THE ACADEMIC MANAGEMENT FOR ENHANCING STUDENTS ENTREPRENEURIAL SKILLS IN HEILONGJIANG UNIVERSITY OF TECHNOLOGY

By

Mr. Nannan JIANG

A Thesis Submitted in Partial Fulfillment of the Requirements

for Doctor of Philosophy EDUCATIONAL ADMINISTRATION

Department of Educational Administration

Silpakorn University

Academic Year 2025

การบริหารจัดการเพื่อการส่งเสริมทักษะการเป็นผู้ประกอบการของนักศึกษา ในมหาวิทยาลัยเทคโนโลยีเฮย์หลงเจียง

โดย
Mr.Nannan JIANG

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต
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Field of Study	EDUCATIONAL ADMINISTRATION
Advisor	Assistant Professor Saisuda Tiacharoen, Ph.D.

Faculty of Education, Silpakorn University in Partial Fulfillment of the Requirements for the Doctor of Philosophy

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Thesis advisor : Assistant Professor Saisuda Tiacharoen, Ph.D.

The purpose of this research was to investigate the academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. This research was EFR: Ethnographic Futures Research based on interviews with 21 experts, and with content analysis, bringing the results of the analysis into various issues. The research procedure was divided into three steps: Step 1, Preparation of the research project; Step 2, research implementation; and Step 3, reporting of research findings.

The findings of this study revealed that:

The academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology were 4 dimensions of the POLC management process as follows: 1) Planning covers the design of a modern curriculum that is aligned with the global market, along with setting clear goals and indicators for quality assurance. 2) Organizing involves creating a holistic, flexible, and open management system, as well as designing an organizational structure as an ecosystem conducive to building collaborative networks with external agencies; 3) Leading focuses on developing students’ skills and innovative thinking, with faculty acting as coaches and facilitators, complemented by guidance from business-sector expert mentors; and 4) Controlling involves using various evaluation and measurement systems to track progress and using the obtained data as a feedback loop for continuous improvement of the planning process.

ACKNOWLEDGEMENTS

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Introduction

Entrepreneurship education has a role to play in the education industry. Education integration is integrated into many countries to manage the adjustment of the business sector. That is a component of new economic strategies in promoting job creation. Education has become such an essential part of education that in 1998, the UNESCO World Conference recognized the value of education and supported the cultivation of entrepreneurship and skills in education. At the tertiary level, which in the late 1990s followed the international trend of the education business, China is beginning to see entrepreneurial education take place on campuses in the form of college student entrepreneurship competitions. The Chinese government needs help with increasing enrollment and difficulties in employing graduates. Since 2002, The Chinese government has been leading the way in promoting entrepreneurial education. It hopes to creatively deal with the structural unemployment of university graduates resulting from mass higher education. Entrepreneurship education policies and practices and their impact on Chinese higher education. It is starting with background information. The government attaches great importance to entrepreneurship education in China. Encourage and support young people to see the importance of an entrepreneurship education curriculum, it aims to provide learners with thinking skills and the ability to analyze operations, including an in-depth spirit of dedication to work create interest and motivation, satisfaction, develop skills that meet the needs of the global market and domestic. [1]

[1] United Nations Educational, Scientific and Cultural Organization: UNESCO. Entrepreneurship Educational for Leaning Cities. Published in 2021 by UNESCO Germany. Pages 10-12.

“Entrepreneurship” is like starting a business, and the Ministry of Education has emphasized four goals for entrepreneurship education in China. First, 1) it should provide students with challenging employment opportunities and raise entrepreneurial awareness; second, 2) it should lay a solid foundation of knowledge on entrepreneurship; third, 3) it should develop students’ entrepreneurial skills and capabilities through classroom learning; and third, 4) it should promote the learning of entrepreneurship that is in line with the times of change[2]

The People's Republic of China With the government promoting the equitable allocation of innovation and entrepreneurial resources across regions through critical markets (such as the entrepreneurship and employment markets), the aim is to create an enabling environment for innovation and entrepreneurship by stimulating the development of various industries promoting all types of innovative and entrepreneurial abilities, and enabling innovation and entrepreneurship to drive sustainable urban development, especially the plan is to create a community-based learning network. Promote creativity among students. Support high-quality innovation and entrepreneurial projects through competitions and provide ongoing assistance to entrepreneurs through a wide range of innovation and entrepreneurship services. The plan uses the characteristics of a learning city. Providing education as a starting point creates a fertile environment for mass entrepreneurship and innovation. The plan also aims to improve public services in innovation and entrepreneurship and ensure that resources are allocated equitably and inclusively. It focuses on various groups, including students. Social entrepreneurs according to the guidelines for developing mass entrepreneurial areas and promoting mass innovation and entrepreneurship issued by the general office of the state council., Focus on the goals and characteristics of urban development of cities to promote economic growth. Support the implementation of innovation-driven development strategies and raise the city's vision for mass entrepreneurship and innovation. Support and promote education to

[2] Ibid.

increase skills. Modern innovation knowledge is needed to support innovation and entrepreneurship with quality suitable for the era of lifelong learning.[3]

However, universities and research institutes provide education in innovation and entrepreneurship. Including collaboration with research institutes to stimulate quality innovation and entrepreneurship. Universities and research institutes provide students with education, innovation activities, and entrepreneurship skills.[4] Heilongjiang University is one of the 17 national education reform pilot universities. The Ministry of Education and the government support and promote the development of entrepreneurship programs. We aim to promote skills and produce professional personnel to cultivate quality entrepreneurs, creativity, and modernity in the era of change. Therefore, Heilongjiang University is committed to reforming national education in line with government policies.[5]

In addition, Heilongjiang province ranked first among the nine universities that developed entrepreneurship programs. Promote the production of professional personnel to cultivate quality entrepreneurs. Able to use creativity to lead development, the Heilongjiang provincial government supports entrepreneurs at the macro level, to drive innovation, focus on entrepreneurs who use creativity to develop the economy, integrated development, in line with the policies of scientific research institutes, universities, organizations, and other units, personnel with creative potential, capable of creating value for domestic resources, and joint development,

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[3] United Nations Educational, Scientific and Cultural Organization: UNESCO. Entrepreneurship Educational for Leaning Cities, Chengdu, People's Republic of China. Published in 2021 by UNESCO Germany. Pages 30-31.

[4] United Nations Educational, Scientific and Cultural Organization: UNESCO. Entrepreneurship Educational for Leaning Cities, People's Republic of China, Improved entrepreneurial service system. Published in 2021 by UNESCO Germany. Page 35.

[5] Tangshan Chuangyuan Education Consulting. Introduction to Heilongjiang University. Accessed March 01, 2024. Available from http://www.cnsdjxw.com/

protect intellectual property rights. Strengthen the protection of intellectual property rights, formulate policies and measures to support central enterprises and universities in implementing. The "Regulations of Heilongjiang Province," promote the transformation of entrepreneurial knowledge in educational institutions, build an innovation platform, provide technological support to entrepreneurs, exchange and cooperate with entrepreneurs, and produce new innovations. With its characteristics of unique. To produce a competent entrepreneurial society that can flourish widely.

It drives national development and produces young people with skills and abilities in higher education institutions and internationally. [6]

Research problem

The people's governments of each province, autonomous region, municipality under the central government, ministries and commissions of the State Council, all departments under the State Council: Implement the innovation-driven in-depth development strategy, promote students as a new force for entrepreneurship, and support innovation; integrate appropriate modern curriculum; entrepreneurship among students; produce more and more university students, devote themselves to innovation and entrepreneurship; currently, there are still problems such as the demand for skill development, modern management system, and budget problems in schools; university students need to experience, learn innovation, and develop creative thinking skills, demonstrating more remarkable entrepreneurial ability; therefore, urgently address the following issues:

[6] Student Service and Quality Development Center Ministry of Education. Opinions of the Heilongjiang Provincial People's Government on Strengthening the Implementation of the Innovation-Driven Development Strategy and promoting the in-depth development of numerous entrepreneurs and innovation. Accessed March 01, 2024. Available from https://chesicc.chsi.com.cn/

1. Policy: Implement the education policy based on cultivating morality and ethics. The mission is to develop new development with a new development concept, create a new development model, and adhere to innovation. Support students in developing innovation and entrepreneurship ability. Support College graduates in starting businesses and finding jobs. Improve the quality of human resources and promote the comprehensive development of students. Create higher potential for students.

2. Leadership: Accelerate developing and promoting college students' entrepreneurial abilities and good entrepreneurial education. The process of training talented people Independent learning, practice, guidance, and support Create a leadership training model with new concepts focused on Improving the mechanism for training entrepreneurs in universities.

3. Personnel: Develop teachers' innovation skills and entrepreneurship education, strengthen teachers' innovation training and teaching capabilities in higher education, entrepreneurship education and literacy, reform teaching methods, curricula, and assessment methods, and encourage educational personnel involved in entrepreneurship education to be able to integrate academic development to be up-to-date, in line with global changes, and at an international level that is cutting-edge.

4. Curriculum: Improve the curriculum to suit the changes, aim for success in becoming a good entrepreneur, use innovation in teaching students about entrepreneurship, link with industry, and promote the use of innovation by students and the success of entrepreneurs in related industries and state enterprises, protect the intellectual property rights of entrepreneurs, including student innovation projects, strengthen the inspirational approach, for new ideas, creative, in line with the changes of the world, leading to success in science and technology for students.

5. Relationships: Supporting relationships, networks, and entrepreneurship education in colleges and universities, connecting knowledge worldwide to learn how to become a high-potential entrepreneur.[7]

From the above, China is implementing a national strategy on education to foster high-potential talents and drives a policy plan for world-class entrepreneurial talents and supports AI technology as an essential foundation. Therefore, entrepreneurship education for students is necessary for constructive national construction.[8] Heilongjiang University is one of the nine universities participating in the national innovation and entrepreneurship skills development pilot project. The university is committed to implementing the project policy plan to strengthen students' entrepreneurship. Support good entrepreneurship skills, increase students' innovation knowledge, develop creativity, promote education integration and develop creative and high-quality entrepreneurship education. Able to integrate professional work, Educational personnel and faculty members promote entrepreneurship training, in the era of learning.[9] To be consistent with policy, leadership, personnel, innovation and skills, curriculum, and relationships, the researcher carried out the policy, plan, and project to develop entrepreneurial education in the university. Therefore, the researcher conducted a study on the academic management for enhancing student's entrepreneurship skills in Heilongjiang University of Technology.

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[7] Central Government, People's Republic of China. Student Innovation and Entrepreneurship. Accessed March 01, 2024. Available from https://www.gov.cn/zhengce/content/2021-10/12/content_5642037.htm

[8] Heilongjiang University of Technology. Organization: Innovation Institute and entrepreneurial education. Accessed March 01, 2024. Available from https://www.hljut.edu.cn/

[9] Ministry of Education of the People's Republic of China. Heilongjiang University comprehensively improves the level of innovation and entrepreneurship education. Accessed March 01, 2024. Available from http://www.moe.gov.cn/ jyb_xwfb /s6192/s222/moe_1739/201602/t20160214_229565.html

Research objective

To investigate the academic management for enhancing student's entrepreneurial skills in Heilongjiang University of Technology.

Research question

How is the academic management for enhancing student's entrepreneurial skills in Heilongjiang University of Technology?

A conceptual framework for research

This research investigated academic management's effectiveness in enhancing students' entrepreneurial skills in Chinese colleges. The researcher defined the conceptual framework of the research using documents, concepts, and theories. Ethnographic futures research (EFR) is as follows.

1. Documents and research in academic management

Academic management creates ideas for success, focuses on academic results for quality learners, and professionally promotes and supports individuals to become teaching experts in various specialties. Encourage research and development of new ideas. By connecting the principles of reason, counseling for students has international professional standards. Able to manage change conditions with a systematic approach to new modern concepts, answering future needs in dealing with change or changes in organizational goals, processes, or technology. Strategy change control and can adapt to change. It is considered to be quality academic management.[10]

Filipovic and Arslanagic-Kalajdzic said that social networks and academic management use interactive platform technology as an influential tool to create a positive impact. Continuous educational experience in various fields is a new channel for academic management. When using social capital theory, promoting learning-

[10] Adam Lindgreen and et al. How to fast-track your academic career: A guide for mid-career scholars. Published by: Edward Elgar Publishing Limited. UK 2023, ISBN 978 1 83910 1786. Pages 150-173.

focused activities can reflect the behavior of groups in society in the different contexts of each person. However, they can also connect and interact in learning. It has a system of market, economic, cultural, and social mechanisms. It consists of social obligations ('connection'), which learning innovation by creating a quality platform can answer the question of promoting learning.[11]

The Academy of Management Organization said that academic management of educational institutions involves applying and integrating knowledge surveys. There is a standard operating framework. Promote network building. Strategic knowledge management linked to innovation that aims to build a strong brand is a bridge to a future of positive results, which must be connected with systematic management.[12]

Management must have eight crucial elements used in educational management operations, including 1) educational planning, 2) educational administration, 3) educational organization, 4) educational direction, 5) coordination of educational work, 6) educational supervision, 7) educational control, and 8) educational evaluation.[13]

1) Educational planning is the basis for achieving goals and objectives. Management must decide on methods and strategies to achieve their objectives effectively and efficiently. A plan is defined as a predetermined strategy. Detailed skills or plans related to achieving objectives planning process Plans may be long-term, medium-term, and short-term. Planning should take into account the

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[11] Jelena Filipovic and Maja Arslanagic-Kalajdzic. Social capital theory perspective on the role of academic social networking sites. Journal of Business Research. Volume 166, November 2023. Pages 1-12.

