



"Who Am I" Determines "What Do I Do"? How Does The Founder Identity Drives Innovation Behavior Through Entrepreneurial Learning

Rongzhi Liu a, Shuojia Guo b,*, Yihan Wang a

^a School of Business Administration, Zhongnan University of Economics and Law, 108 South Nanhu Avenue, Hongshan District, Wuhan, 430073, China

^b Department of Marketing, The Lucille and Jay Chazanoff School of Business, College of Staten Island, City University of New York, 3N-213 B, 2800 Victory Blvd, Staten Island, NY 10314, USA

How to cite: Liu, R., Guo, S, & Wang, Y. (2025). "Who Am I" Determines "What Do I Do"? How Does The Founder Identity Drives Innovation Behavior Through Entrepreneurial Learning. *Journal of Applied Business & Behavioral Sciences, 1(2),* 164-183. https://doi.org/10.63522/jabbs.102009

Abstract

This study examines how founder identity influences entrepreneurial innovation behavior by shaping the choice of learning approach. Drawing on social identity theory, the paper aim to deepen the understanding of how entrepreneurs' self-perceived roles affect their motivation to learn and, consequently, the degree and type of innovation they pursue. A sample of 237 entrepreneurs was collected using snowball sampling and an online survey platform, investigating how three distinct founder identities—Darwinian, Communitarian, and Missionary—associate with exploratory versus exploitative learning in innovation. Grounded in social identity theory and the knowledge creation framework, the results provide empirical evidence that both Darwinian and Missionary identities significantly predict innovative behavior. Furthermore, entrepreneurs with a Darwinian identity tend toward exploitative learning (focusing on refinement/efficiency), while those with a Missionary identity favor exploratory learning (emphasizing experimentation/novelty). Missionary identity are more likely to engage in exploratory learning, emphasizing experimentation and novelty.

Keywords: Founder identity; Innovation behavior; Entrepreneurial approach

1. Introduction

Innovation lies at the heart of entrepreneurship and is widely regarded as a key driver of economic development (Landström, 2015; Zhao, 2005). Yet, despite its central role, not all entrepreneurs engage in innovation, and many struggle to do so effectively. Innovation is inherently uncertain, resource-intensive, and fraught with risk—particularly in volatile and institutionally fluid environments (Tan, 2001; Latham & Braun, 2009; Elert & Henrekson, 2017). This raises an important question: Why are some entrepreneurs more willing and able to innovate than others?

One promising explanation lies in the concept of founder identity—how individuals perceive and define themselves in their entrepreneurial roles. Identity not only shapes personal motivations and

_

^{*} Correspondence: nancy.guo@csi.cuny.edu

behavior but also influences how entrepreneurs interpret challenges, allocate attention, and pursue strategic goals (Fauchart & Gruber, 2011). While prior research has highlighted the role of identity in guiding entrepreneurial behavior, less is known about how founder identity contributes specifically to innovation-related outcomes.

This study draws on identity theory and social identity theory to propose that founder identity serves as a psychological foundation that drives innovation behavior through entrepreneurial learning mechanisms. Founders who strongly identify with their entrepreneurial role are more likely to view learning as a means to fulfill their identity aspirations (Wei et al., 2019), and therefore adopt more proactive learning behaviors. Specifically, those with a high level of identity commitment tend to engage in exploratory learning - seeking out new knowledge, experimenting, and innovating—while those with weaker identity alignment are more likely to rely on exploitative or imitative learning, refining existing routines rather than creating novel solutions.

By integrating the literatures on entrepreneurial identity and learning, this research aims to advance our understanding of how identity-based motivations shape innovation. In doing so, it addresses a critical gap in entrepreneurship theory: the need to explain not only the structural and environmental enablers of innovation, but also the internal psychological mechanisms that sustain it. This paper contributes to a more nuanced theory of entrepreneurial behavior by unpacking how founder identity influences innovation via distinct learning approaches.

2. Theoretical Background and Hypotheses Development

2.1 Founder Identity and Innovative Behavior

Innovation behavior—defined as the generation, development, and implementation of novel ideas, processes, or products (Damanpour, 1991; Scott & Bruce, 1994) — is a fundamental aspect of entrepreneurial action and a key driver of venture performance and competitiveness (Lumpkin & Dess, 1996). Yet, innovation is inherently uncertain and cognitively demanding, often requiring entrepreneurs to take calculated risks, mobilize resources under pressure, and persist through ambiguity (Tan, 2001; Rosenbusch et al., 2011). Given such demands, not all entrepreneurs engage equally in innovation. An important explanation lies in the identity entrepreneurs attach to their role—what they believe it means to be a founder.

According to social identity theory, individuals define their behavior based on the meanings they attach to group membership and social roles (Hogg & Terry, 2000; Stryker & Burke, 2000). Founder identity reflects how entrepreneurs internalize the social and normative expectations associated with being a founder (Murnieks, 2007; Cast, 2004). It is shaped by external cues and internal self-categorization, and becomes a powerful source of behavioral consistency and motivation (Stryker & Serpe, 1994; Murnieks et al., 2014). When founders identify strongly with their entrepreneurial role, they are more likely to engage in behaviors that are congruent with that identity—including innovation—as a means of validating and enacting the identity (Hoang & Gimeno, 2010; Shepherd & Haynie, 2009).

Research has identified at least three distinct types of founder identity: Darwinian, Communitarian, and Missionary, each representing different motivations and interpretations of what it means to be an entrepreneur (Fauchart & Gruber, 2011). Darwinian founders emphasize personal achievement and market success. Innovation, for them, is a strategic tool to gain competitive advantage and maximize profitability (Alvarez & Busenitz, 2001; Mitchell et al., 2007). Communitarian founders, by contrast, prioritize the well-being and preferences of the user or community group to which they belong. Their

innovation behavior often stems from user-centered co-creation, aimed at delivering customized or socially embedded solutions (Peredo, 2006). Missionary founders view entrepreneurship as a vehicle for achieving pro-social or moral objectives. For them, innovation is a way to generate systemic change, promote sustainability, or improve societal outcomes (Renko, 2013; Miller et al., 2012).

