

## **Does Firm Size and Age Strengthen the Relationship Between Ambidexterity and Financial Performance? Empirical Evidence in MSME Perspective**



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**ABSTRACT:** A firm that combines entrepreneurship is often recognized as a critical contributor to economic growth, job creation, and development, as well as an essential component of economic vitality. This study investigates the moderating effect of firm size and age on the association between ambidexterity and financial performance. The idea is tested using a quantitative methodology in this study. The research instrument was a questionnaire that respondents filled out. The participants in this study are all MSME leaders in Tangerang City, Banten, Indonesia. For this study, 216 participants were chosen randomly, and data were analyzed using a structural equation model (SEM). Its results discovered that ambidexterity has a favorable and statistically significant effect on financial performance. In addition, firm age improves the association between all ambidexterity aspects (product exploration, product exploitation, market exploration, and market exploitation) and financial performance. However, company size has no moderating effect on the association between product and market exploitation and financial performance, only on the relationship between product and market exploration and financial performance. This research is contributing to the size of businesses with structural distinction through mechanisms underpinning resources and capabilities. In addition, the firm's age and expertise with contextual systems and processes, as well as the mechanisms underlying organizational learning, enable the company to maximize its performance. Although using MSMEs as the study's sample boosted internal validity, caution should be exercised when extending these findings to other industries, such as manufacturing.

**KEYWORDS:** Ambidexterity, firm size, firm age, financial performance

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### **INTRODUCTION**

The current international business climate is exceptionally dynamic and rapidly expanding. Adapting and allocating resources to deal with changes in the environment is, thus, a crucial issue for every firm (Şener et al., 2014). One of the cornerstones of competitive advantage is the rapidity with which a company can adjust to changing environment (Sung et al., 2016). The constraint of this transformation necessitates that the business regularly adapts its internal capabilities, including reorganizing necessary resources to innovate and expand its abilities to maintain its optimal level of performance (Sudarti et al., 2019). A business that incorporates entrepreneurship is commonly regarded as a significant contributor to economic growth, jobs, and improvement and an essential element of economic vitality. Entrepreneurship is preoccupied with transforming ideas into profitable opportunities. It is crucial to the financial prosperity of any nation and is intimately tied to MSMEs (Ali et al., 2019).

MSMEs play a significant role in economic growth (Candraningrat et al., 2021). Due to the relatively high level of workforce absorption and low investment capital requirements, MSMEs can respond nimbly to shifting market conditions. It renders MSMEs less susceptible to a variety of external changes. MSMEs can quickly grab possibilities, such as substituting imports with domestic production and increasing domestic demand satisfaction (Dominguez & Mayrhofer, 2017). Therefore, expanding MSMEs can boost economic diversification and speed up structural changes, which are essential for stable and sustainable long-term economic development (Gamage et al., 2020).

The expansion in the quantity of MSMEs in Indonesia has not been proportional to the increase in the quality of suitable MSMEs. It continues to confront numerous obstacles, preventing them from operating at total capacity in the national economy. The development of MSMEs is highly significant today, and MSMEs are receiving full attention from the community and the government to compete with other businesses (Afandi & Maha, 2020). Many small and medium-sized entrepreneurial businesses are turning to digital platforms to leverage their business strategy to combat the effects of competitive pressure. Digital platforms

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enable enterprises to standardize, alter, and distribute data on a scale that has never been seen before. For instance, new features are developed by introducing new hardware, software, and networking standards (Cenamor et al., 2020; Li et al., 2016).

In addition, MSMEs face obstacles, particularly those generated by the rapid growth of economic globalization, trade liberalization, and technological advancement. The ability of MSMEs to survive in the context of free trade, both in the home market and the export industry, is influenced mainly by two conditions. First, the internal factors of MSMEs should be suitable, including aspects such as the quality of human resources (Ahhammad et al., 2015; Gasda & Fueglistaller, 2016; Mu et al., 2022), the competence of information and technology (Parida et al., 2016; Yunis et al., 2018), knowledge management (Annosi et al., 2021; Chang et al., 2022; Page et al., 2021), control system (Nguyen et al., 2017), income culture (Rey-Biel et al., 2018), adaptive resilience (Chowdhury et al., 2019), organizational structure (Maine et al., 2022), and the linking strategy (Kortmann et al., 2014; Li et al., 2016). The surrounding environment must also be favorable regarding government policies (Doblinger et al., 2022; Hasan & Almubarak, 2016), legal factors (Ali et al., 2019), market competition circumstances (Leong & Yang, 2020), socio-economic circumstances (Almaqtari et al., 2020), infrastructure capability (Isichei et al., 2020), public educational backgrounds (Soriano & Castrogiovanni, 2012), and global challenges (Naradda Gamage et al., 2020; Prasanna et al., 2019). In addition to these two prerequisites, the strategy of enabling MSMEs to reach the global market is crucial for assuring their survival; one approach to achieve this is by adopting ambidexterity to balance exploration and exploitation.

Exploration and exploitation are the significant difficulty that is hugely challenging for MSMEs that lack the essential resources, skills, and experience to apply ambidexterity effectively (Giotopoulos et al., 2017; Voss & Voss, 2013). Ambidexterity is the capacity to use existing capabilities and explore new opportunities simultaneously (Solís-Molina et al., 2018). Balancing exploitation and exploration enable organizational effectiveness and survival by enhancing and sustaining outstanding performance over the long term but presents complex tensions (Adler & Heckscher, 2018; Nurwendi & Haryadi, 2022). Ambidextrous firms excel at exploiting current products to enable incredible innovation (Solano Acosta et al., 2018; Wang & Hu, 2020) and exploring new opportunities to produce more revolutionary ideas (Mascareño et al., 2021; Sudarti et al., 2019).

### **LITERATURE REVIEW**

#### **Ambidexterity and Financial Performance**

According to the notion of corporate behavior, ambidexterity is an integral approach that previous scholars have widely discussed with various topics such as ambidexterity in public organizations (Cannaerts et al., 2016; Cenamor et al., 2020; Choi & Chandler, 2015; Gieske et al., 2020), service-sales ambidexterity (Agnihotri et al., 2017; de Ruyter et al., 2020; Yu et al., 2012), strategic orientation (Kortmann et al., 2014; Sahi et al., 2020), and MSME's performance (Afandi & Maha, 2020; Cenamor et al., 2020; Gasda & Fueglistaller, 2016; Mu et al., 2022) particularly concerning exploration and exploitation in organizational learning. Ambidextrous organizations can recognize interdependencies and capture the synergistic benefit between exploratory and exploitative behaviors. Empirical evidence supports the concept that businesses can simultaneously leverage existing strengths and seek new opportunities to create work system and idea (Caniëls & Veld, 2019; Mascareño et al., 2021), enhance firm performance (Herzallah et al., 2017), and increase competitiveness (Dranev et al., 2020; Magnusson et al., 2020; Tsai & Ren, 2019).

