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Managerial Gender and the Firm Strategic Decision Making-Mediating Effects Based on Personality Traits

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Abstract: Executives are crucial to corporate development. This paper empirically examines the relationship between executives' gender traits on the basis of theoretically analyzing their influence on corporate strategic decisions. The results show that the higher the proportion of female executives, the more aggressive the strategic decisions. Through further research, it can be found that openness does not have a mediating effect in the relationship between the two, and dutifulness has a partial mediating effect in the relationship between the two. The findings of this paper make a potentially useful contribution to the theoretical study of executives and high-quality corporate development.

Keywords: Gender Characteristics; Executives; Strategic Decision Making; Mediating Effect

1. Introduction

In modern corporate governance and strategic management research, the impact of managerial gender on corporate strategic decision-making has received increasing attention. Established studies have shown that female and male managers have significant differences in risk preferences, decision-making styles, and resource allocation, and these differences may further affect firms' long-term strategic planning. However, the specific mechanisms of how gender influences corporate strategic decisions through individual personality traits have not been fully explored.

Based on principal-agent theory, social role theory, and the Big Five personality model, this study introduces personality traits as a mediating variable to explore how managerial gender affects corporate strategic decisions. Female executives usually show higher levels of agreeableness and conscientiousness, while male executives are more prominent in openness and extroversion, and these personality traits may shape their strategic decision-making tendencies. Through theoretical analysis and empirical research, this study aims to fill the research gap on the relationship between gender, personality traits, and corporate strategic decision-making and provide new theoretical support for corporate executive selection and strategic management.

2. Theoretical Background and Research Significance

2.1 Relevant Theoretical Basis

Agency Theory

The principal-agent theory proposed by Jensen and Meckling (1976) argues that corporate management, as an agent, may have personal interests that are inconsistent with the interests of shareholders, leading to agency costs [8]. In this framework, managers' gender differences may affect their risk preferences and decision-making patterns. Female executives may be more inclined to protect the long-term interests of the firm due to stronger risk aversion, thus reducing agency costs (Huang & Kisgen, 2013) [7].

Social Role Theory

Social Role Theory proposed by Eagly (1987) states that men and women are assigned different roles in society, leading to differences in their behavioral patterns [4]. In contrast, men are more likely than women to be the primary household provider and to have full-time roles in the paid economy, which usually involve physical strength, assertiveness, or leadership skills. Females are often perceived as more cooperative and risk-averse, whereas males are more inclined to compete and take risks (Croson & Gneezy, 2009) [3]. This role expectation influences the way women make decisions in executive positions, making them more robust and long-term oriented.

Personality Traits Theory

The Big Five Personality Traits model suggests that an individual's personality traits can be categorized as Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (McCrae & Costa, 1997) [10]. Research has found that female executives typically exhibit higher levels of agreeableness and conscientiousness, while male executives are more prominent in openness and extraversion (Gupta et al., 2016). Differences in these traits may play a mediating role in firms' strategic decisions [5].

2.2 Current State of Research on Managerial Gender and Corporate Strategic Decision-Making

In the research on the impact of executive gender on corporate strategic decision-making, the existing literature points to the existence of unique characteristics of female executives in terms of their decision-making styles and strategic choices. For example, Charness and Gneezy (2012) found that female executives have an inhibiting effect on risky strategic decisions [2]. In addition, studies have also shown that female executives are effective in increasing the firm's strategic transition risk immunity during the strategic transition process. These studies emphasize that female executives may exhibit higher risk aversion tendencies and a keen ability to perceive market changes in strategic decision making.

In addition, Bacha and Azouzi (2019) found that female managers in the banking industry are more risk-controlled and typically exhibit a higher tendency to be conservative and centralize their decision-making [1]. Male managers, on the other hand, are more adventurous and willing to take higher risks in pursuit of higher returns.