Social identity theory suggests that the behavioral manifestations of different founder identities will vary systematically. While all three identity types may lead to innovation, they do so through distinct motivational logics. Moreover, identity-driven entrepreneurs are more likely to persist in innovation, even under uncertainty, because such behavior reinforces their self-concept and fulfills their perceived role obligations. Thus, founder identity not only shapes the likelihood of innovation behavior but also the underlying purpose and form it takes.

Hypothesis 1: Founder identity has a significant positive effect on innovation behavior. In particular, Darwinian identity (1a), Communitarian identity (1b), and Missionary identity (1c) have a significant positive impact on innovation behavior.

2.2 Founder Identity and Entrepreneurial Learning

Entrepreneurial learning is a dynamic, socially embedded process through which entrepreneurs acquire, process, and apply knowledge to improve decision-making and adapt to changing environments (Politis, 2005). While theories of organizational learning, social cognition, and experiential learning have enriched our understanding of this phenomenon, scholars have noted that foundational questions—such as what entrepreneurs learn, how they learn, and why learning unfolds in certain ways—remain underexplored (Ko & Kim, 2020). One promising lens for addressing these questions is social identity theory, which posits that individuals are motivated to engage in behaviors that reinforce and validate their social roles and identity-based self-concepts (Tajfel & Turner, 1979, 1986; Hogg & Terry, 2000).

From this perspective, entrepreneurial learning is not merely a cognitive activity but a goal-directed behavior aimed at fulfilling identity-based aspirations (Hoang & Gimeno, 2010). Entrepreneurs differ in their learning motivations and strategies depending on the specific identity they attach to their role as a founder. In other words, identity determines why learning occurs and how it is carried out.

Darwinian founders, for example, who are primarily driven by profit-maximization and competitive success, are likely to pursue exploitative learning — refining routines, improving efficiency, and leveraging proven methods to gain market advantage (March, 1991; Minniti & Bygrave, 2001). Communitarian founders, in contrast, are embedded in user communities and highly responsive to collective feedback. They are more inclined to engage in exploratory learning, co-creating solutions and acquiring new knowledge through experimentation and user interaction. Meanwhile, missionary founders, guided by pro-social missions and transformative visions, tend to seek deep learning that supports long-term innovation and social change — often involving high uncertainty and broad knowledge search (Renko, 2013).

Entrepreneurial learning also occurs in social and contextualized environments, where founders interpret cues based on their identity, prior experience, and self-perceived legitimacy (Holcomb, 2009; Hamilton, 2011). Identity salience thus acts as a cognitive filter that determines what is learned and from whom (Stryker & Serpe, 1994). Founders with strong identity commitment actively seek learning experiences that align with their self-concept and enhance their perceived efficacy (Murnieks et al., 2014), further reinforcing the reciprocal relationship between learning and identity enactment.

Accordingly, we propose that founder identity significantly influences entrepreneurs' learning behaviors, and that this relationship varies by identity type:

Hypothesis 2: Founder identity has a significant positive impact on entrepreneurial learning. In particular, darwinian identity (2a), communitarian identity (2b), and missionary identity (2c) have a significant positive impact on entrepreneurial learning.

2.3 The Mediation Effect of Entrepreneurial Learning

While founder identity provides a motivational foundation for entrepreneurial behavior, it is entrepreneurial learning that transforms identity-based intentions into concrete innovation outcomes. Entrepreneurial learning—defined as the process by which entrepreneurs acquire, interpret, and apply knowledge to recognize opportunities and solve problems—plays a central role in the innovation process (Politis, 2005; Corbett, 2005, 2007). According to the resource-based view, entrepreneurial knowledge is a valuable, rare, and inimitable asset that can create sustained competitive advantage, particularly for new ventures that often operate under severe resource constraints (Alvarez & Busenitz, 2001). In this context, entrepreneurial learning functions as a key mechanism that enables founders to convert identity-driven goals into strategic innovation actions.

From the perspective of social identity theory, founders who strongly identify with their entrepreneurial role are more likely to engage in goal-directed learning behaviors that reinforce their self-concept (Hoang & Gimeno, 2010). These learning behaviors often take the form of exploratory learning—which involves experimentation, searching for new knowledge, and creating novel solutions—and exploitative learning, which emphasizes efficiency, refinement, and the deepening of existing routines (March, 1991; Lichtenthaler, 2009). Both types of learning contribute to different dimensions of innovation: exploratory learning fuels radical innovation and new product development, while exploitative learning supports incremental innovation and operational excellence.

Critically, the process of entrepreneurial learning is also a process of knowledge creation, which acts as a catalyst for innovation (Nonaka & Takeuchi, 1996; Popadiuk & Choo, 2006). Nonaka's SECI model emphasizes the dynamic interaction between tacit and explicit knowledge as the basis for sustained innovation. Founders with a strong identity orientation are more likely to engage in these processes of socialization, externalization, combination, and internalization, hereby enhancing the organization's absorptive capacity and its ability to apply new knowledge to innovation (Zahra & George, 2002).

Thus, entrepreneurial learning serves as the bridge linking founder identity to innovation behavior. Through knowledge acquisition, sensemaking, and application, learning enables identity-driven entrepreneurs to overcome new venture liabilities, identify novel opportunities, and implement innovative solutions that are aligned with their personal and organizational goals.

Hypothesis 3: Entrepreneurial learning mediates the relationship between founder identity and innovation behavior. Specifically, both exploratory learning and exploitative learning serve as mediating mechanisms.

In summary, this study develops the conceptual framework illustrated in Figure 1.

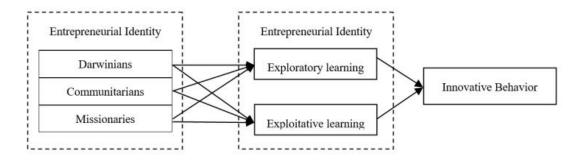


Figure 1. Conceptual Framework

3. Research Method

3.1 Data Collection

Chen et al. (2005) found that individuals' psychological tendencies and response behaviors may vary across cultural contexts. Specifically, in countries such as China and Japan, where Confucian values and the doctrine of the mean are deeply rooted, respondents tend to avoid extreme positions on Likert-type scales. As a result, when presented with an odd-numbered Likert scale, individuals from these cultural backgrounds often prefer selecting the mid-point. To mitigate this central tendency bias, this study adopts a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree), thereby eliminating the neutral middle option.

