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Article

Can investment risk-taking mediate the relationship between national cultural dimensions and the financial performance of small enterprises?

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Abstract: Research on the role of national culture in finance has shown significant development. This study aims to further explore the relationship between three dimensions of national culture (individualism, uncertainty avoidance, and masculinity) and company performance, mediated by investment risk-taking. The study targets Indonesian SMEs, with a sample of 161 respondents from DKI Jakarta, West Java, Central Java, Yogyakarta, and East Java provinces. The results indicate that higher levels of uncertainty avoidance and masculinity significantly enhance investment risk-taking capacity. Additionally, increased uncertainty avoidance, masculinity, and investment risk-taking contribute to improved SME performance. Mediation analysis further confirms that investment risk-taking mediates the relationship between uncertainty avoidance, masculinity, and firm performance. However, individualism does not show a significant impact on either investment risk-taking or SME performance. This study provides valuable insights for policymakers and SME owners in formulating policies to promote the future development of SMEs.

Keywords: individualism; uncertainty avoidance; masculinity; risk-taking; cultural finance

1. Introduction

Research on Small and Medium Enterprises (SMEs) has become an interesting area to explore. SMEs play a crucial role in economic growth, especially in developing countries. In Indonesia, data from the Indonesian Chamber of Commerce and Industry shows a significant increase in the number of SMEs over the years. By 2023, there were 64.2 million SMEs, accounting for 99 percent of all business units in the country. This has led to SMEs contributing 61 percent to the gross domestic product and employing 117 million people, representing 97 percent of the total workforce in Indonesia. The crucial role of SMEs must be supported by their growth and performance. Previous studies have shown that cultural factors and risk-taking behavior often hinder SME performance. Findings suggest that national culture (Farooq et al., 2020; Kabir et al., 2023; Shin et al., 2023) and investment risk-taking (Díez-Esteban et al., 2018; Frijns et al., 2022; Reissová et al., 2020) are key factors influencing SMEs performance.

National culture plays an important role in financial decision-making within companies. Kutan et al. (2020) argue that cultural differences between countries affect corporate decision-making. While there are several ways to measure national culture, Hofstede's dimensions of culture are considered the most comprehensive (Kutan et al., 2020). Hofstede identified six dimensions of culture: individualism, power distance, uncertainty avoidance, masculinity versus femininity, long-term versus

short-term orientation, and indulgence (Hofstede, 2011). This study focuses on three dimensions that are particularly low in Indonesia: uncertainty avoidance, individualism, and masculinity (Suharnomo and Syahruramdhan, 2018). Farooq et al. (2020) found that countries with high levels of uncertainty avoidance tend to have poorer financial performance. On the other hand, countries with high levels of individualism and masculinity tend to have better financial performance. Kabir et al. (2023) found a complex relationship between masculinity and performance, suggesting that national masculinity culture can lead to changes in company performance. Shin et al. (2023), however, found that masculinity does not have a strong effect on company performance, while uncertainty avoidance tends to lower performance and individualism tends to improve it.

In addition to financial performance, previous studies have shown the role of national culture in influencing investment risk-taking behavior (Ashraf et al., 2016; Díez-Esteban et al., 2019; Purwidianti, 2022). Investment risk-taking refers to a company's willingness to take advantage of opportunities in uncertain business environments (Baule, 2016). SME owners are often hesitant to engage in high-risk business strategies, which can prevent them from achieving maximum performance (Pratono, 2018). However, other studies (Kallmuenzer and Peters, 2018; Purwidianti et al., 2022) have shown that risk-taking behavior does not always improve company performance. Kuforiji and Abdelrahim (2022) highlighted the importance of national culture and investment risk-taking across various countries. So far, research on the impact of national culture on investment risk-taking has shown significant gaps. Some studies suggest that national culture encourages greater risk-taking, while others present conflicting findings.

National individualism is characterized by individuals prioritizing their personal interests over the interests of the group. Previous research has shown that individualism plays a role in increasing investment risk-taking (Ashraf et al., 2016; Ashraf and Arshad, 2017; Dang et al., 2018; Díez-Esteban et al., 2019; Kuforiji and Abdelrahim, 2022; Luong et al., 2024; Mourouzidou-Damtsa et al., 2017; Pour et al., 2023). Uncertainty avoidance reflects a society's preference for avoiding uncertain situations. Research has shown that higher levels of uncertainty avoidance are linked to lower company performance (Ashraf et al., 2016; Ashraf and Arshad, 2017; Díez-Esteban et al., 2019; Kanagaretnam et al., 2014; Luong et al., 2024; Pour et al., 2023; Hsiao et al., 2024). However, Getie Mihret (2014) found that higher uncertainty avoidance can sometimes encourage business owners to take on high-risk investments. The masculinity versus femininity cultural dimension is not related to gender differences. Rather, masculinity focuses on assertiveness and performance orientation, emphasizing competitiveness, proactiveness, and confidence. Previous studies have shown that individuals with higher masculinity tend to take more risks in investment (Díez-Esteban et al., 2019; Yeboah, 2014). However, Kuforiji and Abdelrahim (2022) found no significant relationship between masculinity and individual risk-taking.

