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Too Much of a Good Thing? The Paradox of Entrepreneurial Self-Efficacy and Effort

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Abstract: Based on moderator-focus theory, this study reveals the nonlinear influence mechanism of entrepreneurial self-efficacy on entrepreneurial effort and explores the moderating roles of promotional and preventative moderator focuses. An experiment was designed within an entrepreneurial competition context, collecting 580 valid questionnaire responses. Hierarchical regression analysis was employed to test the model hypotheses. Empirical findings indicate: (1) A significant inverted U-shaped relationship exists between entrepreneurial self-efficacy and entrepreneurial effort; (2) Promotive moderation positively moderates the inverted U-shaped effect of entrepreneurial self-efficacy on entrepreneurial effort; (3) Preventive moderation negatively moderates the inverted U-shaped effect of entrepreneurial self-efficacy on entrepreneurial effort.

Keywords: Entrepreneurial Self-Efficacy; Promotional Moderation Focus; Preventative Moderation Focus; Entrepreneurial Effort

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Introduction

Against the backdrop of the "Mass Entrepreneurship and Innovation" policy, the psychological cognitive mechanisms of entrepreneurs play a crucial role in entrepreneurial behavior outcomes. In research on entrepreneurial decision-making mechanisms, entrepreneurial self-efficacy—an individual's subjective belief in their entrepreneurial capabilities and the likelihood of achieving goals—serves as a key predictor of entrepreneurial effort. However, existing research on their relationship presents contradictory conclusions: On one hand, entrepreneurial self-efficacy can significantly enhance goal commitment and resource allocation by reducing individuals' perceptions of entrepreneurial risk and task difficulty; On the other hand, empirical studies also indicate that cognitive biases stemming from overconfidence may weaken the motivational effect of self-efficacy, or even lead entrepreneurs to reduce effort due to overestimating outcome controllability[1].Scholars have yet to reach a consensus on whether entrepreneurial self-efficacy increases or decreases entrepreneurial effort. Regulatory Focus Theory provides a theoretical framework to explain this contradictory phenomenon. According to this theory, individuals' motivational orientations can be categorized into Promotion Focus and Prevention Focus, corresponding to behavior driven by achievement pursuit and risk avoidance, respectively. Existing research indicates that Promotion Focus individuals tend to enhance task performance through opportunity recognition and goal attainment strategies, exhibiting a significant positive correlation between self-efficacy and effort levels. Conversely, Prevention Focus individuals, due to

excessive focus on potential losses and stability, may prioritize risk minimization strategies even under high self-efficacy, or reduce effort to avoid the negative consequences of failure[2] . The duality of moderator focus theory (promotive and preventive) suggests that entrepreneurs' moderator orientation may mediate the relationship between entrepreneurial self-efficacy and effort.

Given this, this study builds upon the contradictory conclusions of the dual-perspective integration approach. By introducing the moderation focus theory, it aims to reveal the nonlinear effect of entrepreneurial self-efficacy on entrepreneurial effort. Furthermore, it discusses the moderating roles of promotion-focused and prevention-focused moderation, adding empirical evidence to comprehensively understand the mechanism through which entrepreneurial self-efficacy influences entrepreneurial effort.

1.Theoretical Foundations and Research Hypotheses

1.1 Self-efficacy theory

Regulatory Focus Theory suggests that individuals have two basic needs in life, growth needs and security needs. People with different needs have different preferred behavioral tendencies when pursuing goals, which leads to two types of regulatory tendencies: promotion focus (Promotion Focus) and prevention focus (Prevention Focus). Regulatory Focus Theory explains how individuals regulate their behaviors through Promotional Focus and Prevention Focus during goal pursuit. In an organizational setting, an employee's regulatory focus status directly affects his or her safety performance and his or her behavioral patterns. Specifically, individuals with facilitative focus first focus on growth needs, i.e., pay more attention to their own development and progress, choose to pursue the ideal self, and aspire to success, which leads to the root cause of their happiness or pain is gain or no gain; individuals with preventive focus first focus on safety needs, i.e., pay more attention to risks and changes, choose to pursue stability and responsibility, and avoid making mistakes through conservative behaviors that the root causes of their pleasure or pain are no loss and loss. Facilitative and preventive focuses exist independently of each other[3] so a person can have both facilitative and preventive tendencies.

