



The influence of firm age and firm size on strategic agility and firm performance moderated by environmental uncertainty in creative industry SMEs in Bantul Regency

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ABSTRACT

Keywords:

environmental,
uncertainty
firm size,
firm performance,
strategic agility

This study aims to analyze the influence of *Firm Age* and *firm size* on *strategic agility* and *firm performance*, taking into account the moderation of environmental uncertainty to MSMEs in the creative industry sector in Bantul Regency. Data was obtained through the distribution of questionnaires to 104 MSME owners, with 100 valid respondents. Data analysis uses the Smart-PLS method. The results showed that the size of the company had a greater influence on strategic agility and company performance, while environmental uncertainty amplified the impact of strategic agility on company performance. This research provides important insights for MSME managers in optimizing their business strategies in the midst of environmental uncertainty.

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INTRODUCTION

The role of MSMEs is very large for Indonesia's economic growth, with the number reaching 99% of all business units. The contribution of MSMEs to GDP also reached 60.5%, and to labor absorption was 96.9% of the total national labor absorption. Small and Medium Enterprises (MSMEs) play an important role in the Indonesian economy, including in Bantul Regency, Yogyakarta. (FEMALE, 2023)

The development of the number of Small and Medium Business actors after the pandemic is increasing from year to year. This is evidenced based on data from the KUMKMPP Office, stating that judging from growth, the number of MSMEs in 2021 is 86,361 business actors and in 2022 there are 86,833 business actors with 1734 MSMEs. Then provisional data in 2023 will increase by 92,835 business actors of 1745 MSMEs. The number of MSMEs can certainly still grow. The target of increasing industrial growth is seen from the growth indicators of the creative industry. In 2022, the creative industry is the concern of the local government, especially wanting to realize Bantul as a UCCN World Creative City. The leading sub-sectors of the creative industry in Bantul Regency are: a. Craft sub-sector b. Fashion sub-sector c. Culinary Sub-sector. MSMEs The creative industry sector is one of the sources of economic growth in Bantul Regency in addition to agriculture and tourism. (data.bantulkab.go.id, 2023) (DKUMPP, 2023)

One of the differences between MSMEs and creative industries is the scale of the business. MSMEs have micro, small, and medium business scales, while the creative industry has no business scale limits. Micro, small, and medium-scale creative industries can be categorized as MSMEs. According to the creative industry, it is an industry that relies on skills, talents and creativity that have the potential to improve the welfare of the community. Meanwhile, according to the Ministry of Trade of the Republic of Indonesia in 2009, the creative industry is an industry that comes from the use of skills, creativity and talents possessed by individuals in creating welfare and jobs. (mbizmarket.co.id, 2020) Simatupang et al., (2008) (Lovita & Ramadhini, 2019)

Bantul Regency has a variety of creative industries such as the handicraft industry where as many as 70% of handicraft products in DIY come from Bantul Regency, ranging from ceramic centers, leather crafts, keris accessories, batik, bamboo crafts, batik wood, and others. So that the creative industry is set as a priority in the Regional Medium-Term Development Plan (RPJMD). There are three reasons that underlie the importance of the state or government, both central and regional, need to encourage MSMEs to continue to develop: 1) MSMEs tend to have better performance in developing a productive local workforce; 2) MSMEs can often achieve productivity levels with investment and technology implementation, because they include businesses that are dynamic and constantly adapt to the environment; 3) MSMEs are proven to have advantages

in terms of flexibility compared to large companies. (dpmpt.bantulkab.go.id, 2021) (Sabiaini; Prachetio, 2020)

Seeing the development of MSMEs, the creative industry as mentioned above and Bantul Regency is projected to become one of the UCCN World Creative Cities. It is a challenge for MSMEs to stay on their feet and grow in the midst of business dynamics and competition. In facing these challenges, MSME business actors need to (DKUMPP, 2023) *be Agile* and adaptive to continue to present quality, creative, innovative and active products that see opportunities and manage risks.