To provide an adequate evaluation of exploitation and exploration in product and market areas, we concentrate on MSMEs. Exploitation focuses on incremental improvement and expansion of existing products and market capabilities. Due to the dynamic characteristics of products and markets, the continuous exploitation of the current product market involves additional learning, constant improvement of product features, and improvement of customer satisfaction (Andreeva et al., 2021; Ferreras-Méndez et al., 2022; Voss & Voss, 2013). Exploration is concerned with the development of new products and market capabilities. Product exploration may result in architectural innovations that modify subsystem interconnections or discontinuity innovations that alter the product's primary subsystem (Andreeva et al., 2021; Ferreras-Méndez et al., 2022; Voss & Voss, 2013). Exploration of the market attracts new clients outside of the present market. Consumers may indicate a developing need or a present but untargeted market, such as a different geographical market or expanding the customer base to incorporate additional social demographic market divisions (Tsai & Ren, 2019).

Following the literature on organizational culture and identity, we argue that a singular focus on exploitation and exploration in product and market sectors is internally consistent and operationally effective. Pursuing a single strategic direction across all functional units generates company clarity and consensus regarding what must be done and why it is essential. Moreover, firms with a singular focus on exploitation or exploration might avoid the difficulties of ambidexterity and capitalize on the most profitable portion of the portfolio. Internally reconcilable pure strategies are particularly effective for smaller organizations. Still, they are also stable with suggestions for different organizations committed to natural exploitation and

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exploration. The connectivity challenge concentrates on the information exchange of knowledge and experiences throughout differentiated units (Cenamor et al., 2020; Voss & Voss, 2013).

Similar cognitive concepts and routines working in diverse functional areas utilize to exploit existing items and customers (Chang et al., 2022). These similarities decrease cross-functional disagreements and enhance communication and coordination, resulting in interaction terms that complement organizational success (de Ruyter et al., 2020). The notion of resource dependence likewise supports alignment among product and market exploitation, given that properly exploiting present customers requires progressive product modification (Yu et al., 2012). It suggests a favorable relationship between product and market exploitation (Doblinger et al., 2022).

Exploring new product abilities and client markets requires similar paradigms and routines acting across distinct functional areas (Maine et al., 2022). The complementarities among product or market exploration are supported by diffusion theory since inventive product innovations are appealing to innovative purchasers and emerging economies. Marketing innovation exploration enables innovative enterprises to find and advertise to the most responsive clients (Ahmad et al., 2021). Corporations that participate in product exploration tend to market to asset customer bases more effectively (Dranev et al., 2020). We can therefore anticipate a positive relationship between product and market on financial performance. Specifically stated:

H1: there is a positive and significant effect of product exploration on the financial performance of MSMEs.

H2: there is a positive and significant effect of product exploitation on the financial performance of MSMEs.

H3: there is a positive and significant influence of market exploration on the financial performance of MSMEs.

H4: there is a positive and significant effect of market exploitation on the financial performance of MSMEs

### **Control Variable as the Moderator**

Conceptual complementarity in the product sector links knowledge via exploration too much more commercial exploitation via incremental product adjustments. Exploration generates and improves product capabilities, which are then exploited. Less visible is a complementary connection in the marketspace. Exploration of new consumer groups facilitates the exploitation of existing customers, or does the exploitation of existing customers give organizational knowledge that can be used for new market exploration? Only some conceptual or empirical studies demonstrate complementary linkages among market exploration and exploitation capacities (Voss & Voss, 2013).

In both product and market contexts, notwithstanding, synchronization exploration and exploitation tend to increase internal complexity (Cenamor et al., 2020), necessitates differing cognitive structures and goals (He et al., 2022; Sahi et al., 2020), and necessitates trade-offs among the two priorities (Sahi et al., 2020). In the product sector, cannibalization can cause tensions between personnel, procedures, and products whose value comes from technological advances versus old technologies. In the market arena, customer acquisition strategies that involve price discounts or expanded advantages for new customers may damage long-standing consumers and harm relationship marketing approaches. Conceptual reasons argue that businesses can integrate ambidexterity effectively through distinct identities (Benner & Tushman, 2003) or more extensive contextual processes and systems (Annosi et al., 2021). Both approaches raise the complexity of an organization and necessitate additional resources. Smaller and younger firms may need more essential resources, capabilities, and expertise to achieve the benefits of ambidexterity. In contrast, more extensive, established organizations probably have the assets, abilities, and expertise to manage this complexity effectively (Cenamor et al., 2020; Voss & Voss, 2013). By generating discrete components, structural differentiation permits simultaneous exploration and exploitation, thereby decreasing conflicts caused by opposing cultures, motivations, and skills (Dranev et al., 2020; Sahi et al., 2020).

Large corporations can use the amount of diversity to understand and accept the variability process of the global market (Li et al., 2016). In contrast, smaller organizations need more knowledge, capabilities, and resources to address the complexity of practical physical and demographically divided activities inside a single functional department (Cenamor et al., 2019). Consequently, smaller firms may need to be more significant to staff and manage several distinct components successfully. Governing exploration-exploitation constraints and pressures become more difficult as the scale of the system diminishes (Voss & Voss, 2013). More prominent organizations that can demonstrate physically or culturally distinct units concentrating on product and market exploration and exploitation will be more effective than smaller companies that lack the necessary resources (Ahammad et al., 2015). It leads us to the conclusion that firm age with the implementation of product and market ambidexterity will positively moderate on financial performance:

H5: firm size can moderate product exploration on the financial performance of MSMEs.

H6: firm size can moderate product exploitation on MSME financial performance.

H7: firm size can moderate market exploration on the financial performance of MSMEs.

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H8: firm size can moderate market exploitation of MSME financial performance.

Contextual procedures and systems provide an alternative strategy for addressing the ambiguities and conflicts connected with ambidexterity. This strategy necessitates metalevel capabilities of a higher order, such as comprehensive systems and procedures for management that promote a system-wide attitude on exploitation and exploration. Theoretically, even the smallest businesses can develop these capabilities, yet, it takes considerable effort and expertise to construct complicated management systems. In addition, even after the powers have been established, it takes significant time to realize the following benefits. These two perspectives show that older organizations may have the necessary expertise, knowledge, and time to develop and gain from contextual systems and procedures, while younger enterprises may not. Therefore, firm age will attenuate the influence of product and market ambidexterity on financial performance (Voss & Voss, 2013). Thus, the hypothesis we propose is as follows:

H9: firm age can moderate product exploration on the financial performance of MSMEs.

