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A Longitudinal Multi-Case Study on the Perception of Identity and the Development of Entrepreneurial Opportunities in College Students

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Abstract: This paper posits that the transformation of self-identity is a fundamental element in how college student entrepreneurs generate and advance new ventures. Grounded in identity cognition theory, the research conducted a longitudinal analysis of ten high-performing startups founded by students. It specifically examines the psychological process by which these individuals transition from viewing themselves primarily as students to embracing a leadership role. This change is instrumental to their capacity to identify and develop entrepreneurial opportunities.

The results demonstrate that an entrepreneur's cognitive framework of identity has a substantial impact on their perception and interpretation of potential opportunities. The study observed a synergistic enhancement in the entrepreneurs' values, capabilities, and personal characteristics. The construction of their leadership identity was progressively reinforced through the mediating influences of scientific reasoning, market logic, and critical junctures. The entrepreneurial process is depicted as a co-evolutionary cycle where the founder's identity and the business opportunity dynamically shape one another, driven by the integration of technological innovation with consumer demand. Entrepreneurs apply their commitment to innovation through strategic choices that follow two distinct pathways: pursuing radical, breakthrough opportunities or focusing on incremental ones. The principal contribution of this work is its detailed explanation of the role that identity cognition plays in the opportunity development process for college students.

Keywords: cognition theory, Entrepreneurs, identity recognition; college students, case study

1. Introduction

University students who launch business ventures are among the fundamental groups in the contemporary surge of entrepreneurial activity in China. The capacity of these individuals to recognize and cultivate new business prospects is pivotal for dictating the success of their startup enterprises, and this subject also constitutes one of the central investigative topics in the academic domain of entrepreneurship studies (Aldrich, 2012). The distinctive characteristic of collegiate entrepreneurs is their psychological progression in identity cognition, which evolves from a "student" role to a "leader" role (Marchand et al., 2015). Within the realm of practical entrepreneurial activity, due to the intricate combination of individual and environmental factors, the self-perceptions and role identities of these student founders are subject to multifaceted influences. The challenge of converting an individual's strategy for personal identity cognition into a unified agreement for the company's strategic development is not only the crucial element for maturing from a graduate into a decisive authority and guiding figure for a new enterprise, but it is simultaneously a significant component influencing the progression of new business prospects. As indicated by the "2022 Report on Chinese College Student Employment" published by the MyCOS Research Institute, the difficulties associated with sustaining a new business for graduates who elect to become entrepreneurs are persistently rising. Over 50% of bachelor's degree recipients who decided to start their own businesses after graduating in 2018 had exited the entrepreneurial landscape within 3 years, and the rate of those who persisted (41.5%) showed a further reduction compared with the corresponding rate in 2017 (43.4%). A multitude of scholarly investigations and press articles have sought to clarify the critical role of opportunity recognition for entrepreneurs with a college background. This is particularly relevant within the entrepreneurial sector concentrated on emerging technologies. In these technology-driven startup areas, investigating the synchronization of a founder's business ambitions, their evolving self-concept, and their effective use of new venture opportunities will be a decisive factor in advancing entrepreneurship among university students.

In summary, the self-perception of entrepreneurs and the evolution of new business prospects are mutually dependent and perpetually co-evolving processes. From one perspective, entrepreneurs are the guiding forces of new ventures, and typically, the founders are the first to recognize potential business opportunities; the cultivation of these opportunities depends significantly on the founders' individual awareness and instinctive understanding (Velu, 2016). From a different perspective, during the phase of accelerated expansion for a new company, the self-concept of a student entrepreneur will be shaped by the external business climate, consumer needs, technological capabilities, professional networks, and other factors that can prompt and direct the advancement of new business ideas. Consequently, the personal identity and mindset of a student founder is the central element that connects the individual dimension to the collective team dimension; this core factor encourages the reconfiguration of assets and the enhancement of adaptive knowledge for a specific venture or a new company, which subsequently dictates whether the enterprise is capable of experiencing swift growth. Building on this foundation, this investigation focuses on university student founders and provides a conceptual analysis of their self-perception and the cultivation of new business prospects. The objective is to

address the central inquiry regarding "the developmental sequence of self-concept in student entrepreneurs, and its operational process for facilitating the effective cultivation of new business ideas." It additionally examines the fundamental meaning and developmental trajectory of self-concept among student founders, alongside the distinctive cognitive features that emerge during the recognition and cultivation of new business prospects, with the ultimate goal of enhancing the rate of successful business creation among university students.

2 Literature Review

2.1 Research on the Cultivation of New Venture Prospects

The cultivation and evolution of new business prospects occur throughout the entire span of the entrepreneurial journey and serve as a precursor that influences entrepreneurial actions and practical execution (Zhou Dongmei et al., 2020). This development has a significant impact on the strategic choices and organizational management framework of new enterprises.

From a theoretical standpoint of entrepreneurial opportunity discovery, the authentic entrepreneurial journey begins with the founder's detection of promising business opportunities (Shane, 2003). Governmental support measures aimed at high-technology sectors will create a multitude of new business opportunities, and founders with different specialized knowledge exhibit substantial variation in their selection criteria and managerial choices when confronted with diverse venture prospects (Gaglio et al., 2001). The specialized knowledge of entrepreneurs stems from the synthesis of various information streams; this expertise can be gained through formal schooling and the accumulation of hands-on experience, allowing them to restructure these knowledge bases and practical experiences to address consumer demands (Clarysse et al., 2011). Robust professional and personal connections allow entrepreneurs to secure the necessary assets to advance a business idea, whereas more distant, casual connections allow them to access diverse, non-redundant information; both types of social networks play a critical role in detecting novel venture opportunities (Hite, 2005). New business opportunities emerge from external pressures and market changes, and entrepreneurs possess a notable capacity to identify these new venture opportunities (Tang Pengcheng et al., 2009). Individual mental and character variations, including traits such as self-confidence in one's abilities, innovativeness, inquisitiveness, and systematic thinking errors, are significant elements influencing the awareness of new business prospects and the tendency to engage in entrepreneurship (Li Xiaohua et al., 2022). Furthermore, entrepreneurs are purposeful and forward-acting in their quest for market responses and in their application of the identified business prospects.

The cognitive processes and actions of entrepreneurs constitute the foundational origin from which new business prospects arise, and a wealth of diverse experiences can activate their inherent drive to innovate; these experiences include involvement in startup activities, entrepreneurial skill-building, learning gained through direct practice, and the ability to make independent choices (Yount et al., 2018). Entrepreneurial alertness is a specific capability to recognize market opportunities in the surrounding environment that are often missed by others (Kirzner, 1997).

This is particularly crucial in an ambiguous and volatile context, where it enables the discovery of neglected market niches. This alertness influences founders' cognitive logic and problem-solving approach in responding to challenges, thereby shaping their strategic and operational choices (Endres, 2007). The perspective of entrepreneurial opportunity creation emphasizes the alignment of an entrepreneur's previously acquired knowledge, competencies, and skills with information and knowledge from other fields. Through the enlargement of network resources and the enhancement of entrepreneurial capability, the developmental progression of an entrepreneur's professional identity is characterized as the communication of their personal interpretation of the business landscape to other team members, thereby achieving a harmonization of understanding and action within the startup team. Furthermore, the knowledge possessed by an individual founder or the collective group is linked and integrated with the conditions of the external market (Baron et al., 2006), a connection that ultimately has an impact on the procedure of recognizing new venture possibilities and on the subsequent cultivation of those business opportunities for a new enterprise.