Previous research has yielded inconsistent findings on the relationship between national culture and financial performance. Similar disparities exist regarding the links between national culture and investment risk-taking, as well as between risk-taking behavior and company performance. To address these gaps, this study explores the interplay between national culture, investment risk-taking behavior, and the financial

performance of SMEs. Specifically, it positions investment risk-taking as a mediating variable between national culture and firm performance, offering a novel perspective. Furthermore, the study evaluates the effects and significance of these dimensions to provide deeper insights into their relationships.

2. Theoretical background and hypothesis development

2.1. Cultural finance and risk-taking

The term culture is complex and ambiguous, depending on the academic discipline and scientific purpose (Breuer and Quinten, 2009). Culture can be understood as the content and form of expression of dominant values and the mentality of social groups. As a result, culture shapes and involves moral attitudes, habits, traditions, laws, politics, economic systems, language, art, social norms, and academic practices (Breuer and Quinten, 2009). Culture is also defined as the collective programming of the mind that distinguishes members of one group or society from another (Hofstede, 1984). This culture includes mindsets transferred from parents to their children, from teachers to students, from friends to peers, from leaders to followers, and vice versa. Culture influences various aspects of life, shaping how people view the world and their role in it, as well as their values. Management in any society is constrained by its cultural context, as it is nearly impossible to coordinate people's actions without a deep understanding of their values, beliefs, and expressions (Hofstede, 1984). The role of culture in finance has been examined by several researchers. The theory connecting culture and finance is referred to as Cultural Finance**.** Cultural finance theory explains the influence of cultural background on financial decisions, whether in terms of fund allocation or fundraising (Nadler and Breuer, 2017).

The first study on the impact of culture in finance was conducted by Grinblatt and Keloharju (2001). Their research found evidence that investors are more likely to hold, buy, and sell stocks geographically close to them, where the investors share the same native language or where the CEO is from a different cultural background. Aggarwal et al. (2016) argue that culture plays a significant role in explaining financial decisions. Culture shapes the perceptions, preferences, and behaviors of financial decision-makers. Its role is crucial and cannot be ignored in financial decision-making. In finance, there has been rapid development in research connecting national culture with various financial aspects, such as leverage, dividend policies, earnings management, mergers and acquisitions, bank risk-taking, and corporate risk-taking (Frijns et al., 2022; Pour et al., 2023).

The application of culture in financial research presents several challenges (Aggarwal et al., 2016). First, culture is often described as a "fuzzy" construct, making it inherently difficult to define and measure. Cultural data typically relies on subjective responses to questionnaires, which may limit its objectivity. Second, the issue of endogeneity poses concerns about reverse causality or spurious relationships, where culture may serve as a proxy for unobserved variables. Third, establishing a robust theoretical framework to link cultural metrics with financial decisions and disentangling both the direct and indirect effects of culture on these decisions remain significant challenges.

Risk-taking refers to the bold action of entering new, unfamiliar markets or allocating resources with uncertain returns (Kitigin, 2017). It also involves a company's tendency to undertake high-risk projects and a manager's preference to act cautiously in achieving the company's goals. Games and Rendi (2019) describe risk-taking as an organization's willingness to make decisions and take action without sufficient knowledge of potential profit probabilities, thus involving increased personal, financial, and business risks. Risk-taking also relates to subjective assessments of the dangers arising from past or upcoming events (Krumov, 2023). Research shows that SMEs tend to perform better when they take moderate risks compared to those that engage in high-risk activities. This finding is supported by Games and Rendi (2019), who highlight the necessity for SMEs to take risks, as it reflects their openness to change and new ways of working.

2.2. Research framework

This study adopts a theoretical approach to examine the relationship between dimensions of national culture (Individualism, Uncertainty Avoidance, and Masculinity), investment risk-taking behavior, and the financial performance of SMEs. In this framework, Individualism, Uncertainty Avoidance, and Masculinity serve as the independent variables, with investment risk-taking behavior as the mediating variable and financial performance as the dependent variable. The research framework is depicted in **Figure 1**.

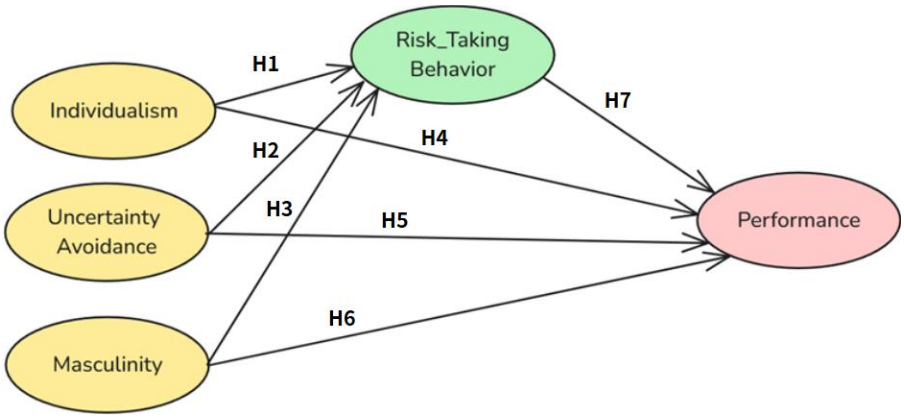

Figure 1. Research framework.