[12] Academy of Management Organization. Strategic Direction. Accessed March 01, 2024. Available from https://aom.org/about-aom

[13] Diksha Kashyap. Top 8 Components of Educational Management. Accessed March 01, 2024. Available from https://www.yourarticlelibrary.com/educational-management

organizational context. Morality promotes enthusiasm and motivation to work. Focus on the success of the institution or organization's planning process. Plans may be long-term, medium-term, and short-term. Planning should take into account the organizational context. Morality promotes enthusiasm and motivation to work. Focus on the success of the institution or organization; the nature and characteristics of educational planning are as follows: Goals and objectives, teamwork, decision-making, forecasting, social and economic goals, anticipation, remedial measures, and choice of the best alternative. 2) Educational administration: Consider the scope involved and implement legislative policy through planning, decision-making, and leadership behavior. Scope of educational administration, production, assuring public, finance and accounting, personnel, and coordination. 3) Educational organization: Educational institutions have organized resources to achieve educational objectives, goals, and results. 4) Educational direction: policies to guide the management of all educational programs and decision-making in solving problems, leading in project execution, and managing all operations. 5) Coordination of educational work: Coordination and cooperation between diverse resources is required. With coordination, all facilities will be unified, and all services will be aligned with the education provision in the area. 6) Educational supervision: Educational supervision is coordinating, stimulating, and directing teachers' growth to stimulate and direct the growth of every student by harnessing their talents towards achieving their most prosperous goals. 7) Educational control: Control is carried out using appropriate evaluation techniques. Objectives of the assessment Control techniques include policies, budgets, audits, schedules, curriculum, personal records, etc., and 8) Educational evaluation: to bring about improvements in the management of educational institutions as desired. It considers past experiences that may have failed, succeeded, or both. Internal and external agencies should be involved in evaluating the achievements and performance of individuals involved in the administration.[14]

[14] Ibid.

Eduwheels Private Organization mentioned that Academic management can address the needs of modern society by using intelligent technology systems to adjust the management model of educational institutions. This approach considers organizational culture and environment, curriculum, enterprise resource planning (ERP), and a consistent and flexible education system. Learning management systems (LMS) and the Learning Experience Platform (LXP) support learning in the era of innovation and technology.[15]

2. Concept of Entrepreneurial Skills

Akhmetshin et al. said competent experts must be established in entrepreneurial management in university business studies. Helps in the development of entrepreneurs in business education. Promote student skills training, including 1) Motivation skills requiring a proactive and responsible attitude. Have good negotiation techniques. 2) Social skills: have good human relations. Able to endure stress and Control emotions well. 3) Decision-making skills: Know how to study and learn facts. Analyze the problem or various conditions, and 4) Creative skills: able to design your own business and future career.[16]

Isa et al. said that Essential entrepreneurial skills for students include 1) business planning skills, 2) communication skills, 3) marketing skills, 4) ICT skills, 5)

[15] Eduwheels Private Organization. Education management system. SCHOOL / COLLEGE & UNIVERSITY (ERP). Accessed March 01, 2024. Available from https://www.eduwheels.com

[16] Elvir M. Akhmetshin. Acquisition of entrepreneurial skills and competencies: Curriculum development and evaluation for higher education. Journal of Entrepreneurship Education. Volume 22, 2019, issue 1. Pages 1–22.

management skills, 6) financial management skills, and 7) Interpersonal skills as an entrepreneur.[17]

Zappe et al. said that in terms of entrepreneurial creativity, social learning skills should be supported. That is, understanding various contexts, having a positive mindset as the world continues to become more complex, and innovation and technology skills are building technological systems. Connect thinking outside the box and integrating ideas, consistently keeping pace with the world and the times.[18]

Herrity said that entrepreneurial skills may cover various skills, such as technical skills. Leadership and business management skills and creativity are essential because entrepreneurial skills can be applied to multiple management roles and industries; developing entrepreneurial skills can mean developing many different skill sets, which is being a successful entrepreneur—knowledgeable and up-to-date world of learning. Consistently cutting-edge technology must develop skills in managing future perspectives in team building and maintaining the team, including developing modern leadership skills and good communication. Entrepreneurial skills can cover many soft skills and domains as entrepreneurs play a business role. Know the principles of good management to grow their business and build their brand. Entrepreneurial skills include: 1) Business management skills, 2) Teamwork and leadership skills, 3) Communication and listening, 4) Customer service skills, 5) Financial skills, 6) Analytical and problem-solving skills, 7) Critical thinking skills, 8)

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[17] Muhammad Umar Isa and et al. Entrepreneurship Skills Required by Construction Technology Education Students in Tertiary Institutions of Nigeria. Vunoklang Multidisciplinary Journal of Science and Technology Education, Volume 11-Issue 2, 2023. Pages 280-287.

[18] Sarah E. Zappe and et al. Teaching for Creativity, Entrepreneurship, and Leadership in Engineering. E-Book ISBN9781003287483. DOI:10.4324/9781003287483-May 24 2023. Page 433–456.

Strategic thinking and planning skills, 9) Technical skills, 10) Time management and organizational skills, 11) Branding, marketing and networking skills.[19]

3. Related research

Tsaqib and Nasir. A study on entrepreneurial management for students found that Entrepreneurial education and training play a vital role in preparing students with the skills and knowledge necessary to start and manage a business effectively. Key skills include: 1) technical skills, which involve specialized expertise; 2) management skills, which involve the ability to organize, plan, and manage resources; and focus on providing students with hands-on experience in developing business projects, scheduling operations, and using simulation methods; and 3) entrepreneurial skills, which require creative thinking, innovation, and determination in starting a business.[20]

Salun, Zaslavska and Vanickova. A study on the Formation of Entrepreneurial Skills in Students in a Changing World. found that an entrepreneurial role requires planning and managing operations, implementing a comprehensive process system, possessing vision, determination, openness, honesty, creativity, self-confidence, generosity, politeness, fairness, and a positive outlook. Able to manage a team, have teamwork skills, analytical skills, resource management, and maintain social/community values in a competitive environment. Emphasis on the regulatory aspects of entrepreneurial activities today needs to shift to creativity, innovative

[19] Jennifer Herrity. A Guide to Entrepreneurial Skills: Definition and Examples. Accessed March 01, 2024. Available from https://www.indeed.com/career-advice/career-development/entrepreneurial-skills

[20] Muhammad N. Tsaqib and Muhamad Nasir. (2023). Entrepreneurial Management for Students. American Journal of Economic and Management Business, 02(09), 359-365.

thinking and non-standard management decision-making to adapt to the challenges of a changing world.[21]

Jardim. Study on Entrepreneurial Skills to Be Successful in the Global and Digital World: Proposal for a Frame of Reference for Entrepreneurial Education found that **entrepreneurial** requires the ability to think critically, possess a positive attitude, and possess entrepreneurial skills essential for professional success in today's job market. Creating valuable products and developing innovative services collaboratively, working as a team, and communicating effectively. Creativity, innovation, and initiative skills can be developed and integrated into the curriculum of the new generation, and entrepreneurial teaching methods can be developed to support this. They can apply knowledge, generate novel ideas, and participate in problem-solving.[22]

4. Ethnographic futures research (EFR)

Studies the trend of social change and culture in a fixed time frame in the future. Moreover, it developed from anthropological, cultural, and ethnographic methods according to the needs and limitations of future research. The future research has the following objectives:

1. To describe the future of plausible conditions 2. To assess the current state of knowledge against the possible future 3. To point out possible future effects 4. To point out Unfavorable precautions that may occur in the future. 5. To help understand the basics of the transformation process.

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[21] Maryna Salun, Kateryna Zaslavska and Radka Vanickova. (2021). Formation of Entrepreneurial Skills in Students in a Changing World. ECP Sciences, 9(9), 1-8.

[22] Jacinto Jardim. (2021). **Entrepreneurial Skills to Be Successful in the Global and Digital World: Proposal for a Frame of Reference for Entrepreneurial Education. MDPI Journals,** 11(7), 1-13.

The components of ethnographic interviewing and research (EFR) are 1. Population determination, 2. Future time horizon, 3. Factors affecting change, 4. Cultural dimension, 5 basic assumptions, and 6. Research ethics.

The research steps are as follows: 1. determining population groups from which complete information can be provided. 2. The interview will feature a unique interview method designed to expand the imagination of the future by reducing the tempo centrism of the interviewee. The interview will include open-ended questions. And not guided to stimulate the vision of interview participants for future topic-related and possible evolution 3. Analyzing and interpreting data from the interview, the researcher should read the record. Transcribed interviews to classify similar ideas or ideas that share the opinions of the interviewees to classify similar ideas or ideas that have a common opinion of the interviewee in each topic and classify ideas that look different from most ideas of the interviewee the researcher must analyze according to various conceptual frameworks. To lead to theoretical 4. I am writing a research report. A balanced, believable, cagey, and logical research report must be written for each topic.

The scope of the above theory can be written as a chart showing the conceptual framework of this research, as detailed in Figure 1.

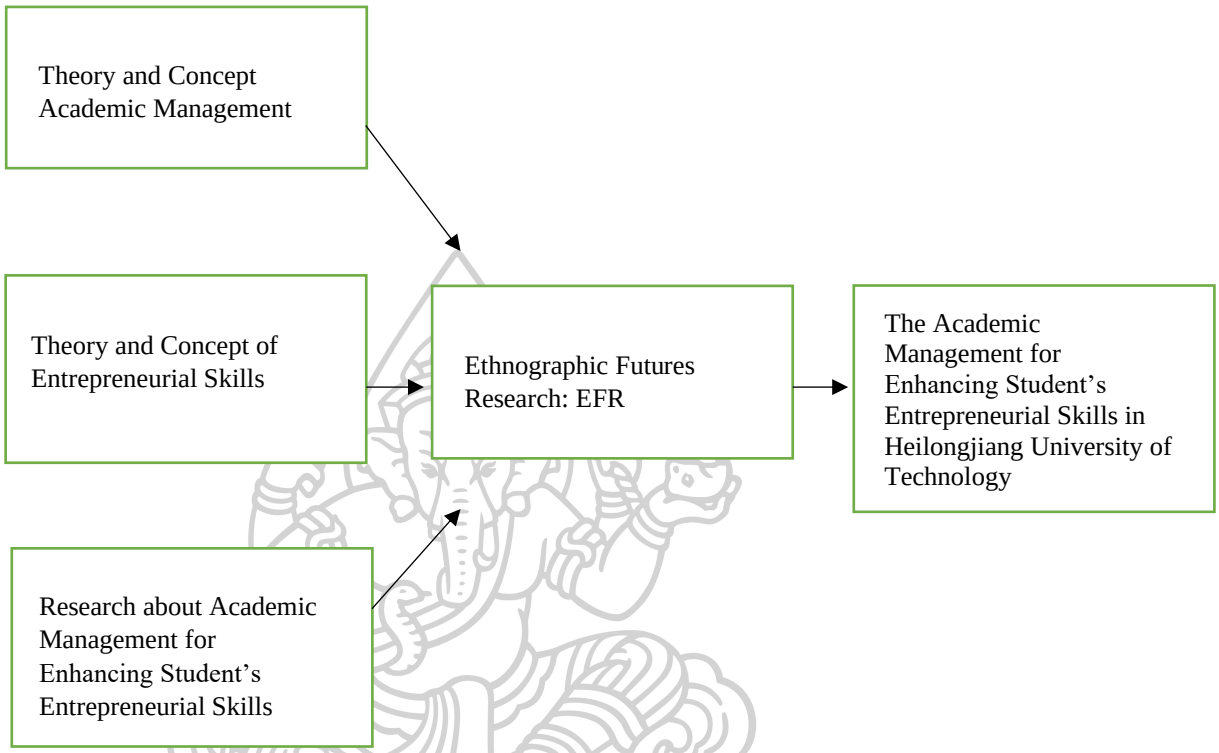

Figure 1 Research Framework

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: Jennifer Herrity. A Guide to Entrepreneurial Skills: Definition and Examples. Accessed March 01, 2024. Available from https://www.indeed.com/career-advice/career-development/entrepreneurial-skills

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: Muhammad N. Tsaqib and Muhamad Nasir. (2023). Entrepreneurial Management for Students. American Journal of Economic and Management Business, 02(09), 359-365.

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Definition of Terms

Academic Management is a management process that is both a science and an art. It aims to meet the goals of an educational institution and is consistent with the context of the institution. It is a key to driving academic missions. It integrates policy with academic principles and is practice-oriented, covering teaching, research, and development, and achieving tangible results. It focuses on creating efficiency in the appropriate use of resources. The core is a systematic management process (POLC), including planning to set direction and strategies; organizing to design structures and allocate resources; leading using communication to mobilize personnel; and controlling to monitor, evaluate, and improve. All of these elements

work together in a cycle to create excellence and ensure quality that meets international standards.