The challenges faced by business actors in addition to business competition are facing environmental uncertainty that causes environmental information and acceleration about clients, competitors, suppliers, and technology, which creates uncertainty and hinders innovation and has the potential to affect company performance. Environmental uncertainties, such as economic fluctuations, technological changes, and regulatory changes, are external factors that can threaten the stability and growth of MSMEs. Bank Indonesia revealed the results of a survey that 87.5% of MSMEs were affected by the pandemic, with 93.3% experiencing a decrease in sales turnover. Based on a survey from UNDP and LPEM UI involving 1,180 respondents of MSME actors, the results were obtained that during the Covid-19 period, more than 48% of MSMEs experienced raw material problems, 77% of their income decreased, 88% of MSMEs experienced a decrease in product demand, and even 97% of MSMEs experienced a decrease in asset value. This is because there is still a low understanding and awareness of MSME actors in developing strategies that are adaptive to environmental changes. (Aswan, 2023) (Media Indonesia, 2021) (Limanseto, 2022) *Strategic Agility* enables companies to manage change and identify opportunities in changing market conditions. Collective commitment also allows organizations to gain commitment from stakeholders involved in creating new opportunities. Meanwhile, the fluidity of resources allows organizations to quickly reconfigure themselves to capture new value created by new opportunities. (Aswan, 2023)

Waluyo, (2017) also stated that the size and age of the company have an important role. Larger and older companies tend to have a better ability to disclose CSR information, thereby increasing public accountability. Network participation increases technology adaptation, company age increases public accountability, and company size increases crisis resilience. Companies that have high Haneberg, (2021) *Strategic Agility* capabilities can adapt quickly to changes in the business environment and improve company performance. However, the age of the company and the size of the company can affect the speed strategy capabilities and performance of the company. Research conducted by shows that corporate growth and profits have a significant negative effect on debt policy. Meanwhile, the age of the company does not play a significant role. The size of the company also cannot moderate the effect. (Reed, 2020a) (Margaretha & Viriany, 2023)

Manacording refers to the ability of an organization to quickly and flexibly respond to changes in the external environment, as well as adjust its business strategy to remain relevant and competitive, which is called Y. Doz & Kosonen, (2008) *strategic agility*. The research conducted by did not find a relationship between (Shin et al., 2015) *Strategic Agility* and financial performance in MSMEs in South Korea. Research conducted by (Clauss, Kraus, et al., 2021) *Strategic Agility* shows that *Strategic Agility* can increase a company's competitive advantage by combining exploitation and exploration strategies.

According to the show, Tabatabaie Khoshnood & AMP; Nematizadeh, (2017) *Strategic Agility* is influential to improve the competitiveness of private banks in Iran through clarity of vision, understanding of basic capabilities, shared responsibility, selection of strategic targets, and effective action. Then *Strategic Agility* plays a significant role in improving competitiveness and organizational performance in a changing environment, especially in the banking sector in Indonesia. Competitiveness is seen as improving customer comfort and improving overall performance. (Anggraini & Sudhartio, 2019) *Strategic Agility* has a positive influence on organizational performance supported by research in various business fields both on a large and small scale (; . Weber & Tarba, 2014) (Clauss, Abebe, et al., 2021) *Strategic Agility* can help MSMEs to adapt to the market, take advantage of opportunities, and overcome challenges that result in improving their performance. (Ahhammad et al., 2021)

A company, both small and large-scale, needs to consider the influence of environmental uncertainty as an external factor that can hinder the achievement of company performance. The research conducted shows the importance of the external environment in moderating a company's performance, but the study is still limited in its geographical scope and industry context. Then research conducted by environmental uncertainty as a moderation of company performance, which shows that empirical findings, EPC (entrepreneurial personal characteristics) can improve the performance of MSMEs, but environmental uncertainty can disrupt performance. This is supported by research conducted by showing that environmental uncertainty has a negative effect on company performance, but corporate supervision can reduce these effects, thereby improving company performance. The (Reed, 2020a) (Sabiaini et al., 2023) (Sudaryati, 2020) *turbulence environment* has a positive impact on *strategic agility*. The higher the level of *turbulence in the environment*, the more important it is for the organization to have *Strategic Agility* to deal with rapid change. Furthermore, the research presented by shows the importance of (Anggraini & Sudhartio, 2019) (Reed, 2020a) *Strategic*

Agile in managing the external environment in influencing company performance, but this study is still limited in its geographical scope and industry context.

Based on the above research, there are still differences in research results, so there are still gaps or gaps for further research to prove the influence of variables in the scope of research. So the purpose of this study is to fill the gap by investigating how Company Size, Company Age and *Strategic Agility* can affect the performance of reactive industrial MSMEs in Bantul Regency, as well as understanding the extent to which environmental uncertainty can moderate the relationship. Thus, this research is expected to make a significant contribution to the literature on *Strategic Agility* and the development of MSMEs in Indonesia.