2.2.1. Individualism and risk-taking

Individualism emphasizes the responsibility of individuals to take care of themselves and their families (Hofstede, 1984). As a result, individuals in cultures that prioritize individualism are more likely to take on risky investments. This cultural trait is linked to risk-taking behaviors, which stem from managers' willingness to take risks (Gaganis et al., 2019). Kutan et al. (2020) argue that national cultures characterized by individualism can encourage greater investment risk-taking. Individualism fosters a heightened sense of confidence, which in turn promotes bolder risk-taking. According to Kutan et al. (2020), individualism is positively correlated with corporate risk-taking. Several previous studies provide strong evidence that individualism can enhance investment risk-taking (Ashraf et al., 2016; Ashraf and Arshad, 2017; Dang

et al., 2018; Díez-Esteban et al., 2019; Kuforiji and Abdelrahim, 2022; Luong et al., 2024; Mourouzidou-Damtsa et al., 2017; Pour et al., 2023).

H1: High individualism leads to greater willingness to risk-taking.

2.2.2. Uncertainty avoidance and risk-taking

Countries with high levels of uncertainty avoidance generally prefer clear rules and seek to minimize uncertainty (Gaganis et al., 2019). Cultural factors are instrumental in shaping attitudes toward investment risk-taking. Although more research has shown that high uncertainty avoidance is often linked to lower levels of risk-taking (Pour et al., 2023), the relationship between uncertainty avoidance and risk-taking is not universally positive. This variation arises because national cultural attitudes toward risk tolerance differ significantly. Using a large sample of firms from 37 countries over the period 2007–2015, Díez-Esteban et al. (2019) explicitly pointed out that corporate risk-taking behavior is not determined by a single factor; rather, it is influenced by a combination of factors such as religious background, national culture, and shareholder structure.

Additionally, some prior studies have found a positive relationship between uncertainty avoidance and investment risk-taking, as shown by Delerue and Simon (2009) and Yeboah (2014). Yeboah (2014) conducted a study in Ghana that revealed a weak positive correlation between uncertainty avoidance and risk-taking, indicating that small and medium-sized enterprise (SME) owners/managers, when faced with an uncertain business environment, may sometimes make bold decisions. However, they also carefully consider various situations and seek advice from others in the business community. The inference of this study is that Indonesian SME owners are inclined to take risks in uncertain situations, likely due to the inherently high-risk nature of SMEs in Indonesia (Pratono, 2018). Accordingly, Hypothesis H2 is proposed as follows.

H2: High uncertainty avoidance leads to an increase in risk-taking behavior.

2.2.3. Masculinity and risk-taking

Individuals in society can differ across four components of achievement motivation (personal indifference, work, mastery, and competitiveness), which can be linked to femininity and masculinity, rather than gender (Kuforiji and Abdelrahim, 2022). In countries with high levels of masculinity, individuals tend to prefer competition. On the other hand, in cultures with high femininity, individuals do not necessarily need to be competitive, ambitious, or willing to take risks. Masculinity has a positive influence on investment risk-taking (Díez-Esteban et al., 2019; Yeboah, 2014).

H3: High masculinity leads to an increase in risk-taking.

2.2.4. Individualism and performance

An individualistic culture leads to increased self-confidence among business owners or managers. Managers who are confident in their skills and abilities are likely to improve company performance. Shin et al. (2023) and Hsiao et al. (2024) found that individualism can enhance company performance. This is further supported by Zainuddin (2019), who confirmed that national individualism culture can boost corporate performance.

H4: High individualism will improve company performance.

2.2.5. Uncertainty avoidance and performance

Research suggests that national culture significantly influences corporate governance practices and performance. Uncertainty avoidance, in particular, has been found to have mixed effects. While it is negatively associated with a preference for investing in more predictable returns, which tends to result in lower financial performance (Farooq et al., 2020; Silwal, 2022; Shin et al., 2023), it also strengthens the relationship between corporate planning, thereby bringing a positive impact on organizational performance (Hamann et al., 2022). Hamann et al. (2022), using meta-analysis, examined the relationship between corporate planning (CP) and organizational performance (OP). The results showed that in countries with high levels of uncertainty avoidance, the effect size of CP on OP was larger, though the effect varied depending on factors such as industry, national culture, organizational size, and environmental uncertainty.

Additionally, some scholars have argued that risk-averse entrepreneurs tend to have a long-term planning orientation and cautious decision-making habits, which results in a positive correlation between risk aversion and corporate performance. Lumpkin et al. (2010) noted that risk-averse companies typically focus on long-term development. They are willing to sacrifice short-term profits in favor of long-term stability and sustainability. This approach often leads to stronger financial performance. Morck et al. (2005) suggested that risk-averse companies are particularly cautious when making decisions, especially regarding high-risk projects such as significant capital expenditures or new product development. They conduct thorough due diligence, and this careful approach helps to reduce the likelihood of failure, thereby improving performance. Moreover, risk-averse companies are often perceived as more reliable and trustworthy. This reputation can attract customers, investors, and business partners, thereby enhancing financial performance. Therefore, this study proposes Hypothesis H5.