Heilongjiang University of Technology is an institution that focuses on entrepreneurial education, cultivating talents, guiding students' skills and career development, inspiring them to innovate and learn new things, and promoting the construction of a high-quality innovation and entrepreneurship system to meet the country's and the global community's needs. Located in Jixi City, Heilongjiang Province, China, the university offers full-time undergraduate programs in 28 disciplines, including entrepreneurship.

Chapter 2

Related Literature Review

Research on academic management aims to enhance students' entrepreneurial skills in Heilongjiang University of Technology. The researcher presented relevant papers and research papers by focusing on the study of relevant documents and research on the following topics.

1. Academic Management
2. Entrepreneurial Skills
3. Academic Management of Future Entrepreneurs
4. Academic Management for Enhancing Entrepreneurial Skill
5. Ethnographic Futures research – EFR
6. Basic Information of Heilongjiang University of Technology
7. Related research

Academic Management

Academic management is a conceptual framework for academic work, encompassing the processes of planning, organizing, monitoring, and controlling human resources, as well as promoting research and innovation, developing curricula, and applying teaching methods to foster critical thinking and essential social skills, to achieve efficiency and effectiveness. Academics, organizations, the public sector, and the private sector have stated the following:

Definition of Academic Management

Taylor said that management is the art of knowing what you want to do and then seeing to it that you do it in the best and cheapest way, reflecting the highest importance on "Efficiency" and finding the "One Best Way" to do things.[23]

[23] Frederick W. Taylor (1911). The principles of scientific management. Harper & Brothers.

Fayol view of management is forecasting and planning, organizing, directing, coordinating and controlling. And emphasizes that management is a "process" consisting of the main functions that every manager must perform.[24]

Drucker's view of management is a multi-purpose organ that manages a business and manages managers and manages workers and work. Perspective: Drucker saw management as not just a science, but an "art" that must make the most of human resources.[25]

Koontz and Weihrich define management as the process of designing and maintaining an environment in which individuals work together as a group to effectively achieve selected goals. They emphasize the role of managers as "environment creators." They see the manager's job as not simply giving orders, but organizing and creating an atmosphere that allows people to perform at their best.[26]

Mina. According to the management, in its foundational sense, refers to the coordination and administration of tasks to achieve a goal. This encompasses a broad range of activities, including the efficient and effective utilization of resources to meet organizational objectives[27]

[24] Henri Fayol (1949). General and industrial management (C. Storrs, Trans.). Pitman.

[25] Peter F. Drucker (1954). The practice of management. Harper & Row.

[26] Harold Koontz and Heinz Weihrich (2006). Essentials of management: An international perspective (7th ed.). McGraw-Hill.

[27] Jayson C. Mina (2019). Attainment of Cooperative objectives and the performance of officers in performing their Management Functions: A Case of Cooperatives in Gapan City, Nueva Ecija. International Journal of Advanced Engineering Management and Science, 5(11),
577. https://doi.org/10.22161/ijaems.511.2

Robbins and Coulter define management as “the process of coordinating and supervising the work activities of others so that their activities are completed efficiently and effectively.”[28]

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) states that academic management in educational institutions involves systematic planning and the promotion of academic freedom, flexibility, and diversity in the transmission of knowledge, emphasizing academic advancement and the quality of education in accordance with international standard[29]

Zhou et al. stated that academic management is an operation system, strategic integration, and future perspective, including the development of training skills, academic writing, and evaluation skills. It provides structural support for developing improvement plans that maximize resource utilization, studies future research data, enhances knowledge, facilitates exchanges, comparisons, and exploration of differences for practical application.[30]

[28] Stephen P. Robbins and Mary A. Coulter (2021). Management (15th ed.). Pearson.

[29] United Nations Educational, Scientific and Cultural Organization, European Centre for Higher Education. (1992). Academic freedom and university autonomy: Proceedings. UNESCO.

[30] Shuo Zhou et al. (2022). English medium higher education in China: Challenges and ELT support. ELT Journal, 76(2), 261–271.

White et al. stated that academic management is a system of corrective action. There is a system that identifies the causes of various changes and implements effective teaching and learning. The human resource management control system focuses on academic quality, motivation, and resource management to meet international standards. Use resources appropriately. This aligns with the school curriculum's goal of achieving long-term strategic success. Or, as a daily action plan, set operational standards. There is a guideline set as a basis for measuring operational standards. Compare actual results with planned goals, focusing on operational standard goals [31]

Fry, Ketteridge, and Marshall defined academic management as a system of actions, including direction, policies, programs, and activities, that link academic principles to practice in organizational environments, focusing on contextual outcomes and organizational impact.[32]

Summary: Academic management is the science and art of achieving organizational goals. It is based on a management process that encompasses planning, organizing, coordinating, and controlling resources to achieve maximum efficiency. It is applied to the context of an educational institution. Academic activities are coordinated and supervised to ensure effective implementation. It also involves strategic integration of policies, programs, and activities to connect academic principles with practical practice, including teaching, research, and academic services. The key is to create and maintain an environment that encourages staff to work together to their full potential, while implementing a system of corrective actions and quality control to promote academic excellence and ensure that educational quality meets international standards. Ultimately, academic management is a key mechanism for driving the institution's core mission and achieving its long-term goals.

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[31] Ron White, Anwei Ding and Shauna O'Loughlin (2023). From teacher to manager: Managing language teaching organizations. Cambridge University Press.

[32] Heather Fry, Steve Ketteridge and Stephanie Marshall (2024). The effective academic: A handbook for enhanced academic practice.

Significance of Academic Management

Drucker said that management is "the specific organ of the business enterprise." He saw the importance of management as making resources productive, especially the most important resource, "human beings." He also emphasized that good management not only creates organizational success but also is the foundation of social and economic development.[33]

Moore stated that management is crucial for achieving organizational success. This involves implementing processes for problem-solving, building consensus across sectors (Authorizing Environment), and managing operational capacity (Operational Capacity) to meet those needs truly.[34]

Hill said that the importance of management lies in shifting the perspective from "personal success" to "responsibility for the success of others." Management is therefore important as a process of unlocking and multiplying team potential. A good manager is not the best, but the one who can build the best team.[35]

The Organisation for Economic Co-operation and Development (OECD) says that managing the mechanisms that translate policies into tangible practices is crucial for organisations to drive performance towards achieving their goals.[36]

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[33] Peter F. Drucker (1954). The practice of management. Harper & Row.

[34] Mark H. Moore (1995). Creating public value: Strategic management in government. Harvard University Press.

[35] Linda A. Hill (2003). Becoming a manager: How new managers master the challenges of leadership. Harvard Business School Press.

[36] Organisation for Economic Co-operation and Development: OECD. (2015). OECD Framework for the Governance of Infrastructure. OECD Publishing.

The World Bank explains that governance is crucial to ensuring strict legal and regulatory accountability, helping to design processes that align with the principles of good governance and accountability that are fundamental to development.[37]

Robbins and Colter stated that management is a mechanism for efficiency and effectiveness, emphasizing that its focus is on leading an organization to achieve its goals based on these two pillars. Management is therefore important because it is the only process that ensures that an organization not only "does the right thing" (Efficiency), but also "does the right thing" (Efficiency), leading to the most efficient use of resources and maximum results.[38]

The World Intellectual Property Organization (WIPO) describes academic management as promoting innovation and creativity. Modern knowledge enhances a country's competitiveness.[39]

The National Development and Reform Commission (NDRC) explains that academic management is crucial for educational institutions to enhance the country's competitiveness and achieve the goal of sustainable and efficient national development.[40]

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[37] World Bank. (2017). World Development Report 2017: Governance and the Law. The World Bank.

[38] Stephen P. Robbins and Mary Coulter (2021). *Management* (15th ed.). Pearson.

[39] World Intellectual Property Organization (WIPO). (n.d.). National IP Strategies. Retrieved from https://www.wipo.int/national-ip-strategies/en/

[40] National Development and Reform Commission (NDRC). (Annual). Report on the Implementation of the National Economic and Social Development Plan.

Rosofsky said that academic management is about protecting "the core values of the institution, academic freedom and excellence in research and teaching, and the highest quality of educational resources."[41]

Altbach said that academic management in the era of globalization is to deal with the phenomena of "Global Rankings" and "Internationalization", which are important for the development of educational institutions to increase their knowledge capacity and international competitiveness.[42]

Summary: The Significance of Academic Management is a key mechanism that translates institutional policies and goals into tangible results. It aims to create both efficiency in resource utilization and effectiveness in achieving goals. This aims to maximize the use of available resources, particularly quality human resources, and to create a positive environment within the context of higher education institutions, ensuring academic freedom and excellence in research and teaching, promoting high-quality innovation and creativity in line with international standards.

Components of Academic Management

Ahmed, according to G. Terrypage and J.B. Thomas “Theory and practice of the organisation and administration of existing educational establishments and systems. 1) Educational management is a universal process: educational management is a universal process. It is related to every country, society, organization, etc. The need for management can arise in every field of commercial, war, religion, human relations, and other topics, 2) educational management is an art: management has been accepted as an art, as in management, things are done through others. Therefore, in management, not only does one have to learn the principles of management, but also the manager has the qualities of sympathy,

[41] Henry Rosovsky (1990). The University: An Owner's Manual.

[42] Philip G. Altbach (2006). International Higher Education: Reflections on Policy and Practice.

patience, good manners, experience, behavioural skills, etc. 3) Educational management is a social science: educational management is a social science because it also collects data by using the methods of observation, experimentation, explanation, etc. Like political science, economics, sociology, etc. 4) Educational management is a profession: educational management can also be regarded as a profession. Because in each and every profession, to manage the activities effectively, one should have some particular qualities such as preparation, behavioral skills, patience, etc. 5) Educational management is a multidisciplinary subject: management is also a multidisciplinary subject. Because the principles, concepts, and skills involved in management are also related to economics, mathematics, psychology, anthropology, sociology, etc., 6) Educational management is a dynamic process: educational management can be considered a continuous or dynamic process because the principles of management are changeable over time. Every field, i.e, industry, education, etc., Is changing from time to time in respect of new policy, new action. So the process of management is dynamic. 7) Educational management is goal-oriented: every function of management is goal-oriented. Specific objectives guide effective management. Educational management is a process of planning, organizing, directing, and providing instruction to achieve goals. The chief objective of management is to achieve predetermined goals. 8) Educational management is a group activity: educational management is a group activity as it involves a group of individuals to achieve common goals. It helps members of the organization to know the aims & objectives of the organization and also directs them to achieve those goals. 9) Educational management is a social process: a social process, as it prioritizes social benefits and responsibilities.[43]

Hill said that the essence of management is not in having authority or control, but in the responsibility for the success of others. Management is crucial because it is the mechanism that turns "individual" capabilities into "team performance".

[43] Sabuj Ahmed. (2022). Nature, Scope, and Objectives of Education Management https://www.researchgate.net/publication/361328260_Nature_Scope_and_Objectives_of_Education_Management

Moreover, management is also a multiplier of human potential. Successful managers are those who can unlock the potential of their people and coordinate those efforts to create great and lasting results for the organization. The role of management therefore considers:

1) From Doer to Architect: Good managers recognize that their own success directly depends on the performance of the team. Their role has changed. They do not solve every problem themselves, but act as "architects" or "agenda setters" who design an environment that is conducive to the team's best work. Without management, organizations would be filled with talented people who, each doing their own thing, could not create great results together. Management is therefore crucial in creating the framework and environment that fosters 1+1 over 2.

2) Shift from "control" to "commitment." Effective managers use influence instead of authority. They build team commitment to shared goals, rather than relying solely on command. Proper management is not about coercion; it is about creating intrinsic motivation, encouraging employees to complete tasks willingly. This leads to higher-quality and more creative work than simply following orders.

3) Shift from "managing individuals" to "managing a network." Managers must take a broader view. They must manage the entire "team," including managing relationships within the team, building networks with other departments, and representing the team in communications with senior executives. Effective management enables teams to work more efficiently than isolated individuals or teams and provides access to resources, information, and support from across the organization. This enables teams to solve complex problems beyond the capabilities of a single individual or team.[44]

[44] Linda A. Hill (2003). Becoming a manager: How new managers master the challenges of leadership. Harvard Business School Press.

Gulick and Urwick expanded Henri Fayol's functions into more detail and concreteness, especially in the field of public administration and management, which consists of 7 aspects as follows:

1) P - Planning: Setting goals and guidelines for achieving those goals.

2) O - Organizing: Determining the structure of authority and organizing the agency.

3) S - Staffing: All processes related to personnel, from recruiting, selecting, training, to maintaining the working conditions of employees. It is considered to be a clear separation of "people" from "organization".

4) D - Directing: Making decisions and giving orders to ensure continuous work.

5) Coordinating: An important function in linking different parts of the work to be smooth and in the same direction, preventing duplication or conflict.

6) R - Reporting: Informing superiors and subordinates of the performance of the work through recording, checking, and research.