Regulatory focus can be categorized into two areas[4] situational regulatory focus and trait regulatory focus. Trait-based regulatory focus is influenced by an individual's long-term stable psychological traits, including the Big Five personality, temperament, optimism, self-assessment tendency, and values, and is shaped by the individual's growth experiences. Trait-based regulatory focus is a personality tendency formed over time by the influence of parents and individual growth experiences, and individuals with different traits may develop relatively stable regulatory focus tendencies in the process of long-term adaptation. When parents pay more attention to development and progress in their children's growth process, the children are likely to develop a facilitative focus; while when parents pay more attention to safety and protection in their children's growth process, the children are likely to develop a preventive focus, which is more stable and less likely to change. Contextual regulatory focus is influenced by current environmental factors, such as organizational culture, safety systems, external incentives, etc., and can change dynamically in the short term. Contextual moderating focus is triggered by the current environment or task framework, a type of focus theory that suggests that different contexts can stimulate different states of moderating focus. When the context emphasizes ideals and progress, it can stimulate a facilitative focus, while when the context emphasizes safety and responsibility, it can stimulate a preventive focus. Therefore, in the work process, leaders can stimulate different behavioral tendencies of employees through their own behavior, language, feedback and other ways. Immediate psychological state, this state is relatively unstable, easy to be changed by the influence of the environment, the theory of regulatory focus that the different context can stimulate different states of regulatory focus. When the context emphasizes ideals and progress, it can stimulate a facilitating focus, while when the context emphasizes safety and responsibility, it can stimulate a preventive focus. Therefore, in the work process, leaders can stimulate different behavioral tendencies of employees through their own behavior, language, feedback and other ways.

1.2 The Influence of Entrepreneurial Self-Efficacy on Entrepreneurial Effort

The "too much of a good thing" effect reflects that positive drivers have a specific threshold for their beneficial impact. Once this threshold is exceeded, unintended negative outcomes may arise, illustrating an inverted U-shaped relationship between positive antecedents and positive outcomes. Based on the preceding analysis, the influence of entrepreneurial self-efficacy on

entrepreneurial effort exhibits multiple possibilities. This study posits that entrepreneurial self-efficacy exerts both positive and negative effects on entrepreneurial effort. Other scholars have suggested that within the highly uncertain and ambiguous context of entrepreneurship, self-efficacy may exhibit non-linear effect patterns[5]. Specifically, when an entrepreneur's self-efficacy reaches an extremely high level, they may encounter a critical threshold or inflection point. Beyond this point, further increases in self-efficacy no longer correspond to increased entrepreneurial effort, leading to stagnation in progress toward goals[3]. Therefore, this study posits that the "too much of a good thing" effect of entrepreneurial self-efficacy on entrepreneurial effort manifests in two aspects:

First, when self-efficacy falls below the critical threshold, research indicates that high entrepreneurial self-efficacy motivates individuals to pursue their goals more diligently. This occurs because high entrepreneurial self-efficacy implies individuals assess entrepreneurial activities as less difficult and goal attainment as more probable, prompting those with entrepreneurial ideas to increase their efforts. This perspective is supported by Social Cognition Theory. Entrepreneurial self-efficacy is a key component of Social Cognition Theory. High entrepreneurial self-efficacy motivates individuals to engage in entrepreneurial activities, prompting them to set more challenging goals and increase goal commitment. More challenging goals and higher commitment further drive individuals to exert greater effort. Therefore, when entrepreneurial self-efficacy is below the threshold, entrepreneurs' efforts increase incrementally with rising self-efficacy.

However, when entrepreneurial self-efficacy exceeds the critical threshold, some scholars suggest that high self-efficacy may lead to overconfidence, causing individuals to believe any approach will yield positive outcomes[1]. Overconfident individuals exhibit hyper-rational confidence in their future prospects and existing information, a psychological tendency that partially alleviates their fear of failure. This may cause individuals to subsequently relax, reducing effort allocation to current goals and redirecting it toward other objectives[6]. This perspective is supported by cybernetics. Yeo and Neal (2013) discovered through resource compensation mechanisms that self-efficacy negatively impacts effort at the individual level[7]. Specifically, when individuals with high self-efficacy perceive their resources as limited, they may reduce effort to conserve resources for other tasks or challenges. Consequently, beyond a certain threshold of entrepreneurial self-efficacy, entrepreneurs' effort diminishes as their self-efficacy increases.

Based on the above analysis, before entrepreneurial self-efficacy reaches the threshold, entrepreneurial effort increases as self-efficacy rises. However, once entrepreneurial self-efficacy surpasses this threshold, some high-efficacy entrepreneurs may fall into the "overconfidence trap," exhibiting irrational resource allocation[5], thereby reducing entrepreneurial effort. Therefore, this study proposes the following hypothesis:

H1: Entrepreneurial self-efficacy and entrepreneurial effort exhibit an inverted U-shaped relationship: as entrepreneurial self-efficacy gradually expands from low to moderate levels, entrepreneurial effort increases; when entrepreneurial self-efficacy expands from moderate to high levels, entrepreneurial effort diminishes.