In determining the appropriate criteria for identifying new ventures, the Global Entrepreneurship Monitor (GEM) suggests a threshold of 42 months since establishment. Other scholars, such as McDougall (1992), have proposed an eight-year window. Fauchart and Gruber (2011), however, argue that a five-year threshold is more suitable for defining the early-stage phase of a firm's life. In line with this view, the current study focuses on founders of firms established within the past five years.

Data for this study were collected using a structured questionnaire developed to capture the key constructs under investigation. An initial round of data collection was conducted, followed by an exploratory factor analysis (EFA) to assess the measurement properties of the scales. Items with factor loadings below 0.50 were removed to enhance construct validity. The revised questionnaire was then finalized and used for the full-scale data collection and subsequent analysis.

In total, 237 valid responses were obtained. Data collection was conducted through two channels: first, 34 questionnaires were distributed using snowball sampling through personal and professional networks; second, 207 responses were collected via Questionnaire Star, a widely used online survey platform in China. After excluding 4 invalid responses, the remaining data were retained for analysis.

Percentage (%) Category Classification Frequency Male 125 52.7 Gender Female 47.3 112 25 or less 21 8.9 26~30 82 34.6 Age 31~35 91 38.4 36~40 39 16.5

Table 1. Descriptive Statistics of Respondents and Firm Characteristics

(Table 1. continued)

Category	Classification	Frequency	Percentage (%)	
Age	41~45	4	1.7	
	Junior high school	2	.8	
	Secondary school	7	3.0	
Education	High School	2	.8	
Education	College	46	19.4	
	Undergraduate	161	67.9	
	Postgraduate	19	8.0	
	Unmarried	57	24.1	
Marital status	Married	175	73.8	
	Divorced	5	2.1	
	1 or less	23	9.7	
	1-3	62	26.2	
Work experience prior to	4-6	72	30.4	
venture creation (in years)	7-10	61	25.7	
	11-15	15	6.3	
	More than 15	4	1.7	
Years Involved in Startup	1	4	1.7	
Activities	2	30	12.7	
	3	166	70.0	
	4	30	12.7	
	5	7	3.0	
	1-5	207	87.3	
Number of co-founders	6-10	20	8.5	
	11-30	10	4.2	
Types of business	Internet	55	23.2	
	Manufacturing	20	8.4	
	$FMCG^2$	17	7.2	
	Wholesale and retail	17	7.2	
	Education / Training	17	7.2	
	Dining & Entertainment	14	5.9	
	Trading / Import & Export	14	5.9	
	Clothing / Textiles	10	4.2	
	Electronic Technology	9	3.8	
	other	64	27.0	
Total	N=237		100	

3.2 Measures

Independent Variable: Founder identity was measured using the scale developed by Sieger et al. (2016), which is grounded in qualitative research and validated across multiple countries and regions. The scale includes 18 items, comprising three dimensions: Darwinian, Communitarian, and Missionary

² *FMCG=Fast Moving Consumer Goods

identities, with six items for each dimension. Sample items and full scale details are provided in the Appendix. Reliability analysis indicates satisfactory internal consistency, with Cronbach's alpha values of 0.79 for the Darwinian identity subscale, 0.85 for Communitarian identity, and 0.89 for Missionary identity. The overall Cronbach's alpha for the full scale is 0.88, suggesting high reliability.

Dependent Variable: Innovation behavior was assessed using items adapted from Lumpkin and Dess (2001) and Hughes et al. (2007), reflecting entrepreneurial actions such as "introducing new products or services to the market," "modifying the product or service portfolio," and "developing new technologies or processes." The Cronbach's alpha for this scale is 0.79, exceeding the commonly accepted threshold of 0.70, indicating good reliability.

Mediator Variables: Entrepreneurial learning was conceptualized through the dual lens of exploratory and exploitative learning, based on March's (1991) framework. While prior studies have employed experiential, cognitive, or practical learning dimensions, this study adopts a more integrative approach, recognizing that these forms of learning often interact and co-occur. Exploratory learning captures the acquisition of novel knowledge and experimentation, while exploitative learning reflects refinement, efficiency, and leveraging existing knowledge. The Cronbach's alpha coefficients for exploratory and exploitative learning are 0.75 and 0.78 respectively, with an overall learning construct alpha of 0.84, indicating strong reliability.

Control Variables: The analysis includes several control variables: firm age (years since founding), firm size (number of employees), and firm type. These controls account for potential confounding influences. First, founder identity may evolve over time as the venture matures, potentially weakening the mediating effect of entrepreneurial learning. Second, larger firms may rely more on organizational-level knowledge creation processes, thereby reducing the influence of individual founder cognition on innovation. Third, innovation behavior may vary systematically across different types of enterprises (e.g., manufacturing vs. service-based firms).

3.3 Reliability and Validity

(1) Reliability Analysis.

Reliability was assessed using Cronbach's alpha coefficients for all key constructs based on 237 valid responses. The results show that the alpha coefficients for all variable dimensions exceed the commonly accepted threshold of 0.70, indicating satisfactory internal consistency and acceptable reliability across all scales used in this study.

(2) Validity Analysis.

All measurement scales used in this study, except for the Founder Identity scale, were adopted from well-established sources in the existing literature. For the Founder Identity scale (adapted from Sieger et al., 2016), a back-translation procedure was conducted to ensure linguistic equivalence and conceptual clarity in the Chinese context. After translation, the scale was pre-tested, and modifications were made based on feedback to enhance item comprehensibility.

To assess construct validity, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were conducted. The KMO value was 0.921, indicating that the sample was suitable for factor analysis. An exploratory factor analysis (EFA) was then conducted on the Founder Identity scale. As shown in Table 2, all items demonstrated factor loadings above the 0.50 threshold, with the exception of item C4, which had a factor loading of 0.418. Consequently, item C4 ("When managing my firm, it will be very important to me to have a strong focus on a group of people that I strongly identify with [e.g., friends, colleagues, clubs, and community]") was removed.

A second EFA was conducted on the revised 17-item scale, and the results are presented in Table 3. The revised scale showed improved psychometric properties, with all factor loadings exceeding 0.50 and the Cronbach's alpha for the Founder Identity construct increasing to 0.88, indicating enhanced internal consistency.

To further assess the convergent and discriminant validity of the Founder Identity construct, a confirmatory factor analysis (CFA) was performed. As shown in Table 4, the three-factor structure of Founder Identity (Darwinian, Communitarian, and Missionary) demonstrated a good model fit, supporting the scale's structural validity.