7) B - Budgeting: Planning finances, accounting, and controlling all expenses.[45]

Robbins and Coulter, key concepts of management and the management process. Management is: The process of coordinating and directing the work activities of others so that those activities are accomplished effectively and efficiently. There are four management processes. POLC is the basic framework for describing what managers do, and they are interrelated.

1) Planning: The process of setting goals, creating strategies to achieve them, and developing plans to integrate and coordinate activities.

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[45] Luther Gulick and Lyndall Urwick (Eds.). (1937). Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University.

2) Organizing: The process of allocating and structuring work to achieve organizational goals. This includes determining who does what work, who reports to whom, and at what level decisions are made.

3) Leading: The process of working with and through others to achieve organizational goals. This involves motivating, using leadership, communicating, and managing conflict.

4) Controlling: The process of monitoring, comparing, and correcting performance to ensure that everything is proceeding as planned.[46]

POLC Management System

1. P = Planning is the most important intellectual process in management.

It consciously determines the future course of action to achieve pre-determined objectives. It serves as a "blueprint" that serves as the foundation for all other management functions. It establishes direction, reduces the impact of uncertainty, reduces waste and redundancy, and establishes goals or standards for future control processes.

Key Components and Activities:

- Environmental Scanning & Analysis: This is the starting point for managers to analyze both the internal and external environments to inform decision-making. The most commonly used tool is SWOT Analysis.

- Establishing the Hierarchy of Goals: Planning involves setting goals at multiple levels, which are communicated from top to bottom throughout the organization. These include vision and mission, strategic goals, and objectives.

[46] Stephen P. Robbins and Mary A. Coulter (2021). *Management* (15th ed.). Pearson.

- Developing Plans: Creating a "roadmap" to achieve objectives. Plans are categorized by: Breadth: Strategic Plans (Enterprise-wide), Tactical Plans (Department-level), Operational Plans (Daily), Time Frame: Long-term Plans (3 years or more), Short-term Plans (up to 1 year), Specificity: Directive Plans (flexible), and Specific Plans (detailed).[47]

2. O = Organizing. Once goals and plans are established, the organizing function determines how those plans will be accomplished. This involves allocating and structuring tasks, sharing resources, and designing the organizational architecture to implement the strategy. This formal structure of roles and responsibilities helps coordinate efforts across all organizational functions, reduce conflict, and maximize efficiency.

Key Components and Activities

-Organizational Design: Creating or changing the organizational structure. This involves decisions about: Work Specialization and Departmentalization

-Allocation of Resources: Assigning human, financial, and physical resources to designated tasks and departments

-Establishing Authority & Responsibility: Defining formal lines of authority and responsibility. Key concepts include: Chain of Command, which is the authority extending from the top to the bottom of the organization, clarifying who reports to whom; Span of Control, the number of employees a single manager can effectively

[47] Michael E. Porter (1980). Competitive Strategy: Techniques for Analyzing Industries and Competitors. Free Press.

and efficiently supervise; and Delegation, the delegation of authority to others to carry out specified activities.[48]

3. L = Leading. This function relates to the "people" dimension of management. It is the process of influencing, motivating, and directing employees to work willingly and enthusiastically toward organizational goals. A perfect plan and structure will fail without effective leadership to energize employees, build engagement, and guide human behavior, ensuring that individual efforts align with the organization's strategic direction.

Key Components and Activities:

- Motivation: Understanding employee motivations and creating conditions that foster high performance, often using motivation theory.

- Leadership: Using influence, which involves selecting the appropriate leadership style for the situation, team, and task.

- Communication: Creating effective channels for information transmission, providing feedback, and ensuring everyone understands their role and overall goals. This is the lifeblood of leadership.

- Managing Groups and Teams: Fostering cooperation, resolving conflict, and building cohesive, high-performing teams.[49]

[48] Henry Mintzberg (1979). The Structuring of Organizations: A Synthesis of the Research. Prentice-Hall.

[49] Bernard M. Bass (1985). Leadership and Performance Beyond Expectations. Free Press.

4. C = Controlling. Controlling is the process of overseeing activities to ensure they are carried out as planned and taking corrective action when significant deviations occur. It provides critical feedback and closes the management process loop to ensure performance aligns with the plan, protects organizational assets, and supports the next planning cycle.

Key Components and Activities:

-Establishing Performance Standards: Establishing clear criteria or measures to judge performance. These standards should be based on the goals established during the planning phase.

-Measuring Actual Performance: Collecting and reporting actual performance, which may be through observation, statistical reporting, or written reports.

-Comparing Performance to Standards: Analyzing deviations between actual performance and established standards. Managers must determine whether deviations are acceptable or require action.

-Taking Corrective Action: If performance significantly deviates from standards, managers must take action, which may include corrective actions or reviewing new standards. This step demonstrates the cyclical nature of POLC, as corrective actions often lead to a reevaluation of the plan, structure, or leadership approach.[50]

Summary: **Components of Academic Management are** based on a systematic and clearly defined process that embodies both science and art to achieve shared goals. The key elements of this process are summarized in the POLC framework, which consists of planning, which acts as a blueprint that defines

[50] Robert S. Kaplan and David P. Norton (1996). The Balanced Scorecard: Translating Strategy into Action. Harvard Business School Press.

direction and strategy; organizing, which designs structures and allocates resources to ensure that plans are implemented; leading, which uses influence and communication to unify personnel efforts; and controlling, which is a feedback mechanism that monitors and evaluates performance to ensure compliance with plans and leads to continuous improvement. All these elements work together cyclically for positive results.

Entrepreneurial Skills

Entrepreneurial can take many forms, depending on your perspective. A business idea requires a variety of management skills, knowledge of technology and marketing, networking, teamwork, and how to develop an idea. Entrepreneurs also need to understand the legal environment, as business experts, academics, agencies, and organizations have stated:

Principle Concept, Theory of Entrepreneurial Skills:

Tsolakidis, Mylonas, and Petridou mentioned that Entrepreneurs must have management skills; for innovation development in the era of competition, it is necessary to know about technology. Including marketing strategy is a skill that helps drive entrepreneurs' businesses.[51]

[51] Panagiotis Tsolakidis, Nikolaos Mylonas and Eugenia Petridou (2020). The impact of imitation strategies, managerial and entrepreneurial skills on startups' entrepreneurial innovation. MDPI Journal, 8(4), 2–17.

Vege-Gomez et al. mentioned that entrepreneurs should think outside the box. A positive attitude and a future perspective are essential for learning psychological skills, and training develops skills, including good human relations. Create a business network.[52]

Chatham mentioned that Entrepreneurs must be able to integrate work processes. To meet the needs of your business, entrepreneurs must have modern ideas and think differently, which can be done. Entrepreneurial skills are a mechanism for changing mindsets. Fulfill the truth that is fulfilled in business, which hopes for prosperity and Success. There are ten primary skills for learning how to be an entrepreneur. Towards the Success that you created yourself as follows: 1) Basic Finance, 2) Marketing, 3) Leadership, 4) Communication, 5) Critical Thinking, 6) Organization, 7) Time Management, 8) Networking, 9) Teamworking, and 10) Reception to Feedback.[53]

1) Basic Finance: Able to explore cost and price analysis. Know how to calculate costing systems, profit, and loss, and create appropriate budgets for business planning. Understand the tax system. Having a sound financial system can help you establish a business that aligns with your goals.

2) Marketing: Entrepreneurial. The business model must understand marketing channels to explore international marketing, modern advertising techniques, and branding unique to the brand, including maintaining the brand's identity and planning products to compete in the market.

3) Leadership: Entrepreneur, visionary, able to inspire and motivate others.

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[52] Francisco I. Vega-Gomez, Maria J. Marin-Martinez and Juan Roldan-Merino (2020). Antecedents of entrepreneurial skills and their influence on the entrepreneurial intention of academics. SAGE Open, 10(2), 1–14.

[53] Chatham, A. B. (n.d.). Top 10 entrepreneurial skills to thrive in business. Wix. Retrieved March 1, 2024, from https://www.wix.com/blog/entrepreneurship-skills

He has to think differently and be ready to change in every situation. His charming personality, combined with specific skills and behaviors, supports strong leadership. His explicit goal is to update his knowledge, operate according to ethical principles, be honest and fair to the organization, and maintain good customer interaction.

4) Communication: Entrepreneurs communicate their vision well before creating their first product or service. Once you've launched your business, convincing others to join your venture requires constant and dynamic communication. Strong internal communication helps operations run smoothly, while effective communication with both prospective and current customers is crucial to winning business. Communication is among the skills to develop.

5) Critical Thinking: Entrepreneurs often connect to a web of information, ideas, and experiences from various sources. They need to implement the ability to synthesize this information within their business framework to help solve complex problems as they arise and see new growth opportunities. Critical thinking skills include observation, analysis, and problem-solving.

6) Organization: Entrepreneurs need systems to organize their environment efficiently and keep their projects on track. They also need organizational driving and planning tools to avoid wasting time on a solution that does not work. Consult with consultants from other businesses in the same industry or trusted partners to see what works for them. Skills include digital hygiene, project management, prioritizing, and execution.

7) Time Management: Entrepreneur, project management. Simplify the Work schedule system to help manage time effectively, develop skills assignment, Time blocking, and balance between life and work.

8) Networking: A network of professional colleagues, mentors, and other connections will benefit the business's growth. Building relationships with others, communicating effectively, staying informed in an open society, and possessing emotional intelligence will foster confidence and support for your endeavors. You

will be able to provide advice and information for others on business matters and look forward to the future.

9) Teamwork: Explore clear expectations and incentives, which can provide Motivation in crises. Accept and listen to the diverse ideas of employees, including co-workers, during a brainstorming session. Open communication reduces conflict. Set a clear framework and solve problems with reason.

10) Reception to Feedback: Always bring suggestions to develop and improve. This skill supports responding to a growth mindset and criticism from a rational perspective. Take setbacks as opportunities to learn and improve the organization.[54]

The Organization for Economic Co-operation and Development (OECD) has stated that entrepreneurs must always fulfill their full potential. Having a conceptual framework and future perspective training helps develop entrepreneurship, technical, and management skills, as shown in Figure 2.[55]

[54] Ibid., p. 22.

[55] Organisation for Economic Co-operation and Development. (OECD). (n.d.). Entrepreneurship skills for growth-oriented businesses. Retrieved March 1, 2024, from https://www.oecd.org/

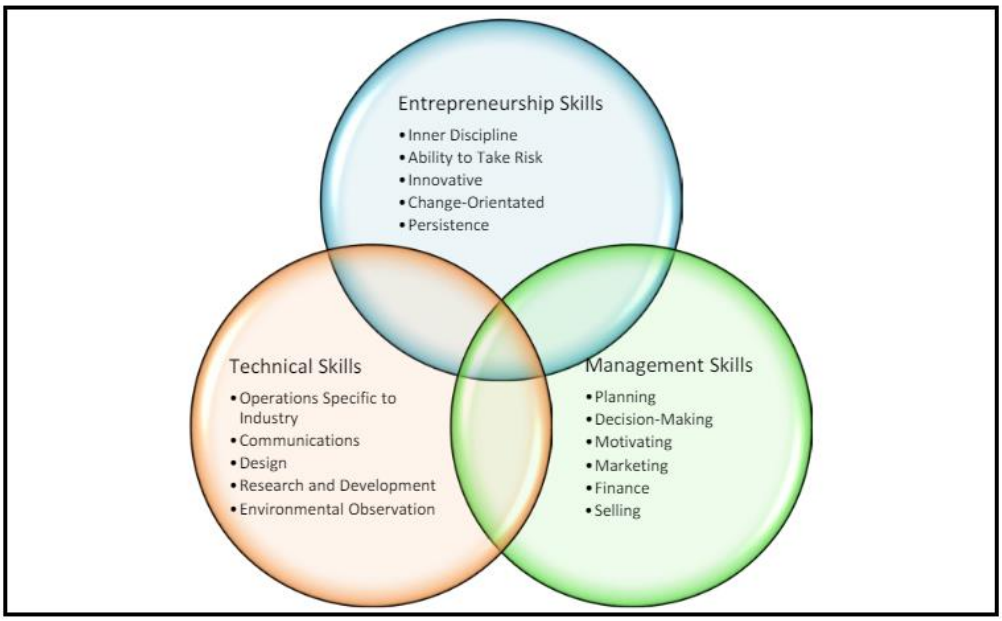

Figure 2 Entrepreneurship Skills for Growth-Oriented Businesses

Source: Organization for Economic Co-operation and Development: OECD Entrepreneurship Skills for Growth-Oriented Businesses. https://www.oecd.org

1) Entrepreneurship Skills: inner discipline, ability to take risks, innovative, change-oriented, and persistence. 2) Technical Skills: industry-specific operations, communications, design, research and development, and environmental observation. 3) Management Skills: planning, decision-making, motivating, marketing, finance, and selling.[56]

Entrepreneurial Law in China:

Before starting a business, it is essential to understand the legal environment in our country. Our country is still in the early stages of a socialist market economy.

[56] Ibid., p. 24.