H5: High uncertainty avoidance will increase company performance.

2.2.6. Masculinity and performance

Masculine culture emphasizes societal preferences for achievement, assertiveness, excellence, and material success (Hofstede, 1984). A country's masculinity index reflects the differences in values between men and women in the same job roles (El-Halaby et al., 2017). For managers and business owners, the desire for recognition tends to drive efforts to improve company performance. Research by Farooq et al. (2020), Kabir et al. (2023), and Zainuddin (2019) shows that managers in masculine cultures are motivated to enhance company performance.

H6: High masculinity will improve company performance.

2.2.7. Rik-taking and performance

Risk-taking behavior refers to a company's willingness to seize opportunities in an uncertain business environment. This behavior is often associated with entrepreneurship and innovation, with risk-taking considered a distinctive characteristic or dimension of intrapreneurship within existing firms (Brockhaus, 1982). Traditional risk-taking incentive theories suggest that entrepreneurs are inherently risk-takers, which implies they are more likely to achieve better performance (Willebrands et al., 2012). Pratono (2018) conducted a survey of

Indonesian SME owner-managers and found that the impact of risk-taking behavior on firm performance is more effective in conditions of low information technological turbulence than in high-turbulence conditions.

SME owners are constantly faced with uncertain business environments. This requires them to take bold risks. High risk-taking can enhance the value or performance of the company (Rahaman et al., 2021). Several studies have shown that the willingness to take investment risks positively impacts performance outcomes (Dvorsky et al., 2020; Games and Rendi, 2019; Rahaman et al., 2021).

Based on the idea that willingness to undertake business-related risks is a core trait of entrepreneurs, especially in entrepreneurially-oriented organizations that typically exhibit risk-taking behaviors, these organizations often make greater financial commitments, aiming to capture high returns by seizing market opportunities (Brockhaus, 1982). Therefore, this study proposes Hypothesis H7.

H7: Risk-taking courage will improve company performance.

2.2.8. Linking individualism and performance through risk-taking

A national culture of individualism tends to encourage individuals to achieve their goals independently, without concern for others (Hofstede et al., 2010). Individualism fosters a willingness to take risks, which in turn leads to improved company performance.

H8: Individualism can improve company performance through investment risk-taking.

2.2.9. Linking uncertainty avoidance and performance through risk-taking

A culture of uncertainty avoidance leads to higher risk-taking, which impacts company performance. In countries with high uncertainty avoidance, managers tend to avoid ambiguity. This avoidance can lead to improved company performance (Farooq et al., 2020).

H9: Uncertainty avoidance can improve company performance through investment risk-taking.

2.2.10. Linking masculinity and performance through risk-taking

A culture of high masculinity leads to managers exhibiting rigid and assertive behavior. Managers in such cultures seek recognition, which drives them to take higher risks, ultimately resulting in improved company performance (Farooq et al., 2020).

H10: Masculinity can improve company performance through investment risk-taking.

3. Methodology

3.1. Research method and sample collection

This study primarily employs Partial Least Squares (PLS) for causal model analysis between latent variables, which is superior to general linear structural relationship models and suitable for exploratory research. PLS can accommodate single-item constructs and is not constrained by the distribution of variables or sample size, offering strong predictive and explanatory capabilities. PLS-SEM is able to

simultaneously assess paths and factors within a single model. Furthermore, PLS-SEM combines factor analysis with regression analysis with minimal assumptions, where the resulting R-square value represents the degree to which the independent variables explain the dependent variables.

The subjects of this study are SME owners in Indonesia. Convenience sampling was used for sample selection, with the inclusion criteria being non-financial SMEs that were operational during the study period. A total of 161 Indonesian SME owners were surveyed, with sample regions including DKI Jakarta, West Java, Central Java, Yogyakarta, and East Java provinces. The survey period spanned from January 2023 to December 2024.

3.2. Variable measurements

The measurement dimensions and questionnaire items of this study are organized as shown in **Table 1**. The national cultural dimension of individualism was measured using the framework from Hofstede et al. (2010) and Wu et al. (2001). The indicators for individualism included eight items (four reflecting individualism and four reflecting collectivism). These questions covered personal and family time, freedom, challenges, training, physical conditions, and skill utilization. The national cultural dimension of uncertainty avoidance was measured using five indicators from Hofstede et al. (2010) and Wu et al. (2001), including work rules, job stress, job situations, and job security.

The national cultural dimension of masculinity was measured using four indicators from Hofstede et al. (2010) and Wu et al. (2001), which included income, recognition, advancement, and challenges. The mediating variable of risk-taking behavior was measured using indicators from Covin and Wales (2012), Lumpkin et al. (2009), and Pratono (2018). The eight indicators included high-risk investments, willingness to expand business, willingness to add capital, willingness to take business risks, sales growth, business costs, patience in waiting for investment returns, and asset utilization. The performance of SMEs was measured by financial performance, based on the studies by Nabeel-Rehman and Nazri (2019) and Purwidianti et al. (2022). The five items measured included increases in ROA, ROE, sales, market share, and sales growth.