Table 2. Exploratory Factor Loadings for the 18-Item Founder Identity Scale

Founder identity		Factor loading	Variance contribution rate
D1		.588	
D2		.658	
D3		.730	
D4		.780	5 0, 600/
D5		.664	59.68%
D6		.673	
C1		.674	
C2		.739	
C3		.693	
C4		.418	
C5		.725	
C6		.738	
M1	.752		
M2	.799		
M3	.770		
M4	.809		
M5	.745		
M6	.777		

N=237. D=Darwinians, C=Communitarians, M=Missionians

Table 3. Adjusted Exploratory Factor Analysis of Entrepreneur Identity

Founder identity	Factor loading	Variance contribution rate
D1	.602	
D2	.665	
D3	.725	
D4	.766	
D5	.671	
D6	.685	60.37%
C1	.692	
C2	.747	
C3	.699	
C5	.730	
C6	.738	

(Table 3. continued)

Founder identity	Factor loading	Variance contribution rate
M1	.749	
M2	.796	
M3	.763	
M4	.812	
M5	.748	
M6	.776	

N=237. D=Darwinians, C=Communitarians, M=Missionians

Table 4. Confirmatory Factor Analysis of Founder Identity

Parameter Value Model	2	df	² /df	RMSEA	SRMR	CFI	TLI
Three factor	119.269	41	2.909	0.090	0.059	0.942	0.922
Two factor	286.344	43	6.659	0.154	0.104	0.819	0.769
One factor	538.164	44	12.231	0.217	0.133	0.633	0.541

To assess the factor structures of our dependent measures, we conducted a confirmatory factor analysis. It can be seen from Table 5 that the six-factor model has the best fitting index.

Table 5. Confirmatory Factor Analysis of Overall Model

Parameter Value Model	2	df	²/df	RMSEA	SRMR	CFI	TLI
Model1	366.59	194	1.890	0.062	0.056	0.930	0.916
Model2	597.316	199	3.001	0.092	0.087	0.840	0.814
Model3	863.714	203	4.255	0.117	0.105	0.734	0.697
Model4	1027.471	206	4.988	0.130	0.109	0.669	0.629
Model5	1101.774	208	5.297	0.135	0.108	0.640	0.601
Model6	1197.648	209	5.730	0.140	0.111	0.602	0.560

4. Results

4.1 Descriptive Statistical Analysis

Table 6 presents the means, standard deviations, and Pearson correlation coefficients for the main variables in the study. The results indicate a significant positive correlation between founder identity

and innovation behavior. Furthermore, the different dimensions of founder identity (Darwinian, Communitarian, and Missionary) are significantly associated with entrepreneurial learning.

To assess multicollinearity, the eigenvalues, condition indices, and variance inflation factors (VIFs) were examined. The smallest eigenvalue of the independent variables is not close to zero, the condition index is below 30, and all VIF values are well below the commonly accepted threshold of 10. These results suggest that multicollinearity is not a concern in this dataset.

Overall, the descriptive analysis provides initial support for the hypothesized relationships among founder identity, entrepreneurial learning, and innovation behavior. These relationships will be examined in greater depth in the subsequent regression and mediation analyses.

	Mean	SD	1	2	3	4	5	6	7	8
1.year	3.03	.66								
2.number	61.9	103.1	.19**							
3.type	9.05	8.19	11	05						
4.Darwinians	4.87	.69	.15**	.02	.01	(.79)				
5.Communitarians	4.54	.88	.06	07	.01	.43**	(.85)			
6.Missionaries	4.26	.96	.03	.08	04	.13*	0.57**	(.89)		
7.Exploitative	4 O.F	76	10	0.2	0.4	£2**	0.49**	0.40**	(70)	
Learning	4.85	.76	.12	03	.04	.53**	0.49***	0.40**	(.78)	
8.Exploratory	4.04	(7	10*	00	00	F (* *	0.20**	0.22**	0.62**	(75)
Learning	4.94	.67	67 .19*	.09	.09	.56**	56** 0.39**	0.32**	0.62**	(.75)
9.Innovative	4.75	0.6	1.6*	00	0.4	41**	0.22**	0.25**	0.50**	0.50**
Behavior	4.75	.86	.16*	.08	04	.41**	0.32**	0.35**	0.59**	0.50**

Table 6. Descriptive Statistics and Correlations^a

4.2 Hypothesis Testing

Table 7 shows the regression analysis of the relationship between Founder Identity and innovation behavior. From the results of the main regression analysis, we can see that the three dimensions of Founder Identity have a significant positive impact on innovation and entrepreneurial behavior (β =0.498, p<0.001; β =0.306, p<0.001; β =0.310, p<0.001). R², Adjusted R² and \triangle R² increase significantly, and F was significant at 1% level. However, the analysis of model 5 shows that when joining in Darwinians, communitarians and missionaries identities, the communitarian identity becomes insignificant, while R², Adjusted R², \triangle R² significantly increased and F significant at 1% level. The results show that the hypothesis 1a and hypothesis 1c are both supported except that hypothesis 1b does not pass the test. The overall effect of regression model is ideal.

Variable	model1	model2	model3	model4	model5
constant	4.17***	1.997***	2.860***	2.873***	1.098**
year	0.19*	0.111	0.159	0.183*	0.113
number	0.000	0.001	0.001	0.000	0.000
type	-0.002	-0.004	-0.002	-0.001	-0.002
Darwinians		0.498***			0.456***

Table 7. Regression Results on Innovative Behavior

^a n=237, *p<.05, **p<.01

(Table	7.	continued)	١

	,				
Variable	model1	model2	model3	model4	model5
Communitarians			0.306***		-0.018
Missionaries				0.310***	0.276***
\mathbb{R}^2	0.029	0.186	0.127	0.148	0.274
Adjusted R ²	0.017	0.172	0.112	0.134	0.255
$\triangle R^2$	-	0.157	0.098	0.119	0.245
F-value	2.329	13.285***	8.450***	10.092***	14.441***

^{*}p<.05, **p<.01, *** p<.001(two-tailed tests)

Table 8 shows the results of regression analysis of entrepreneur identity on entrepreneurial learning (explorative learning and exploitative learning). (β =0.458, p <0.001; β =0.137, p<0.05; β =0.204, p<0.001), model 3-4 (β =0.456, p<0.001; β = 0.058, p>0.05; β =0.310, p<0.01), we can see that Founder Identity has partial differential effect on entrepreneurial learning; the results show that Hypothesis 2a and 2c are supported, and Hypothesis 2b is partially supported.