H10: firm age can moderate product exploitation on MSME financial performance.

H11: firm age can moderate market exploration on the financial performance of MSMEs.

H12: firm age can moderate market exploitation of MSME financial performance.

Based on the development of hypotheses with descriptions from previous researchers, we propose a framework as shown in Figure 1 below.

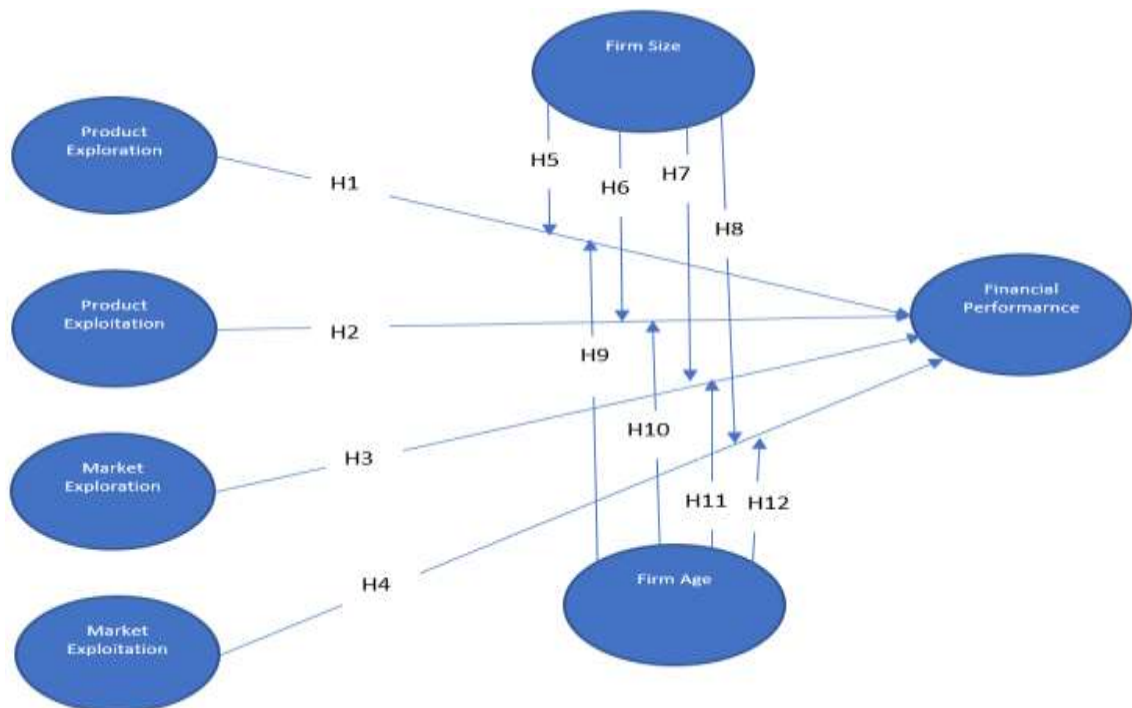


Figure 1. Research Framework

## METHODOLOGY

### Population and Sampling procedure

Statistical data were collected from 13 sub-districts in Tangerang City, including Tangerang, Jatiuwung, Batu Ceper, Benda, Cipondoh, Ciledug, Karawaci, Periuk, Cibodas, Neglasari, Pinang, Karang Tengah, and Larangan. The researchers concentrated their attention on micro, small, and medium-sized enterprises (MSMEs) registered with the Department of Industry and Trade of the City of Tangerang (Dinkop and UMKM). The authors gathered their material from company executives (MSMEs) with the most current knowledge of organizational practices and policies. In addition, their work is quite crucial because they are responsible for disseminating information and putting rules into action within their team. The period for data collection was from June 2022 to September 2022, including in-person meetings and electronic correspondence. The researchers handed out 300 questionnaires and obtained 232 full responses; however, only 216 were considered valid for the study's final analysis. In the culinary industry, micro, small, and medium-sized enterprises (MSMEs) contributed 27.31% of the responses, followed by 14.81% in the fashion industry, 12.96% in agribusiness and automotive, 10.19% in the services industry, 8.80% in the cosmetics industry, 7.41% in the accessories industry, and 5.56% from the technology industry. Table 2 provides a comprehensive breakdown of the demographic statistics.

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The SEM method is utilized to investigate the connection between the variables mentioned earlier, namely Ambidexterity and Financial Performance. The researchers conducted their descriptive analysis with Microsoft Excel 2019 and their statistical and structural analyses utilizing SmartPLS version 3.0. The practice of SEM can eliminate the bias effect. This bias, brought on by measurement errors and the development of a latent construction hierarchy, can be removed. In order to put structural equation modeling into action, multivariate assumptions, including proper sample size and multicollinearity evaluation, must be satisfied (Chin, 2010). The variance inflation factor (VIF) is used to evaluate the multicollinearity component. The value needed for this test is less than 4, which means it does not suggest multicollinearity. The empirical findings demonstrate that the data satisfies all of the multivariate statistical assumptions for the SEM model.

### Measurements

The measurement model had 23 elements about ambidexterity with four dimensions (product exploration, product exploitation, market exploration, and market exploitation) and financial performance. Ambidexterity is tested over four dimensions, each with three items, for 12 items adopted from Chang et al. (2022); Doblinger et al. (2022); Voss & Voss (2013); Yu et al. (2012), whereas financial success is measured across eleven items adopted from Dranev et al. (2020); Herzallah et al., (2017); Magnusson et al. (2020); Tsai & Ren, 2019). Five-point Likert scale information was obtained (1 means strongly disagree, and 5 means strongly agree). Sugiyono (2019) recommended conducting pilot research to determine Indonesia's accepted constructs' validity and dependability. Thirty Tangerang District small and medium-sized enterprises (SMEs) were surveyed (one representative per enterprise). According to Ghozali (2018), a sample size of thirty is adequate for a preliminary survey. 19 of the 30 MSMEs were polled online, while the remaining 11 were interviewed face-to-face. As proposed by Ghozali (2018), the Cronbach alpha test was used to determine the dependability of the acquired data. The constructs' internal consistency values varied from 0.81 to 0.92, consistent with Hair et al. (2014) and Ghozali (2018) assessing that the minimal condition value is 0.7. Thus, this study expands upon a rather exhaustive preliminary survey.