Table 1. Measurement aspects and questionnaire indicators of this study.

Variables	Indicators	Refer to	Measurement
Individualism	Personal and family time, freedom, challenges, training, physical conditions, skill utilization	Hofstede et al. (2010), Wu et al. (2001)	Questionnaire survey
Uncertainty Avoidance	Work rules, job stress, job situations, job security	Hofstede et al. (2010), Wu et al. (2001)	Questionnaire survey
Masculinity	Income, recognition, advancement, challenges	Hofstede et al. (2010), Wu et al. (2001)	Questionnaire survey
Risk-Taking Behavior	High-risk investments, willingness to expand business, willingness to add capital, willingness to take business risks, sales growth, business costs, patience in waiting for investment returns, asset utilization	Covin and Wales (2012), Lumpkin et al. (2009), Pratono (2018)	Questionnaire survey
Performance of SMEs	ROA, ROE, sales, market share, sales growth	Nabeel-Rehman and Nazri (2019), Purwidianti et al. (2022)	Financial statements /Questionnaire survey

3.3. Analytical methods

This study used SEM-PLS for analysis. First, the outer model was tested to assess the validity and reliability of the items. If the outer loading value of an item was greater than 0.7, the reliability test was satisfied. Outer loading above 0.5 is regarded as acceptable and the factor with loading value of less than 0.5 should be dropped (Chin, 1998) . Convergent validity was tested using the average variance extracted (AVE); if the AVE value was greater than 0.5, convergent validity was confirmed. The discriminant validity test used two measures: Fornell-Larcker and cross-loadings. The Fornell-Larcker test was conducted by comparing the square root of the AVE with the correlations of the latent variables. Reliability was assessed using construct reliability and composite reliability. Construct reliability was shown by Cronbach's alpha, which was considered reliable if its value exceeded 0.7. For composite reliability, a value greater than 0.6 indicated sufficient reliability. Hypotheses were then tested using the inner model, where a p-value smaller than the 10% significance level and a coefficient direction in line with the hypothesis confirmed the hypothesis.

4. Findings

4.1. Respondent background

The study sampled SME owners from various regions in Indonesia, specifically in the provinces of Jakarta, West Java, Central Java, Yogyakarta, and East Java. A total of 161 SMEs were included in the sample. The characteristics of the respondents are presented in **Table 1** above. **Table 2** below provides an overview of the respondents, showing that the majority of those surveyed were male (60.25%). Most SME owners were between 21 and 30 years old, with the majority holding a bachelor's degree. In terms of business sectors, there was an almost equal distribution among manufacturing, services, and trade.

Table 2. Respondent Background (N = 161).

Item	category	Frequency	Percentage
Gender	Male	97	60.25%
	Female	64	39.75%
Age	Under 20 years old	14	8.70%
	Between 21 and 30 years old	113	70.19%
	Between 31 and 40 years old	10	6.21%
	Between 41 and 50 years old	13	8.07%
	Over 50 years old	11	6.83%
Education	Incomplete elementary	14	8.70%
	Senior High School	35	21.74%
	Associate Degree	9	5.59%
	Bachelor	88	54.66%
	Postgraduate	15	9.32%
Business Fields	Manufacturing	33	20.50%
	Services	71	44.10%
	Trade	57	35.40%

4.2. Model testing

The analytical tool used in this research is Structural Equation Modeling (SEM) with Partial Least Square (PLS)**.** The analysis technique employed is as follows: the outer model analysis is used to test the validity and reliability of the measurements. The criteria used include: for indicator reliability, the indicator loading must exceed 0.7. For convergent validity, the Average Variance Extracted (AVE) value must be above 0.5. For internal consistency reliability**,** the composite reliability value must be above 0.7. Finally**,** discriminant validity is assessed using the Fornell-Larcker criteria.

In the first outer loading test, not all indicators had outer loading values above 0.70. The results of the first outer loading test are shown in **Figure 2** below.