1.3 The Moderating Role of Focus

Entrepreneurial self-efficacy determines the initial intensity of entrepreneurial motivation, while the moderating focus may influence the trajectory of motivational intensity during the entrepreneurial process[8], thereby exerting a complex moderating effect on the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort.

A promotion-oriented focus, grounded in achievement motivation and progress orientation, regulates goal setting and stimulates effort-directed behavior. Its core concern lies in achievement acquisition and personal goal attainment. Specifically, when entrepreneurial self-efficacy is low, a high promotion-oriented focus strengthens the positive effect of entrepreneurial self-efficacy on entrepreneurial effort. Entrepreneurs with a promotion focus are driven by ambition and achievement, tending to adopt approach strategies to attain their desired goals[9]. Compared to those with lower promotion focus, higher promotion focus levels motivate entrepreneurs with strong self-efficacy to demonstrate greater persistence, investing more effort and resources to concentrate on entrepreneurial practices[10]. Thus, high promotion focus strengthens the positive relationship between entrepreneurial self-efficacy and entrepreneurial effort.

Simultaneously, once entrepreneurial self-efficacy reaches a certain threshold, a high promotion-focused orientation intensifies the negative impact of entrepreneurial self-efficacy on entrepreneurial effort. Because a promotion focus

drives entrepreneurs to set higher goals based on growth and development needs, when self-efficacy exceeds a specific threshold, individuals tend to become overconfident about early progress, thereby reducing effort and resource allocation in entrepreneurial tasks. Consequently, a high promotion focus level intensifies the negative relationship between excessive entrepreneurial self-efficacy and entrepreneurial effort.

In summary, this study proposes the following hypotheses:

H2: The promotion focus exerts a positive moderating effect on the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort: For entrepreneurs with high promotion focus, the positive relationship between entrepreneurial self-efficacy and entrepreneurial effort is amplified, while the negative relationship between overly high entrepreneurial self-efficacy and entrepreneurial effort is also intensified.

Prevention-focused regulation is grounded in individuals' need to fulfill responsibilities and comply with obligations, regulating behavior through cautious risk-avoidance strategies. Its core lies in circumventing potential risks and obstacles to ensure the secure attainment of goals. When entrepreneurial self-efficacy is low, a high preventative regulatory focus inhibits its promotional effect on entrepreneurial effort. This occurs because preventative-focused entrepreneurs prioritize duty fulfillment and security, often adopting defensive strategies to achieve objectives[8]. Compared to entrepreneurs with lower precautionary focus levels, those with high precautionary focus, when possessing self-efficacy, may moderately reduce effort levels upon recognizing their ability to accomplish tasks. This serves to avoid resource waste and minimize negative consequences. Consequently, high precautionary focus weakens the positive relationship between entrepreneurial self-efficacy and entrepreneurial effort.