**Table 1. Measurement**

Variable	Item	Latent construct	Source
Product Exploration	EXRP1	Developing an innovative new conceptual approach	Chang et al. (2022); Doblinger et al. (2022); Voss & Voss (2013); Yu et al. (2012);
	EXRP2	Experiment with completely original works	
	EXRP3	Challenging conventional artistic limitations	
Product Exploitation	EXPP1	Providing performances that adhere to our recognized strengths	Chang et al. (2022); Doblinger et al. (2022); Voss & Voss (2013); Yu et al. (2012)
	EXPP2	Increasing the impact of our in-house art and production abilities	
	EXPP3	Similar outcomes to those that were successful in the past	
Market Exploration	EXRM1	We faced the challenge of increasing the number of first-time clients	Chang et al. (2022); Doblinger et al. (2022); Voss & Voss (2013); Yu et al. (2012)
	EXRM2	Implementing a scheme to attract new customers	
	EXRM3	Acquiring clients in new markets	
Market Exploitation	EXPM1	Get clients to purchase stuff continually	Chang et al. (2022); Doblinger et al. (2022); Voss & Voss (2013); (Yu et al., 2012)
	EXPM2	Encourage frequent customer attendance by persuading existing ticket Buyers to contribute additional funds	
	EXPM3		

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MSME	Financial Performance	KU1		Dranev et al. (2020); Herzallah et al., (2017); Magnusson et al. (2020); Tsai & Ren, 2019)
		KU1	Increasing in total sales	
		KU2	Increasing in total assets	
		KU3	Increase in the number of consumers served assets increase	
		KU4	The taxes paid	
		KU5	Increasing the number of personnel	
		KU6	HR quality enhancements	
		KU7	Augmentation of product sales	
		KU8	Access to building networks for company development	
		KU9	Increased output of items	
		KU10	Ease of gaining access to bank funds	
		KU11	Accessibility of funds from stakeholders	

### RESULT AND DISCUSSION

In this section, we will present the initial description of the research outcomes on the respondents and continue with the SEM-PLS data processing. The next step involves testing the measurement and structural models and the research hypothesis. Data were collected from a population of 6,546 people by distributing questionnaires to 216 respondents selected using the Proportional Random Sample technique with a proportional sampling approach.

#### Description data

At the beginning of the distributed questionnaire were fields used to collect information about the characteristics of the respondents. Three distinctive components exist in the questionnaire, including gender, age, and educational attainment. In addition, this study describes the distribution of data on firm size, firm age, and type of MSMEs.

**Table 2. Descriptive statistics**

Measurement	Latent construct/value	f	(%)
Gender	Male	142	65.74%
	Female	74	34.26%
Age	< 30	68	31.48%
	30 - 40	57	26.39%
	41 – 50	49	22.69%
	> 50	42	19.44%
Education	High school	54	25.00%
	D3	42	19.44%
	S1	96	44.44%
	S2	24	11.11%
Firm Age	< 5 employees	110	50.93%
	5 – 10 employees	58	26.85%
	10 – 50 employees	29	13.43%
	> 50 employees	19	8.80%
Firm Size	1 – 5 years	98	45.37%
	5 – 10 years	66	30.56%
	10 – 20 years	36	16.67%
	> 20 years	16	7.41%
Type of MSME	Fashion	32	14.81%
	Agrobusiness	28	12.96%
	Culinary	59	27.31%
	Service	22	10.19%
	Automotive	28	12.96%
	Accessories	16	7.41%
	Cosmetics	19	8.80%
Technology field	22	5.56%	



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Based on the respondent's distribution, the characteristics of the respondents by gender, it can be observed that the number of male respondents was 142, or 65.74 percent, which was greater than the number of female respondents, 74, or 34.26 percent. The majority of respondents were 30 years old, with a total of 68 respondents (31.48%), followed by respondents aged between 30-40 years old, with a total of 57 respondents (26.39%), then those aged between 41-50 years old with a total of 49 people (22.69%), and finally those aged >50 years old with a total of 42 respondents (19.48%). In addition, the majority of respondents with their most recent level of education were S1 with a total of 96 respondents or 44.44%, followed by high school graduates with 54 respondents or 25%, then D3 graduates with 42 respondents or 19.44%, and only 24 respondents or 11.11% whose last level of education was Masters.

Meanwhile, company descriptive data, which includes firm size, firm age, and type of MSMEs, as shown in table 3, shows that most of the companies with a smaller company size of 5 employees are 110 MSMEs (50.93%), followed by companies that employ 5 - 10 employees totaling 58 MSMEs (26.85%), then MSME with 10 - 20 employees are 29 (3.43%) and finally 19 MSMEs (8.80%) with > 50 employees. Furthermore, the firm age as a research area was mostly established 1-5 years, as many as 98 MSMEs (45.37%), while only a few MSMEs had been established for more than 20 years, as many as 16 MSMEs (7.41%). The second and third order, based on the firm age, is 5 - 10 years with a total of 66 MSMEs (66 (30.56%) and 10 - 20 years with 36 MSMEs (16.67%).

### Outer Model Analysis

Using the convergent technique, we could determine the indicator's validity, which was then expressed as the value of the external loading factor. It specifies that the value range of 0.50 to 0.70 for the loading factor is still enough for exploratory investigations, which are the preliminary phases of constructing a measurement scale. In this particular investigation, the outer loading value of each indicator was more than 0.70, which allowed it to pass muster in terms of convergent validity (see Table 3).

The following step evaluated a variable's discriminant validity by contrasting the extracted square root coefficient of variance (AVE) from each latent factor to the correlation coefficient between the other factors in the model. It was done to determine whether or not the variable could distinguish between groups. The AVE value suggests it has a significance greater than 0.5. According to Table 1, the constructs investigated in this research had a discriminant validity greater than 0.50 (Fornell & Larcker, 1981). The value of the variable indicators is determined through the utilization of composite reliability in the very last phase. Results were judged reliable whenever the composite reliability and Cronbach's alpha were significantly higher than 0.70 (Chin, 2010). (see Table 4).