Table 8. Regression Results on Entrepreneurial Learning

Variable -	Exploitati	ve Learning	Explorato	ry Learning
variable	model1	model2	model3	model4
constant	4.350***	0.907***	4.235***	1.406***
year	0.157*	0.066	0.196**	0.115*
Number	0.000	0.000	0.000	0.000
type	0.005	0.005	0.009	0.009*
Darwinians		0.458***		0.456***
Communitarians		0.137*		0.058
Missionaries		0.204***		0.140**
\mathbb{R}^2	0.020	0.412	0.055	0.398
Adjusted R ²	0.007	0.396	0.042	0.383
$\triangle R^2$		0.41		0.343
F-value	1.590	26.81***	4.491**	25.372***

^{*}p<.05, **p<.01, ***p<0.001(two-tailed tests)

Table 9 reports the results of the mediation analysis examining the role of entrepreneurial learning in the relationship between founder identity and innovation behavior. Building on the baseline models (Model 1 and Model 2), Models 3 through 5 sequentially incorporate the two dimensions of entrepreneurial learning, i.e. exploitative and exploratory, to test their mediating effects.

The results from Model 3 and Model 4 indicate that both exploitative learning (β = 0.529, p < 0.001) and exploratory learning (β = 0.409, p < 0.001) significantly mediate the effect of founder identity on innovation behavior. In Model 5, where both learning dimensions are included simultaneously, the coefficients for exploitative and exploratory learning decrease to β = 0.459 (p < 0.001) and β = 0.204 (p < 0.05), respectively, though both remain statistically significant. This attenuation suggests a partial mediation effect.

Additionally, the increases in R^2 , adjusted R^2 , and ΔR^2 across the models support improved explanatory power, further validating the mediating role of entrepreneurial learning. Taken together,

these results provide robust empirical support for Hypothesis 3: entrepreneurial learning—both exploitative and exploratory—partially mediates the relationship between founder identity and innovation behavior.

Table 9. Regression Results of Mediating Effect of Entrepreneurial Learning

Variable	model1	model2	model3	model4	m
constant	4.17***	1.098**	0.618	0.524	(
Firm control variables					

model5 0.395 0.19* 0.113 0.078 0.066 0.06 year 0.0000.0000.001 0.0000.000number -0.002-0.002-0.005 -0.006 -0.006type Main effects 0.456*** **Darwinians** 0.214** 0.270** 0.153* Communitarians -0.018-0.09-0.041-0.092Missionaries 0.276*** 0.167** 0.218*** 0.153** **Mediating Effect Exploitative Learning** 0.529*** 0.459*** 0.409*** **Exploratory Learning** 0.204* \mathbb{R}^2 0.029 0.274 0.403 0.333 0.415 Adjusted R² 0.3850.017 0.255 0.395 0.313 $\triangle R^2$ 0.245 0.374 0.304 0.386 F-value 2.329 14.441*** 22.076*** 16.358*** 20.260***

To test the robustness of the mediating effects of entrepreneurial learning, we conducted a mediation analysis using Mplus with the Bootstrap method. Bootstrapping is a non-parametric resampling technique that does not rely on normality assumptions. A mediation effect is considered statistically significant if the 95% Bootstrap confidence interval does not include zero.

The results are presented in Table 10. As shown, exploratory learning does not significantly mediate the relationship between Darwinian identity and innovation behavior; however, exploitative learning does serve as a significant mediator in this relationship. When considered jointly, overall entrepreneurial learning significantly mediates the effect of Darwinian identity on innovation behavior. In contrast, no significant mediating effect of entrepreneurial learning, either exploratory or exploitative, was found in the relationship between Communitarian identity and innovation behavior. For Missionary identity, both exploratory and exploitative learning independently exhibit significant mediating effects, and the overall entrepreneurial learning construct also significantly mediates its relationship with innovation behavior. Finally, when all founder identity dimensions are aggregated, entrepreneurial learning as a whole demonstrates a significant mediating effect on the relationship between founder identity and innovation behavior.

These findings provide additional empirical support for Hypothesis 3, reinforcing the argument that entrepreneurial learning, particularly in its exploitative and exploratory forms, serves as a key mechanism through which founder identity influences innovation behavior.

^{*}p<.05, **p<.01, ***p<.001(two-tailed tests)

Dependent variable	Independent variable	95% confidence interval		
		Exploitative Learning	Exploratory Learning	Total effect
Innovation behavior	Founder identity	(0.199,0.494)	(0.012,0.223)	(0.326,0.598)
	Darwinians	(0.115,0.351)	(-0.006,0.198)	(0.199,0.430)
	Communitarians	(-0.001,0.162)	(-0.009,0.059)	(-0.007,0.178)
	Missionaries	(0.036,0.190)	(0.002, 0.088)	(0.050,0.230)

Table 10. Robustness Test of mediating Effect of Entrepreneurial Learning

5. Research Conclusions and Future Prospects

5.1 Research Conclusions

Drawing on social identity theory and role identity theory, this study develops a theoretical model linking founder identity, entrepreneurial learning, and innovation behavior. A set of hypotheses was proposed to examine the relationships among these constructs. To ensure the contextual validity of the measurement instruments in the Chinese entrepreneurial context, the founder identity scale was first refined using exploratory factor analysis. Hierarchical regression analyses were then conducted based on validated and reliable measures. Most of the hypotheses received empirical support, with the exception of Hypothesis 1b and 2b, which were not statistically significant.

The main findings of this study offer new insights into the role of founder identity in shaping entrepreneurial learning and innovation behavior. The results indicate that both Darwinian and Missionary identities have significant positive effects on innovation behavior. Although the three identity types—Darwinian, Communitarian, and Missionary, differ in terms of social motivations, self-assessment criteria, and behavioral reference frames, they share a common psychological need to enact and affirm their identity through innovative action. In the early stages of a venture, innovation becomes a key mechanism through which founders align strategic decisions with their self-concept. This finding aligns with prior work by Fauchart and Gruber (2011), who emphasize the strategic imprinting of identity on entrepreneurial behavior.