The purpose of this study is to analyze the influence of Firm Age and Firm Size on Strategic Agility and Firm Performance in MSMEs in Bantul Regency, both directly and through the mediation of Strategic Agility. This research will also explore the moderation of Environmental Uncertainty on the relationship between Strategic Agility and Firm Performance. The benefits of this research include theoretical contributions that are expected to enrich the literature on Strategic Agility and the development of MSMEs in Indonesia, as well as practical benefits for MSMEs in Bantul Regency in formulating strategies to deal with environmental uncertainties that can hinder company performance. In addition, this research is expected to provide useful information for the general public and become a reference for future researchers to develop research in a wider field.

The hypotheses used are:

- 1) H1 : Firm Age has a positive and significant effect on Strategic Agility
- 2) H2 : Firm Size has a positive and significant effect on Strategic Agility
- 3) H3 : Firm Age has a positive and significant effect on Firm Performance
- 4) H4 : Firm Size has a positive and significant effect on Firm Performance
- 5) H5 : Strategic Agility has a positive and significant effect on Firm Performance
- 6) H6 : Firm Age has a positive and significant effect on Firm Performance mediated by Strategic Agility
- 7) H7 : Firm Size has a positive and significant effect on Firm Performance mediated by Strategic Agility
- 8) H8 : Strategic Agility has a positive and significant effect on Firm Performance moderated by Environmental Uncertainty

METHOD

This study is designed as an explanatory research with a survey approach, aiming to test hypotheses related to the relationship between dependent, independent, and other variables. This type of research is causal, which analyzes the cause-and-effect relationship between two or more variables. The selected analysis unit is MSMEs in the creative industry sector in Bantul Regency, represented by the owner or manager as a respondent.

The object of the research includes MSMEs in the creative industry sector, such as the Craft, Fashion, and Culinary sub-sectors, which will be carried out in 2024. The research population is all creative industry MSMEs in Bantul Regency, with a sample determined using the Slovin formula, resulting in 99 respondents. The sampling technique used is cluster sampling, ensuring an adequate representation of each sector through the division of the population into clusters. The data collected is primary, obtained through questionnaires that include variables such as Firm Age, Firm Size, Strategic Agility, Environmental Uncertainty, and Firm Performance. Data analysis was carried out using a Structural Equation Model (SEM) based on Partial Least Square (PLS), which allows testing the relationship between variables simultaneously. Tests of the validity and reliability of research instruments are also carried out to ensure the accuracy of the data obtained. This research is expected to provide insight into the development of MSMEs and more effective business strategies in the midst of environmental uncertainty.

RESULTS AND DISCUSSION

Instrument Test Results (Outer Model)

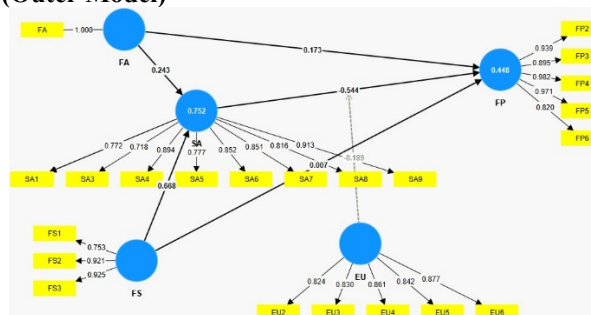


Figure 1. PLS Algorithm Test Results

Table 1. Validity and Reliability Test Results

Variable	Item	Factor Loading	Average Variance Extracted (AVE)	Composite Reliability	Cronbach's Alpha
Firm Age	AGO	1,000	1,000	1,000	1,000
Firm Size	FS1	0,753	0,757	0,897	0,840
	FS2	0,921			
	FS3	0,925			
Strategic Agility	SA1	0,772	0,687	0,947	0,942
	SA2	0,847			
	SA3	0,718			
	SA4	0,894			
	SA5	0,777			
	SA6	0,852			
	SA7	0,851			
	SA8	0,816			
	SA9	0,913			
Environmental Uncertainty	EU2	0,824	0,718	0,949	0,904
	EU3	0,830			
	EU4	0,861			
	EU5	0,842			
	EU6	0,877			
Firm Performance	FP2	0,939	0,853	0,984	0,957
	FP3	0,895			
	FP4	0,982			
	FP5	0,971			
	FP6	0,820			

Source : processed data, 2024

Table 1 shows the test results, validity and reliability. It is found that of the 23 statements tested for validity, the whole is declared valid. Because the instrument meets the acceptance standards, namely, the *factor loading* and *AVE values* ≥ 0.50 (Hair et al., 2021). Then in the reliability test, the results were obtained that the values of the 4 variables were declared reliable. Because it meets the acceptance standards, namely with the provisions of Composite Reliability and Cronbach Alpha ≥ 0.70 .