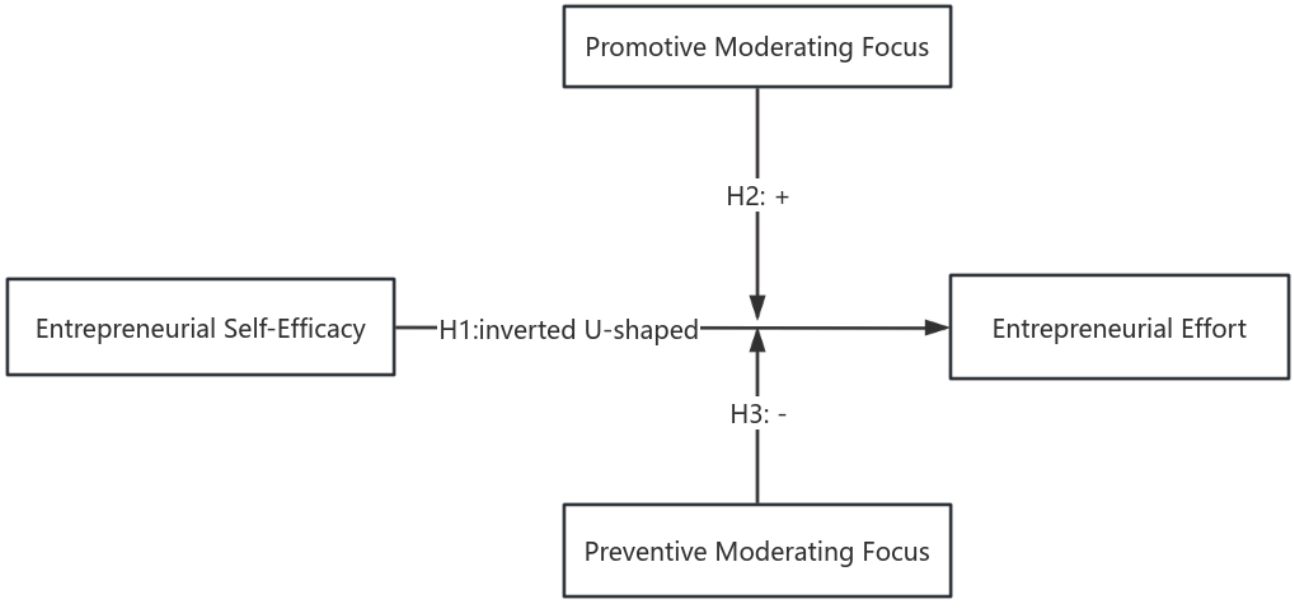
Simultaneously, when entrepreneurial self-efficacy reaches a certain level, high preventative focus entrepreneurs mitigate the negative impact of entrepreneurial self-efficacy on entrepreneurial effort. This occurs because, once entrepreneurial self-efficacy exceeds a specific threshold, high preventative focus entrepreneurs increase their effort levels to achieve expected goals and avoid negative outcomes, driven by considerations of responsibility and safety. Thus, a high level of preventative focus mitigates the negative relationship between excessively high entrepreneurial self-efficacy and entrepreneurial effort.

In summary, this study proposes the following hypotheses:

H3: Prevention focus negatively moderates the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort: For entrepreneurs with high prevention focus, the positive relationship between entrepreneurial self-efficacy and entrepreneurial effort weakens, while the negative relationship between overly high entrepreneurial self-efficacy and entrepreneurial effort also weakens.

In summary, the theoretical model of this study is depicted in Figure 1.

Fig.1 Research model



2.Research Design

2.1 Research Method

This study focuses on two groups: first, actual entrepreneurs who have engaged in entrepreneurial activities; second, university students (including MBA students, academic master's students, and undergraduates) who voluntarily participate in entrepreneurship competitions. Against the backdrop of highly educated youth serving as the main force in entrepreneurship, the group of students intending to participate in entrepreneurship competitions possesses high representativeness as subjects for research on business entrepreneurship and social entrepreneurship. Existing research indicates that cognitive components of personality traits (such as entrepreneurial self-efficacy) are susceptible to contamination effects from real-world experiences. Therefore, student entrepreneurs offer greater reliability in measuring and studying individual traits[11].

This study employs a combined strategy of scenario experiments and questionnaire surveys to test the aforementioned hypotheses. Addressing the research limitation of student populations' general lack of authentic entrepreneurial experience, this study utilizes scenario experiments, which offer both high internal validity and good operational feasibility. Leveraging the "Business Competition Simulation Contest" and the "Xuechuang Cup" National College Student Comprehensive Entrepreneurship Simulation Competition as experimental platforms, participants were guided into entrepreneurial decision-making scenarios through simulated environments. Following task completion, questionnaires measured relevant variables, and hierarchical regression analysis verified the hypotheses. For established entrepreneurs, direct questionnaire surveys were employed to leverage their practical experience for valid data collection.

2.2 Research Process

On one hand, questionnaires were precisely targeted and distributed to entrepreneurs via the Credamo platform, with 300 questionnaires issued and 268 ultimately returned, yielding an 89.33% response rate. On the other hand, participants were recruited through Xi'an University of Engineering's entrepreneurship open course, with a unified rules briefing session held at the experiment's commencement. The experimental design comprised two phases: a pre-experiment and a formal experiment.

Phase 1: Pre-experiment. Twenty-four MBA students participated to validate the questionnaire's reliability and validity in a simulated competition setting. Two rounds of task testing optimized the experimental workflow, ensuring 85% of participants completed operational procedures and data submission within the designated decision-making timeframe.

The second phase was the formal experiment, recruiting 360 student participants. It utilized corporate competition simulations and comprehensive entrepreneurship simulations to construct a highly dynamic market competition environment. Standardized questionnaires were distributed post-experiment. After screening out invalid responses, 312 valid questionnaires were obtained, yielding a validity rate of 86.67%.