2.3 Research on Personality Traits

Research has shown that managers' personality traits play an important role in the strategic decision-making process (Judge & Bono, 2001) [9]. In the field of business management, personality traits have been widely used to explain managers' leadership styles, risk preferences, and strategy formulation patterns. For example, managers who are high in due diligence tend to be more focused on long-term planning, whereas managers who are high in openness tend to drive innovation and market expansion (Peterson et al., 2003) [11]. In addition, female managers typically exhibit a stronger risk-averse tendency in strategic decision making, which is associated with their lower level of overconfidence and higher pleasantness (Huang & Kisgen, 2013) [7].

2.4 Review of the Current State of Research

Although a large number of studies have explored the impact of managers' gender on corporate decision-making, there are still research gaps and shortcomings.

First, existing studies have mainly focused on the direct relationship between gender and decision-making styles, lacking in-depth analysis of the mediating mechanisms. Most of the current literature focuses on how gender affects a firm's investment, financing, or operational decisions (Huang & Kisgen, 2013), but there is a lack of systematic research on the specific roles played by personality traits [7]. This study fills this academic gap by introducing personality traits as mediating variables.

Second, empirical research on the impact of managers' gender on strategic decision-making is still limited. Most studies explore the impact of gender on short-term financial decisions, such as capital structure or dividend policy, while there are fewer studies on long-term strategic planning, market entry modes, and M&A strategies. This study will focus on analyzing how gender affects firms' long-term strategic choices, providing new theoretical support for corporate governance and strategic management [6].

3. Research Hypotheses and Conceptual Model

3.1 The Relationship between Managerial Gender and Corporate Strategic Decision-Making

The role of managerial gender in strategic decision-making has gradually become a focus of academic attention. According to Croson and Gneezy (2009), female managers typically exhibit higher risk-averse tendencies, greater cooperativeness, and long-term oriented decision-making styles [3]. At the level of corporate strategy, this difference may be manifested in female executives' preference for robust expansion strategies, a cautious approach to market entry, and a more conservative allocation of resources (Huang & Kisgen, 2013) [7]. Male executives, on the other hand, may exhibit greater risk-taking and tend to pursue aggressive market expansion and high-risk, high-reward strategies (Bacha & Azouzi, 2019) [1].

Therefore, the following hypotheses are proposed:

H1: Managerial gender significantly influences corporate strategic decision making, female executives are more inclined to adopt a conservative approach to strategic decision making, while male executives are more inclined to adopt an aggressive approach to strategic decision making.

3.2 Relationship between Personality Traits and Corporate Strategic Decision Making

The Big Five Personality Traits model suggests that managers' personality traits play a central role in decision making (McCrae & Costa, 1997) [10]. For example, managers with a high degree of openness are more likely to promote innovative strategies, whereas managers with a high degree of conscientiousness are more likely to maintain steady growth (Peterson et al., 2003) [11]. Thus, personality traits, as a stable personal trait, may directly influence managers' strategic decision preferences.

Therefore, the following hypothesis is proposed:

H2a: Managers' personality traits significantly influence corporate strategic decision-making, with managers high in openness more inclined to adopt an aggressive strategic decision-making approach and managers high in due diligence more inclined to adopt a conservative strategic decision-making approach.

3.3 The Mediating Role of Personality Traits in the Relationship between Managers' Gender and Corporate Strategic Decisions

Combining Social Role Theory and Personality Traits Theory, gender differences may further influence managers' strategic decision-making tendencies by shaping their personality traits. It was found that female managers scored higher in the areas of agreeableness and conscientiousness, a personality trait that may further reinforce their tendency to be conservative in strategic decision making (Huang & Kisgen, 2013) [7]. Male executives, on the other hand, may drive more aggressive and expansive strategic placements due to higher extroversion and openness (Gupta et al., 2013).

Therefore, the following hypothesis is proposed:

H2b: Managers' personality traits mediate the relationship between managers' gender and firms' strategic decisions.

Example of model diagram, See Figure 1.