**Table 3. Factor loading and cross loading**

Variable	Item	Product Exploration	Product Exploitation	Market Exploration	Market Exploitation	MSME Financial Performance
Product Exploration	EXPP1	0.128	0.822	0.274	0.185	0.250
	EXPP2	0.085	0.794	0.790	0.151	0.209
	EXPP3	0.033	0.809	0.471	0.202	0.164
Product Exploitation	EXPP1	0.128	0.822	0.274	0.185	0.250
	EXPP2	0.085	0.794	0.790	0.151	0.209
	EXPP3	0.033	0.809	0.471	0.202	0.164
Market Exploration	EXRM1	0.080	0.464	0.750	0.229	0.217
	EXRM2	0.102	0.597	0.957	0.225	0.271
	EXRM3	0.130	0.583	0.958	0.214	0.268
Market Exploitation	EXPM1	0.349	0.276	0.213	0.876	0.454
	EXPM2	0.270	0.197	0.281	0.900	0.426
	EXPM3	0.202	0.090	0.150	0.855	0.377
MSME Financial Performance	KU1	0.783	0.199	0.176	0.356	0.911
	KU2	0.627	0.210	0.209	0.377	0.868
	KU3	0.708	0.265	0.249	0.473	0.910
	KU4	0.778	0.197	0.177	0.393	0.914

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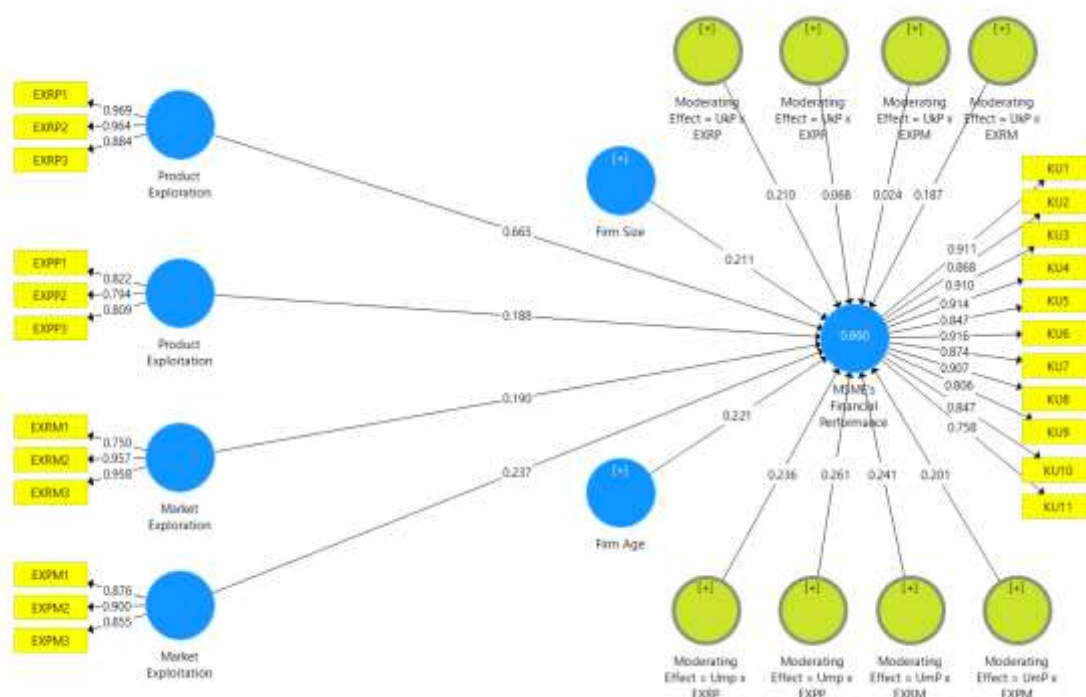
KU5	0.635	0.295	0.183	0.387	0.847
KU6	0.771	0.196	0.174	0.378	0.916
KU7	0.601	0.204	0.196	0.385	0.874
KU8	0.695	0.263	0.250	0.480	0.907
KU9	0.498	0.269	0.512	0.439	0.806
KU10	0.550	0.227	0.303	0.519	0.847
KU11	0.438	0.225	0.366	0.439	0.758

**Table 4. Construct reliability and validity test**

Constructs*)	Cronbach's Alpha	Composite Reliability	AVE	√AVE	EXPM	EXPP	EXRM	EXRP	KU
EXPM	0.933	0.958	0.769	0.877	1.000	0.220	0.247	0.317	0.480
EXPP	0.740	0.850	0.653	0.808	0.220	1.000	0.617	0.109	0.264
EXRM	0.868	0.922	0.799	0.894	0.247	0.617	1.000	0.118	0.283
EXRP	0.850	0.909	0.884	0.940	0.317	0.109	0.118	1.000	0.750
KU	0.968	0.972	0.757	0.870	0.480	0.264	0.283	0.750	1.000

\*) : EXRP=Product Exploration; EXPP= Product Exploitation; EXRM=Market Exploration; EXPM=Market Exploitation, KU=MSME Financial Performance

The calculation of the composite reliability yielded a range of 0.899 to 0.954 (more than 0.70), which demonstrated that the variable's indicators were dependable. Cronbach's alpha scores varied from 0.851 to 0.942, greater than 0.70, indicating that the indications were reliable and could be considered free of errors (Chin, 2010).



**Figure 2. Run PLS Algorithm**

Figure 2 depicts the findings of data processing using SmartPLS, which indicate that all construct manifestations in this investigation have loading values larger than 0.70. It demonstrates that the manifest variable with a loading value greater than 0.70 satisfies convergent validity due to its high level of validity.

### Inner Model Analysis

On the sample, each relationship is examined using a simulation based on the bootstrap approach. This test tries to reduce the incidence of anomalous research data. Test outcomes using the bootstrap approach (see Figure 3).



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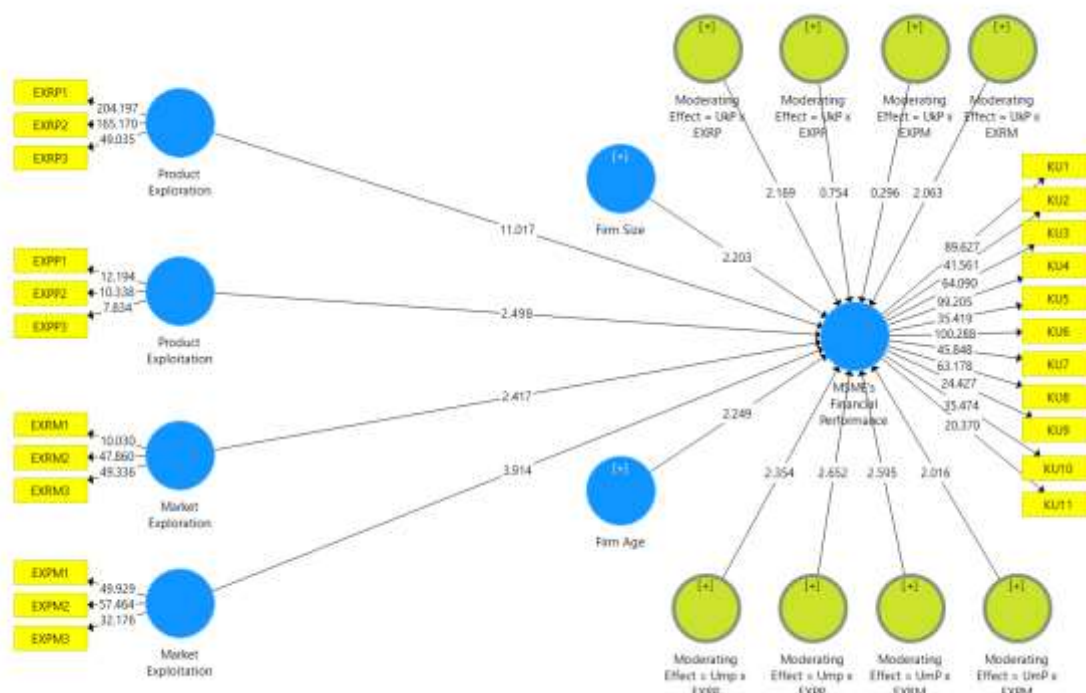