2.3 Variable Measurement

The questionnaire comprised scales measuring entrepreneurial self-efficacy, entrepreneurial effort, regulatory focus, and control variables. The entire questionnaire employed a seven-point Likert scale, detailed as follows:

(1) Independent Variable: Entrepreneurial Self-Efficacy. The scale developed by Jill (2005) was adopted, comprising four dimensions: opportunity recognition, relationships, management, and risk tolerance[12]. It included four measurement items such as "I can handle challenges in new tasks with ease."

(2) Dependent Variable: Entrepreneurial Effort. Referencing the entrepreneurial effort scale used by Foo and Uy et al.[13], and incorporating measurement items from the study by Li Jizhen et al., this includes three items such as "How much effort have you invested in your entrepreneurial endeavors over the past period?"

(3) Moderating Variables: Promotive Moderating Focus and Preventive Moderating Focus. Drawing from the moderating focus scale developed by Zhang Hao et al. (2018) , which comprises two dimensions and eight items. Promotive Moderating Focus includes four items such as "I tend to invest more effort in endeavors with potential for success." Preventive Moderating Focus includes four items such as "I place greater emphasis on avoiding failure than on achieving success."

(4) Control variables: Gender, age, education level, entrepreneurial experience, entrepreneurial knowledge. Adapted from Hechavarría (2016)'s coding method for variables related to entrepreneurs' personal demographic characteristics[14]. Gender (assigned 1 for male, 0 for female), Age (divided into 6 age brackets, assigned 1-6), Education Level (divided into 6 education

levels, assigned 1-6), Entrepreneurial Experience (assigned 1 if experienced, 0 otherwise), Entrepreneurial Knowledge (assigned 1 if studied, 0 otherwise).

2.4 Research Model Design

This study employs SPSS 26.0 statistical analysis software to examine main effects and moderation effects using hierarchical regression analysis. The research model is as follows:

$$EE = \alpha + \beta_1 ES + \beta_2 ES^2 + \beta_3 X + \varepsilon \quad (1)$$

$$EE = \alpha + \beta_1 ES + \beta_2 ES^2 + \beta_3 P_1F + \beta_4 ES \times P_1F + \beta_5 ES^2 \times P_1F + \beta_6 X + \varepsilon \quad (2)$$

$$EE = \alpha + \beta_1 ES + \beta_2 ES^2 + \beta_3 P_2F + \beta_4 ES \times P_2F + \beta_5 ES^2 \times P_2F + \beta_6 X + \varepsilon \quad (3)$$

In Model (1), the inverted U-shaped effect of entrepreneurial self-efficacy on entrepreneurial effort is tested (H1). In the equation, α represents the constant term, EE denotes entrepreneurial effort, ES denotes entrepreneurial self-efficacy, X denotes control variables, and Ɛ denotes the random disturbance term.

Model (2) tested the moderating effect of promotion-focused regulation (H2). In the equation, α represents the constant term, EE denotes entrepreneurial effort, ES denotes entrepreneurial self-efficacy, P_1F denotes promotion-focused regulation, $ES \times P_1F$ denotes the interaction term between entrepreneurial self-efficacy and promotion-focused regulation, and $ES^2 \times P_1F$ represents the interaction term between entrepreneurial self-efficacy and the quadratic term of promotional moderating focus, X represents control variables, and Ɛ denotes the random disturbance term.

Model (3) examines the moderating effect of preventive regulatory focus (H3). Where α is the constant term, EE represents entrepreneurial effort, ES represents entrepreneurial self-efficacy, P_2F represents preventive moderation focus, $ES \times P_2F$ represents the interaction term between entrepreneurial self-efficacy and preventive moderation focus, $ES^2 \times P_2F$ represents the interaction term between the quadratic interaction of entrepreneurial self-efficacy and preventive moderation focus, X represents control variables, and Ɛ is the random disturbance term.

3.Empirical Findings and Analysis

3.1 Descriptive Statistics and Variable Correlation Analysis

Descriptive statistics and correlation coefficients are presented in Table 1. The correlation coefficients between variables did not exceed 0.7. Furthermore, the highest variance inflation factor (VIF) in the entire model was 1.284, below the critical value of 10. Thus, no multicollinearity issues exist among the explanatory variables.