2.1 The Role of Self-Perception in the Evolution of Business Opportunities

In recent years, the central emphasis within entrepreneurship studies has transitioned from examining entrepreneurial activities to investigating identity cognition. Current research has begun to outline the logical sequence connecting "identity cognition to entrepreneurial passion and then to opportunity recognition" (Yitshaki et al., 2016), the process through which entrepreneurial maturity is achieved by constructing personal meaning, and the identity-building actions of university student founders that are driven by internal motivation (Bau, 2016). Within this framework, the individual attributes of founders —specialized knowledge, professional networks, belief in their own capabilities, and contextual circumstances — have emerged as factors influencing new ventures' ability to acquire transformative business prospects (Wood, 2010). An individual's prior life experiences and established role identity can exert enduring impacts on their conduct (Marquis, 2013). Founders strengthen their self-awareness and leadership identity in new enterprises through ongoing education and practical application (Garcia et al., 2019). Consequently, entrepreneurs' mental frameworks can provide a more profound explanation of the underlying motivations for their entrepreneurial actions and strategic choices.

Entrepreneurial identity cognition refers to the intuitive judgment that founders make when evaluating new ventures and expanding their entrepreneurial companies (Mitchell et al., 2002). It can develop entrepreneurial skills by constructing personal significance. When entrepreneurs categorize and define themselves in terms of a particular social role, they behave in ways that conform to established norms and structures to realize that identity (Stets et al., 2000). For instance, the aspirations and career visions that founders hold for leadership roles will drive them to sustain their entrepreneurial enthusiasm and internal drive when confronting significant stress and obstacles, and to forge a leader identity that aligns with those expectations. The self-perception of entrepreneurs is shaped by multiple dimensions, including the specific entrepreneurial context and their entrepreneurial competencies. The development of a leader's identity originates not only from an individual's comprehension of their own identity. Still, it is also shaped and built

through the resources available in their social networks. Identity cognitive capacity can be developed via engagement with the entrepreneurial ecosystem and the continual accumulation of practical experience (Hu Wangbin et al., 2019). Therefore, the identity cognitive process exhibited by entrepreneurs is co-driven by the variations in their personal attributes and the distinct entrepreneurial environments they encounter (Baron, 2004).

Entrepreneurs seek out occupational conditions or circumstances that are congruent with their own self-image to achieve a sense of psychological safety (Milton, 2008) and to fulfill a necessary collection of values, intentions, and behavioral standards through interactions and identity-forming activities with others, thereby guaranteeing the stability and consistency of their self-concept (Sveningsson et al., 2003). Identity cognition also influences the acquisition, filtering, and interpretation of information, leading to variations in how sensitive different individuals are to recognizing new business prospects, which subsequently affects the development of those entrepreneurial opportunities (Ren et al., 2011). The identity cognition of a single entrepreneur can shape the professional and social networks of their company, which is a crucial pathway for identifying new venture opportunities and acquiring market intelligence (Wry et al., 2017). Varied information sources, a wide-ranging perspective, and an entrepreneurial vigilance help founders cultivate and advance new business opportunities.

Overview of Prior Findings

In summary, prior research has examined the factors that influence the cultivation of new business prospects from various angles, underscoring the critical role of entrepreneurial opportunity development during the initial formation and subsequent growth phases of a new venture. Nonetheless, there is a comparatively more minor body of research on the acquisition, recognition, and practical application of opportunities specifically for university students who are entrepreneurs. The conduct and characteristics demonstrated by collegiate founders span a broader range, including their value systems, individual personalities, and skill sets. Yet, there is a scarcity of investigations that address the behavioral and decision-making challenges of student entrepreneurship from a detailed, individual-level perspective. Current academic work has stressed the importance of identifying new venture prospects and adapting to consumer needs. However, when confronted with a constantly shifting external business climate and given that the self-concept of a student founder and the progression of a business idea constitute a mutually influential, dynamically co-evolving process, the precise mechanism by which this relationship affects the advancement of entrepreneurial opportunities remains an unexplained "black box." There is a further requirement to investigate in depth the processes influencing identity cognition and entrepreneurial outcomes. Consequently, this paper conducts a thorough examination of the precursors and consequences of student entrepreneurs cultivating expectations of becoming leaders, elucidates the dynamic and evolutionary process of the interplay between self-perception and other variables affecting the development of new business ideas, emphasizes that identity cognition and entrepreneurial ambitions are shaped by the ongoing reciprocal interactions between founders and other people, and offers a conceptual framework

for comprehending the maturation and expansion process of business enterprises founded by university students.

3 Methodological Framework

3.1 Procedural Framework

The case study research strategy is an appropriate methodology for investigating questions of process and progression. It can address inquiries that seek to understand the underlying "why" and "how" of a particular phenomenon (Yin, 2003). This methodological approach can be effectively employed to examine the dynamic and evolving progression of growth in ventures founded by university students. The present research used a longitudinal, multi-case design to develop a theoretical framework that illuminates the essential characteristics and developmental processes linking changes in self-perception to the cultivation of new business prospects for student founders across both the initial and subsequent phases of their entrepreneurial journey. The investigation focused explicitly on the progression of opportunity development within technology-focused startup companies. This focus aided understanding of the functional relationships among an entrepreneur's self-concept, expectations for the venture, and the development of business opportunities from a "process-oriented" perspective.

3.2 Study Cases

This research utilized high-technology ventures founded by university students as its case subjects, with the investigative team proactively establishing communication with the founders. By November 2023, a total of 39 student-founded startups participating in Tsinghua University's Sanchuang Competition had been interviewed and examined. From this pool, 10 representative, award-winning cases were selected for in-depth analysis in alignment with the study's objectives. These cases include Robot Phoenix, Dream Plus, CytoNiche, TrueSight, NaKin High Technology, Jizhan Technology, RealAI, Honest Uhd, Orien Space, and Bose Quantum Technology Co., Ltd., thereby satisfying the recommended range of 4 to 10 cases for a multi-case research design (Eisenhardt, 1989). The ten selected case enterprises were required to fulfill the following criteria:

(1) Typically: The Tsinghua University E-commerce Triple Creation Competition is recognized as one of the Top 100 Demonstration Cases for entrepreneurship and innovation. Adhering to the principle of theoretical sampling, the cases chosen for this study are representative winners of this prestigious competition. Tsinghua University facilitates entrepreneurial pilot programs and the transformation of scientific and technological achievements for its students based on the "Creative Innovation and Entrepreneurship" philosophy, actively encouraging them to leverage advanced technology for the development of new business prospects, technological advancement, and business model refinement.

(2) Data availability: The student founders exhibit the representative characteristics of opportunity-based entrepreneurship. They encounter numerous conflicts and contradictions throughout their entrepreneurial journey, which provides a rich and intense research context. This setting makes it more feasible to observe the enhancement of the founders' innovative and entrepreneurial capabilities and the formation of their leadership identities, noting that they consistently maintain control and decision-making authority over the business opportunities as their

enterprises grow. Investigating how the self-perception of these student entrepreneurs adapts to market uncertainties is highly instructive, and there is abundant experiential material available on the development and maturation of their startups.

(3) Universality of results: All selected startups originated from founders' entrepreneurial activities during their university studies, and each company has been operational for more than 3 years, indicating they have successfully passed the critical survival period for new ventures. This established timeline facilitates an in-depth exploration of the sequence of events and pivotal occurrences within the cases' entrepreneurial activities. It is also advantageous for understanding the evolutionary process of identity cognition and opportunity development, which exerts a lasting impact on the organization's fundamental characteristics.

3.3 Procedures for Information Gathering

Adhering to the "Triangulation" principle fundamental to case study research, this investigation employed a multi-method approach, integrating in-depth interviews, on-site observational visits, and the compilation of secondary data to gather information through a wide array of channels. This comprehensive strategy was implemented to achieve a profound understanding of the developmental progression of self-perception and action choices in university student founders, to supply more holistic material for the case narratives and conceptual examination, and to enhance the reliability and soundness of the qualitative research. During the period from June to November 2023, the research team visited the physical locations of the case companies to conduct several rounds of investigative discussions with the entrepreneurs and their associated team members. These engagements primarily consisted of semi-structured interviews and field-based observational studies. In total, 38.83 hours of recorded interview conversations were produced, and these were subsequently transcribed into 263,000 words of textual data for analysis.