There are still traces of a planned economy in many areas, where the government controls the economy, and additional tax expenses occasionally arise. As the government's economic management level and enterprise self-discipline ability improve, the above problems will gradually be fixed. China has written laws. Law enforcement and justice are based on laws, rules, regulations, and normative documents. Judgments are not Law and are not universally binding. However, it is more important to refer to cases published by the Supreme Court and the People's Court. Business entrepreneurs should study the process of setting up an organization to carry out business activities. You must register with the Industrial and Commercial Administration Department and receive a business license when engaging in business activities in a particular industry. Business operators must obtain approval documents from the relevant competent authority in advance. The enterprise law in our country no longer maintains the traditional form of legislation based on enterprise ownership. However, the Law is separated according to the form of enterprise organization, based on "general principles of civil law," "company law," "partnership law," "sole proprietorship law," and other relevant laws. The regulations stipulate that the organizational form of an organization may be a joint stock company, a limited liability company, a partnership, or a sole proprietorship. Limited liability companies are the most common. When the company was founded, it is essential to understand the "Organization Registration Management Regulations," "Company Registration Management Regulations," and other relevant industrial and commercial administrative laws and regulations. When setting up a specific business, it is essential to understand the local rules, regulations, and ordinances applicable to the development zone. High Technology Park software parks (bases) will help you choose a business location that offers tax benefits and other favorable policies.[57]

[57] GWBMA (GoodWill Business Management Agency). Company Law of the People's Republic of China [2023 Revision]. Retrieved July 23, 2024, from https://www.registrationchina.com/articles/law/company-law-of-the-peoples-republic-of-china-2023-revision/

Antitrust Law of the People's Republic of China:

1) There are several types of monopolistic behavior stipulated in the Antitrust Law of the People's Republic of China: (1) the operator reaches a monopoly agreement.

(2) Operators abuse their market position; (3) Concentration of business operators that has or may have the effect of eliminating or limiting competition.

2) The meaning of the monopoly agreement in antitrust Law: Refers to an agreement, decision, or other joint behavior. That eliminates or limits competition.

3) Antitrust laws expressly prohibit competing enterprises from entering into monopoly agreements: (1) Set or change product prices, (2) Limit the production or sales volume of products. (3) Segmentation of the sales market or raw material procurement market. (4) Limiting the purchase of new technology and equipment or limiting the development of new technology and products. (5) Boycott transactions, and (6) other monopoly agreements specified by the State Council Antitrust Enforcement Department.

4) Antitrust laws prohibit entrepreneurs from entering into monopoly agreements with counterparties: (1) fixing the price of goods for resale to third parties; (2) limiting the minimum price for selling products to third parties, and (3) other monopoly agreements specified by the State Council Antitrust Enforcement Department.

5) Antitrust Law clarifies behaviors that operators with a dominant market position are prohibited from engaging to abuse their dominant market position: (1) Selling products at an unfairly high price or purchasing products at an unfairly low price, (2) Selling products at a price lower than cost without reasonable cause. (3) Refusal to trade with a contracting party without reasonable cause. (4) Restricting the transaction counterparty from transacting only with itself or the designated operator without any legitimate reason. (5) Binding of products without good reason or attaching other unreasonable commercial terms to the transaction. (6) Maintaining the difference in transaction prices and other transaction conditions for

counterparties with the same conditions without reasonable grounds, and (7) other abuses of market dominance determined by the State Council Antitrust Law Enforcement Department. The term "dominant market position," as used in this Law, refers to a market position in which an operator can control the price, quantity, or other trading conditions of a commodity in the relevant market or can hinder or affect the ability of other operators to enter related markets.

6) Antitrust Law provides that administrative power cannot be abused to eliminate or restrict competition: Administrative agencies and organizations authorized by laws and regulations responsible for managing public affairs shall not abuse their administrative powers to limit or restrict business, purchases, and use of goods provided by operators. Assigned in a forged form Administrative agencies and organizations authorized by Law and regulations responsible for managing public affairs shall not abuse their administrative power and take the following actions to impede the free flow of goods between regions: Administrative agencies and organizations authorized by laws and regulations responsible for managing public affairs shall not abuse their executive power to prevent or restrict non-local enterprises from participating in local auctions by imposing qualifications that discriminate against assessment standards or fails to disclose information by the Law. Administrative agencies and organizations authorized by law and regulation are responsible for managing public affairs and shall not abuse their executive power. Treat local entrepreneurs unequally. Discourage or restrict foreign entrepreneurs from investing in the local area or setting up branches. Administrative agencies and organizations authorized by law and regulation, responsible for managing public affairs, shall not abuse their executive power to compel business operators to engage in monopolistic behavior as stipulated in this Law. Administrative agencies must not abuse executive power and impose rules that discourage competition.

7. The "Temporary Provisions on the Prohibition of Monopolistic Agreements" clarifies what behavior industry associations are prohibited from engaging in: (1) Establish and publish charters, rules, decisions, announcements, standards, etc., of industry associations that exclude or restrict competition. (2) Call a meeting, organize

or encourage business operators in the industry to reach agreements, resolutions, meeting minutes, records, etc., that contain content that eliminates or limits competition, and (3) other acts of organizing industry operators to achieve or comply with monopoly agreements.

8. How to hold entrepreneurs accountable for legal liability if they violate the provisions of antitrust Law: If the operator violates the provisions of this Law and accesses and executes the monopoly agreement. Antitrust enforcement agencies must order illegal behavior to stop. Confiscation of illegal income and impose a fine of not less than 1% but not more than 10% of the previous year's sales. If a monopoly agreement is reached, and not yet processed, a fine of not exceeding 500,000 yuan may be imposed. If the operator proactively reports to antitrust law enforcement agencies the circumstances relevant to achieving an exclusivity agreement, and provides substantial evidence. Antitrust enforcement agencies may reduce or exempt operators from penalties as appropriate. If the operator violates the provisions of this Law and abuses its dominant market position, antitrust enforcement agencies must order the cessation of illegal behavior. Confiscation of illegal income and impose a fine of not less than 1% but not more than 10% of the previous year's sales. If the operator concentrates in violation of the provisions of this Law, the State Council's antitrust enforcement agency will order the suspension of the concentration. Sell shares or assets within the specified period. Transfer business within the specified time and take other necessary measures to restore the state before Integration, and may be fined not more than 500,000 yuan.

9. If the industry association violates the provisions of the antitrust Law, how to deal with legal liability: If the industry association violates the provisions of this Law and organizes industry operators to reach a monopoly agreement, antitrust enforcement agencies may impose fines of up to 500,000 yuan in severe cases.

Social groups must be registered. The management agency may revoke the registration in accordance with the Law.[58]

Academic Management of Future Entrepreneurs

In response to the changing business landscape, there has been a shift in direction, aiming to address the needs of society in the future. Systematic academic management, teaching, and learning for entrepreneurs should adhere to an integrated approach that develops skills aligned with the changing context. Academic quality according to international standards and modern skills in line with the changing era, promoting techniques, innovations, and communication appropriately according to the social context, which scholars, organizations, and various agencies have stated as follows:

Principle Concept, Theory of Academic Management of Future Entrepreneurs:

Stormer et al. mentioned that Educational management must change. From the impact on the economy and the entrepreneurial business sector in the future, Online and blended learning techniques will become more widespread and complex. Educational institutions have increased competition. Essential business running skills: Adjusting new attitudes and behaviors must be based on flexibility, collaboration, organization, and creativity. Being able to respond to changes in consumer needs is essential. Educational institutions must adapt their curricula to meet the evolving social and technological needs. The platform transfers skills from one instructor to a larger audience. Learning management in MOOC (Massive Open Online Course) means organizing teaching and learning online. That supports a large number of learners, regardless of gender, age, or educational background, providing free services. It is anywhere, anytime learning, which means you can study anywhere, anytime, using your smartphone, computer, or tablet by learning through video.

[58] Intellectual Property Office. (n.d.). Homepage. Retrieved July 23, 2024, from https://www.shanwei.gov.cn/swscjdglj/hdjl/zsk/qtmt/content/post_942684.html

Lectures by the course owner in this regard and skills promote educational personnel to have future potential. These future skills in 2030 include:

1) Soft skills: The economic and social conditions at each level differ, resulting in different people's behaviors. Practice thinking and engage in training activities to develop emotional skills, such as art therapy or recreational activities, under the guidance of specialists.

2) Strategic Skills: Changing the Work Environment Using strategic analytical thinking to evaluate business problems and make decisions.

3) Networking skills: smooth operations and collaboration

4) Communication skills: able to present various projects. Negotiation: Create incentives for business sector growth

5) Leadership skills: Be clear in every decision. Learn to be observant and continually develop yourself to look your best. Dare to think, dare to act on the basis that answers your questions, reason, leadership, sales, and Learning. Generate ideas for new businesses

6) Legal skills: Knowledge of intellectual property and other issues related to the organization's own business

7) ICT-related skills: The Integration of ICT devices and technology, such as programming, data design, Image and sound editing, etc., is increasing.

8) Broker and Intermediary Skills: Needs Analysis, Diagnostic skills, and Management relations are desired to ensure employers become more efficient co-producers of skills.

9) STEM Skills: To sustain an innovative economy and to respond

Social needs in various areas, such as energy and the environment[59]

[59] Stormer, E., Dench, S., Houston, M., & Myers, A. (2020). The future of work: Jobs and skills in 2030. UKCES.

Hernandez-Lara and Serradell-Lopez mentioned that academic management enhances entrepreneurial skills by utilizing training principles, theoretical knowledge, and practical experience, along with the integration of new technology and specialized personnel, thereby combining teaching and learning innovations. As a result, students are interested in the activity. Direct experience alters the traditional teaching role of teachers and the teaching process in the old classroom.[60]

Ferreras-Garcia, Hernandez-Lara, and Serradell-Lopez mentioned that educational institutions for entrepreneurs should be aware of the following: 1) the process of creating a business plan. Support the development of specialist training skills. It will result in students having an entrepreneurial perspective; 2) exploring appropriate analytical principles. Bring knowledge about management operations systems, and 3) promote holistic skills entrepreneurs should have—business and management skills, interpersonal skills, concepts, relationships, and a positive attitude. [61]

Entrepreneurial mindset

Schoeniger highlights that the entrepreneurial mindset is a learnable paradigm that empowers individuals, organizations, and societies to adapt and grow sustainably. We must understand that this mindset isn't an inherent trait, but something that can be cultivated. Therefore, educators and administrators need to consider policy frameworks and analyze the roles of community stakeholders to unlock the remarkable potential of ordinary people to innovate in education, adopt technological systems, and establish entrepreneurial camps. These camps aim to

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[60] Hernandez-Lara, A. B., & Serradell-Lopez, E. (2018). Do business games foster skills? A cross-cultural study from learners' views. Educational Training Journals, 60(1), 315–331.

[61] Ferreras-Garcia, R., Hernandez-Lara, A. B., & Serradell-Lopez, E. (2019). Entrepreneurial competencies in a higher education business plan course. Educational Training Journals, 61(2), 850–869.

foster self-reliant thinkers, problem-solvers, and future entrepreneurs, following these approaches:

1) Create a Culture of Innovation. As entrepreneurs, we must recognize the underlying personal and situational factors that either promote or hinder the development of entrepreneurial attitudes, behaviors, and skills. As leaders, we must stop blaming students and recognize the cause-and-effect relationships between the systems we design and maintain and the attitudes and behaviors they produce. We must look inward to examine how education systems, policies, and business legal structures.

2) Embed entrepreneurship in the curriculum. Entrepreneurship must be embedded in continuing education curricula and higher education. Effective experiential entrepreneurship curricula that emphasize the attitudes and skills needed to create social, economic, or cultural value for others must be developed. If we are to increase student engagement and improve learning outcomes, policymakers and academic leaders must prioritize the study of entrepreneurial attitudes so that all students graduate with entrepreneurial attitudes. If we are to cultivate the human capital needed to build future societies, we must rethink education as a lifelong process rather than a one-time event.

3) Train teachers. Reimagining the business landscape for the real world: Empowering teachers to think entrepreneurially from the edge to the core of how education is done. We must develop effective, scalable teacher training platforms to foster creative and entrepreneurial thinking. We must develop teacher training programs that do not require entrepreneurial experience but use a facilitation model designed to help educators integrate entrepreneurial thinking into the curriculum as an interdisciplinary framework.

4) Connect local entrepreneurs to the learning community. In every community, experienced entrepreneurs can play a vital role in the entrepreneurial learning process, not only by providing advice and sharing experiences, but also by creating a social context that fosters entrepreneurial behavior in others. Public

libraries have always been a key component in disseminating access to information for all, and they can help communities become entrepreneurial hubs. Furthermore, helping teachers and students connect with local entrepreneurial communities will go a long way in creating an effective support system for student entrepreneurial learning.