Structural Test Results (Inner Model)

R-Square Test

Table 2. R-Square Test Results

Item	R-square	R-square adjusted
Firm Age, Firm Size, dan Strategic Agility → Firm Performance	0,448	0,404
Firm Age dan Firm Size → Strategic Agility	0,752	0,744

Source: Primary data processed, 2024

The value of 0.448 can also be interpreted that *Firm Performance* is influenced by the variables *Firm Age*, *Firm Size*, and *Strategic Agility* by 44.8%, while the remaining 55.2% is explained by other variables outside this research model. Meanwhile, to measure the influence of *Firm Age* and *Firm Size* on *Strategic Agility*, the results were obtained that the model used in this study was classified as weak and *Strategic Agility* was only influenced by the *Firm Age* and *Firm Size* variables of 75.2%, while the remaining 24.8% was explained by variables that were not studied in this study.

Q-Square Test Results

$$\begin{aligned}
 Q\text{-Square} &= 1 - [(1-R)(1-R)]1^22^2 \\
 &= 1 - [(1-0,404)(1-0,744)] \\
 &= 1 - [(0,596)(0,256)] \\
 &= 1 - 0,1525 \\
 &= 0,8475
 \end{aligned}$$

The Q-Square value above shows a value of 0.8745. So it can be concluded that this research model has good predictive ability.

Uji Goodnees-Fit Model

$$GoF = \sqrt{rata - rata AVE \times rata - rata R^2}$$

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$$GoF = \sqrt{0,803 \times 0,600}$$

$$GoF = \sqrt{0,481}$$

$$GoF = 0,693$$

Goodness of Fit is used to validate the overall structural model. Criteria GoF 0.1 (small GoF), GoF 0.25 (medium GoF), GoF 0.36 (large GoF) (Hair et al., 2021). In this study 0.693, this shows that your model has excellent goodness-of-fit. This model can be considered good at explaining the data being analyzed.

Hypothesis Test Results

Table 3. Direct Influence Bootstrapping Test Results

Path	Original sample (O)	T statistics (O/STDEV)	P values	Result	Hypothesis
FA → SA	-0,110	1,024	0,306	Not Positive and Significant	Rejected
FS → SA	0,364	5,261	0,000	Positive and Significant	Accepted
F → FP	0,007	0,109	0,913	Not Positive and Significant	Rejected
FS → FP	0,125	2,101	0,036	Positive and Significant	Accepted
SA → FP	0,348	3,363	0,001	Positive and Significant	Accepted

Source: Primary data processed, 2024

Table 4. Indirect Influence Bootstrapping Test Results

Path	Original sample (O)	T statistics (O/STDEV)	P values	Result	Hypothesis
FA → SA → FP	0,038	0,929	0,353	Not Positive and Significant	Rejected
FS → SA → FP	0,127	2,757	0,006	Positive and Significant	Accepted
SA → EU → FP	0,518	4,961	0,000	Positive and Significant	Accepted

Source: Primary data processed, 2024

H1 : Firm Age has a positive and significant effect on Strategic Agility

The results of the hypothesis test show the p-values of *Firm Age* against *Strategic Agility* which is 0.30 which means greater than 0.05. These results indicate that *Firm Age* has no positive and significant influence on *Strategic Agility*. Not enough to stop there, the researcher also confirmed this result through a comparison between t-statistics and t-tables, where a hypothesis is acceptable if the t-count is greater than the t-tables. The t-count shown on the influence line *Firm Age* against *Strategic Agility* namely 1,024 (T-table: 1,984). This means that the t-count is smaller than the t-table so H1 **rejected**. These results show that the age of the company does not affect the rate so much *Strategic Agility* a company. This is in line with research that states that older companies usually have a more conservative and less innovative organizational culture, which has an impact on slow decision-making and is less responsive to changes in the business environment (de Diego Ruiz et al., 2024)(de Diego Ruiz et al., 2023, 2024; J. Reed, 2021; J. H. Reed, 2020).