Table 1 Descriptive Statistics and Correlation Coefficient Matrix

Variable	1	2	3	4	5	6	7	8	9
1.Entrepreneurial Effort	1								
2.Entrepreneurial Self-Efficacy	0.455**	1							
3.Promotive Regulatory Focus	0.044	0.074	1						
4.Preventive Regulatory Focus	0.450**	0.485**	0.125**	1					
5.Gender	0.029	0.063	-0.008	0.048	1				
6.Age	0.041	-0.04	0.015	0.083*	0	1			
7.Education	0.046	-0.034	0.012	0.038	0.049	-0.042	1		
8.Entrepreneurial Experience	0.017	0.029	0.034	0.03	-0.067	0.145**	-0.022	1	
9.Entrepreneurial Knowledge	0.001	0.074	-0.012	0.055	0.026	0.106*	0.011	0.291**	1
Mean	4.055	4.116	4.811	4.085	1.472	3.471	3.379	1.114	1.176
Standard Deviation	1.686	1.471	1.291	1.556	0.500	1.158	0.986	0.318	0.381

Note: * indicates $p < 0.1$; ** indicates $p < 0.05$; *** indicates $p < 0.01$

3.2 Main Effects Analysis

To mitigate potential multicollinearity issues between the linear and squared terms of entrepreneurial self-efficacy, this study adopted the approach proposed by Geng Zizhen et al. by centering the squared term of entrepreneurial self-efficacy around its mean. The results examining the relationship between entrepreneurial self-efficacy and entrepreneurial effort are presented in Table 2.

The regression results of Model 2 indicate that the regression coefficient of the squared term of entrepreneurial self-efficacy on entrepreneurial effort is significantly negative ($\beta = -0.141$, $p<0.01$), while the regression coefficient of its linear term is significantly positive ($\beta = 0.424$, $p<0.01$), confirming H1.

Thus, an inverted U-shaped relationship exists between entrepreneurial self-efficacy and entrepreneurial effort. This implies that as entrepreneurial self-efficacy increases from low to moderate levels, entrepreneurial effort tends to rise; however, when entrepreneurial self-efficacy rises from moderate to high levels, entrepreneurial effort tends to decline. This suggests that maintaining moderate levels of entrepreneurial self-efficacy is most conducive to promoting entrepreneurial effort.

Contrary to the "linear relationship theory" in existing research, this study finds that entrepreneurial self-efficacy exerts both positive and negative effects on entrepreneurial effort, resulting in a complex nonlinear relationship under their combined influence.

Table 2 Test of the Relationship between Entrepreneurial Self-efficacy and Entrepreneurial Effort

Variable	Entrepreneurial Effort	
	Model 1	Model 2
Gender	0.216	0.211*
	(0.141)	(0.123)
Age	-0.076	-0.095
	(0.061)	(0.054)
Education	-0.068	-0.102
	(0.071)	(0.062)
Entrepreneurial Experience	0.101	0.107
	(0.232)	(0.204)
Entrepreneurial Knowledge	0.321*	0.329*
	(0.192)	(0.168)
Entrepreneurial Self-Efficacy		0.424***
		(0.048)
Entrepreneurial Self-Efficacy^2		-0.141***
		(0.033)
Constant	3.742***	2.473***
	(0.468)	(0.456)
R^2	0.013	0.247
ΔR^2	0.013	0.234
F	1.554	26.799***

Note: *indicates $p < 0.01$; **indicates $p < 0.05$; ***indicates $p < 0.01$; values in parentheses are standard errors

3.3 Moderation Effect Analysis

The moderating effect of promotional focus on the relationship between entrepreneurial self-efficacy and entrepreneurial effort is shown in Table 3. Results indicate that the regression coefficient for the interaction term between the squared term of entrepreneurial self-efficacy and promotional focus is significantly negative ($\beta = -0.066$, $p < 0.05$), confirming that promotional focus positively moderates the inverted U-shaped relationship between entrepreneurial self-efficacy and

entrepreneurial effort, thus validating H2. At higher levels of facilitative moderation focus, both the positive and negative effects of entrepreneurial self-efficacy on entrepreneurial effort are amplified.

Model 4 examined the moderating effect of preventive regulatory focus on the relationship between entrepreneurial self-efficacy and entrepreneurial effort. Results showed that the regression coefficient for the interaction term between the squared term of entrepreneurial self-efficacy and preventive regulatory focus was significantly positive ($\beta = 0.047$, $p < 0.05$), indicating that preventive regulatory focus negatively moderates the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort, thus validating H3. When the level of preventive moderation focus is high, both the positive and negative effects of entrepreneurial self-efficacy on entrepreneurial effort are weakened.

To further analyze the moderating effects of promotional and preventative regulatory focuses, this study constructed corresponding moderation diagrams (Figures 2 and 3). Figure 2 shows that compared to the inverted U-shaped curve under low promotional focus, high promotional focus steepens the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort, further confirming the positive moderating effect of promotional focus. Figure 3 shows that compared to the inverted U-shaped curve under low preventative regulatory focus, high preventative regulatory focus flattens the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort, further validating the negative moderating effect of preventative regulatory focus.