Furthermore, secondary sources served as a crucial supplementary source for the data acquisition process. The research team organized internal development documentation from the case enterprises (which included promotional content, internal meeting records, and similar materials). Further, it enriched and refined the informational repository by acquiring news feature stories about the founders and their startups, content released on official websites and public social media accounts, and statistical reports on sector-wide growth. The complete structure and details of the data collection activities are presented in Table 1.

Table 1. Data collection

Data Types	Data Source	Original Data Audience
Entrepreneur interviews	Interviews were conducted with 10 founders of college startups, averaging 1.5 hours per interview and totaling 18.36 hours.	Researcher
Other personnel interviews	Interviews with stakeholders related to the enterprise, including college employment and entrepreneurship teachers, personnel in key positions, users, etc. The interview duration for each case was about 2 hours.	Stakeholders, researchers, and the general public
Participatory observations	Observed the operation of enterprises and incubators; made on-site notes; participated in several startups' roadshows; kept track of investors'	Entrepreneurs, entrepreneurial mentors,

	and competition judges' feedback on the startups.	investors, and personnel of the entrepreneurial park or incubator personnel
Secondary data	Third-party databases such as business plans, roadshow PPTs, official corporate website information, and news reports.	General public

3.4 Procedures for Data Interpretation

This research adhered to the established, standardized procedures for coding information in a case study methodology to examine the collected case material. The progression of university student founders — from the initial formation of a business idea to the expansion of their startup —was meticulously studied, moving from individual experiences to the multitude of actions involved in executing a venture. Particular focus was placed on how these founders, grounded in their evolving self-perception, understood pivotal events, factors influencing new business prospects, and strategic decisions. The analysis also directed attention to the challenges of combining resources and expanding professional networks that entrepreneurs faced in cultivating new business ideas. The full extent of the developmental sequence for the students' shifting self-concept and their advancement of venture prospects was synthesized and represented in a structured model.

The initial step involved forming a dedicated coding team and creating a structured coding database. The coding activity was performed using NVivo 12 software, with each of the ten student entrepreneurs assigned an anonymous identifier from F1 to F10. This process involved "tagging" specific statements in the data repository that were potentially relevant to students' perceptions of their entrepreneurial identity and the development of new business opportunities. Any discrepancies or questions that emerged during the coding procedure were collectively deliberated, and solutions were formulated to mitigate individual preconceptions and minimize inaccuracies, continuing until the coding outcomes were uniform across the team. The coded data were then organized into groups, and a comparative examination of the coding process was continuously carried out across the different entrepreneurial cases. This involved coding at successive levels, conceptualizing and abstracting at each stage, and finally pinpointing distinct conceptual groupings. This effort yielded twenty-five foundational first-order concepts, fourteen consolidated second-order themes, and five overarching theoretical categories that describe students' entrepreneurial behavior, identity cognition, and opportunity development.

Subsequently, using axial and selective coding techniques, the dynamic and logical connections among the coded categories were extracted and summarized to construct a coherent, precise narrative sequence. Whenever a new conceptual category was identified, it was continuously compared and contrasted with the prior coding results, leading to ongoing revisions and refinements of the concepts and categories until no further new directions emerged; the resulting data structure is displayed in Figure 1. In the final stage, to ensure the reliability of the conclusions, this investigation employed two additional cases to assess theoretical saturation. It was once again confirmed that no new concepts or categories emerged, leading to the conclusion that the research findings had achieved theoretical saturation.

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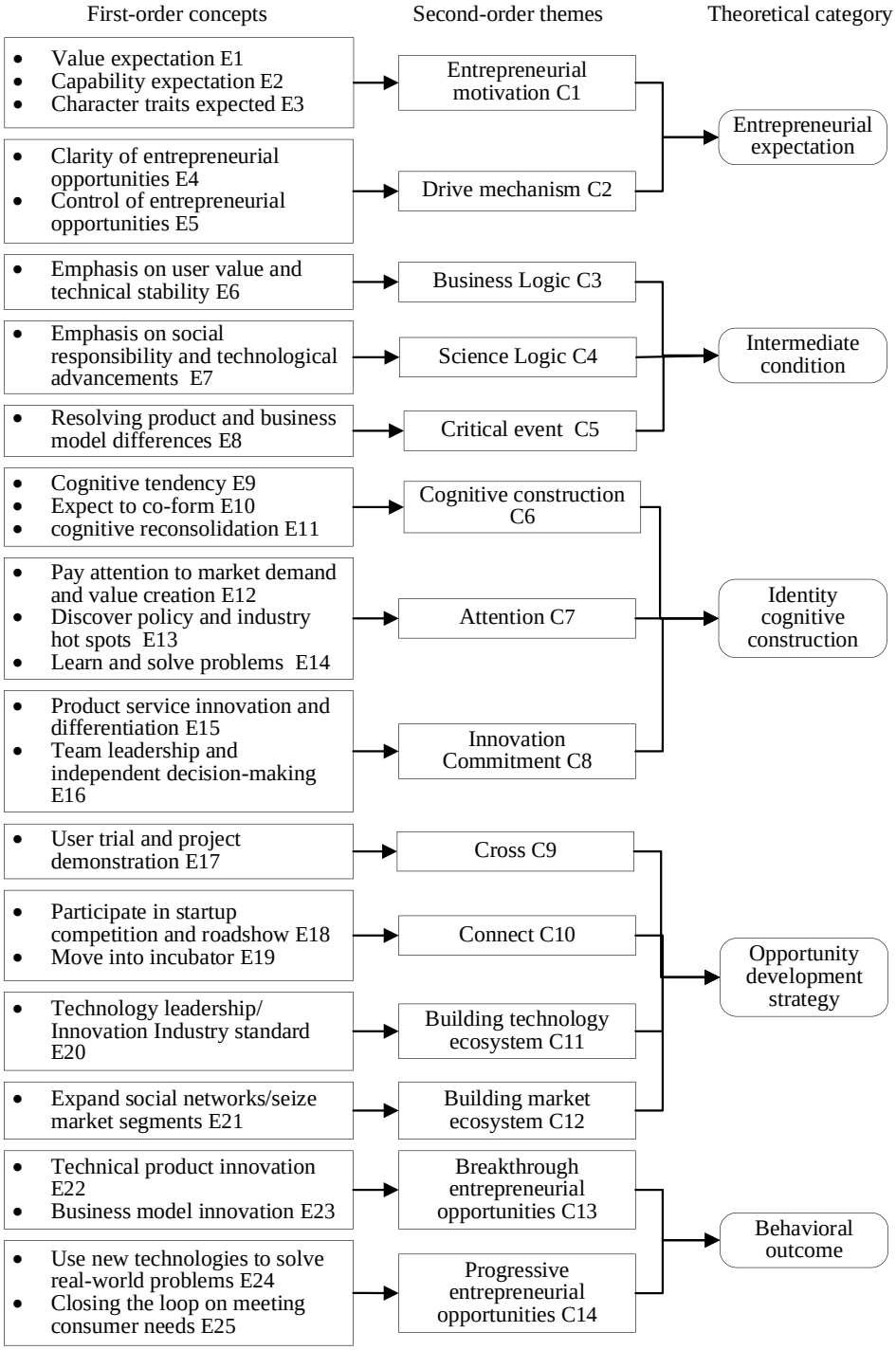

Figure 1. Data structure diagram

4 Case Studies and Findings

This study explained the mechanism of identity cognition evolution among university student entrepreneurs during opportunity development, manifested in the cyclic process of "cognition-behavior-recognition-behavior modification". College

student entrepreneurs defined their entrepreneurial expectations based on their personal experiences, formed their identity cognitions of entrepreneurial leaders, and activated identity construction behaviors and identity recognition through the development of entrepreneurial opportunities.