Figure 3. Bootstrapping Inner Model

Path coefficient evaluation is used to demonstrate the strength of the effect or influence of the independent variable on the dependent variable. From Figure 3, it can be deduced that the influence of Product Exploration on MSME Financial Performance has the highest path coefficient value, 11.017. Then comes the 3.914 impact of Market Exploitation on MSME Financial Performance. In addition, Product Exploitation's effect on MSME Financial Performance is 2.498. The final impact of market exploitation on the financial performance of MSMEs is 2.417. According to the description of the above results, all variables in this model have positive path coefficients. It indicates that the influence of an independent variable on a dependent variable is proportional to its path coefficient value.

Examining the P-Values allows one to determine the significance level attached to accepting a hypothesis. The study hypothesis may be validated if the P-Values are less than 0.05. In SmartPLS, a bootstrapping procedure is performed on a model that is valid and trustworthy, and that satisfies the feasibility requirements in order to get the P-value of the model. It can see the results of bootstrapping are in the table that follows (Table 5).

Table 5. Path Coefficient Result

Hypothesis	Construct*)	Original Sample	T Statistics	P Values	Result
H1	EXRP -> KU	0.665	11.007	0.000	Accepted
H2	EXPP -> KU	0.188	2.498	0.000	Accepted
H3	EXRM -> KU	0.190	2.417	0.000	Accepted
H4	EXPM -> KU	0.237	3.914	0.000	Accepted

\*) EXRP=Product Exploration; EXPP= Product Exploitation; EXRM=Market Exploitation; EXPM=Market Exploitation, KU=MSME Financial Performance

Based on the path coefficient derived between Product Exploration and Financial Performance of 0.665 with a P-Value of 0.000 < 0.05, it can be stated that Product Exploration significantly influences MSME Financial Performance. A parameter coefficient with a positive value signifies that the greater the Product Exploration, the greater the utilization of MSME Financial Performance; hence H1 is accepted. Given that the correlation between Product Exploitation and MSME Financial Performance is 0.188 with a P-Value of 0.000 < 0.05, it can be inferred that there is a meaningful relationship between the two. A positive value for the parameter coefficient indicates that the greater the Product Exploitation, the greater the MSME Financial Performance; therefore,

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H2 is supported. Moreover, given that the correlation between Market Exploration and MSME Financial Performance is 0.190 with a P-Value of  $0.000 < 0.05$ , it can be stated that there is a meaningful relationship between the two variables. If the parameter coefficient is positive, then the hypothesis that Market Exploration increases MSME Financial Performance is accepted. In conclusion, for Market Exploitation on MSME Performance of 0.237 and P-Value of  $0.000 < 0.05$ , it was determined that there was a significant relationship between Market Exploitation and MSME Financial Performance. If the parameter coefficient has a positive value, indicating that the greater the Market Exploitation, the greater the MSME Financial Performance, hypothesis H4 is accepted.

In addition, to determine if the control variables (firm age and firm size) can mitigate the link between ambidexterity (product exploration, product exploitation, market exploration, and market exploitation) and MSME performance, the following route coefficients are examined (Table 6).

**Table 6. Moderation test**

Hypothesis	Construct*)	T Statistics		Result	
		Original Sample	P Values		
H5	UkP x EXRP -> KU	0.210	2.121	0.003	Accepted
H6	UkP x EXPP -> KU	0.068	0.844	0.399	Rejected
H7	UkP x EXRM -> KU	0.187	2.072	0.004	Accepted
H8	UkP x EXPM -> KU	0.024	0.292	0.771	Rejected
H9	Ump x EXRP -> KU	0.236	2.374	0.004	Accepted
H10	Ump x EXPP -> KU	0.261	2.698	0.000	Accepted
H11	UmP x EXRM -> KU	0.241	2.581	0.000	Accepted
H12	UmP x EXPM -> KU	0.201	2.015	0.004	Accepted

\*) EXRP=Product Exploration; EXPP= Product Exploitation; EXRM=Market Exploration; EXPM=Market Exploitation; UkP=Firm Size; Ump=Firm Age; KU=MSME Financial Performance

According to the moderation test, firm size and Product Exploration have a favorable effect on the Financial Performance of micro, small, and medium-sized enterprises (MSME), with a significance level of 5%. Consequently, it is possible to argue that firm size can influence the association between Product Exploration and MSME Financial Performance; therefore, Hypothesis 5 is accepted. With P values of 0.844 1.96 and a significance level of 5%, neither firm size nor product exploitation benefits MSME Financial performance. Consequently, it may be argued that business size does not alter the relationship between product exploitation and MSME Financial performance; therefore, Hypothesis 6 is rejected. With a 5% level of significance, firm size and market exploration favor MSME financial performance, where P values are  $2.072 > 1.96$ . Consequently, the size of a company can influences the relationship between Market Exploration and MSME Financial Performance, so hypothesis H7 is accepted. With P values of 0.844 1.96 and a significance level of 5%, neither firm size nor market exploitation benefits MSME Financial performance. Consequently, it may be argued that firm size cannot regulate the relationship between market exploitation and MSME Financial performance; therefore, Hypothesis 8 is rejected.

In addition, firm age and Product Exploration benefited MSME performance, with P values of  $2.374 > 1.96$  and a 5% significance level. As a result, the age of the business can mitigate the association between product exploration and MSME Financial performance, and therefore H9 is acceptable. According to the path coefficient test, firm age and product exploitation positively affect MSME Financial performance, with P values  $2,698 > 1,96$  and a significance level of 5%. Therefore, it can be stated that the age of the business can influence the relationship between product exploitation and MSME Financial performance; therefore, hypothesis H10 is accepted. With a 5% significance level, firm age and market exploration benefit the financial performance of micro, small, and medium-sized enterprises (MSME). Therefore, the firm's age can mitigate the relationship between market exploration and the financial performance of MSMEs; therefore, H11 is accepted. With a significance level of 5%, firm age and market exploitation benefit the performance of micro, small, and medium-sized enterprises (MSME). Consequently, it can be argued that the firm's age can attenuate the relationship between market exploitation and MSME Financial performance; therefore, hypothesis H12 is accepted.

