness does not necessarily mean treating everyone the same but rather treating them fairly according to their individual capacities. Nonetheless, perceptions of fairness may support individual or organizational resilience, but perhaps with less intensity than other factors.

4. CONCLUSION

This study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the impact of Pancasila-based performance dimensions on anti-fragility in MSMEs. The findings indicate a statistically significant positive relationship between all Pancasila-based performance dimensions (God-based, Humanitarian-based, Unity-based, Deliberation-based, and Justice-based performance) and anti-fragility, suggesting that these values play a critical role in enhancing the resilience and adaptability of MSMEs. The strongest influences on anti-fragility have been identified in Humanitarian-based, Unity-based, and Deliberation-based performances, highlighting the importance of human dignity, social cohesion, and participative decision-making processes in fostering an anti-fragile business environment.

4.1. Policy Implications

Integration of Pancasila Values: Policymakers should encourage the integration of Pancasila values into the core strategies of MSMEs. This could involve developing training programs, incentives, and support systems that help MSMEs embed these values into their operations.

Support Structures: The establishment of support structures that facilitate the application of these values, such as forums for sharing best practices, could enhance the capacity of MSMEs to adapt and thrive amidst challenges.

Policy Formulation: The findings support policies that promote ethical business practices, social responsibility, and inclusive decision-making, contributing to the development of a more resilient and sustainable business ecosystem.

4.2. Limitations

Sample Size and Scope: The study focused on MSMEs in Kediri, Indonesia, which may limit the generalizability of the findings. Future research could expand the geographic scope to include a more diverse set of locations.

Measurement of Anti-fragility: The conceptualization and measurement of anti-fragility in this study are based on self-reported data, which may introduce bias. Future studies could incorporate more objective measures of business performance and resilience.

4.3. Future Research Suggestions

Comparative Studies: Future research could compare the anti-fragility of businesses that integrate Pancasila values with those that do not, to further validate the impact of these values.

Longitudinal Studies: These studies could show how the connection between Pancasila-based performance dimensions and anti-fragility changes over time, especially when certain problems or disruptions happen.

Cross-Cultural Comparison: Investigating how similar values or principles in other cultural contexts influence business anti-fragility could offer comparative insights and broaden the applicability of the findings.

In conclusion, this study highlights the significant role of Pancasila-based performance dimensions in enhancing the anti-fragility of MSMEs. By embracing these values, MSMEs can develop a stronger foundation to not only withstand but also thrive amidst the complexities and challenges of the business environment. The findings offer valuable implications for policymakers, business leaders, and researchers, underscoring the need for a values-driven approach to building resilience and sustainability in the business sector.

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Institutional Review Board Statement: The Ethical Committee of the Universitas Negeri Malang, Indonesia has granted approval for this study on 22 January 2023 (Ref. No. 16.8.33/UN32.20/PB/2023).

Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

Data Availability Statement: The corresponding author can provide the supporting data of this study upon a reasonable request.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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