Based on the analysis and comparison of cases and on the theoretical basis of the entrepreneurial opportunity discovery and creation views, this paper interprets the opportunity development process of college student entrepreneurs into three phases: conceptual phase, exploration phase, and optimization phase.

4.1 Concept period of entrepreneurial opportunity development

The conceptualization period is the process in which university student entrepreneurs have initial entrepreneurial ideas and try entrepreneurial practices. Given the differences in values, abilities, and personality traits among university student entrepreneurs, the connotations of their identity cognition and its formation process served as the starting point of this study. Table 2 provides typical evidence of the conceptual period.

In the category of entrepreneurial expectations, it was found through coding that college student entrepreneurs' leadership identity cognition performance was evaluated in terms of the degree of conformity to role expectations across three dimensions: values, competencies, and personality traits (DeRue et al., 2010). In terms of value expectations, influenced by identity cognition, the motivations of college student entrepreneurs include combining technological advantages with industry to identify market opportunities and allowing the technology itself to generate greater business and social value. For example, the entrepreneur in case F6 believes that "Chinese people should join the development of the world's most advanced technologies to gain a first-mover advantage, rather than waiting to be 'necked' by other countries' technologies". In addition, the value expectations of university student entrepreneurs include motivational appeals such as realizing entrepreneurial ideals and serving the country through entrepreneurship. The entrepreneurial actions follow a behavioral pattern consistent with intrinsic beliefs and the pursuit of ideals, combining the achievement of personal goals with the enhancement of corporate social value, as reflected to varying degrees across all 10 cases. In terms of competency expectations, college entrepreneurs tend to focus their identity expectations on a range of competency characteristics. For example, the entrepreneurs in case F4 went from being mere technology developers to gradually teaching themselves and acquiring skills such as financial accounting, human resources, marketing, project management, and presentation and publicity. Almost all of the entrepreneurs emphasized their ability to learn as leaders, enabling them to continue to think deeply about technology transitions and to perceive and boldly seize ripe entrepreneurial opportunities. In terms of personality traits, college entrepreneurs are generally highly sensitive to market opportunities and exhibit characteristics and emotional expressions such as practicality, self-discipline, and a pursuit of excellence. Such character traits are often shaped by a combination of school atmosphere, personal character, and entrepreneurial ideals, and the character traits demonstrated in entrepreneurial practice satisfy their expectations of leader status. As a causal condition, the driving mechanisms of college entrepreneurs include both clarity and control of opportunity. Entrepreneurial identity cognition is affected by driving factors, focusing on the

entrepreneurial situation, clarity of technology, commercialization of technology, and integration of industry, academia, and research. Decision-making judgments are made with identity cognition and act on entrepreneurial motivation and entrepreneurial behavior. For example, the entrepreneur in case F4 emphasized perceptions of personality traits and entrepreneurial expectations: "since not suitable for scientific research, want to go to practice to learn, inherently restless, want to toss." As the context changes, the entrepreneur's core identity cognition is activated, generating leadership behaviors and assuming leadership roles. When entrepreneurial expectations are clear and there is a strong willingness to control the realization of the opportunity, strong control is shown; when expectations are vague and the opportunity is still being explored, weaker control is shown. In this process, entrepreneurial expectations are gradually externalized as a product of identity cognition, placing more emphasis on the technological utility and social impact of the entrepreneurial opportunity.

In the category of mediating conditions, due to the division between business and scientific thinking, it is not easy for college entrepreneurs to transition from professionals to entrepreneurs, which requires identity construction and a systematic understanding of entrepreneurial opportunities. Scientific logic, business logic, and key events mediate entrepreneurs' identity cognition and the development of entrepreneurial opportunities, inspiring them to seek solutions and actively engage with the market. In terms of business logic, entrepreneurs focus on identifying and solving realistic problems in market competition and solving pain points in business development. Entrepreneurs perceive business opportunities that emphasize solving social problems and market-driven growth. From a scientific perspective, college student entrepreneurs are often motivated to seize opportunities enabled by high technology and to advance market expansion through innovative technologies and new service models driven by rapid development and change in China's digital economy. Entrepreneurs believe in making full use of technological innovation and business model optimization to address unmet user needs and social problems in the market, thereby achieving goals of resource allocation and technological advancement. In terms of key events, it is observed that variations in entrepreneurial motivation come from differences in college students' identity cognition. The combination of individual role identity and entrepreneurial context shapes college entrepreneurs' professional learning, technological advantage, and practical entrepreneurial experience during their school years, which serve as key foundations for initiating entrepreneurial behaviors. This experience significantly affects the entrepreneurial behaviors and strategic decisions they take when facing entrepreneurial problems and key events (Benner, 2012). Entrepreneurs promote the expansion of entrepreneurial networks and optimization of product and services through resource integration. The shift in identity cognition usually stems from the combined impact of national policy support, personal character traits, upbringing and self-selection. College student entrepreneurs tend to consciously accumulate experience and social network resources through entrepreneurial practice behaviors during the school years, focusing on the development of technological innovation, paying attention to the policy direction and industry development from the technological perspective, as well as on user needs and market development, and combining the industry hotspots with the competitive advantages of their startups, to realize the in-depth development of entrepreneurial opportunities. In summary, this study proposes the following propositions:

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Proposition 1: During the conceptualization period of entrepreneurial opportunity development, college entrepreneurs form their identity cognition of leadership in 3 dimensions: values, competencies, and personality traits in the process of transitioning from student identity to leader. Entrepreneurial expectations drive entrepreneurs to perceive and recognize different entrepreneurial opportunities, to follow the mediating conditions of scientific logic, business logic, and key events, and to continuously strengthen their identity and develop entrepreneurial opportunities.

Table 2. Identity cognition and entrepreneurial opportunity development conceptual period coded citations

Category	Second-order Themes	First-order Concepts	Labeling and Typical Citations
Entrepreneurial Expectations	Business Motivation	Value Expectations	Responsibility: My mentor has always emphasized that "innovation and entrepreneurship should do practical work to serve the society and people's livelihood", and he has created a free environment for me and provided me with guidance on the direction. (F7 case) Technology Leadership: The domestic manufacturing industry is facing the situation of "stuck neck", we need to break through the foreign monopoly through core technology. (F3 case) Entrepreneurial ideal: My dream is to be a world-class Chinese robotics company. (F4 case)
		Competency Expectations	Professional knowledge: During my postgraduate study, I participated in many industry-university-research projects, and gradually developed the idea of entrepreneurship, hoping to land the technology in hand to the ground and make the technology

			truly create value. (F7 case) Innovation and Entrepreneurship: Under the strong atmosphere of innovation and entrepreneurship, I am keenly aware of the necessity of quantum computing combined with industrial development, and the idea of technological entrepreneurship was born. (F6 case) Management ability: The first challenge we had to overcome for the team members who wanted to go further to own their own companies, products and brands was to find a specific direction for the application of the technology. (F8 case)
		Personality Trait Expectations	Interpersonal communication: The school atmosphere encourages active participation in group activities, which exercises our ability to communicate with others and equips us with the social skills necessary for entrepreneurship. (F9 case) Entrepreneurial traits: sensitivity to new things, youthfulness, curiosity, humility and a strong heart. (F5 case)
	Driving Mechanism	Clarity of Opportunities	Clarification: Flexible and stretchable electronics are resilient and can enable better integration of electronics and wearable products, giving rise to smart apparel. (F1 case)