5) Embed in workforce development initiatives. As the rate of technological advancement continues to increase, all students must develop entrepreneurial attitudes and skills. Self-development as a workforce and educational institution training initiatives must consider the entrepreneurial mindset as a necessary framework for students to contribute to the goals of entrepreneurship education. School administrators must prioritize providing appropriate and up-to-date academic management and workforce development to keep up with the rapidly changing environment. They must recognize the benefits of an entrepreneurial mindset to enhance participation and flexibility in educational management, providing students with the skills that will enable them to reach their full potential.[62]

Academic Management for Enhancing Entrepreneurial Skill

Management helps create a strong link between academic principles for effective operations, resource allocation, personnel development, and the creation of an environment that fosters entrepreneurial skills. This positively impacts entrepreneurial potential. Agencies and academics have stated the following:

Weicheng mentioned that academic management for enhancing entrepreneurial skills in higher education involves developing, promoting, and supporting appropriate knowledge and skills. There is an operating system for quality educational innovations to achieve the goals of academic institutions. Produce quality personnel to help drive the economy. Integrate innovative technology for the

[62] Gary G. Schoeniger (2024). The entrepreneurial mindset advantage. Lake Book Manufacturing.

country. Therefore, 1) Educational institutions must improve students' entrepreneurial abilities by developing an integrated academic education system. Enhance human relations to strengthen networks among educational institutions, businesses, and governments involved in tertiary Entrepreneurial Education. Domestic and international, 2) Encourage students to start their businesses and increase entrepreneurial spirit, use modern technology and innovative Learning and training Study visits from specialists, 3) Creativity Support the development of new startups Have leadership, dare to think, dare to act The chapter on reason and correctness, 4) Create a center base for related student entrepreneurs, and provide support Knowledge exchange training Learning center for training in various skills of entrepreneurs in educational institutions.[63]

Kirvan and Brush highlight that a learning management system (LMS) is the software or Learning Solution used to plan, implement, and evaluate the learning process. It can be used for practical training, both online and offline, in general formats, where the LMS assists teachers. Regarding methods for producing content, broadcasting content, and having a system to help check student participation and evaluate student work, this allows teachers to integrate post-academic and technology organizing, knowledge analysis, resources, documents, and skill development efficiently, as shown in Figure 3.[64]

[63] Wei-Cheng Chien (2024). Trends in the development of entrepreneurial education for higher education students. National Academy for Educational Research, Educational Systems and Policy Research Center. https://epaper.naer.edu.tw/

[64] Paul Kirvan and Kate Brush. Learning management system (LMS). Tech Target, Inc. Accessed March 01, 2024. Available from https://www.techtarget.com/

Figure 3 New tools strategies for enterprise learning.

Source: Learning management system (LMS) https://www.techtarget.com/

Enterprise Resource Planning (ERP). Organizational management planning to enable efficient use of resources. Aiming for maximum benefit, the ERP system is the center of the organization's work and database. The ERP system is a tool that helps create more efficient use of resources and collaboration within the organization. Prevent duplicate work between departments. Reduce redundant work steps with more automated processes (Streamline Workflow). There are standards for data security, including real-time data updates with tools that help with analysis (Analytic Tools) from various angles. Look Helps executives see the overall picture of the organization clearly and make accurate decisions.[65]

[65] Office of the Permanent Secretary (OPS). Enterprise Resource Planning (ERP). Accessed March 01, 2024. Available from https://www.ops.go.th/th/content_page/item/1330-erp

Learning Experience Platform (LXP) Platform to enhance learning experiences, a learning management system that drives learning based on the 'learner,' promoting the learning experience of users. There are tools to help teachers plan their lessons. Manage training content to ensure compliance Career development and upgrading skills, recommending that students learn at their own pace and set learning goals appropriate to their ability level. To provide opportunities for students to exchange knowledge with other learners[66]

Ethnographic Futures research – EFR

Future research is a systematic study of possible future options or likely in the future for specific populations research; the aims can be seen as follows: 1) to describe the future of plausible conditions, 2) to assess the current state of knowledge against the possible future, 3) to point out possible future effects, 4) To point out unwanted precautions and 5) to help understand the basics of the change process.[67]

Textor explains that Ethnographic futures research (EFR) is a technique for future research. It studies the future and the social and cultural outlook over time. The scenario is 'Future history' developed by participants discussing the future as if it had already happened, and then looking back over the years to see how they arrived at this point.[68]

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[66] Steve Foreman. What Is A Learning Experience Platform? ELearning Industry. Accessed March 01, 2024. Available from https://elearningindustry.com/what-is-a-learning-experience-platform

[67] Robert B. Textor (1980). A handbook on ethnographic futures research (3rd ed.).Cultural and Educational Futures Research Project, School of Education and Department of Anthropology, Stanford University, Stanford, CA, p 13.

[68] Robert B. Textor (1980). The ethnographic futures research method: An application to Thailand futures. Futures, 27(4), 461–471.

Cheney explained that a study of our vision for the future in connection with the current context, culture, past, experience, estimates, forecasts, and simulations depends on the assumptions made to create change.[69]

Sauyaq and Gordon said, "Explain ethnographic futures research—EFR." EFR is a participatory research method that facilitates the analysis and expression of opinions. The three perspectives are the most optimistic, with an aggressive attitude towards the future, seeking to discover what will happen next. The most pessimistic view and the most likely view find positions that are likely to occur in the future.[70]

Techniques

Ethnographic futures research – EFR. The interviewer asks the interviewees what phenomena they expect to see in the not-too-distant future. Anticipation of society and future culture has a broad impact, as interviewees create a picture of the future in three aspects: optimistic, pessimistic, and most probable. The future study period can be divided into three periods: the first short-range forecasting 5-10 years, looking at the near future in connection with current problems; the second part is range forecasting 10-20 years is, looking at the action plan benefit this is a widespread practice change can be seen and the third-period long-range forecasting 20 years or more, where results may occur but lack Motivation because of waiting for prolonged results.[71]

[69] Gregory G. Cheney (2014). Understanding the future of native values at an Alaska native corporation [Unpublished doctoral dissertation]. Antioch University.

[70] Saugaq, H., & Gordon, J. (2021). Ethnographic future research as a method for working with Indigenous communities to develop sustainability indicators. Polar Geography, 233–254.

[71] Sithiphong, S. (2529). Ethnographic Future Research. Kasatsart Education Review, 3(2), 102.

Basic Information of Heilongjiang University of Technology

Heilongjiang University of Technology was founded in 1984 in Jixi City, Heilongjiang Province, China. It offers full-time undergraduate degrees in 28 subjects. The Ministry of Education approves it. The university offers courses in engineering, management, economics, Law, and other fields. It was formerly Jixi University. Its name was changed to Heilongjiang University of Technology in July 2023. Heilongjiang University of Technology currently occupies an area of 580,000 square meters, comprising one building of 250,000 square meters, with a total fixed asset value of 600 million yuan. The total cost of teaching, research tools, and equipment is 120 million yuan. The educational institution boasts an international-standard library with 1 million books and 1.906 million electronic books of various types. Heilongjiang University of Technology has 639 faculty members and 10285 full-time students.

The "Entrepreneurship Fundamentals" course at Heilongjiang University of Technology is a compulsory entrepreneurship course for college students. It was established in response to Premier Li Keqiang's call for "mass entrepreneurship and innovation" at the 2014 Summer Davos Forum in September. The course is scheduled for the fourth semester. The Entrepreneurship Teaching and Research Office currently has 21 teachers responsible for teaching 10,000 students in the entire school.

Entrepreneurship Fundamentals is a specialized entrepreneurship education course designed to cultivate students' entrepreneurial awareness, skills, and foundational entrepreneurial abilities. This course features seven teaching modules, each with a specific teaching theme, but they are interconnected.

Entrepreneurship education reflects modern concepts and gradually integrates into professional Education in universities. The teaching objective of "Entrepreneurship Fundamentals" is to cultivate college students' awareness, knowledge, skills, and qualities related to innovation and entrepreneurship. Through this course, students can acquire a relatively comprehensive theoretical

understanding of entrepreneurship, master basic entrepreneurial skills, and develop strong entrepreneurial qualities.

The position and role of this course in talent cultivation can be summarized in two aspects. On the one hand, it enhances individual value by exploring and leading the development direction and career of students, providing them with development motivation in their professional field, and tapping into their development potential. On the other hand, the social value of this course includes promoting the development of the national innovation and entrepreneurship system, further reforming talent training models in higher education institutions, enhancing the overall quality and level of entrepreneurs, and implementing strategies to drive employment through entrepreneurship.[72]

Related research

Fellnhofer. A study on entrepreneurship education revisited the idea that perceived entrepreneurial role models increase perceived behavioral control, and it was found that the educational curriculum should be integrated to suit contemporary society. The curriculum must be consistent with consumer behavior to have a variety suitable for Entrepreneurial Learning in the era of innovation and technology. Market demand, business competition, various teaching formats, technology, and business games are being integrated to enhance teaching.[73]

[72] Heilongjiang University of Technology, Innovation Institute and Entrepreneurial Education. (n.d.). Homepage. Retrieved March 1, 2024, from https://www.hljut.edu.cn/

[73] Katharina Fellnhofer (2017). Entrepreneurship education revisited: Perceived entrepreneurial role models increase perceived behavioral control. International Journal of Learning and Change, 9(3), 260–273.

Fiore and Sansone. Study on entrepreneurship education in a multidisciplinary environment: evidence from an entrepreneurship programme held in Turin, found that entrepreneurship education needs to develop entrepreneurial skills and intentions, and entrepreneurial activities fuel economic growth. To meet the needs of learners, entrepreneurship programs should be diverse and cross-disciplinary. The results demonstrate the importance of building teams with diverse competencies, intellectual skills, and decision-making. We also describe how design thinking can be helpful in entrepreneurship education, and how challenging entrepreneurship programs lead to collaborations with external stakeholders involved in entrepreneurship. A comprehensive and rapid qualitative analysis was conducted to demonstrate students' overall perceptions of the use of a hands-on teaching model.[74]

Galvao, Marques, and Ferreira. Study on the role of entrepreneurship education and training programmes in advancing entrepreneurial skills and new ventures. Found that entrepreneurial skills development, motivation, and empowerment should be fostered to cultivate one's own abilities and independent thinking, facilitating the creation of new businesses.[75]

Bauman and Lucy's study on enhancing entrepreneurial Education: Developing competencies for Success found that in the changing environment of entrepreneurs, Educational management must adjust processes, procedures, and educational curriculum programs to keep up with the times and connect with innovative teaching technologies. Allow students to acquire the necessary skills and

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[74] Eleonora Fiore and Giuliano Sansone (2019). Entrepreneurship Education in a Multidisciplinary Environment: Evidence from an Entrepreneurship Programme Held in Turin. MDPI Journal, 9(1), 1–28.

[75] Anderson Galvao, Carla Marques, and Joao J., Ferreira. (2020). The role of entrepreneurship education and training programmes in advancing entrepreneurial skills and new ventures. European Journal of Training and Development, 44(6-7), 595-614.

gain valuable business experience. A business perspective that is consistent with the times has emerged. To be an entrepreneur in the future, understanding marketing and analytical thinking principles is a necessary foundation that can create Motivation and foster a creative mindset in business creation, enabling logical thinking about differences.[76]

Jardim, in the study on entrepreneurial skills to be successful in the global and digital world: proposal for a frame of reference for entrepreneurial Education, It was found that entrepreneurial skills for the Success of entrepreneurs, including 1) Entrepreneurship skills, creative thinking, can solve problems Integration of thinking, 2) Creativity skills create Come up with innovations and have a new perspective on business, 3) Good communication skills clear communication, flexible speaking methods, 4) Strategic planning skills Think critically, 5) Evaluation skills for business development, 6) Change leadership skills, dare to think, dare always to develop yourself, 7) Teamwork skills and have a business network.[77]

Castro and Gomez-Zermeno, the study on Identifying Entrepreneurial Interest and Skills among University Students: The study found that online entrepreneurship courses, which use a challenging learning approach through experiences, interests, attitudes, and entrepreneurial skills related to the "Sustainable Development Goals" (SDGs), through training in social entrepreneurship and developing companies based on the knowledge gained. 1) Analytical skills: learners can analyze and compare results. 2) Integrative skills, conceptualizing comparatively, creatively, and linking aspects of study and entrepreneurship processes. 3) E-learning skills, modernity, and

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[76] Antonina Bauman and Carol Lucy (2021). Enhancing entrepreneurial education: Developing competencies for success. The International Journal of Management Education, 19(1), 3–10.

[77] Jacinto Jardim (2021). Entrepreneurial skills to be successful in the global and digital world: Proposal for a frame of reference for entrepreneurial education. MDPI Journal, 11(7), 1–13.

4) adaptability skills must be strengthened in learners, and graduates need to be able to adapt to the needs of society on a knowledge basis.[78]

Nevalainen, Seikkula-Leino, and Salomaa's study on Team Learning as a Model for Facilitating Entrepreneurial Competences in Higher Education: The Case of Proakatemia found that entrepreneurship has evolved into a holistic approach to education. Team learning helps individuals develop entrepreneurial competence through team learning and coaching. Focus on team learning. Interest in entrepreneurship education among students. Academic management by developing specific programs and courses to support entrepreneurial competence. Significant changes must be made to train business skills and entrepreneurship competencies in practice, including various business models and drafting business plans. Focus on team organizations that students own as team entrepreneurs. Team organizations and student leadership roles in training activities can develop entrepreneurial skills, analytical thinking skills, and an understanding of the social context, aligning with the rapidly changing world. Educational institutions must develop curricula, programs, and teaching methods to promote sustainable social development.[79]

Zhu et al. Study on the effect of risk prevention ability on entrepreneurial performance of Chinese college students: moderating effect of team management ability found that entrepreneurship education should integrate knowledge of risk management and team management to help students learn how to manage risk in new business performance. This has been confirmed by emphasizing the positive

[78] Portuguez Castro, M., & Gomez Zermeno, M. G. (2021). Identifying entrepreneurial interest and skills among university students. MDPI Journal, 13(13), 1–19.