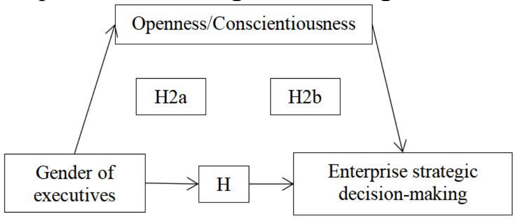

Figure 1. Hypothesized Conceptual Model

4. Research Design

4.1 Model Construction

In order to test hypothesis H1, a fixed effects model is constructed:

$$Y_{it}=\beta_0+\beta_1 GaoGuan_{i,t}+\beta_2 \sum_{i=1}^{n} X_{i,t}+\theta+\gamma+\epsilon_{i,t} \quad (1)$$

Y_{it} The explanatory variable, i.e., strategic decision, GaoGuan is the core explanatory variable, i.e., executive gender, $X_{i,t}$ is a series of control variables considered in the model, θ and γ are time fixed effects and individual fixed effects. β_0 is the constant term, and $\epsilon_{i,t}$ is the error term.

In order to test hypotheses H2a and H2b, the following mechanism test model is constructed:

$$D_{it}=\beta_0+\beta_1 GaoGuan_{i,t}+\beta_2 \sum_{i=1}^{n} X_{i,t}+\theta+\gamma+\epsilon_{i,t} \quad (2)$$

$$Y_{it}=\beta_0+\beta_1 GaoGuan_{i,t}+\beta_2 D_{i,t}+\beta_3 \sum_{i=1}^{n} X_{i,t}+\theta+\gamma+\epsilon_{i,t} \quad (3)$$

D_{it} are mediating variables, mainly distinguished as openness and due diligence, and the rest of the variables are consistent with equation (1).

4.2 Variable Definition and Measurement

- Explained Variables

The number of corporate mergers and acquisitions is selected to measure strategic decisions.

- Explanatory variables

Managerial gender: this study measures managerial gender as the ratio of the number of female managers in the number of directors to the total number of managers.

- Mediating variables

Personality traits:

Conscientiousness: the proxy variable is the total asset turnover ratio, i.e., operating income / total assets, which reflects whether managers focus on the efficiency of asset operation and sound management. High turnover usually implies high efficiency and responsibility.

Openness: The proxy variable is Total Selling Expenses, which is the degree of innovative investment in marketing and branding. Higher selling expenses usually represent a stronger spirit of market exploration, reflecting managers' acceptance and openness to new things.

• Control Variables

Referring to the existing literature (Bacha & Azouzi, 2019) [1], the following Table 1 variables are controlled:

Table 1. Variable Analysis

Variables	Measurement
Size	Natural logarithm of total assets
Age	Number of years the company has been listed
Return on Assets	Net Profit / Total Assets
Tangible Gearing Ratio	Net Profit / Total Assets
Subtotal of cash outflow from investing activities	Logarithm of subtotal of cash outflows from investing activities
Subtotal of cash inflows from investing activities	Logarithm of subtotal of cash inflows from investing activities
Net cash flows from investing activities	Logarithm of net cash flows from investing activities
Subtotal of outflows from operating activities	Logarithm of subtotal of outflow from operating activities

4.3 Sample Selection and Data Source

This study takes listed companies from 2008 to mid-2022 as the research sample, and selects companies with complete disclosure of executives' information in annual reports and accessible strategic data as the valid sample. Data sources include the Wind database and annual reports of listed companies. The gender variable is completed by identifying managers' names and genders in the annual reports, while the financial data of enterprises is mainly from Wind terminal.

To ensure the representativeness of the sample and the validity of the data, this study further specifies the following criteria for sample selection: Firstly, listed companies from different industries, including manufacturing, finance, and high-tech sectors, are selected to avoid biases that may arise from the characteristics of a single industry when examining the relationship between gender and strategic decision-making. Secondly, sample firms must have been continuously listed during the research period and maintain a certain scale, for instance, total assets not lower than the industry median, to ensure that their corporate governance structures are relatively sound and that management disclosure is adequate. Finally, firms with incomplete financial data or missing executive information are excluded to guarantee the comparability and consistency of all variables required for subsequent regression analyses. These rigorous sample selection criteria help enhance the scientific validity and robustness of the study’s findings.

The descriptive statistics of the sample in this paper are shown in Table 2.