			Fuzzy: Think about how to adapt the technology to actual application scenarios, build a team to simulate end-users, and design products from requirements. (F9 case)
		Controllability of Opportunities	Strong control: Targeted research and development by examining the customer's need for rocket capacity, with the goal of seizing the first opportunity. (F10 case) Weak control: If involved in every application scenario, there is no clear business main line, so we try on smart wear first. (F1 case)
Intermediation Conditions	Business Logics	Emphasis on User Value and Technical Stability	Engineering thinking: Using the latest technology in the lab, analyzing whether it can be landed from a medical device perspective, and then increasing the stability to achieve mass production from a corporate perspective. (F2 case) Capture the market: Based on the technical characteristics, the chosen track is the medical health and smart apparel field, which is the current focus of the business. (F1 case)
	Scientific Logic	Emphasis on Social Responsibility and Technological Advancement	Scientific logic: The technology industry requires a long period of cultivation and a lot of investment in the early stage in order to reap the rewards in the future. There are also solid knowledge barriers, and resources are the biggest difficulty. (F3 case)

			Creating a market: It is hoped that by popularizing the intelligent diagnosis and treatment system, the surgical decision-making ability and techniques of doctors in local hospitals will be improved, and the rational allocation of medical resources will be realized in coordination with the macro-planning of the country. (F2 case)
	Key Events	Emphasis on Social Responsibility and Technological Advancement	Entrepreneurial ability: The company was unable to pay its employees for up to three months, but none of them left, and even traveled out of their own pockets to maintain clients and support projects. (F4 case) Social impact: We can be the supplier of choice worldwide, whether it is cell therapy or vaccine antibody or gene therapy. (F9 case)

4.2 Exploration period of entrepreneurial opportunity development

The exploration period is the process in which entrepreneurs evaluate their entrepreneurial ideas and seek to match resources with user needs (Ardichvili et al, 2003). Developing entrepreneurial opportunities from a resource utilization perspective is a key part of the identity cognition construction of college entrepreneurs and an important process to advance self-actualization and social realization. This section focuses on analyzing how identity construction behaviors affect entrepreneurial opportunity utilization, and Table 3 provides typical evidence from the exploratory period.

In terms of cognitive construction, student entrepreneurs actively search for heterogeneous and complementary resources to solidify their entrepreneurial opportunities, with identity cognition more inclined to "leader". After starting a business, entrepreneurs will experience the identity cognition conflict caused by the multiple roles from technical professionals, market developer to business leader. However, diversified identity roles are a necessary stage for entrepreneurial leaders to cross, connect and integrate relevant resources, and take the real market demand as the source of entrepreneurial opportunity development, so that they can easily perceive market-oriented entrepreneurial opportunities, and it is more

conducive for entrepreneurial teams to form a common entrepreneurial expectations. With the further development of entrepreneurial opportunities, the identity cognition of entrepreneurs and teams will be further strengthened. Entrepreneurs and team members continue to negotiate and form a common development direction, to achieve a shared understanding of "what to do" and "how to do it", which affects the behavior of entrepreneurial opportunities in the form of time and energy invested in the team's requirements and suggestions, constraints and limitations, and resources to support the team. They focus on role conflict and complementary strengths among team members to build a leadership identity that meets expectations. Team members respond to the entrepreneur's request by initiating entrepreneurial behaviors, developing entrepreneurial opportunities, promoting technological innovation and resource sharing, etc., forming a consensus on solutions and management development for the same problem, and jointly realizing cognitive re-consolidation.

In terms of attention, entrepreneurs have accepted their identity as enterprise leaders, and their previous identity as college entrepreneurs and social network resources continue to affect the optimization of entrepreneurial opportunities. Entrepreneurs focus more on the interface and upgrading of academic achievements and industrial resources. For example, if the mentor hands over the research results to the entrepreneur to interface with the industry, and forms a strategic partnership with the college's research team through "cooperation", the interface between the resources of both sides can strengthen the relationship of trust between the academia and the industry, and realize the complementarity of strengths. With the combined effect of scientific logic and business logic, entrepreneurs have a higher demand for competence, which is more often manifested in the development of opportunities based on problem solving. For example, the entrepreneurs in the F1 case found difficulties including the selection of tracks and application scenarios, the transformation from technology to product, and the barriers between different industries. In the process of problem solving, startups are promoted to produce technologically leading products that can meet users' needs, discover policy and industry hotspots, complete optimization and upgrading with advanced technologies, and continue to communicate with partner companies to jointly advance innovative and entrepreneurial ideas and opportunities to gain higher market share.

In terms of commitment to innovation, entrepreneurs clarify identity expectations motivations, continuously improve opportunities and reorganize resources, and come up with new commitments to innovation, which include technological breakthroughs, new product development, and other dimensions. Student entrepreneurship is almost always based on team development. Like-minded students develop into entrepreneurship partners, and research teams and on-campus practice teams become the source of the think tank and the main combination method for startups. After bonding and complementation, a more stable team culture and atmosphere is formed, and the values of team members are highly similar or convergent, which becomes the source of the core competitiveness of the enterprise. The goal of entrepreneurship team members to synergize to satisfy user needs, provide solutions and create value for users will further strengthen the identity cognition of entrepreneurship leaders and make them more clear about the management decision-making choices during the opportunity exploration period.

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In the exploration period, entrepreneurship has to face the identity cognition conflict in the process of identity transformation, but also seek to match the resources and information through the strategy of leapfrogging and connecting, and build the core competitiveness of the enterprise through the innovation of technological solutions and the research and development of new products. Scientific logic, business logic and key events jointly determine entrepreneurs' path to realize entrepreneurship opportunities. On the basis of trial-and-error adjustment in the early stage, with the help of interdisciplinary communication and the docking of technology and industry, the role of identity cognition is further amplified, and products that can satisfy users' needs and maintain technological leadership are gradually formed. The entrepreneurship also gradually develops a clarified innovative thinking and strategic decision-making.In summary, this study proposes the following proposition:

Proposition 2: During the exploration period of entrepreneurship opportunity development, entrepreneurship identity cognition is further constructed. Entrepreneurship and team members continue to form a common development direction, showing a higher degree of synergy and resource sharing. Entrepreneurs put their attention to focusing on market demand and value creation, discovering policy and industry hotspots, continuously improving their learning and problem-solving abilities, and shifting their focus to fulfilling their innovation commitments to achieve entrepreneurship opportunity development and cognitive re-consolidation.

Table 3.Identity cognition and entrepreneurship opportunity development exploratory period coded citations

Category	Second-order Themes	First-order Concepts	Labeling and Typical Citations
Identity Cognition Construction	Cognitive Construction	Cognitive Tendency	Cognitive Bias: Entrepreneurship team members argue over and over again "Is it worth developing? What are the advantages and disadvantages? Is this something we should definitely do?" (F6 case) Leadership Expectation: Entrepreneurs are expected to take on greater responsibility and to plan for the company and themselves, as well as for each of their employees. (F9 case)

		Co-formation of Expectations	Everyone enjoys the feeling of a team working towards a goal and wants to continue this feeling to achieve complementary strengths, as well as to make the most of the skills learned. (F8 case)
		Cognitive Re-consolidation	Marketable products need to be mature and stable, and can only fall down, get up, and challenge in practice, stepping on countless trial-and-error costs to move step by step towards user recognition. (F2 case)
	Attention	Demand-awareness and Value Creation	Technology Commercial Transformation: Starting from the underlying technology framework, focusing on the research of third-generation AI technology, so that AI technology can be truly applied in production and life. (F7 case) Experience: Student entrepreneurship projects should be "small and beautiful", „ specialized and new", and dig deeper from a certain point of the industry chain instead of spreading out on one side. (F2 case)
		Discover Policy and Industry Hotspots	Policy support: The state has raised the strengthening of basic research to a new level, highlighted the policy-driven role, and released a ten-year plan for basic research. These

			favorable institutional mechanisms will promote the innovation as well as the landing of AI technology. (F7 Case) Industry hotspot: Quantum computing is one of the most challenging technologies in the world, which requires both a deep technical foundation and commercial scheduling and market observation. (F6 Case)
		Learning and Problem-solving Skills	In order to raise capital, I mortgaged and sold two houses, found previous investors and successfully convinced them to cancel the betting terms and continue to support the company. (F4 case)
	Innovation Commitment	Innovation and Differentiation of Products and Services	Technological breakthrough: If we really want to do this well, it should be oriented to the society and practical applications, not confined to the laboratory. (F2 case) New product development: In the past, all cell preparation was done manually, and we debuted the use of degradable 3D microcarriers to prepare mesenchymal stem cells, which is a major and important innovation in the industry. (F9 case)