H2 : Firm Size has a positive and significant effect on Strategic Agility

Results of hypothesis testing shows the *p*-values of Firm Size to Strategic Agility, which is 0.000 which means less than 0.05. Correspondingly, the *t*-calculated value of Firm Size against Strategic Agility is 5.261, which is greater than the *t*-table (*t*-table: 1.984), so it can be concluded that **H2 accepted** and Firm Age have a positive and significant effect on Strategic Agility in this study. This positive result is in line with the research conducted by (Alyahya et al., 2023; Ambali & Bakar, 2014; J. Reed, 2021; J. H. Reed, 2020; Wu et al., 2024; Yu & Yanming, 2014) which found that company size has a positive and significant effect on Strategic Agility.

H3 : Firm Age has a positive and significant effect on Firm Performance

Results of hypothesis testing menunjukkan *P*-values of Firm Age against Firm Performance presented in the table above is 0.913 which means it is greater than 0.05. Furthermore, when compared, the *t*-calculated value of the variable Firm Age which is 0.109 which is smaller than the *t*-table (*t*-table: 1.984) so it is concluded that **H3 rejected**. Firm Age does not have a positive and significant effect on Firm Performance. These results are in line with research conducted by (Legesse, 2018) which shows that there is no significant relationship between the age of the company and the performance of manufacturing companies in Ethiopia. In line with that, the research conducted by (Dang et al., 2022) which found that the age of the company does not necessarily affect the company's performance.

H4 : Firm Size has a positive and significant effect on Firm Performance

Results of hypothesis testing menunjukkan value *p*-values from Firm Size against Firm Performance namely 0.03 which is smaller than 0.05, while the *t*-calculated value of 2.101 is also greater than the *t*-table (*t*-table: 1.984) so that **H4 Accepted** and Firm Size proven to have a positive and significant effect on Firm Performance. This positive result is in line with several studies conducted by (Kawai, 2012; Kuncová et al., 2016; Lee et al., 2019; Schrank & Kijkasiwat, 2024) which shows that the size of the company has a positive and significant effect on the company's performance. Research has found that the larger the size of the company, the greater their chances of improving the company's performance.

H5 : Strategic Agility has a positive and significant effect on Firm Performance

Results of hypothesis testing menunjukkan *p*-values of variables Strategic Agility against Firm Performance is 0.00 which means it is less than 0.05. In addition, the *t*-count value is 3.36 and is greater than the *t*-table (*t*-table: 1.984) so it is concluded that Strategic Agility have a positive and significant effect on Firm Performance and **H5 Accepted**. A company's performance can be affected by an organization's ability to respond quickly to environmental changes (*strategic agility*) because it is in line with the research conducted by (Barahmah et al., 2022; Sampath & Krishnamoorthy, 2017; Tufan & Mert, 2023), *strategic agility* can increase a sustainable competitive advantage for companies because it allows them to identify and respond to market opportunities and environmental changes that occur quickly.

H6 : Firm Age has a positive and significant effect on Firm Performance mediated by Strategic Agility

Results of hypothesis testing shows the *p*-values of Firm Age against Firm Performance mediated by Strategic Agility What is shown in the table above is 0.35 which means it is greater than 0.05. Furthermore, when compared, the *t*-calculated value of the variable from Firm Age against Firm Performance mediated by Strategic Agility which is 0.929 which is smaller than the *t*-table (*t*-table: 1.984) so it is concluded that **H6 rejected**. Thus Firm Age does not have a positive and significant effect on Firm Performance mediated by Strategic Agility. In this case, even though older companies have more knowledge and experience, they may not have the ability to adapt quickly so that the age of the company does not have a positive impact on performance if a company lacks *strategic agility* (J. Reed, 2021).

H7 : Firm Size has a positive and significant effect on Firm Performance mediated by Strategic Agility

Results of hypothesis testing menunjukkan *P*-values of Firm Size against Firm Performance mediated by Strategic Agility which is 0.00 which is smaller than 0.05, while the *t*-calculated value of 2.757 is also greater than the *t*-table (*t*-table: 1.984) so that **H7 Accepted** and Firm Size proven to have a positive and significant effect on Firm Performance mediated by Strategic Agility. This positive finding is in line with research conducted by Weber & Tarba (2014) and Clauss et al (2021) which stated that *strategic ability* has a positive effect on BMI, which BMI itself has a positive relationship with the company's performance. Other research conducted by (Anwar & MP; Hasnu, 2017) and (Sevil et al., 2022) shows that the size of the company can directly affect the performance of the company, where companies with a large scale tend to have a lot of resources can manage these resources optimally in their operational activities so as to produce better performance. However, as already explained, small-sized companies may have the upper hand in terms of speed in adopting innovations, which under certain conditions can improve their company's performance. Thus,

it is important for a company to consider the size of their business so that they can formulate appropriate strategies to improve their overall performance.