Table 2 Descriptive Statistics

Variable	Obs	Mean	Std. dev.	dev.	Std. dev.
Number of acquisitions	21,030	0.2334284	0.5907614	0	3
gaoguan1	21,002	0.1240991	0.1240991	0	1
size	21,001	22.42444	1.536715	10.8422	28.63649
age	21,030	15.36662	6.342288	0	32
Return on assets	21,003	0.0286976	0.5229537	-64.81915	20.78764
Gearing ratio of tangible assets	21,001	0.6272669	2.33839	-0.194698	178.3455
Revenue from main operations	20,917	21.71218	1.756075	9.044175	28.81194
Subtotal of cash outflows from investing activities	20,921	19.64812	2.265283	3.432373	27.00487
Sub-total of cash inflow from investing activities	20,445	18.21855	3.023422	0	26.95301
Net cash flows from investing activities	4,130	18.12649	1.975573	2.262804	24.1905
Subtotal of outflow from operating activities	20,999	21.72442	1.689544	11.88792	28.94361

5. Results

5.1 Benchmark Analysis

In order to test the effect of executives' personality traits on strategic decisions, the regression results derived based on Model 1 are presented in column (1) of Table 2. It can be found that the regression coefficient of gender characteristics is 0.1821 and is significant at the 10% level (t=1.82), which indicates that the higher the proportion of the number of female executives, the more aggressive the strategic decision-making of the company, and hypothesis H1 is verified.

It is worth further discussing the apparent contradiction between the baseline regression results and Hypothesis H1. Theoretically, female executives are expected to make more conservative strategic decisions due to stronger risk aversion tendencies. However, the empirical results reveal that a higher proportion of female executives is associated with more aggressive strategic decision-making. This divergence may stem from the fact that some female executives, in practice, adopt more proactive expansion strategies to counteract doubts about their leadership capabilities or to break gender stereotypes. On the data side, the varying risk exposures across industries, firms' life cycle stages, and fluctuations in the macroeconomic environment may also influence how female executives' risk preferences translate into strategic choices. Therefore, the inconsistency between theory and findings suggests that future research could introduce industry-level moderating effects or control for more dimensions of heterogeneity to better explain the influence mechanism of managerial gender on strategic decision-making.

5.2 Analysis of Intermediary Effects

In order to test hypothesis H2a, this study identifies whether openness and due diligence play a mediating role in the effect of executive gender characteristics on strategic decisions with the help of model (2) and model (3). The results of the openness channel test are shown in columns (2) and (3) in Table 3, and it can be found that although openness significantly and negatively affects corporate strategic decisions (coefficient value = -0.0205, t = -1.66), the effect of executive gender characteristics on openness is not significant (coefficient value = -0.1760, t = -0.66), and therefore this study considers that openness is not one of the channels through which executive gender channel through which characteristics influence strategic decisions.

In order to test hypothesis H2b, whether due diligence is a mediating channel for executive gender characteristics to influence strategic decisions, this study also tested based on model (2) and model (3), and the test results are shown in columns (4) and (5) in Table 3, and it can be found that, although the executive gender characteristics have a significant negative impact on due diligence (coefficient value = -0.1803, t = -1.96), the impact of due diligence on strategic decisions is not significant (coefficient value = -0.1760, t = -0.66). Strategic decisions are not significant (coefficient value = -0.0134, t = -0.48), thus due diligence plays a partial mediating role in executive gender characteristics and strategic decisions. Hypothesis H2 was partially tested.

For the results of openness and strategic inclination, this study suggests that high openness executives may be more inclined to weigh multiple possibilities, avoid aggressive or risky strategies, and are more likely to take a cautious, circuitous, and incremental strategic path, especially under resource constraints and high environmental uncertainty, which is consistent with behavioral decision-making theory.

Regarding the results of due diligence and strategic decision-making, this study suggests that this may be due to the fact that female executives may face the dual pressure between "family roles" and "top management responsibilities". Therefore, female executives face role conflict between corporate and family responsibilities, which may lead to lower levels of due diligence, which is consistent with role conflict theory.