Moreover, the study reveals that all three founder identity types positively influence entrepreneurial learning, though the effects vary by learning orientation. Darwinian and Missionary founders are more strongly associated with exploitative learning, which involves refining and applying existing knowledge. This is particularly relevant given the high uncertainty and institutional volatility that characterize early-stage entrepreneurship. Under such conditions, entrepreneurial identity acts as a motivational anchor that encourages founders to engage in continuous learning and reflection to overcome resource constraints. Interestingly, the type of learning strategy founders adopt appears to depend on their underlying motivations: Communitarian entrepreneurs tend to rely on exploitative learning, whereas Darwinian and Missionary entrepreneurs are more inclined toward exploratory learning—a strategy that involves the pursuit of novel knowledge and experimentation.

The results further support the mediating role of entrepreneurial learning in the relationship between founder identity and innovation behavior. This finding is consistent with the theoretical logic that motivation drives learning, which in turn enables behavior. Entrepreneurs with strong identity salience are more likely to engage in learning strategies that are congruent with their self-concept, and the knowledge they acquire—whether through exploitation or exploration—ultimately facilitates

innovation. Entrepreneurial learning thus acts as a critical mechanism that channels identity-based intentions into strategic innovation outcomes, enhancing the adaptability and survival of new ventures.

While most of the hypotheses were supported, the study found no significant effects on Communitarian identity on either innovation behavior or entrepreneurial learning (Hypotheses 1b and 2b). This non-significant result may be attributable to cultural context. In Western literature, "community" often refers to voluntary, bounded groups such as professional networks, clubs, or local associations. In contrast, the Chinese understanding of community is more diffuse and embedded in broader societal and relational norms, which may conceptually overlap with Missionary identity, characterized by altruistic and prosocial motivations. This explanation is supported by the correlation analysis, which shows a moderately high correlation between Communitarian and Missionary identities (r = 0.567, p < 0.01), suggesting potential construct convergence. When all three identities are included in the regression model, the explanatory power of Communitarian identity may be attenuated due to shared variance with Missionary identity.

These findings highlight the importance of cultural contextualization in identity research. Future studies should carefully adapt identity constructs to local meanings and institutional conditions to ensure conceptual clarity and measurement distinctiveness. Doing so will enable a more accurate understanding of how founder identity operates across diverse entrepreneurial ecosystems.

5.2 Theoretical Contributions

This study makes several important theoretical contributions to the literature on entrepreneurship, founder identity, and innovation.

First, this research advances the cross-cultural validation of the founder identity construct by confirming the three-dimensional structure—Darwinian, Communitarian, and Missionary—in the Chinese context. While consistent with the structure proposed by Sieger et al. (2016), this study refines and expands the measurement by including culturally salient items that reflect the realities faced by Chinese entrepreneurs. For example, items emphasizing the pursuit of wealth and the desire to solve systemic social and environmental challenges were retained, reflecting the dual pressures of economic ambition and social responsibility, particularly among young male entrepreneurs in emerging markets. This highlights the importance of contextualizing identity constructs within specific cultural and institutional environments, addressing a gap in founder identity research which has largely focused on high-income Western contexts.

Second, drawing on social identity theory and role identity theory, this study extends the understanding of how different types of founder identity influence entrepreneurial behavior. By moving beyond a unidimensional view of identity, the study demonstrates that founder identity not only directly shapes innovation behavior but also indirectly influences it through distinct learning pathways. While previous studies have explored the role of identity in entrepreneurial motivation and opportunity recognition (e.g., Cardon et al., 2009; Fauchart & Gruber, 2011), this study adds empirical evidence on how identity translates into innovative action via entrepreneurial learning—a mechanism that has been underexplored in prior work.

Third, this research contributes to the entrepreneurial learning literature by integrating identity-based motivations with learning strategies. It reveals that different identity types are associated with different learning orientations: Darwinian and Missionary entrepreneurs tend to adopt exploitative learning to refine and execute innovations, whereas Communitarian entrepreneurs rely more on exploratory learning to co-create knowledge with stakeholders. This sheds light on the micro-foundations of

entrepreneurial behavior and offers a nuanced understanding of how founders navigate uncertainty through learning.

5.3 Practical Implications

The findings of this study offer actionable insights for policymakers, educators, and entrepreneurial support organizations seeking to foster innovation and tailor support to different types of entrepreneurs.

For policymakers, the results underscore the need to move beyond one-size-fits-all entrepreneurship support frameworks. Policy interventions should be differentiated by founder identity type. For example, Communitarian founders—who prioritize community well-being and engage in exploratory learning—would benefit from targeted support such as community innovation grants, participatory design platforms, and access to local engagement resources. At the same time, policy should encourage dual-capacity ecosystems by investing in infrastructure that supports both exploitative learning (e.g., scaling programs, rapid iteration toolkits) and exploratory learning (e.g., open-ended R&D, stakeholder co-creation initiatives). Importantly, identity-aware funding mechanisms should be developed to avoid systemic biases against non-traditional innovation pathways, particularly those led by Communitarian founders.

For educators, entrepreneurship training programs should incorporate identity-awareness modules to help founders recognize and reflect on their core entrepreneurial identity (e.g., competitive, mission-driven, or community-oriented). Tailored curriculum design should support both exploitative and exploratory learning approaches—equipping Darwinian and Missionary entrepreneurs with execution and refinement tools, while training Communitarian entrepreneurs in ethnographic research, co-creation, and iterative discovery. Early identity reflection exercises can also help entrepreneurs align their strategic and learning choices with their intrinsic motivations, improving entrepreneurial clarity and learning agility.

For entrepreneurial support organizations, intake processes should include identity diagnostics to better match founders with resources that reflect their goals and learning preferences. For instance, Darwinian and Missionary founders may benefit from lean startup coaching, strategic mentorship, and growth-oriented accelerators, while Communitarian founders may thrive in environments that facilitate deep stakeholder engagement, local network building, and community innovation labs. Crucially, support structures must actively validate and elevate the Communitarian innovation model—by connecting these founders to social impact investors, providing platforms for showcasing community outcomes, and helping them articulate their unique value to funders and collaborators.

5.4 Research Limitation and Future Directions

While this study provides valuable insights into the relationship between founder identity, entrepreneurial learning, and innovation behavior, several limitations should be acknowledged, which also suggest fruitful avenues for future research.