H8 : Strategic Agility has a positive and significant effect on Firm Performance moderated by Environmental Uncertainty

The results of the hypothesis test show that the p-values of *Strategic Agility* to *Firm Performance* moderated by *Environmental Uncertainty* are 0.000 which means less than 0.05. In line with that, the t-calculated value of *Strategic Agility* to *Firm Performance* moderated by *Environmental Uncertainty* is 4.961, greater than the t-table (t-table: 1.984), so it can be concluded that H8 is **accepted** and *Strategic Agility* has a positive and significant effect on *Firm Performance* moderated by *Environmental Uncertainty*.

This positive result is in line with research conducted by Sabihaini et al (2023) which states that there is an influence between the personal characteristics of entrepreneurs on improving the performance of MSMEs. In line with this, research conducted by Habib et al (2023) also found that entrepreneurial orientation has a positive and significant influence on the performance of MSMEs. Uncertainty in the environment will certainly affect the performance of a company, which is a company that is able to utilize and develop *strategic agility*. In the midst of a dynamic business environment, they tend to achieve better performance. Therefore, it is important for a business to strengthen and identify the capabilities of *strategic ability* to remain competitive in the face of rapid environmental changes (J. Reed, 2021).

Discussion

The Influence of Firm Age on Strategic Agility

The study shows that the age of the company does not affect the rate *Strategic Agility* a Creative Industry MSME company in Bantul Regency. Older companies, despite having a lot of experience, do not necessarily make them quick to adapt to market changes (*strategic agility*), they may have a more rigid structure and processes that become an obstacle for them to respond to market changes quickly (de Diego Ruiz et al., 2023). On the other hand, younger companies are also generally more flexible and not reluctant to innovate, so there is no influence between the age of the company and their strategic agility. In addition, older companies usually have a more conservative and less innovative organizational culture, which has an impact on slow decision-making and is less responsive to changes in the business environment (de Diego Ruiz et al., 2024)(de Diego Ruiz et al., 2023, 2024; J. Reed, 2021; J. H. Reed, 2020).

Based on the analysis of respondents' answers to the *Firm Age* variable, it does not always have a positive effect on the company's ability to adapt to rapid changes in the business environment (*Strategic Agility*). Although older companies are often considered to have more experience in managing a business, these findings indicate that the age factor itself does not guarantee a higher level of agility. This means that the age of the company does not directly affect the company's ability to adapt to rapid external and internal changes (*Strategic Agility*).

The Effect of Firm Size on Strategic Agility

This study shows that Firm Age has a positive and significant effect on Strategic Agility in this study. This positive result is in line with the research conducted by (Alyahya et al., 2023; Ambali & Bakar, 2014; J. Reed, 2021; J. H. Reed, 2020; Wu et al., 2024; Yu & Yanming, 2014) which found that company size has a positive and significant effect on Strategic Agility. Large companies can be said to have higher Strategic Agility because of several things, including: a) large-scale companies generally have more resources, both financially and labor-intensively compared to small-scale companies. These resources open up opportunities for companies to be able to invest or innovate that can improve their Strategic Agility; b) The size of the company is often related to the company's capacity to be able to adapt, because large-scale companies usually have a more flexible organizational structure and a management system that is able to respond to changes from external sources, which increases strategic agility; c) large companies are also equipped with divisions or divisions Research and Development (R&D) so that they can continue to innovate so that they can maintain competitiveness and relevance in the market and ultimately improve their strategic agility they.

Based on the analysis of respondents' answers to the Firm Size variable which refers to the size of the company, it is measured by several variables such as the number of employees, total assets, or annual revenue of the company and shows that companies with a larger size tend to have higher Strategic Agility. Strategic Agility itself is the ability of companies to quickly and effectively adjust strategies to changes in the market and dynamic environment.

This shows that owners and managers of large companies can take advantage of Strategic Agility as one of their competitive advantages. To maintain and even increase the level of strategic agility, companies need to continue to invest in resources, technology, and employee training. On the other hand, small companies

that may have limited resources may see this result as a boost to improve their organizational structure and flexibility in responding to change.