Table 3. Regression Results

	(1)	(2)	(3)	(4)	(5)
	Strategic Decision Making	Openness	Strategic decision-making	Due diligence	Strategic decision-making
gaoguan1	0.1821^{*}	-0.1760	0.1639^{*}	-0.1803^{*}	0.1797^{*}
	(1.82)	(-0.84)	(1.65)	(-1.96)	(1.80)
size	-0.0151	0.3463^{***}	-0.0091	-0.5712^{***}	-0.0228
	(-0.61)	(4.91)	(-0.36)	(-9.65)	(-0.80)
age	-0.0108^{***}	-0.0296^{***}	-0.0106^{**}	0.0109^{**}	-0.0106^{***}
	(-2.64)	(-3.69)	(-2.56)	(2.55)	(-2.63)
Return on Assets	-0.0105	-0.0703^{**}	0.0054	0.0184	-0.0103

	(-0.85)	(-2.10)	(0.45)	(0.72)	(-0.84)
Tangible gearing ratio	-0.0012	0.0034	0.0039	0.0022	-0.0012
	(-0.50)	(0.28)	(1.23)	(0.48)	(-0.49)
Revenue from main operations	-0.0121	0.3265^{***}	-0.0108	0.2685^{***}	-0.0085
	(-0.52)	(6.16)	(-0.43)	(7.96)	(-0.34)
Subtotal cash outflows from investing activities	0.0251^{***}	0.0212	0.0268^{***}	-0.0223	0.0248^{***}
	(2.81)	(0.96)	(2.88)	(-1.64)	(2.78)
Subtotal cash inflows from investing activities	0.0048	-0.0328	0.0047	0.0317	0.0053
	(0.30)	(-0.94)	(0.28)	(1.48)	(0.32)
Net cash flows from investing activities	0.0051	0.0311^{*}	0.0062	-0.0061	0.0050
	(0.52)	(1.93)	(0.60)	(-0.72)	(0.51)
Subtotal of outflow from operating activities	0.0434	0.2236^{***}	0.0464	0.2998^{***}	0.0474
	(1.58)	(3.70)	(1.52)	(6.84)	(1.62)
Openness			-0.0205^{*}		
			(-1.66)		
Total Asset turnover					-0.0134
					(-0.48)
_cons	-0.6738^{*}	-1.2370	-0.5808	0.9020^{*}	-0.6617^{*}
	(-1.67)	(-1.28)	(-1.41)	(1.68)	(-1.66)
Enterprise FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
N	4071	3959	3959	4071	4071
R^2	0.0249	0.4571	0.0246	0.4059	0.0250

t statistics in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

6. Conclusion

Based on the theoretical analysis of the relationship between executive gender characteristics and strategic decision-making, this study constructed a fixed-effects model to test the relationship between the two, while this study also constructed a mediating-effects model to effectively identify the mechanism channel between executive gender characteristics and strategic decision-making, and found that executive gender characteristics significantly affect strategic decision-making, which is specifically reflected in the fact that the higher the proportion of female executives, the more aggressive the strategic decision-making. This study further found that openness did not have a mediating effect in the relationship between the two, and dutifulness had a partial mediating effect in the relationship between the two. This study explored this result by combining behavioral decision-making theory and role conflict theory. The findings of this paper provide a valid addition to the high-quality development of companies and the impact of executive roles on corporate strategic decision-making.

Moreover, it should be noted that external contextual factors such as corporate governance quality, cultural background, and macroeconomic conditions may also affect the study's results. For instance, a sound governance structure could play a moderating role in the mechanism through which managerial gender influences strategic decision-making, granting women executives greater leeway to demonstrate their managerial capabilities. Differences in cultural values across regions and countries may likewise shape female executives' risk preferences and behavioral motivations. Additionally, economic cycles and shifts in the market environment may amplify or weaken the extent to which managerial gender impacts strategic decisions. Therefore, future research could incorporate more contextual variables into empirical designs to further explore how the influence of gender on corporate strategic decision-making varies under different circumstances.

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