	Team Leadership and Independent Decision-making	I will put myself in the shoes of every employee and think about how to stimulate their potential and plan a development path that suits them better. When facing the outside world, I also look forward to seeking common ground with my colleagues and seeking common success. (F9 case)

4.3 Optimization period for entrepreneurial opportunity development

The optimization period refers to the realignment of the startup opportunity to create and deliver higher market value through heterogeneous resource reorganization. After the first two periods of opportunity discovery, startups have already realized the matching between technology and market demand. In the opportunity optimization stage, entrepreneurs need to integrate different identity cognitions, continuously adjust their entrepreneurial philosophy and values, and focus more on getting feedback from the market, users, resource providers, and stakeholders. This is the driving force to strengthen entrepreneurs' identity transformation and leadership improvement, and Table 4 provides typical evidence of the exploration period.

In the category of opportunity development strategies, entrepreneurs improve their cognition of entrepreneurial behavior by focusing on user needs and value development, and by using leapfrogging and connecting strategies that are consistent with both the perception of the role of cutting-edge technological innovations and industrial entrepreneurs. Technology-focused entrepreneurs seek application scenarios, and product- and service-focused entrepreneurs attempt to seek innovative marketing approaches. Innovation and entrepreneurship cannot be separated from a favorable environment. Participating in startup competitions and roadshows, residing in incubators and attracting strategic investments are ways to seek support from third-party organizations to help startups grow rapidly. With the help of entrepreneurial competitions and roadshow presentations, entrepreneurs will research and think about how to meet market demands and solve real-world problems through their products in the process of communicating and docking with third-party institutions. Their business logic will be further activated so that both identity cognition and behavioral decision-making will be in line with business logic, and this process will accelerate the entrepreneurs' identity transformation and entrepreneurial learning ability. At this stage, entrepreneurs are motivated by clear role expectations. They can not only publicize innovative achievements and expand brand awareness, but also pay close attention to industry information and market elements, extend product and service innovations under the combination of technology and different industries and different scenarios, formulate development plans to build a leadership identity that meets expectations, and improve the efficiency of communication and financial support from investment and financing institutions for advantageous projects. The third-party organization is the carrier that pushes college student entrepreneurial enterprises to market competition and improves the efficiency of resource matching, combining scientific logic with

business logic, which greatly improves the operational efficiency of the multi-party market. For example, Cases F1, F3, F4, F8 and F9 are all docking government investment activities through the competition platform to promote high-quality entrepreneurial projects to land in the local area. The local government gives policy fostering and financial support to accelerate the development progress of entrepreneurial opportunities, while driving local employment and industrial development, realizing the advantageous docking between enterprise resources and the government. In terms of building technology and market ecosystems, in order to ensure the further optimization of entrepreneurial opportunities, the entrepreneurs' hope to achieve social influence and market profitability through the combination of technology with different scenarios in different industries has become more significant. By optimizing and creating new market opportunities through a large number of efficient communications and technological innovations, they practice technological upgrading, marketing, promoting the virtuous circle of industry, academia and research, and creating social value, as well as making adaptive adjustments to their management strategies.

In the category of entrepreneurial outcomes, it was found through coding that entrepreneurs generated a re-cognition of entrepreneurial opportunities based on emotional perception and learning ability in identity constructing behaviors. They took two main approaches to entrepreneurial opportunity development: first, breakthrough entrepreneurial opportunities. Entrepreneurs focus on national policies, the development of emerging industries and the changing needs of the market environment, clarify the areas in which their core technologies can be cooperated, and promote the commercialization and application of the technologies. Under the premise of successful policy support and commercialization trial, entrepreneurs strive to maintain their previous identity cognition and high innovation commitment, and jointly promote the introduction of industry standard policies with industrialists, reflecting the impact of entrepreneurial identity and scientific logic on behavior. Second, progressive entrepreneurial opportunities. Entrepreneurs emphasize the impact of progressive and innovative opportunities on business development, connecting the technology, data assets, and talent management accumulated over the years with the user needs of the platform-based enterprise, and bringing products and services that satisfy user needs to the market to increase market share. At this stage, identity cognition is the key to determining whether entrepreneurs can connect their existing technology with the market knowledge they have learned, and business logic is the main basis for opportunity optimization strategies. The emphasized goals of gaining revenue, focusing on market competition, building business models and realizing user-created value will continue to strengthen the entrepreneur's identity cognition. In addition, entrepreneurs are able to make strategic adjustments and management decisions based on the development path of the market opportunity, establish partnerships with other enterprises, build application scenarios and business ecosystems, and form an external environment that supports the development of the entrepreneurial opportunity. It is worth mentioning that breakthrough entrepreneurial opportunities and progressive entrepreneurial opportunities are often intertwined and synchronized between the two modes within startups, although there are some differences in the focus of development strategies. Both of them together affect the behavior of firm members in adapting to the external context and supporting the development of entrepreneurial opportunities. In summary, this study puts forward the following propositions:

Proposition 3: In the period of optimization of entrepreneurial opportunity development, college entrepreneurs connect technology with real needs through leapfrogging and connectivity. Entrepreneurship competitions, government guidance, and investment support are all important factors to promote the rapid development of startups. College entrepreneurs influence entrepreneurial decisions through identity, build technology ecosystems and market ecosystems, and apply innovation commitment to strategic choices. Both breakthrough entrepreneurial opportunities and incremental entrepreneurial opportunities are adopted to promote technology leadership and business ecosystem building.

Table 4.Identity cognition and entrepreneurial opportunity development optimization period coded citations

Category	Second-order Themes	First-order Concepts	Labeling and Typical Citations
Opportunity Development Strategies	Across	User trials and project demonstrations	In cooperation with the academician team, the entrepreneurial team has carried out disease checkups and AI screenings in Sichuan, Qinghai, and Tibet, to meet regionally differentiated healthcare needs with methods that fit the local geography, humanities, and other conditions. (F2 case)
	Connection	Participation in entrepreneurial competitions and roadshows	Roadshow support: Startups can only connect with upstream and downstream resources when they have made a name for themselves; only when they are noticed by investors can they have access to financing channels, and Tsinghua's "Three Innovations Competition"

			helps us to complete the resource docking. (F3 Case) Competition resources: I took the parallel robot project all the way through, won the champion of the hardware and advanced manufacturing industry in the Dark Horse Competition that year, and at the same time, obtained the preA round investment from capital organizations. (F4 case)
		Incubator Residency	Entrepreneurial environment: The company is located in Jinan City, and the government provides factories, loans, financing, incentives, etc., which helps the team pass through the difficult situation of "pure R&D, zero income" in the startup. (F4 case) Economic support: The company cooperated with the government of Anji County, Zhejiang Province, and in 2022, the startup paid more than 3 million RMB in taxes. (F3 case)
	Building technology ecosystems	Innovative industry standards	Up to now, the enterprise has won 4 U.S. authorized patents, 13 national