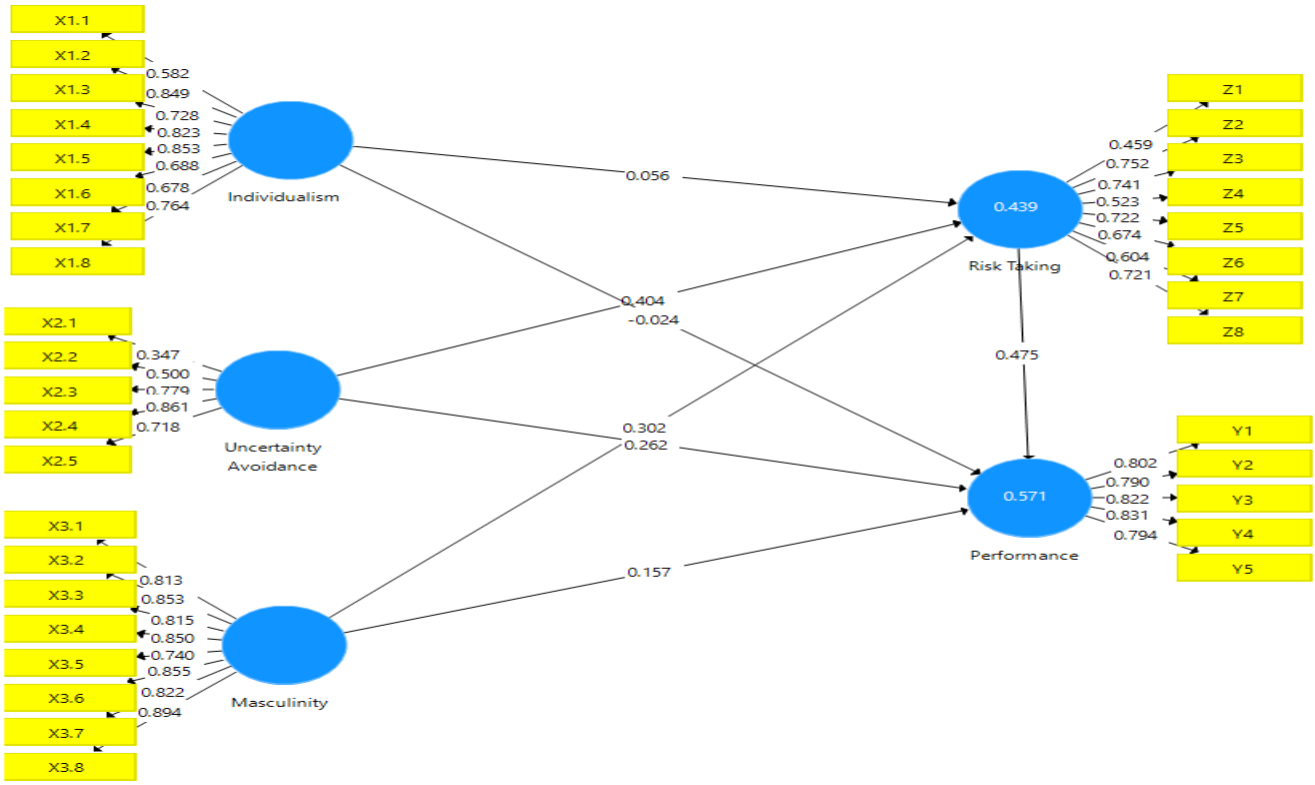

Figure 2. The results of the first outer loading test.

The results of the outer model showed that some outer loading values were below 0.7. Therefore, a retest was conducted by removing indicators with outer loading values below 0.7. **Figure 3** shows the results of the retest.

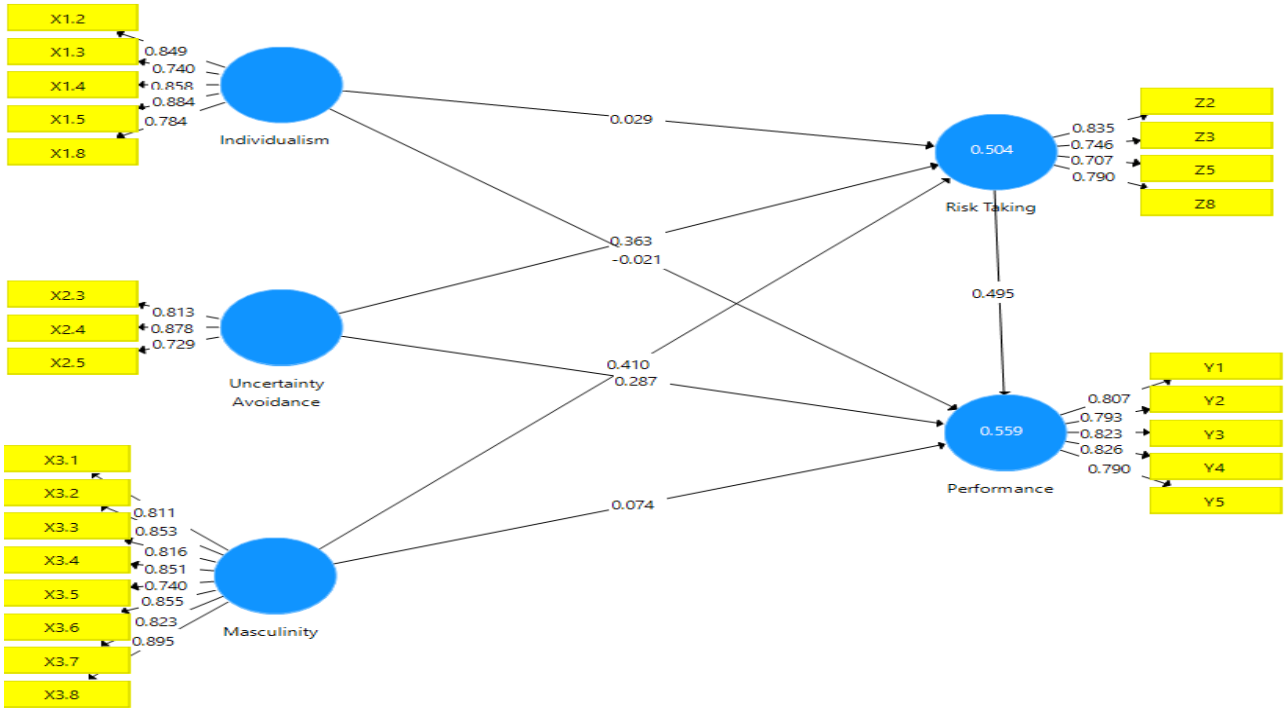

Figure 3. Results of the 2nd test (revised model).