The Influence of Firm Age on Firm Performance

This study shows that *Firm Age* does not have a positive and significant effect on *Firm Performance*. These results are in line with research conducted by (Legesse, 2018) which shows that there is no significant relationship between the age of the company and the performance of manufacturing companies in Ethiopia. In line with that, the research conducted by (Dang et al., 2022) which found that the age of the company does not necessarily affect the company's performance. A company may experience *organizational inertia* as they get older. This results in them becoming less responsive to changes that occur in the market. The impact is that companies find it difficult to adjust to be relevant to customer needs or new industry trends, which ultimately affects their company's performance negatively.

Based on the analysis of respondents' answers to the *Firm Age* variable, it is not always a strong indicator for *firm performance*. Therefore, companies, both new and older, need to focus on other factors that are more relevant in improving their performance, such as innovation strategies, adaptation to new technologies, and effective human resource management.

This shows that owners and managers of older companies, this can be a signal to evaluate their organizational structure and operational systems to remain competitive in the market. On the other hand, for new companies, even though they are younger, it is important to continue to innovate and maintain *agility* in responding to changes.

The Effect of Firm Size on Firm Performance

This study shows that *Firm Size* proven to have a positive and significant effect on *Firm Performance*. This positive result is in line with several studies conducted by (Kawai, 2012; Kuncová et al., 2016; Lee et al., 2019; Schrank & Kijasiwat, 2024) which shows that the size of the company has a positive and significant effect on the company's performance. Research has found that the larger the size of the company, the greater their chances of improving the company's performance. This is achieved through several efforts, such as the application of economies of scale or *economies of scale* which means that the cost of production per unit becomes lower because the company produces in large quantities. In addition, because the need for raw materials for their production is large, they can invite *supplier* to cooperate so that the price of raw materials can also be given lower because they take large quantities. The combination of cheap raw material prices and lower production costs per unit can then increase the company's profitability. In addition, large companies also have more access to resources such as technology, human resources, and financial matters so that these advantages can be used as investment capital for growth.

Based on the analysis of respondents' answers to the *Firm Size variable* has a positive and significant effect on *Firm Performance*. Companies with larger sizes have more resources and the ability to operate more efficiently, which contributes to their improved performance. Therefore, large companies need to continue to leverage their size to maintain a competitive advantage, while small companies need to focus on strategies that allow them to grow and compete more effectively in the market.

This shows that owners and managers of companies are both large and small companies. For large companies, these results underscore the importance of continuing to leverage existing size and resources to improve performance, both through innovation, operational efficiency, and market expansion. On the other hand, small companies that do not yet have a large scale can use these findings as a reference to continue to focus on growth and market expansion strategies. While small companies may not be able to directly match large companies in terms of resources, they can take advantage of agility advantages, focus on market niches, or look for ways to achieve better operational efficiency.

The Effect of Strategic Agility on Firm Performance

This study shows that *Firm Performance* can be affected by an organization's ability to respond quickly to environmental changes (*strategic agility*) because it is in line with the research conducted by (Barahmah et al., 2022; Sampath & Krishnamoorthy, 2017; Tufan & Mert, 2023), *strategic agility* can increase a sustainable competitive advantage for companies because it allows them to identify and respond to market opportunities and environmental changes that occur quickly.

Based on the analysis of respondents' answers to the *Strategic Agility variable*, it has a positive and significant effect on *Firm Performance*. A company's ability to adapt quickly to changes in the business environment, manage risks, and take advantage of market opportunities plays a crucial role in improving a company's performance. Therefore, companies need to continue to develop their *Strategic Agility* capabilities to remain competitive and achieve optimal performance in an increasingly dynamic market.

This shows that company owners and managers need to see *Strategic Agility* as part of strategic steps and have a significant impact on *firm performance*, which means that companies that are more able to adapt and change strategies quickly will show better performance.

The Influence of Firm Age on Firm Performance Mediated by Strategic Agility

This study shows that *Firm Age* does not have a positive and significant effect on *Firm Performance* mediated by *Strategic Agility*. In this case, even though older companies have more knowledge and experience, they may not have the ability to adapt quickly so that the age of the company does not have a positive impact on performance if a company lacks *strategic agility* (J. Reed, 2021).

Based on the analysis of respondents' answers to variables (*Firm Age*) does not have a positive and significant influence on company performance (*Firm Performance*) mediated by strategic agility. While older companies may have more experience, this does not necessarily guarantee that they are more agile in responding to change. Younger organizations or those with an innovative culture may actually have the upper hand in terms of strategic agility.