[79] Nevalainen, T., Seikkuls-Leino, J., & Salomaa, M. (2021). Team learning as a model for facilitating entrepreneurial competences in higher education: The case of Proakatemia. MDPI Journal, 13(13), 1–17.

effects of risk management on entrepreneurial performance and the development of students' entrepreneurial activities.[80]

Chen, Tang, and Han, the study on Building Students' Entrepreneurial Competencies in Chinese Universities: Diverse Learning Environment, Knowledge Transfer, and Entrepreneurship Education. It was found that a diverse learning environment is an essential external factor in developing students' entrepreneurial abilities. Analytical thinking skills enable students to transfer knowledge, enhance self-efficacy, and exhibit intellectual flexibility. As for factors within students' entrepreneurial Education, the Modern curriculum connects innovative learning. Teachers have outstanding expertise in teaching through technology. It can promote students' entrepreneurial competencies.[81]

Javed Iqbal et al. Study on how curriculum delivery translates into entrepreneurial skills: The mediating role of knowledge of information and communication technology. It was found that the curriculum can develop entrepreneurial skills by utilising knowledge of Information and Communication Technology (ICT) as a medium and a teaching strategy, in an indirect relationship, across all dimensions of curriculum organisation.[82]

Nwobike et al. A study on business educators' perception on producing quality entrepreneurship education graduates in Rivers State universities found that

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[80] Zhu et al. (2022). The Effect of Risk Prevention Ability on Entrepreneurial Performance of Chinese College Students: Moderating Effect of Team Management Ability. Educational Psychology, 13(4), 1-12.

[81] Chen, H., Tang, Y., & Han, J. (2022). Building students' entrepreneurial competencies in Chinese universities: Diverse learning environment, knowledge transfer, and entrepreneurship education. MDPI Journal, 14(15), 1–17.

[82] Iqbal, J., Shah, A. A., Hussain, K., Khan, N. A., & Khan, S. A. (2022). Curriculum delivery translates into entrepreneurial skills: The mediating role of knowledge of information and communication technology. Plops One, 17(5), 1–20. https://doi.org/10.1371/journal.pone.0265880

the education sector should regularly review the academic management of entrepreneurship programs, including comprehensive management and the addition of relevant components that may not be present in the curriculum. Quality assurance principles should be implemented to ensure effective content implementation. Business educators should strive to employ practical teaching methods, such as entrepreneurial interviews, field trips, case studies, and other effective and practical methods, which will enhance students' learning skills.[83]

Rodrigues. Study on Entrepreneurship Education Pedagogical Approaches in Higher Education. It was found that entrepreneurship education involves learning to create social, cultural, or financial value in various contexts. It must cultivate job competencies and prepare students to possess the skills, knowledge, and attitudes necessary within an entrepreneurial culture for fulfilling their roles. The focus is on experiential learning. Furthermore, entrepreneurship education curricula must effectively integrate and blend real-world experiences with theory, while students share responsibility for learning from real experiences. Learning models include collaborative teaching methods, collaborative networks, problem-based learning, project-based learning, peer assessment, design thinking, creative feedback, service learning, and proactive approaches that integrate digital technologies.[84]

Gangi and Sirelkatim. Study on the best practices in entrepreneurship education: a review, conceptual model, and propositions. Found that entrepreneurship education is crucial for fostering entrepreneurial potential, innovation, and an understanding of economic growth. Entrepreneurship education programs include experiential learning, mentoring and coaching, projects, interdisciplinary approaches, collaboration with external stakeholders, fostering

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[83] Nwobike et al. (2023). Business Educators' Perception on Producing Quality Entrepreneurship Education Graduates in Rivers State Universities. International Journal of Contemporary Academic Research, 4(1), 1-11.

[84] Ana L. Rodrigues. (2023). Entrepreneurship Education Pedagogical Approaches in Higher Education. MDPI Journal, 13(9), 1–13.

entrepreneurial thinking, teaching skills and knowledge, and evaluating learning outcomes. It involves comprehensive work in designing, implementing, and assessing entrepreneurship education programs, integrating experiential learning and reflection, providing adequate support through mentoring and coaching, fostering creativity and innovation, and evaluating and measuring impact, as well as exploring the role of technology in enhancing entrepreneurship education.[85]

Liu's study on a chain mediation model of entrepreneurial teachers' experience and teaching competency, based on evidence from China, found that with the rapid development of entrepreneurial education, teachers need to improve the integration of academic theory with new aspects of the business society as a guideline for teaching staff. New teaching techniques connect relationships and training. Gain experience to develop yourself and work efficiently.[86]

Pujowati and Lesmana conducted a study on the analysis of the impact of entrepreneurship education and curriculum innovation on entrepreneurial motivation and student performance in private universities in East Java. Found that the curriculum has a significant effect on entrepreneurial motivation and student performance. Entrepreneurship education also has a positive influence on both entrepreneurial motivation and student performance. These findings underscore the importance of innovative curricula and entrepreneurship-focused education in fostering entrepreneurial attitudes. Curricula should be continuously developed to align with regional economies, with content encompassing all dimensions of real-world business. This will help students cultivate critical thinking, creativity, and problem-solving skills. Educational institutions should prioritise integrating modern,

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[85] Gangi, Y., & Sirelkatim, F. (2023). The Best Practices in Entrepreneurship Education: A review, conceptual model, and propositions. Journal of Entrepreneurship Education, *26*(4), 1-14.

[86] Liu, Y. (2024). A chain mediation model of entrepreneurial teachers' experience and teaching competency evidence from China. The International Journal of Management Education, 22(1), 34–38.

interactive, and practical teaching strategies to inspire students and foster a culture of entrepreneurship. Such education will facilitate the development of transferable skills applicable across various domains, including critical thinking, creativity, and teamwork.[87]

Ali and Ogba. A study on exploring effective strategies for cultivating entrepreneurial leadership skills in Nigerian tertiary institutions. Found that a diverse approach to developing entrepreneurial leadership emphasizes the importance of curriculum integration, systematic management, increased opportunities for experiential learning, comprehensive knowledge planning, mentoring programs, and institutional support structures. Promotes an entrepreneurial culture in all higher education institutions. Emphasizes the need for collaboration between educational institutions, industry, and the public sector to create an environment conducive to entrepreneurial leadership.[88]

Summary

Academic management for enhancing students' entrepreneurial skills refers to academic administration focused on systematic operational performance. This includes academic management that ensures quality according to international standards, fosters motivation, and adheres to clear performance standards. It also incorporates an entrepreneurial mindset and future-aligned skills, with all aspects conforming to directions, policies, project plans, and activities linked to academic principles. Within the educational institution, promoting high-quality entrepreneurial

[87] Chairunnisa, Y., Pujowati, Y., & Lesmana, T. (2025). Analysis of the impact of entrepreneurship education and curriculum innovation on entrepreneurial motivation and student performance in private universities in East Java. West Science Social and Humanities Studies, 03(01), 33-46.

[88] Ali and Ogba. (2025). **Exploring Effective Strategies for Cultivating Entrepreneurial Leadership Skills in Nigerian Tertiary Institutions. RSIS International, 4(3), 90-102.**

skills involves utilizing the knowledge of Heilongjiang University of Technology to adapt the teaching and learning of entrepreneurial courses. The focus is on implementing changes that align with government policies and prioritizing the development of innovation and technology to cultivate relevant entrepreneurial skills within the institution effectively.

Chapter 3

Research Methodology

This research is the academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. Investigating academic management for enhancing student's entrepreneurial skills in Heilongjiang University of Technology. This EFR: Ethnographic Futures Research is the methodology for collecting the data. It consists of research procedures and research methodologies. The details are as follows to gain insights.

Moreover, be realistic in brainstorming opinions and suggestions, including the suitability and possibility of the future, whether it will happen or not. Moreover, it analyzed the entrepreneurial Skills of students. The research procedures are as follows:

Research Procedure

This study aims to investigate academic management's role in enhancing students' entrepreneurial skills in Heilongjiang University of Technology. The specific research stages are as follows.

Stage 1: Preparatory, where the researcher reviewed and analyzed related literature on academic management for enhancing students' entrepreneurial skills in Chinese colleges from textbooks, research, concepts, theories, and articles

Stage 2: Process where the researcher employed the Ethnographic Futures Research (EFR) technique by interviewing 21 experts to elicit their perceptions and preferences among possible alternative concepts for academic management for enhancing students' entrepreneurial skills in Chinese colleges. During this stage, the researcher contacted all 21 experts and prepared the unstructured interview and structured interview questions to ensure adequate coverage of all broad subject areas, but restricted the researcher's role as a non-directive stimulator and careful

scribe. The interview is open-ended, and the questions are non-directive, non-judgmental, and non-manipulative in content and style.

The procedures for the research above are shown in the following diagram.

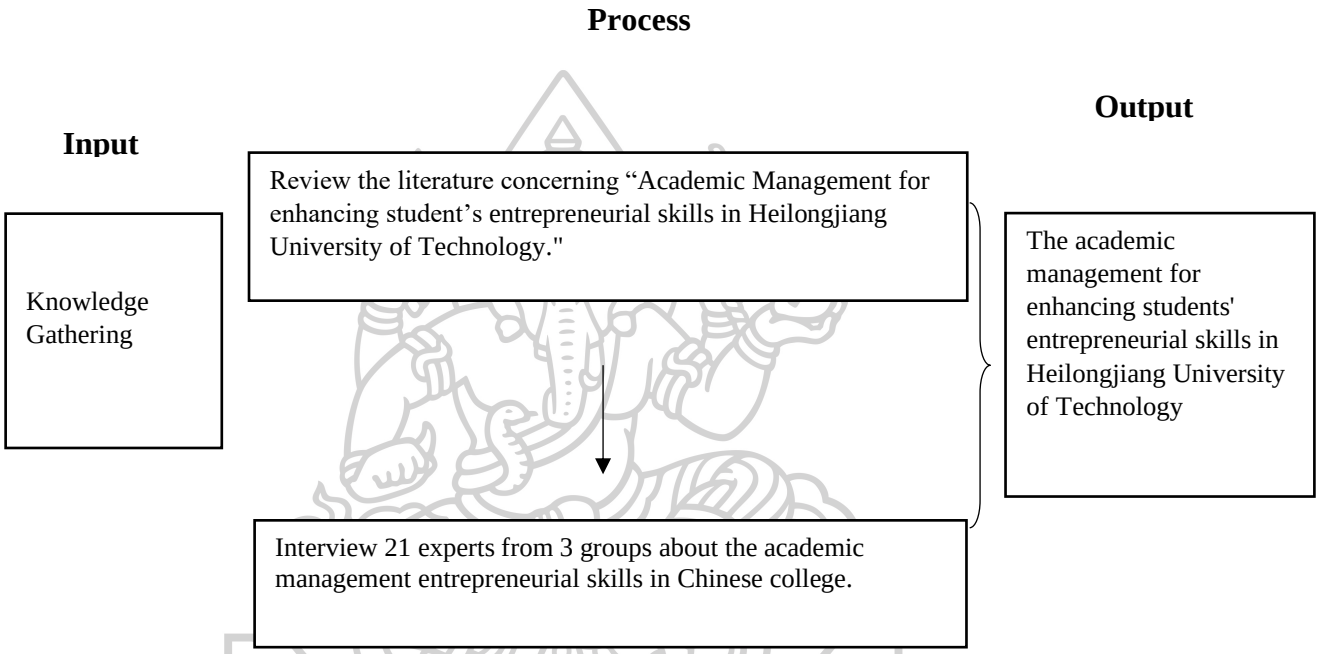

Figure 4 Research Procedure

Step 1: Input - Knowledge Gathering

Review the literature concerning "Academic Management for enhancing Student's entrepreneurial skills in Heilongjiang University of Technology.

Step 2: Process - Data Collection

Interview 21 experts from 3 groups about the academic management entrepreneurial skills in Chinese college.

Step 3: Output - Results and Conclusion

Analyzing and synthesizing the gathered data to conclusions about the academic management for enhancing student's entrepreneurial

skills in Heilongjiang University of Technology.

Stage 3: Research report. After obtaining the data, the researcher concluded it, analyzed it and developed a set of common scenarios to identify the alternative concept of academic management for enhancing students' entrepreneurial skills in Chinese colleges. The research then submitted the final report in partial fulfillment of the requirements for the Doctor of Philosophy in Educational Administration from Silpakorn University.

Research Methodology

Based on the academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology as the research objective, in earnest summary based on existing theoretical results. According to the text, according to the EFR method, 21 experts were selected and divided into three groups. The researcher interviewed one-on-one to explore their expectations of academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology.

Jury of experts

Participants in this study selected 21 experts, the academic management entrepreneurial skills experts from 3 groups: 1) 7 senior executives (Faculty Deans); 2) 7 teachers that teach entrepreneur course; and 3) 7 CEO of the company.