First, this study focuses on the role of founder identity in the early stages of venture creation. However, entrepreneurship is an evolving and uncertain journey, and many founders eventually exit, pivot, or relaunch new ventures. Prior research suggests that the success rate of startups is extremely low, with a large proportion of entrepreneurs terminating or transforming their ventures. Yet, identity does not disappear with venture failure—it may be reshaped or reactivated. Future research should explore how founder identity evolves over time, particularly in the context of identity termination, transfer, or reconfiguration among serial entrepreneurs. Such investigations could deepen our understanding of identity continuity and change across the entrepreneurial lifecycle.

Second, the study adopts a purely quantitative approach through structured survey data. While this allows for generalizable insights, it lacks the contextual depth that qualitative methods can offer. The use of mixed methods—combining surveys with interviews, case studies, or ethnographic observation—could capture the complex, evolving, and socially embedded nature of identity and learning in entrepreneurship. Integrating inductive and deductive approaches would help uncover nuanced mechanisms underlying behavior such as opportunity recognition, resource orchestration, and strategic adaptation, which are not easily captured through surveys alone.

Third, this research conceptualizes founder identity at the individual level. However, in practice, many startups are co-founded by teams rather than individual entrepreneurs. Team-based ventures raise important questions about identity alignment, identity conflict, and the negotiation of shared goals. Future studies could examine the interplay of multiple identities within entrepreneurial teams, exploring how diverse identity types among team members influence team dynamics, learning strategies, and innovation outcomes.

Another limitation concerns the sample composition. The respondents were predominantly young (73% aged 26–35) and male (52.7%), reflecting current demographic trends in entrepreneurship but potentially limiting the generalizability of the findings. Future research should include more demographically diverse samples—across gender, age, educational background, and industry sector—to better understand how identity-based mechanisms operate across different entrepreneurial populations and contexts.

Finally, the study employed snowball sampling to reach early-stage entrepreneurs, which, while effective for accessing hard-to-reach populations, may introduce selection bias. Since referrals tend to originate from similar social or professional circles, the sample may not fully reflect the heterogeneity of the broader entrepreneurial population. Additionally, reliance on self-reported data raises the possibility of common method bias. Future research could address these issues by using stratified or random sampling methods, and by triangulating self-reported survey data with other sources, such as interview transcripts, archival data, or observational records, to strengthen the robustness and credibility of the findings.

Funding

This research received funding from National Natural Science Foundation of China, grant number 72202237.

Acknowledgments

This work is supported by National Natural Science Foundation of China (No. 72202237)

Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Ethics Statement

This study was conducted in accordance with the ethical standards of the 1964 Declaration of Helsinki and its subsequent amendments. The research was based on a questionnaire survey, and all responses were collected anonymously. No personally identifiable information was gathered or reported, and participants' confidentiality was strictly maintained throughout the study.

Conflicts of Interest

On behalf of all authors, the corresponding author declares that there are no conflicts of interest related to this study.

References

Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755-775. https://doi.org/10.1177/014920630102700609

Cardon, M. S., Sudek, R., & Mitteness, C. (2009). The impact of perceived entrepreneurial passion on angel investing. *Frontiers of Entrepreneurship Research*, 29(2), 1. http://dx.doi.org/10.5 465/AMBPP.2009.44244277

Cast, A. D. (2004). Well-being and the transition to parenthood: An identity theory approach. *Sociological Perspectives*, 47(1), 55-78. https://doi.org/10.1525/sop.2004.47.1.55

Chen, S. X., Cheung, F. M., Bond, M. H., & Leung, J. P. (2005). Decomposing the construct of ambivalence over emotional expression in a Chinese cultural context. *European Journal of Personality*, 19(3), 185-204. https://doi.org/10.1002/per.538

Corbett, A. C. (2005). Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship Theory and Practice*, 29(4), 473-491. https://doi.org/10.1111/j.154 0-6520.2005.00094.x

Corbett, A. C. (2007). Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing*, 22(1), 97-118. https://doi.org/10.1016/j.jbusvent.2005.10.001

Damanpour, F. (2017). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-590. https://doi.org/10.5465/256406

Elert, N., & Henrekson, M. (2017). Entrepreneurship and institutions: A bidirectional relationship. *Foundations and Trends® in Entrepreneurship*, *13(3)*, 191-263. https://doi.org/10.1561/0300000073

Fauchart, E., & Gruber, M. (2011). Darwinians, communitarians, and missionaries: The role of founder identity in entrepreneurship. *Academy of Management Journal*, *54*(5), 935-957. https://d -oi.org/10.5465/amj.2009.0211

Hamilton, E. (2011). Entrepreneurial learning in family business: A situated learning perspective. Journal of Small Business and Enterprise Development, 18(1), 8-26. https://doi.org/10.1108/146 26001111106406

Hoang, H., & Gimeno, J. (2010). Becoming a founder: How founder role identity affects entrepreneurial transitions and persistence in founding. *Journal of Business Venturing*, 25(1), 41-53. https://doi.org/10.1016/j.jbusvent.2008.07.002

Hogg, M. A., & Terry, D. I. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, 25(1), 121-140. https://doi.org/10.2307/259266

Holcomb, T. R., Ireland, R. D., Holmes, R. M., & Hitt, M. A. (2009). Architecture of Entrepreneurial Learning: Exploring the Link among Heuristics, Knowledge, and Action. *Entrepreneurship Theory and Practice*, *33(1)*, 167–192. https://doi.org/10.1111/j.1540-6520.2008.00285.x

Hughes, M., Hughes, P., & Morgan, R. E. (2007). Exploitative learning and entrepreneurial orientation alignment in emerging young firms: Implications for market and response performance. *British Journal of Management*, 18(4), 359-375. https://doi.org/10.1111/j.1467-8551.2007.00519.x

Ko, E. J., & Kim, K. (2020). Connecting founder social identity with social entrepreneurial intentions. *Social Enterprise Journal*, *16*(4), 403-429. https://doi.org/10.1108/sej-02-2020-0012

Landström, H., Åström, F., & Harirchi, G. (2015). Innovation and entrepreneurship studies: One or two fields of research? *International Entrepreneurship and Management Journal*, 11(3), 493-509. https://doi.org/10.1007/s11365-013-0282-3

Latham, S. F., & Braun, M. (2009). Managerial risk, innovation, and organizational decline. *Journal of Management*, 35(2), 258-281. https://doi.org/10.1177/0149206308321549

Lichtenthaler, U. (2009). Absorptive capacity, environmental turbulence, and the complementarity of organizational learning processes. *Academy of Management Journal*, *52(4)*, 822-846. https://doi.org/10.5465/amj.2009.43670902

Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429–451. https://doi.org/10.1016/s0883-9026(00)00048-3

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87. https://doi.org/10.1287/orsc.2.1.71

McDougall, P. P., Robinson Jr, R. B., & DeNisi, A. S. (1992). Modeling new venture performance: An analysis of new venture strategy, industry structure, and venture origin. *Journal of Business Venturing*, 7(4), 267-289. https://doi.org/10.1016/0883-9026(92)90002-9

Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. (3rd edition) The Guilford Press.