The results of the reliability test, which include AVE, construct reliability, and composite reliability, are presented in **Table 3** below.

Table 3. Outer Loading, Cronbach's Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE).

Variable	Indicator	Outer Loading	CA	CR	AVE
Individualism	X1.2	0.849	0.882	0.914	0.680
	X1.3	0.740			
	X1.4	0.858			
	X1.5	0.884			
	X1.8	0.784			
Uncertainty Avoidance	X2.3	0.813	0.733	0.849	0.654
	X2.4	0.878			
	X2.5	0.729			
Masculinity	X3.1	0.811	0.936	0.947	0.691
	X3.2	0.853			
	X3.3	0.816			
	X3.4	0.851			
	X3.5	0.740			
	X3.6	0.855			
	X3.7	0.823			
	X3.8	0.895			
Risk-Taking	Z1.2	0.835	0.773	0.854	0.595
	Z1.3	0.746			
	Z1.5	0.707			
	Z1.8	0.790			

Table 3. (*Continued*).

Variable	Indicator	Outer Loading	CA	CR	AVE
	Y1.1	0.807			
	Y1.2	0.793			
Performance	Y1.3	0.823	0.867	0.904	0.653
	Y1.4	0.826			
	Y1.5	0.790			

The results of the Fornell-Larcker criterion test indicate that all variables have a square root value of the AVE greater than their correlations (**Table 4**). Therefore, it can be concluded that all the questionnaire items used in the study are valid.

Table 4. Fornell-Larcker criterion test results.

Variable	Individualism	Masculinity	Performance	Risk-Taking	Uncertainty Avoidance
Individualism	0.825				
Masculinity	0.789	0.831			
Performance	0.470	0.543	0.808		
Risk-Taking	0.554	0.644	0.708	0.771	
Uncertainty Avoidance	0.555	0.583	0.624	0.618	0. 809

The test results indicate no issues with the outer model, allowing the analysis to proceed to the inner model for hypothesis evaluation.

4.3. Hypothesis testing

This study has ten hypotheses, consisting of seven hypotheses that demonstrate direct effects and three hypotheses that demonstrate indirect effects. The two tables below present the results of the hypothesis testing. The results of hypotheses one through seven are shown in **Table 5** below.

Table 5. Direct Effects (H1–H7).

Hypothesis	Coefficient	*t* statistics	*p* value	Result
H1: Individualism → Risk-Taking	0.029	0.380	0.704	Not Supported
H2: Uncertainty Avoidance → Risk-Taking	0.363	5.230	0.000	Supported
H3: Masculinity → Risk-Taking	0.410	4.899	0.000	Supported
H4: Individualism → Performance	-0.007	0.088	0.930	Not Supported
H5: Uncertainty Avoidance → Performance	0.466	6.601	0.000	Supported
H6: Masculinity → Performance	0.277	3.419	0.001	Supported
H7: Risk-Taking → Performance	0.495	6.573	0.000	Supported

Table 5 shows that out of the seven hypotheses, five were supported, while two were not. The findings of this study indicate that the **i**ndividualism variable has no impact on performance and risk-taking. The uncertainty avoidance variable has a positive effect on both performance and risk-taking. Masculinity has a positive effect on both risk-taking and performance. The risk-taking variable also has a positive effect

on performance. The results of the indirect testing of hypotheses eight through ten are presented in **Table 6** below.

Table 6. Indirect Effects (H8–H10).

Hypothesis	Coefficient	*t*-statistics	*p*-value	Result
H8: Individualism → Risk-Taking → Performance	0.014	0.371	0.710	Not Supported
H9: Uncertainty Avoidance → Risk-Taking → Performance	0.180	4.236	0.000	Supported
H10: Masculinity → Risk-Taking → Performance	0.203	3.837	0.000	Supported

Table 6 reveals that among the three hypotheses on indirect effects, two were supported, while one was not. Specifically, the hypothesis concerning the effect of individualism on performance, mediated by investment risk-taking, was not supported. In contrast, uncertainty avoidance and masculinity demonstrated significant influences on performance when mediated by the risk-taking variable.

4.4. Discussion

The first hypothesis(H1), regarding the effect of individualism on risk-taking, was not supported. The national cultural dimension of individualism does not increase investment risk-taking among SME owners. This finding contrasts with the majority of previous studies. The results showing that national individualism does not influence risk-taking behavior are supported by Getie Mihret (2014), Lech Kurklinski (2015), and Yeboah (2014). This outcome can be linked to the character of Indonesian society, which tends to value collectivism over individualism (Suharnomo and Syahruramdhan, 2018). Another reason for the lack of impact of individualism on risk-taking is that individualism and collectivism have a similar orientation toward risk (Marino et al., 2010).