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### **DISCUSSION**

#### **The relationship of Ambidexterity and Financial Performance**

Testing the first hypothesis (H1) is whether Product Exploration positively affects MSME performance. The results of this study prove that Product Exploration has a positive effect on MSME performance. It demonstrates that the higher Product Exploration in SMEs, the higher the income performance. Historical developments have impacted human sensitivity to things that can bring satisfaction in scientific progress and the introduction of something new. Because it has the potential to bring out the quality of a product and make it more competitive compared to products and services offered by other companies, exploration is very significant because it can add value to a product or service and can deliver that quality. Product exploration can be an alternative if a company wants to avoid the challenge of being market-competent. Product exploration can also serve as a form of continuous improvement in business development. This increase is expected to meet customer needs, which will ultimately have an impact on increasing revenue for the company. Companies included in the category of the small, medium, or large industries must still be able to compete successfully in a period of technical development, even though technological developments are increasingly advanced. The transaction process does not need to occur between buyers and sellers. It can be accessed online, an important role and benefit provided by the internet for businesses by utilizing E-Commerce in exploring products. In the past, the market was a traditional market where sellers and buyers had to meet, and it took time to get to the location. But with the existence of the web and the internet today, the transaction process does not have to occur between buyers and sellers and can be accessed online. It is simple, low-cost, and not limited to geographic location. So, it can be concluded that MSMEs in Tangerang City already have Ambidexterity which always prioritizes product exploration in running their business so that they can survive in an environment of business competition, especially during the unpredictable COVID-19 era. The findings of this study are in line with previous research conducted by Chang et al. (2022), de Ruyter et al. (2020), and Doblinger et al. (2022), which states that Product Exploration has a positive and significant effect on company performance.

Testing the second hypothesis (H2) is whether product exploitation positively affects MSME performance. The results of this study prove that product exploitation has a positive effect on MSME performance. It means that the higher the Product Exploitation, the higher the MSME players will increase their income. With Ambidexterity, MSEs can use organized efforts and tools to find opportunities and create growing value by meeting needs and wants, regardless of the available resources. A business is no exception; MSMEs need various benefits from entrepreneurial innovation in the operation and development of their business or the business itself. The first product exploitation is necessary to ensure that companies remain relevant to consumers, the second is to replace products with very short life cycles, and the third is to increase revenue for managed companies. So that MSEs in Tangerang City who have Ambidexterity can increase their income by surviving and adapting in dealing with, overcoming, preventing, limiting, or eliminating bad influences, and being able to rise and recover from pressure, difficulties, or unpleasant things in business. This study's findings align with previous research conducted by Dranev et al. (2020), which states that Product Exploitation has a significant positive effect on company performance.

Testing the third hypothesis (H3) is whether market exploration positively affects MSME performance. The results of this study prove that market exploration has a positive effect on MSME performance. It demonstrates that the higher the Market Exploration, the higher the MSME Performance. An innovative mindset includes transforming knowledge into new products, which can also be processed into services to meet client needs. New product development and market exploration are the main focus of innovative thinking, which combines technological, physical, and intellectual processes. While Ambidexterity assists companies in creating new value propositions through a range of activities, such as offering new products or services, adopting new organizational and operational practices, providing technology solutions, or creating new skills and competencies, innovation can also drive the skills and knowledge needed to effectively realizing, mastering, and improving existing technology and creating something new so that optimal performance can be achieved. It enables optimal performance as a goal desired by MSME players in Tangerang City. This study's findings align with previous research conducted by Tsai & Ren (2019) and Maine et al. (2022), which states that Ambidexterity has a significant positive effect on MSME performance.

Testing the fourth hypothesis is whether market exploitation positively affects MSME performance. The results of this study prove that market exploitation has a positive effect on MSME performance. It proves that the higher the Market Exploitation owned by SMEs, the higher the Performance of SMEs. Technological advances and changing times, in addition to various circumstances, bring about changes in human behavior, both in terms of the demands imposed by circumstances and the will of the individual, which prioritizes practicality. Because everyone can make transactions with just one click anywhere and anytime, this function can open up business opportunities to sell and exploit the marketing of products or services during the Covid-19 pandemic. It is because everyone can make transactions with just one click. It is generally accepted that moving transactions from offline to online can increase the company's overall profits. Using E-Commerce or electronic transactions is a container for market

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exploitation that will reach a larger market without constraints, thus saving labor costs and marketing expenses while increasing sales and increasing company profitability. The use of E-Commerce to exploit the market is also a marketing strategy that helps attract customers to make purchases, which is an important goal of marketing. If the market segment is wider, it can increase sales volume; conversely, if the sales volume is greater, it can increase MSME income. It is an effort to maintain or increase sales turnover that leads to acceptance of market use as a means of selling products produced by MSMEs. This increase in sales turnover can be attributed to reduced operational costs caused by digital methods. Since everything is handled online, micro, small and medium enterprises need efficient financing methods and processes. In improving E-Commerce capabilities, SMEs in Tangerang City are encouraged to take advantage of online marketplaces such as Tokopedia, Bukalapak, or Shopee. E-Commerce can be very helpful in increasing sales of UMK products in Tangerang City. The marketplace is used to market products to a wider audience. Even if there is a large increase in the number of market partners, there are still challenges with people's ability to use digital technologies. The digital transformation process must be carried out in its entirety. It was done to encourage micro, small and medium enterprises (UMK) in Tangerang City to rise from the downturn inflicted during the pandemic to improve their business performance. This study's findings align with previous research (Giovannetti et al., 2020; Sahi et al., 2020; Severgnini et al., 2018), which stated that market exploitation has a significant positive effect on MSME performance.

### **The moderation of Firm Size and Firm Age**

Testing the fifth hypothesis (H5) is whether company size can moderate product exploration of MSME work. The results of this study prove that company size can moderate product exploration of MSME work. MSE actors with qualified resources can maintain the continuity of their business, which refers to overcoming obstacles that arise in running their business and preventing things that can threaten and damage their company. Some people can easily overcome challenges, while others cannot escape a precarious situation. After going through the challenges and stress caused by the Covid-19 pandemic, it is not easy to continue running a business. Understanding that workflow needs to be maintained so the organization can survive unexpected events is the first step to building business resilience for MSEs in Tangerang City. The human aspect is a challenge that is sometimes overlooked when it comes to enterprise resilience design. This challenge requires individuals to be prepared and taught how to respond effectively in unpredictable conditions. Therefore, MSME actors with a high resilience can generate business continuity, improving MSME performance.