			invention patents and 38 utility model patents. It has presided over the formulation of 2 standards for flexible batteries and participated in the formulation of 5 standards. (F1 Case)
	Building market ecosystems	Expanding Social Network Resources / Capturing Market Segments	Social network resources: The core ability of entrepreneurs should be the ability of resource allocation, and the ultimate significance of innovation and entrepreneurship is to realize the goal of win-win situation for customers, shareholders, employees, and the whole society, including the entrepreneurs themselves. (F7 case) Capture the market: In the process of accompanying customers to develop the market, the team came into contact with the ore sorting industry and felt the potential and prospect of the market. (F8 case)
Entrepreneurial Results	Breakthrough Entrepreneurial Opportunities	Technical Product Innovation	Starting from the market demand, by investigating the customer's needs for rocket carrying capacity, targeted research and development is carried out with the goal of

			seizing the first opportunity. (F10 case)
		Business Model Innovation	We have solved a series of problems in material application, and formed a complete industrial chain from R&D, mass production to application, and even downstream touch devices, which has become a unique technological advantage of the enterprise. (F3 Case)
	Progressive entrepreneurial opportunities	Using new technologies to solve real-world problems	The 3D fully quantitative interactive fine diagnostic analysis solution under the idea of digital twin revolves around opto-mechanical, artificial intelligence, computer graphics and other technologies to provide doctors with a better image rapid reconstruction system. (F2 case)
		Closed-loop systems to meet consumer needs	Cutting into the industrial robot market from parallel robots, the enterprise has developed from doing midstream body to providing solutions to end customers, and reverse to drive the mass production of body products,

			not only to make the scene deeper and more thorough, but also to become an enterprise with a closed loop of services. (F4 case)

5 Conclusion and Discussion

5.1 Conclusions

Using a longitudinal multi-case study approach and 10 representative college entrepreneurs as case studies, this paper explores the mechanisms of recognizing and developing entrepreneurial opportunities in the process of changing the identity of college entrepreneurs from "students" to "leaders" through longitudinal analysis. Identity cognition affects how entrepreneurs perceive and recognize different entrepreneurial opportunities. The values, competencies, and personality traits of college entrepreneurs combine to strengthen leadership identity building behaviors by following the mediating conditions of scientific logic, business logic, and key events, and by connecting technology to market needs through crossing and linking. The entrepreneurial process is accompanied by a dynamic evolution of identity cognition and entrepreneurial opportunity development, where entrepreneurs actuate innovation commitment into strategic choices of startups through two paths: breakthrough entrepreneurial opportunities and incremental entrepreneurial opportunities. This paper refines the evolutionary mechanism of identity cognition formation and entrepreneurial opportunity development, and describes the process of identity cognition construction, cognitive matching and resource integration when college entrepreneurs face various entrepreneurial opportunities at different stages. A model of college student entrepreneurial identity cognition and entrepreneurial opportunity development process is constructed, covering relevant key elements and core categories, and summarizing the developmental law and mechanism of college student entrepreneurial behavior process, as shown in Figure 2.

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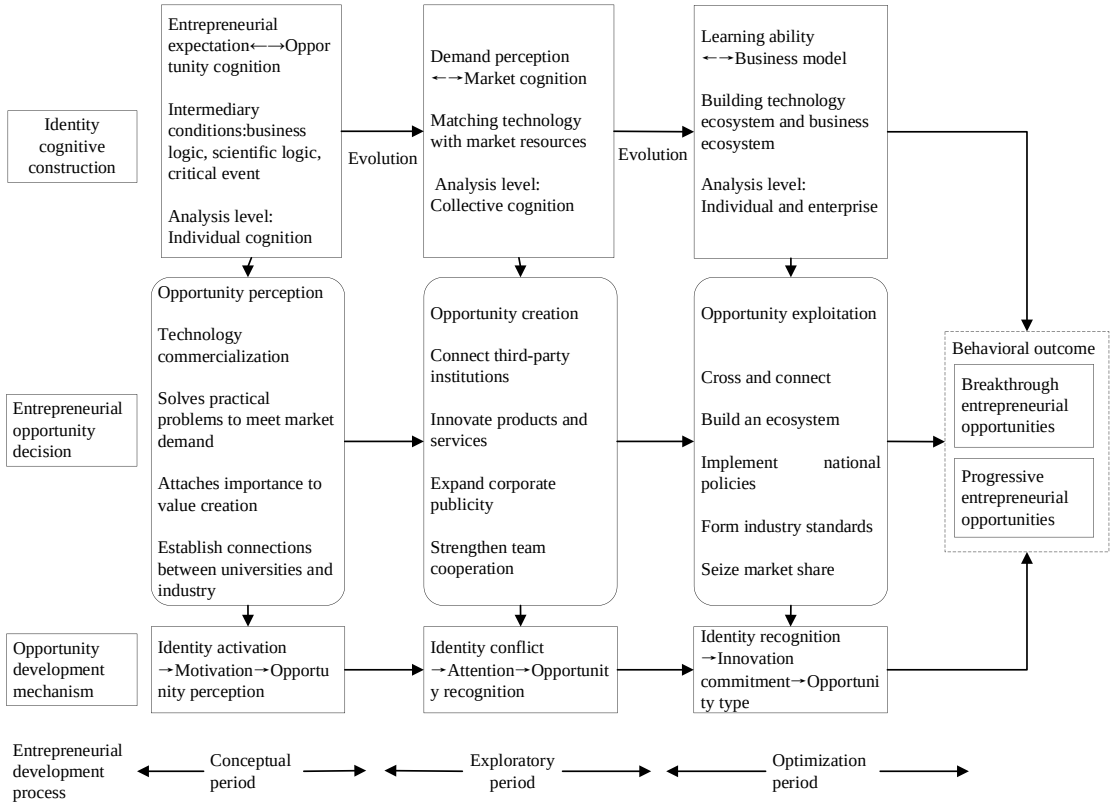

Figure 2. Model of entrepreneurial identity cognition and entrepreneurial opportunity development process among college students

5.2 Theoretical contributions

The theoretical contributions of this paper are: First, it expands the research results in the field of college student entrepreneurship. Identity cognition and entrepreneurial opportunity development are two aspects that interact and affect each other in the process of college student entrepreneurship. This paper provides insights into the connotation and behavioral patterns of college entrepreneurs' role expectations, reveals the "black box" of entrepreneurs' identity cognition affecting the development of entrepreneurial opportunities, and provides new perspectives for enriching the research on college entrepreneurship. Second, it integrates the theoretical research on identity cognition and entrepreneurial opportunity development. Entrepreneurial opportunity development is the matching process of college entrepreneurs based on their internal personal traits and cognitive structure to adapt to the market environment. It is found that college entrepreneurs' information obtaining and utilization are affected by individual identity cognition, which in turn affects entrepreneurs' decision-making judgment and resource allocation in developing different entrepreneurial opportunities. College students' identity cognition is activated to affect entrepreneurial behavior and strategic choices. In the case of shortage of resources in startups, entrepreneurs are more inclined to use their previous practical experience to realize the discovery of market demand and the creation of opportunities. Under the premise of stable and rapid development, entrepreneurs are more inclined to implement changes through organizational learning and technological innovation. Third, the micro-mechanisms of college students' identity cognition affecting entrepreneurial decision-making are summarized. The results of the case study show that identity

cognition acts on entrepreneurs' opportunity development strategies through different paths and mechanisms in the three stages of opportunity development, and each stage presents different characteristics of identity transformation and dynamic evolution. Entrepreneurs tend to satisfy the core features of identity cognition while developing opportunities through crossing and connecting to achieve technological leadership and business model innovation. In summary, identity cognition can be regarded as a key motivation in the entrepreneurial growth process of college students, which drives the entrepreneurial opportunity development behavior.