The second hypothesis (H2), which posits a relationship between uncertainty avoidance and investment risk-taking, was supported. The test results confirm that uncertainty avoidance positively influences investment risk-taking, aligning with the study's expectations. This finding is consistent with previous research, including Delerue and Simon (2009) and Yeboah (2014), which also identified a positive relationship between these variables. The results suggest that Indonesian SME owners are willing to take risks in uncertain situations, likely due to the inherently high-risk environment associated with SMEs in Indonesia (Pratono, 2018).

The third hypothesis (H3), which posits that high masculinity leads to increased risk-taking, was supported. This study confirmed that the national cultural dimension of masculinity enhances the willingness of SME owners to engage in investment risk-taking. These findings align with previous research, including Díez-Esteban et al. (2019), Kabir et al. (2023), and Yeboah (2014), which also identified a positive relationship between masculinity and investment risk-taking. A national culture characterized by masculinity reflects managerial assertiveness and a proactive, confidence-driven work orientation, making it a strong predictor of financial risk-taking. Individuals with higher masculinity scores are more inclined to engage in investment risk-taking (Díez-Esteban et al., 2019).

Hypothesis four (H4), which proposed that high national individualism enhances

company performance, was not supported in this study. This finding indicates that SME owners operating within an individualistic national culture do not necessarily contribute to improved company performance. These results contradict the findings of Farooq et al. (2020), who emphasized the significance of individualism in driving better company performance.

Hypothesis five (H5), which proposed that high uncertainty avoidance enhances company performance, was supported by empirical evidence in a positive direction. This study highlights the role of national uncertainty avoidance in improving company performance, particularly in the context of SMEs. SME owners in Indonesia face significant challenges, including intense competition, resource constraints, and the ongoing transition to information technology. As an emerging market, Indonesia offers numerous opportunities but also presents a highly competitive environment (Games and Rendi, 2019).

Hypothesis six (H6), which posited that high masculinity enhances company performance, was supported by the results. The study found that masculinity contributes to improved company performance. This finding aligns with Kabir et al. (2023), who observed that a national culture characterized by masculinity seeks recognition, ultimately leading to better company performance.

The results of the seventh hypothesis(H7) support the idea that risk-taking enhances company performance. This finding suggests that SME owners who are willing to take higher risks can improve company performance. This finding is in line with previous studies by Dvorsky et al. (2020), Games and Rendi (2019), and Rahaman et al. (2021), García-Lopera et al. (2022), Burkhard et al. (2023). In uncertain economic conditions with high risks, the key to SME success lies in the owners' willingness to take investment risks. This study does not support some previous findings that stated excessive risk-taking will reduce company performance (Dahlan et al., 2023; Zhang and Aumeboonsuke, 2022)

The results of the indirect effect testing for hypothesis eight(H8), which examined the effect of individualism on performance mediated by investment risk-taking, were not supported. This finding may be attributed to Indonesia's national culture, which leans towards collectivism. Collectivism emphasizes shared interests, leading SME owners in Indonesia to avoid incorporating individualistic values into company management practices.

In contrast, the results for hypotheses nine(H9) and ten(H10) aligned with expectations. Investment risk-taking was found to mediate the relationship between national uncertainty avoidance and company performance. Higher levels of national uncertainty avoidance were shown to increase investment risk-taking, which in turn enhanced company performance. Similarly, national masculinity was positively associated with risk-taking behavior, ultimately contributing to improved company performance.

5. Conclusion

This study investigates the relationship between three dimensions of national culture—individualism, uncertainty avoidance, and masculinity—and company performance, with investment risk-taking as a mediating factor. The findings diverge

from prior research, revealing that individualism does not significantly influence investment risk-taking or company performance. Conversely, uncertainty avoidance exhibits a positive association with both investment risk-taking and company performance. The influence of masculinity on investment risk-taking and performance aligns with the proposed hypothesis. Mediation effects were identified only for uncertainty avoidance and masculinity.

This study offers valuable insights for the government and SME owners in policymaking related to SME development in the future. The national cultural dimensions of uncertainty avoidance and masculinity have been shown to contribute to increased investment risk-taking and SME performance. Therefore, the government needs to conduct various trainings for SME owners such as risk management training and leadership training so that SME owners can reduce business uncertainty and improve the national culture of masculinity in developing their businesses.

This research also contributes to research in the field of cultural finance. The results of the study have identified the contribution of national culture of uncertainty avoidance and masculinity in SME finance. Future research can be improved by testing national cultural dimensions and financial decisions in SMEs in many countries.

The study has certain limitations related to the use of online methods for questionnaire distribution, which may have introduced respondent bias. Future research should consider direct observation of SME owners to reduce such bias. Additionally, future studies could enhance the indicators by integrating a broader range of research on national cultural dimensional, investment risk-taking, and SME performance.

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