The sixth hypothesis (H6) is whether company size can moderate product exploitation on MSME performance. The results of this study indicate that company size cannot moderate the relationship between ambidexterity, in this case, product exploitation, on MSME performance. The relatively small company size allows MSMEs in Tangerang City to not be able to exploit, sell and market their products. Even though it is known that product expansion will also help the growth of businesses owned and operated by MSMEs, this also allows MSMEs to engage in marketing activities to penetrate international markets.

The seventh hypothesis (H7) is whether company size can moderate market exploration on MSME performance. The results of this study are accepted with a proven P-value  $> 1.96$ . The size of a company with the capacity of competent human resources to recover quickly from adversity is a key component of resilience, which can be attributed to the natural characteristics of the individual or the accumulation of knowledge and experience over time. A person's capacity to explore markets can be affected by various factors, such as the support they receive from others, the personal power they gain over time, and their social skills. The ability of individuals to quickly come back to face risky and stressful events and overcome them through their competence defense and positive and flexible adaptation to changes brought about by stressful experiences is what we mean when we talk about their resilience. The ideal company size can determine whether or not it can successfully adapt in the face of challenging circumstances and significant market uncertainties.

The results of testing the eighth hypothesis (H8) found a rejection with a proven P-value  $< 1.96$ . Thus, the size of the company must maintain market exploitation of the performance of MSMEs in Tangerang City. This study's ninth hypothesis (H9) of the moderation test shows that firm age moderates the relationship between product exploration and MSME performance, and decisions are accepted. It is obtained from the P-value ( $2.374 > 1.96$ ) with a significance value of  $0.004 < 0.05$ . Increasing or decreasing the firm's age can increase or weaken the relationship between Product Exploration and MSME Financial Performance. This study's tenth hypothesis (H10) of the moderation test shows that firm age moderates the relationship between product exploitation and MSME performance, and decisions are accepted. It is obtained from the P-value ( $2.698 > 1.96$ ) with a significance value of  $0.000 < 0.05$ . It means that increasing or decreasing the age of the company can increase or weaken the relationship between Product Exploration and MSME Performance. This study's eleventh hypothesis (H11) of the moderation test shows that firm age moderates the relationship between market exploration and MSME performance, and decisions are accepted. It is obtained from the P-value ( $2.581 > 1.96$ ) with a significance value of  $0.000 < 0.05$ . It means that the increase or decrease in the

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age of the company can decrease or weaken the relationship between Market Exploration and MSME Performance. This study's twelfth hypothesis (H12) of the moderation test shows that firm age moderates the relationship between market exploitation and MSME performance, and decisions are accepted. It is obtained from the P-value ( $2.015 > 1.96$ ) with a significance value of  $0.004 < 0.05$ . Increasing or decreasing the firm's age can increase or weaken the relationship between Market Exploitation and MSME Performance.

### **CONCLUSION**

The findings of this study offer a solution for MSEs to use ambidexterity to improve their financial performance. One method is to optimize qualified resources to maintain business continuity, which refers to overcoming obstacles in running their business and preventing things that can threaten and damage the company, particularly during uncertain times like Covid-19. Moreover, the human factor is a barrier that is frequently disregarded in organizational resilience design. Individuals must be prepared for this task and taught how to respond successfully in unforeseen settings. As a result, MSMEs with high resilience may produce business continuity, consequently improving MSMEs' performance in Indonesia, particularly in Tangerang City.

From the results of the analysis, it can be seen that the ease of SMEs in penetrating the market and being able to improve financial performance if SMEs can exploit and explore as part of ambidexterity as a very appropriate combination of strategies to maintain the current business while anticipating possible changes that may arise. MSMEs that use an ambidexterity strategy have the organizational ability to balance exploitation and exploration strategies simultaneously. Organizations that manage to strike a balance between the two perform better in the short and long term.

From the results and discussion in the previous chapter, the following conclusions can be drawn:

- 1) Product exploration has a positive and significant impact on the financial performance of MSMEs.
- 2) Product exploitation has a positive and significant impact on the financial performance of MSMEs.
- 3) Market exploration has a positive and significant impact on the financial performance of MSMEs.
- 4) Market exploitation has a positive and significant impact on the financial performance of MSMEs.
- 5) Firm size can moderate product exploration on the financial performance of MSMEs.
- 6) Firm size cannot afford moderate product exploitation on MSME financial performance.
- 7) Firm size can moderate market exploration on the financial performance of MSMEs.
- 8) Firm size cannot afford moderate market exploitation of MSME financial performance.
- 9) Firm age can moderate product exploration on the financial performance of MSMEs.
- 10) Firm age can moderate product exploitation on MSME financial performance.
- 11) Firm age can moderate market exploration on the financial performance of MSMEs.
- 12) Firm age can moderate market exploitation of MSME financial performance.

### **RESEARCH IMPLICATIONS, SUGGESTIONS AND LIMITATIONS**

Although the selection of MSMEs as the sample in this study increased the internal validity, consideration should be taken when extrapolating these results to other industries, such as the manufacturing industry. Our data demonstrate unequivocally that business size hinders the impact of product exploitation and market expansion on financial success. The correlation between ambidexterity and financial performance is elucidated by combining these findings with those of earlier research to determine the threshold level for the contingent influence of firm size on the ambidexterity-financial performance relationship.

The future study examining the effects of management control and business type on the ambidexterity-financial performance link in various circumstances would be of theoretical and managerial value. The quality of strategic emphasis implementation is the most important factor to be added to our evaluation and analysis. This omission remains the same conclusion, predicated on the assumption that the quality of execution is normally dispersed throughout each strategic emphasis. However, it hinders our ability to identify the important factors of execution quality. We must investigate the supply side and internal elements influencing a company's cost structure and earnings. The final effectiveness of strategic emphasis and ambidexterity is also contingent upon implementation costs and benefits. Exploring the increasingly complicated linkages between exploration, exploitation, costs, and profitability requires further theory and data. Some of our theoretical arguments presuppose a connection between observable organizational traits and unobservable underlying mechanisms. For instance, we connect firm size to structural differentiation via mechanisms underlying resources and capacities. We also connect firm age and experience to contextual systems and processes via mechanisms underlying organizational learning. Beneficial would be future research that explicitly examines the structural and contextual approaches to ambidexterity and evaluates their relative usefulness in driving business performance. There is universal agreement that exploration and exploitation impact financial success, but this



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understanding must be shown further to achieve superior corporate performance. MSME owners must comprehend how to link exploration and exploitation within and across functional areas with the firm's size and age to increase income. We invite future research to provide additional insights about the impact of ambidexterity on business financial success and to include MCS, for instance, as the primary antecedent factor and other control variables (e.g., MSME type) as moderating variables.

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