5.3 Practical implications

The practical significance of this paper is as follows: First, based on the concept of "cognitive-behavioral", college entrepreneurs can adjust their personal cognition according to the environmental changes and accumulate practical experience after the process of college entrepreneurship has started. This has a positive impact on college entrepreneurs to realize identity role change and promote entrepreneurial opportunity development, which can effectively avoid entrepreneurial failure. Second, this paper emphasizes the continuous influence of identity cognition on the whole process of entrepreneurial opportunity development. It helps entrepreneurs adjust their identity cognition in time, and through interaction with team members and the market environment, gradually construct a leadership identity and form a sustainable competitive advantage. Third, in the actual entrepreneurial process, entrepreneurs' hands-on experience is the foundation of entrepreneurial opportunity development. It is necessary to make full use of the advantages of mutual empowerment among team members, integrate management concepts and corporate culture into business innovation, select entrepreneurial opportunities for breakthroughs in a targeted manner, and gradually form a consistent identity cognition and entrepreneurial expectations.

5.4 Discussion

This paper used a longitudinal multi-case study to explain the process mechanism and evolutionary mechanism of college entrepreneurs' identity cognition and entrepreneurial opportunity development, but the study results still suffer from external validity. In view of this, future studies can be conducted by using large-sample questionnaires to determine key variables and other measurement methods, such as comprehensive assessment of college students' entrepreneurial identity, role expectations, team cooperation, etc. In addition, future studies can follow the idea of identity cognition, conduct more extensive and long-term tracking of college entrepreneurship cases in different industries, enrich the data materials, and explore the evolutionary mechanisms of startups at various stages of development, so as to strengthen the argumentative significance of the research results, and further improve the success rate of college entrepreneurship.

Reference

胡望斌,焦康乐,张亚会.2019.创业认知能力：概念、整合模型及研究展望[J].外国经济与管理,41(10):125-140.

(Hu W B,Jiao K L,Zhang Y H.2019.Entrepreneurial cognitive capability: Concept, integration model and research prospects[J]. Foreign Economics & Management,41(10):125-140.)

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(Li X H, Li J Z, Gao X D.2022.Role identity and entrepreneurial opportunity development: Research of technology start-ups based on grounded theory[J]. Nankai Business Review, 25(03):73-86.)

任胜钢,舒睿.2014.创业者网络能力与创业机会: 网络位置和网络跨度的作用机制[J]. 南开管理评论,17(1):123-133 .

(Ren S G,Shu R.2014.Entrepreneurs' network capabilities and entrepreneurial opportunity:The effect of network position and network range[J]. Nankai Business Review,17(1):123-133.)

唐鹏程,朱方明.2009.创业机会的发现与创造——两种创业行为理论比较分析[J].外国经济与管理,31(5):15-22.

(Tang P C,Zhu F M.2009.Discovery and creation of entrepreneurial opportunities: A comparative analysis of two theories of entrepreneurial behavior[J]. Foreign Economics & Management, 31(5):15-22.)

杨特,赵文红,李颖.2018.创业者经验宽度、深度对商业模式创新的影响:创业警觉的调节作用[J]. 科学学与科学技术管理,39(7):88-104.

(Yang T,Zhao W H,Li Y.2018.The influence of entrepreneurs' experience breadth and experience depth on business model innovation: the moderated role of entrepreneurial alertness[J].Science of Science and Management of S.&.T,39(7):88-104.)

周冬梅,陈雪琳,杨俊,鲁若愚.2020.创业研究回顾与展望[J].管理世界,36(1):206-225,243.

(Zhou D M,Chen X L,Yang J,Lu R Y.2020.Entrepreneurial research:A review and prospects[J]. Journal of Management World, 36(1):206-225,243.)

Aldrich H E.2012.The emergence of entrepreneurship as an academic field:A personal essay on institutional entrepreneurship[J].Research Policy,41(7):1240-1248.

Alvarez S A,Barney J B.2007.Discovery and creation: Alternative theories of entrepreneurial action[J].Strategic Entrepreneurship Journal,1(1):11-26 .

Ardichvili A,Cardozo R,Ray S.2003.A theory of entrepreneurial opportunity identification and development[J].Journal of Business Venturing,18(1):105-123.

Baron R A.2004.The cognitive perspective: A valuable tool for answering entrepreneurship's basic "why" questions[J].Journal of Business Venturing,19(2):221-239.

Baron R A,Ensley M D.2006.Opportunity recognition as the detection of meaningful patterns:Evidence from comparisons of novice and experienced entrepreneurs[J].Management Science,52(9):1331-1344.

Benner M J,Tripsas M.2012.The influence of prior industry affiliation on framing in nascent industries: The evolution of digital cameras[J].Strategic Management Journal,33(3):277-302 .

Clarysse B,Tartari V,Salter A.2011.The impact of entrepreneurial capacity,experience and organizational support on academic entrepreneurship[J].Research Policy,40(8):1084-1093.

DeRue D S,Ashford S J.2010.Who will lead and Who will follow?A social process of leadership identity construction in organizations[J].Academy of Management Review,35(4):627-647.

Eisenhardt K M.1989.Building theories from case study research.Academy of Management Review, 14(4):532-550.

Endres A M.Woods C R.2007.The case for more "Subjectivist" research on how entrepreneurs create opportunities[J].International Journal of Entrepreneurial Behavior & Research,13(4):222-234.

Gaglio C M.Katz J A.2001.The psychological basis of opportunity identification: entrepreneurial alertness[J].Small Business Economics,16(2):95-111.

Garcia P R J M,Sharma P,De M A,Wright M,Scholes L.2019.Perceived parental behaviors and next-generation engagement in family firms:A social cognitive perspective[J].Entrepreneurship Theory and Practice,43(2):224-243.

Glaser B G,Strauss A L.1967.The Discovery of grounded theory:strategies for qualitative research[M].New York: Aldine Publishing Company .

Hite J M.2005.Evolutionary processes and paths of relationally embedded network ties in emerging entrepreneurial firms[J].Entrepreneurship Theory and Practice,29(1):113-114.

Kirzner I M.1997.Entrepreneurial discovery and the competitive market process:An Austrian approach[J].Journal of Economic Literature, 35(1):60-85.

Marchand J.2015.Hermens A.Student entrepreneurship:A research agenda[J].The International Journal of Organizational Innovation, 8(2):266-281.

Marquis C.Tilcsik A.2013.Imprinting:Toward a multilevel theory[J].Academy of Management Annals,7(1):195-245.

Milton L P.2008.Unleashing the relationship power of family firms:Identity confirmation as a catalyst for performance[J].Entrepreneurship Theory and Practice,32(6):1063-1081.

Mitchell R K,Busenitz L,Lant T,et al.2002.Toward a theory of entrepreneurial cognition:Rethinking the people side of entrepreneurship research[J].Entrepreneurship Theory and Practice,27(2):93-104.

Ren C R,Guo C.2011.Middle manager'strategic role in the corporate entrepreneurial process:Attention-based effects[J].Journal of Management,37(6):1586-1610.

Shane S A.2003.A general theory of entrepreneurship: The individual opportunity nexus[M].North Hampton A:Edward Elgar Publishing,Inc.

Stets J E,Burke P J.2000.Identity theory and social identity theory,social psychology quarterly,63(3):224-237.

Strauss A,Corbin J.1997.Grounded theory in practice[M].Thousand Oaks,CA:Sage Publications.

Sveningsson S,Alvesson M.2003.Managing managerial identities:organizational fragmentation[J].Discourse and Identity Struggle,Human Relations, 56(10):1163-1193.

Velu C,Jacob A.2016.Business model innovation and owner-managers: The moderating role of competition[J].R&D Management,46(3):451-463.

Wood M S.Mckinley W.2010.The production of entrepreneurial opportunity:A constructivist perspective[J].Strategic Entrepreneurship Journal, 4(1):66-84.

Wry T,York J G.2017.An identity-based approach to social enterprise[J].Academy of Management Review,42(3):437-460.

Yitshaki R,Kropp F.2016.Motivations and opportunity recognition of social entrepreneurs[J].Journal of Small Business Management,54(2):546-565.