Table 3 Results of Moderating Effect Test

Variable	Entrepreneurial Effort	
	Model 3	**Model 4**
Gender	0.240**	0.126
	(0.120)	(0.112)
Age	-0.091*	-0.113**
	(0.052)	(0.049)
Education	-0.111*	-0.111*
	(0.060)	(0.057)
Entrepreneurial Experience	0.118	0.065
	(0.197)	(0.185)
Entrepreneurial Knowledge	0.396**	0.288*
	(0.164)	(0.153)
Entrepreneurial Self-Efficacy	0.274***	0.221***
	(0.052)	(0.049)
Entrepreneurial Self-Efficacy ^{2}	-0.186***	-0.087***
	(0.040)	(0.032)
Promotive Regulatory Focus	0.436***	
	(0.085)	
Promotive Regulatory Focus×Entrepreneurial Self-Efficacy	0.095**	
	(0.037)	
Promotive Regulatory Focus×Entrepreneurial Self-Efficacy^2	-0.066**	
	(0.032)	
Preventive Focus		0.249***
		(0.069)
Preventive Regulatory Focus×Entrepreneurial Self-Efficacy		-0.090***
		(0.029)
Preventive Moderation Focus×Entrepreneurial Self-Efficacy^2		0.047**
		(0.020)
Constant	1.044*	2.615***
	(0.550)	(0.505)
R^2	0.297	0.384
ΔR^2	0.050	0.137
F	24.089***	35.445***

Note: *indicates $p < 0.01$; **indicates $p < 0.05$; ***indicates $p < 0.01$; values in parentheses represent standard errors

4.Conclusions and Discussion

4.1 Research Findings

Is entrepreneurial self-efficacy merely a catalyst for entrepreneurial effort, or does it function as a potential double-edged sword? This study, grounded in the "too much of a good thing" effect perspective, employs a mixed-methods approach integrating situational experiments and questionnaire surveys. Analyzing 580 samples (268 from entrepreneurs and 312 from students), it delves into the nonlinear relationship between entrepreneurial self-efficacy and entrepreneurial effort, its underlying mechanisms, and the moderating roles of promotional and preventive regulatory focuses. Results indicate: The nonlinear effect of entrepreneurial self-efficacy on entrepreneurial effort is significant, exhibiting a typical inverted U-shaped relationship. Specifically, an optimal range of entrepreneurial self-efficacy intensity exists that maximizes entrepreneurial effort; beyond this range, excessively high self-efficacy paradoxically reduces effort levels. Promotive moderation focus exerts a reinforcing positive moderating effect. Its increased intensity significantly amplifies the original inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort, manifesting as a steeper inverted U-curve when promotive moderation focus is higher. Preventive moderation focus, conversely, produces a weakening negative moderating effect. Increasing its intensity significantly weakens the inverted U-shaped relationship between entrepreneurial self-efficacy and entrepreneurial effort, manifested as a flatter inverted U-shaped curve when the preventative regulatory focus is high.

The theoretical contributions of this paper are twofold: First, it deepens theoretical understanding of the mechanism linking entrepreneurial self-efficacy and entrepreneurial effort. Addressing divergent conclusions in existing literature regarding the influence of entrepreneurial self-efficacy on entrepreneurial effort, this study introduces a moderation focus theoretical perspective, constructing and validating an integrated influence pathway and theoretical framework incorporating moderation focus. Empirical findings reveal a nonlinear inverted-U relationship between entrepreneurial self-efficacy and entrepreneurial effort. This discovery not only offers a new theoretical lens to reconcile existing research perspectives on this relationship but also deepens our understanding of their interaction. It provides a theoretical basis for entrepreneurs to optimize their self-efficacy levels to enhance effort commitment. Second, it creatively uncovers distinct moderating mechanisms of promotional and preventive regulatory focus within this nonlinear relationship. This study simultaneously investigates and clarifies the differentiated moderating roles of promotion-focused and prevention-focused regulation in the nonlinear relationship between entrepreneurial self-efficacy and entrepreneurial effort. Results confirm that promotion-focused regulation exerts a positive moderating effect, intensifying the steepness of the inverted U-shaped curve, while prevention-focused regulation exerts a negative moderating effect, weakening the intensity of this nonlinear relationship. This finding not only breakthroughs the application boundaries and practical implications of moderation focus theory in the field of entrepreneurial motivation, systematically elucidating the underlying mechanisms of different moderation focus types in the cognition-to-effort conversion pathway, but also provides decision-making references for entrepreneurs regarding the level of entrepreneurial effort under different promotion-focused and prevention-focused moderation conditions.