This shows that the owners and managers of the company, even though companies with a longer age have strategic agility, but if they fail to implement agile or adaptive strategies, then strategic agility will not have a positive impact on their performance.

The Effect of Firm Size on Firm Performance Mediated by Strategic Agility

This study shows that *Firm Size* proven to have a positive and significant effect on *Firm Performance* mediated by *Strategic Agility*. This positive finding is in line with research conducted by Weber & Tarba (2014) and Clauss et al (2021) which stated that *strategic ability* has a positive effect on BMI, which BMI itself has a positive relationship with the company's performance. Other research conducted by (Anwar & MP; Hasnu, 2017) and (Sevil et al., 2022) shows that the size of the company can directly affect the performance of the company, where companies with a large scale tend to have a lot of resources can manage these resources optimally in their operational activities so as to produce better performance. However, as already explained, small-sized companies may have the upper hand in terms of speed in adopting innovations, which under certain conditions can improve their company's performance. Thus, it is important for a company to consider the size of their business so that they can formulate appropriate strategies to improve their overall performance.

Based on the analysis of respondents' answers to variables (*Firm Size*) has a positive and significant effect on company performance (*Firm Performance*) mediated by strategic agility. A larger company size can improve company performance, with strategic agility as a mediating factor that amplifies that influence. Therefore, companies that have a larger size and are able to develop good strategic agility, tend to have better performance in the face of market changes and industry dynamics.

This shows that both the owner and the manager of the company, *Firm Age* has a significant role in improving *Firm Performance*, especially when considered through the mediation of *Strategic Agility*. With more resources, large companies can be more flexible and quick to respond to market challenges, which is the core of strategic agility. This allows them to stay relevant and compete in a fast-changing market, as they can quickly change the direction of their strategy according to market dynamics.

The Effect of Strategic Agility on Firm Performance Moderated by Environmental Uncertainty

This study shows that *Strategic Agility* have a positive and significant effect on *Firm Performance* moderated by *Environmental Uncertainty*. This positive result is in line with research conducted by Sabihaini et al (2023) which states that there is an influence between the personal characteristics of entrepreneurs on improving the performance of MSMEs. In line with this, research conducted by Habib et al (2023) also found that entrepreneurial orientation has a positive and significant influence on the performance of MSMEs. Uncertainty in the environment will certainly affect the performance of a company, which is a company that is able to utilize and develop *strategic agility*. In the midst of a dynamic business environment, they tend to achieve better performance. Therefore, it is important for a business to strengthen and identify the capabilities of *strategic ability* to remain competitive in the face of rapid environmental changes (J. Reed, 2021).

Based on the analysis of respondents' answers to the Strategic Agility variable, it contributes positively to the company's performance by enabling the company to be more responsive to rapid environmental changes. *Environmental Uncertainty* can strengthen the relationship between *Strategic Agility* and *Firm Performance*. In situations of high uncertainty, companies that are more agile and flexible in responding to market changes will have the upper hand and are better able to survive. Moderation of *Environmental Uncertainty* in this relationship creates a context in which *Strategic Agility* is a more decisive factor in achieving optimal *firm performance*.

This shows that owners and managers of companies who are able to implement adaptive and responsive strategies to market and technology changes will be better prepared to face uncertainty. Therefore, companies need to focus more on developing strategies that can quickly adapt to changing market dynamics.

CONCLUSION

Based on the results of the analysis and discussion carried out in this study, the following are the conclusions that the researcher can convey: *Firm Age* does not have a positive and significant effect on *Strategic Agility* in Creative Industry MSMEs in Bantul Regency. *Firm Size* has a positive and significant effect on *Strategic Agility* in Creative Industry MSMEs in Bantul Regency. *Firm Age* does not have a positive and significant effect on *Firm Performance* in Creative Industry MSMEs in Bantul Regency. *Firm Size* has a positive and significant effect on *Firm Performance* in Creative Industry MSMEs in Bantul Regency. *Strategic Agility* has a positive and significant effect on *Firm Performance* in Creative Industry MSMEs in Bantul Regency. *Firm Age* does not have a positive and significant effect on *Firm Performance mediated by Strategic Agility* in Creative Industry MSMEs in Bantul Regency. *Firm Size* has a positive and significant effect on *Firm Performance mediated by Strategic Agility* in Creative Industry MSMEs in Bantul Regency. *Strategic Agility* has a positive and significant effect on *Firm Performance moderated by Environmental Uncertainty* in Creative Industry MSMEs in Bantul Regency

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