Minniti, M., & Bygrave, W. (2001). A dynamic model of entrepreneurial learning. *Entrepreneurship Theory and Practice*, 25(3), 5-16. https://doi.org/10.1177/104225870102500301

Mitchell, R. K., Busenitz, L. W., Bird, B., Marie Gaglio, C., McMullen, J. S., Morse, E. A., & Smith, J. B. (2007). The Central Question in Entrepreneurial Cognition Research 2007. *Entrepreneurship Theory and Practice*, 31(1), 1–27. https://doi.org/10.1111/j.1540-6520.2007.00161.x

Murnieks, C., Mosakowski, E., & Cardon, M. S. (2014). Pathways of passion: Identity centralit -y, passion, and behavior among entrepreneurs. *Journal of Management*, 40(6), 1583-1606. https://doi.org/10.1177/0149206311433855

Murnieks, C., & Mosakowski, E. (2007). Who am I? Looking inside the "founder identity." *Frontiers of Entrepreneurship Research*, 27(5), 1-14. https://ssrn.com/abstract=1064901

Nonaka, L., Takeuchi, H., & Umemoto, K. (2014). A theory of organizational knowledge creat -ion. *International Journal of Technology Management*, 11(7-8), 833-845. https://doi.org/10.1504/IJTM.1996.025472

Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: A critical review of the concept. *Journal of World Business*, 41(1), 56-65. https://doi.org/10.1016/j.jwb.2005.10.007

Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship Theory and Practice*, 29(4), 399-424. https://doi.org/10.1111/j.1540-6520.2005.00091.x

Popadiuk, S., & Choo, C. W. (2006). Innovation and knowledge creation: How are these conce -pts related? *International Journal of Information Management*, 26(4), 302-312. https://doi.org/10.1016/j.ijinfomgt.2006.03.011

Renko, M. (2013). Early challenges of nascent social entrepreneurs. *Entrepreneurship Theory and Practice*, 37(5), 1045-1069. https://doi.org/10.1111/j.1540-6520.2012.00522.x

Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*, 26(4), 441-457. https://doi.org/10.1016/j.jbusvent.2009.12.002

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of in -dividual innovation in the workplace. *Academy of Management Journal*, *37(3)*, 580-607. https://doi.org/10.2307/256701

Shepherd, D., & Haynie, J. M. (2009). Family business, identity conflict, and an expedited entrepreneurial process: A process of resolving identity conflict. *Entrepreneurship Theory and Practice*, *33(6)*, 1245-1264. https://doi.org/10.1111/j.1540-6520.2009.00344.x

Sieger, P., Gruber, M., Fauchart, E., & Zellweger, T. (2016). Measuring the social identity of entrepreneurs: Scale development and international validation. *Journal of Business Venturing*, 31(5), 542–572. https://doi.org/10.1016/j.jbusvent.2016.07.001

Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63(4), 284-297. https://doi.org/10.2307/2695840

Stryker, S., & Serpe, R. T. (1994). Identity salience and psychological centrality: Equivalent, overlapping, or complementary concepts? *Social Psychology Quarterly*, 16-35. https://doi.org/10. 2307/2786972

Tajfel, H., & Turner, J. C. (1979). *Organizational Identity: A Reader*. Oxford University Press. https://doi.org/10.1093/oso/9780199269464.001.0001

Tajfel, H., & Turner, J. C. (1986). Psychology of Intergroup Relations. Nelson-Hall.

Tan, J. (2001). Innovation and risk-taking in a transitional economy: A comparative study of Chinese managers and entrepreneurs. *Journal of Business Venturing*, 16(4), 359-376. https://doi.org/10.1016/s0883-9026(99)00056-7

Wei, J., Chen, Y., Zhang, J., & Gong, Y. (2019). Research on Factors Affecting the Entrepreneurial Learning From Failure: An Interpretive Structure Model. *Frontiers in Psychology*, 10, 1304. https://doi.org/10.3389/fpsyg.2019.01304

Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and ext -ension. *Academy of Management Review*, 27(2), 185-203 https://doi.org/10.5465/amr.2002.65879

Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6), 1265. https://doi.org/10.1037/0021-9010.90.6.1265

About Author(s)

Shuojia Guo is an Associate Professor at the College of Staten Island - City University of New York. Dr. Guo's research interests include digital marketing, marketing and supply chain interface, B2B branding, social influences and social consequences of consumer behaviors. She was the recipient of a Dissertation Fellowship for her doctoral studies at Rutgers University and a fellowship recipient of the 2013 Columbia-Duke-UCLA Quant Camp. Dr. Guo has many publications in conference proceedings, book chapters, and journals such as *Industrial Marketing Management*, *Journal of Business Research*, *Technology Forecasting* and *Social Change*, *Journal of Business & Industrial Marketing*, *Transportation Research Part E*, *Asia Pacific Journal of Marketing and Logistics*, and so on.

Rongzhi Liu is currently an associate professor at the School of Business Administration, Zhongnan University of Economics and Law. Her main research interests are entrepreneurial behavior and sustainable entrepreneurship. Dr. Liu has many publications in conference proceedings, book chapters, and journals such as *Journal of Business Research, Journal of Vocational Behavior, Chinese Business management, and so on.*

Yihan Wang is a Master's student majoring in Enterprise Management at the School of Business Administration, Zhongnan University of Economics and Law. Her thesis advisor is Associate Professor Liu Rongzhi.