Based on the aforementioned theoretical analysis and empirical research findings, the following management implications emerge: (1) Research confirms that entrepreneurial self-efficacy exerts a significant inverted U-shaped influence on entrepreneurial effort. This nonlinear mechanism suggests that entrepreneurs should accurately calibrate their self-efficacy to avoid the "confidence trap": maintaining confidence levels within a moderate range is essential for optimizing effort intensity. For entrepreneurs with low or moderate self-efficacy, foundational efficacy should be built through progressive achievement goals, positive mentor feedback, and specialized training in core entrepreneurial competencies. Conversely, highly self-efficacious entrepreneurs exhibiting overconfidence require mechanisms to curb cognitive biases—such as establishing critical reflection routines, actively seeking negative feedback, and conducting scenario-based risk simulations—to prevent reduced effort due to blind confidence. (2) Promotionally focused entrepreneurs prioritize growth, rewards, and ideals. Entrepreneurship educators should actively cultivate an achievement-oriented motivational environment. Clearly and meticulously outline diverse pathways to realizing grand visions, explicitly presenting the potential rewards inherent in each path to foster intuitive and profound understanding of success prospects. When assigning highly challenging tasks, closely

monitor the dynamic shifts in their sense of efficacy. During the ascending phase (transitioning from low-to-moderate levels), provide timely, robust, and specific positive feedback alongside ample resource support—effectively fueling their momentum to cultivate a fearless, determined confidence akin to a "foolhardy calf unafraid of tigers," propelling them steadfastly toward their goals. However, when efficacy approaches its theoretical inflection point and enters an excessively high range, it is prudent to introduce preventive considerations. For instance, emphasize the severe consequences of missed opportunities or competitive threats. By leveraging the "avoidance of harm" potential inherent in their "gain-seeking" motivation, effectively countering potential complacency in efficacy. This fosters a rational confidence rooted in the principle that "caution ensures lasting success," enabling more stable development while maintaining effort levels. (3) Entrepreneurs with a preventive focus exhibit pronounced preferences for stability and loss aversion. Management should prioritize alleviating their risk anxiety and breaking rigid thinking patterns. Carefully cultivate a safe environment that permits trial and error and tolerates minor setbacks—such as establishing dedicated experimental funds or implementing rapid prototyping validation processes—to tangibly reduce psychological burdens and barriers to action. Particularly at critical decision points, when their sense of efficacy is low, provide detailed feasibility analyses, comprehensive risk management plans, and clear operational guidelines. This helps them tangibly "see" the glimmer of success, steadily elevating their efficacy to a moderate level that effectively drives effort. Given that cultivating efficacy among such entrepreneurs requires adherence to a more sustained and evidence-based accumulation process, managers must shoulder the responsibility of providing continuous, constructive performance feedback. This facilitates the gradual establishment of a stable, moderate efficacy perception system, ensuring sustained effort within safe boundaries and thereby driving steady growth of entrepreneurial projects.

4.2 Research Limitations and Future Directions

This study faces limitations in sample size, industry diversity, and geographic scope, which may affect the generalizability and accuracy of findings, introducing uncertainty. Consequently, future research should focus on expanding industry representation, broadening geographic coverage, and increasing sample size to strengthen the research foundation. Building upon expanded samples, comparative studies across industries and regions should be conducted. Through multidimensional, multi-perspective analysis, the similarities and differences in research conclusions across various industries and regional contexts can be explored in depth. This will further validate, refine, and improve the conclusions of this study, enhancing their reliability and applicability. Furthermore, this study primarily relies on questionnaire data. Due to inherent limitations of survey methods, it struggles to dynamically and precisely capture the evolving trajectory of entrepreneurs' effort levels, which partially constrains the depth and comprehensiveness of the findings. Consequently, future research could adopt dynamic tracking surveys of the entrepreneurial sample, employing time-series analysis to continuously observe and systematically analyze effort levels and related variables across different time periods. Time-series research can provide an in-depth analysis of the dynamic relationship between entrepreneurial self-efficacy and entrepreneurial effort, revealing its patterns and characteristics over time. This would deepen the research conclusions, add new empirical evidence to the theoretical study of the relationship between entrepreneurial self-efficacy and entrepreneurial effort, and further enrich and refine the theoretical framework in this field.

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Reference

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