This study conducted one-on-one interviews with them with the following qualifications using EFR:

1) 7 senior executives (Faculty Deans) with the following qualifications:

(1) Over ten years of experience managing students' entrepreneurial skills.

(2) Have completed at least a bachelor's or master's degree.

(3) Participate in academic management to develop students' entrepreneurial skills.

2) 7 teachers that teach entrepreneur course have the following expertise and qualifications:

(1) Have experience in teaching the course on entrepreneurial skills to students for

at least five years

(2) Have completed at least a bachelor's or master's degree

(3) Have participated in academic management to develop students' entrepreneurial skills

3) 7 CEO of the company and have the following expertise and qualifications:

(1) Have at least ten years of experience in managing entrepreneurial businesses

(2) have at least a bachelor's or master's degree

(3) Have participated in the management and development of entrepreneurial businesses

Research instrument

The instrument used in this study was expert interview.

The expert interview, as a method of qualitative empirical research designed to explore expert knowledge, has undergone considerable development since the early 1990s. A number of publications have been released to fill a gap in the methods literature, which has greatly benefited many disciplines and fields of research in the social sciences. It can be assumed that, through increased reflection on methodical issues, research into experts' knowledge has become more professional and of higher quality.[89]

[89] Meuser M. & Nagel U. (2009). "**The Expert Interview and Changes in Knowledge Production**." Research Gate, in the book Interviewing Experts. 17–42. DOI: 10.1057/9780230244276_2.

Data collection

21 Ethnographic Futures Research (EFR) interviews were conducted in this study, and they all started with a specific structure. Once the interview begins, it offers a fair amount of flexibility and openness. Each interview aims to discover management entrepreneurial skills from academic management experts to enhance students' entrepreneurial skills at Heilongjiang University of Technology. Each interview was recorded, transcribed, analyzed, and summarized.

Data analysis

The researcher summarized the data from interviews with 21 experts from 3 groups. Then, the researcher constructed various dimensions related to academic management to enhance students' entrepreneurial skills in Heilongjiang University of Technology. According to the data obtained from the expert interviews, the researcher listed the corresponding items according to the contents of each dimension.

Summary

This research aimed to investigate the academic management for enhancing students' entrepreneurial skills at Heilongjiang University of Technology. This research used the Ethnographic Futures Research (EFR) technique. The research was divided into three steps: Step 1: Preparation of the research project. It is the process of project preparation according to the research methodology by studying academic management to enhance students' entrepreneurial skills at Heilongjiang University of Technology from documents, textbooks, theories, and literature related to research, including interviews with experts on entrepreneurial skills. Use the results from the study to prepare a research proposal. Step 2: Process where the researcher employed the Ethnographic Futures Research (EFR) technique by interviewing 21 experts to elicit their perceptions and preferences among possible alternative concepts for academic management for enhancing students' entrepreneurial skills at Heilongjiang University of Technology. During this stage, the researcher contacted all 21 experts and prepared the loosely structured interview questions to ensure adequate coverage of all broad subject areas but restrict the researcher's role as a non-directive stimulator and careful scribe. The interview is open-ended, and the questions are non-directive, non-judgmental, and non-manipulative in content and style. Step 3: Reporting of research findings. The researcher collected the results from the data analysis. Summarize research findings, discussion, and recommendations.

Chapter 4

Data Analysis and Interpretation

The title of this research is Academic Management for Enhancing Students' Entrepreneurial Skills in Heilongjiang University of Technology. The objective of this study was to investigate the academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. Using research techniques EFR (Ethnographic Futures Research), analysis of data from expert interviews with content analysis and their interpretations in 2 parts.

Part 1: The basic information of experts.

Part 2: The analysis of Academic Management for Enhancing Students' Entrepreneurial Skills.

The analysis of research findings

The researcher used EFR to investigate Academic Management for Enhancing Students' Entrepreneurial Skills in Heilongjiang University of Technology. 21 experts groups were interviewed using unstructured interviews, and the results are as follows:

Part 1: The basic information of experts.

From interviews with 21 experts from 3 groups: 1) 7 senior executives (Faculty Deans); 2) 7 teachers of this course; 3) 7 CEO of the company. As shown in Table 1.

Table 1 Overview of the Analysis Results for General Respondent Demographics

No	Data Items	Total	
		Count	Percent (%)
1.	Gender		
	Male	13	61.90
	Female	8	38.10
	Total	21	100.00
2.	Age		
	31-40 year's old	10	47.62

No	Data Items	Total	
		Count	Percent (%)
	41-50 year's old	8	38.10
	51-60 year's old	3	14.28
	Total	21	100.00
3	Education Level		
	Doctorate Degree	5	23.81
	Master's Degree	15	71.43
	Bachelor's Degree	1	4.76
	Total	21	100.00
4	Work Experience		
	Over ten years	10	47.62
	5-10 years	11	52.38
	Total	21	100.00

Information gender which divided in 13 males, accounting for 61.90% and 8 female, accounting for 38.10%. Age most of them were at 31-40 year's old 10 persons, accounting for 47.62%, the age of 41-50 year's old 8 persons, accounting for 38.10%, and the age of 51-60 year's old 3 persons, accounting for 14.28%. The education level was doctoral degree 5 persons, accounting for 23.81%, master degree 15 persons, accounting for 71.43%, and bachelor degree 1 persons, accounting for 4.76%. Work experience 5-10 years or more 11 persons, accounting for 52.38 %, and over ten year's 10 person, accounting for 47.62 %.

Part 2: The analysis of Academic Management for Enhancing Students' Entrepreneurial Skills.

The 21 experts for expert Interviews on Academic Management for Enhancing Students' Entrepreneurial Skills at Heilongjiang University of Technology., which related from those who were expert in experienced in academic management for student entrepreneurial skill development of those experts as follows:

Expert 1st: He believes that academic promotion that aligns with global societal changes is crucial. We should systematically support and enhance students' academic management, including activities, and dynamically adjust professional curricula to meet their needs. It's important to strengthen the development of core curricula and ensure that knowledge remains current. We also need to improve assessment mechanisms, incorporating diverse evaluation methods that blend process-based and summative assessments, with an emphasis on practical competence. We should foster innovative thinking and create knowledge repositories to enable access to diverse information. To provide precise assistance to students facing academic difficulties, we need a real-time academic progress tracking system. Furthermore, strict instructional oversight, enhanced classroom management, and robust academic quality monitoring are essential to comprehensively improve the efficiency of academic management.

Expert 2nd: She believes that a multi-faceted approach is key to effective academic management. First, academic department management is crucial. We need to develop plans that are not only suitable for societal changes but also align with business market demands. This includes implementing comprehensive evaluation systems and clear reward and punishment standards. Simultaneously, we must strengthen a rigorous management system overall. Second, improving management mechanisms is vital. We should leverage the collaborative roles of academic advisors, homeroom teachers, and mentors. This collaborative effort will help establish a truly integrated management system. Third, it's essential to deepen the

interaction between teachers and students. We should actively listen to students' needs through various channels. Examples include a dean's suggestion box and innovative educational applications that allow students to research new information and consult on academic issues. This approach will help reduce problems and facilitate timely solutions. And finally, promoting cultural education is important. This involves creating a positive and progressive academic atmosphere within the college. By doing so, we can collectively improve management efficiency and the overall quality of education.

Expert 3rd: He believes that developing students' entrepreneurial capabilities primarily depends on the foundation of their professional curriculum. Educational institutions must address the dynamics of the global business market to produce graduates with the skills and quality to genuinely pursue careers and start businesses. It's crucial to support modern academic knowledge, new concepts, and diverse strategic thinking that can be used to improve and develop students' entrepreneurial abilities. Since entrepreneurship is largely an intangible concept, starting a business requires inspiration, a strong business perspective, and diverse knowledge. Therefore, if students wish to start a business, I believe it's a shortcut to anchor their endeavors within their major fields of study. Thus, he recommends enhancing the proficiency of instructors, ensuring they possess modern, diverse skills and knowledge aligned with the global business market. We should also promote and improve students' professional knowledge, train their skills, and focus on building practical, hands-on experience. Integrating technology into academic management to align with current trends is also vital. The ultimate goal is to equip students to become successful entrepreneurs who achieve their business objectives.

Expert 4th: She believes that improving institutional mechanisms in education is essential. This includes establishing clear rules, implementing reward and punishment systems, and developing emergency response plans for unforeseen events. Additionally, we need to strengthen institutional boundaries and think

creatively when planning academic management, aiming for future-oriented academic goals.

Expert 5th: He believes we should implement a structured system, which includes regular progress tracking, personalized feedback, and setting clear performance standards to help students achieve their learning goals. Promoting strategic thinking skills, time management, and financial investment literacy, along with providing targeted support for struggling learners, can significantly improve outcomes. Additionally, fostering open communication among teachers, students, and parents will help align expectations. While discipline is important, a balanced approach that combines motivation, resources, and mentorship—rather than strictness alone—often yields the best long-term results. The ultimate goal is to cultivate self-discipline and a love for learning. Ultimately, curricula must always be up-to-date and adaptable to changes, aiming to develop individuals who are self-disciplined and have a lifelong passion for learning.

Expert 6th: He believes that curriculum reform and the integration of innovation and entrepreneurial theory are paramount. It's essential to support hands-on training in these areas by designing curricula tailored for entrepreneurial business practices. This involves interconnecting and integrating various disciplines such as business plan writing principles, roadshow training, activity-based projects, and operational cost calculation, as well as marketing and public relations. This approach ensures students learn through practical application during their studies. Furthermore, strengthening staff structures and mentorship is crucial. This includes engaging successful entrepreneurs as part-time faculty members and inviting corporate executives to serve as advisors. Establishing dual-teacher teams can provide students with collaborative guidance. Regarding improving learning assessment, student learning evaluation still requires innovation. This can be achieved by adopting process-based assessment models that consider classroom performance quality, homework completion, and other factors. This breaks away

from the traditional "single exam determines the grade" model. Finally, implementing a real-time academic early warning mechanism utilizing information technology to track student academic progress is crucial. Providing timely warnings and assistance to students experiencing declining grades, along with frequent mutual support from advisors and classmates, can comprehensively help students catch up. This will enhance students' academic levels and overall comprehensive development.

Expert 7th: He believes that oversight of teaching and student attendance is crucial. Classroom Instruction Oversight. Firstly, this involves rigorously monitoring classroom instruction and student attendance, consistently checking the quality of teaching, and immediately reporting any issues identified in the classroom. Enhancing Assessment Processes. Secondly, it's about optimizing classroom assessment processes, ensuring that evaluation procedures are standardized, and guaranteeing fair and equitable assessments. Tracking Student Learning Trends. Thirdly, tracking student learning trends is important. This means understanding students' learning difficulties through discussions and questionnaires and prompting relevant departments to provide targeted assistance. Giving Feedback and Promoting Improvement. Fourthly, it involves giving feedback and urging departments to promptly propose corrective suggestions to the college for any identified weaknesses, thereby promoting continuous improvement in the quality and efficiency of learning management.

Expert 8th: She believes that curriculum improvement is crucial. We should prioritize enhancing curricula to comprehensively include more entrepreneurship courses and practical projects. Promoting entrepreneurial activities is also key. Faculty members should be supported in guiding students through these activities and providing professional advice. We need to create platforms and resources to support our efforts. Universities can establish incubation centres to provide students with practical opportunities and resources. Additionally, strengthening collaboration

with various organisations can help students better understand market demands and develop their entrepreneurial capabilities.

Expert 9th: He believes that student academic management is undergoing a profound transformation from traditional oversight to modern governance. In an era of quantitative growth in the new generation of students, advisors need to transcend the singular role of a manager, establish a new academic support system, and achieve precise educational goals through dynamic adjustments. Modern educational management transformation necessitates the establishment of multi-party support mechanisms. Unidirectional management thinking can no longer easily achieve results, nor can it foster a truly conversational teacher-student relationship. By forming interdisciplinary academic assistance groups and establishing a progressive oversight system, unidirectional supervision can be shifted to collaborative management, involving multiple stakeholders.

Individualized learning projects are not merely an issue of learning style. By establishing a database system for problematic individuals, designing clear hierarchical guidance plans, matching academic advisors, student-focused research projects, and connecting corporate resources for practical student engagement, education can become more precise through tailored student matching. The process of reviewing exam evaluations is about collecting coordinates of current static status data. A three-dimensional outcome assessment is akin to a physical detection system, encompassing classroom learning performance, learning process tracking, and students' thought trajectories. Growth recording is not just a process of waiting for flowers to bloom but also a cultivation of wisdom. Growth recording and profile management can capture dynamic student data and facilitate the presentation of educational resources. As architects of the educational ecosystem, advisors need to integrate growth codes and build a growth ladder. From an open perspective, they should utilize more professional tools to analyze educational rules and student

personalities, paving the way for future transformations while respecting the balance between management technology and returning to the essence of education.

Expert 10th: She believes that integrating entrepreneurship-related curricula is crucial. Curriculum Integration first, educational institutions should integrate entrepreneurship-related courses into their teaching curricula. These courses should cover a wide range of topics, including business planning, market analysis, finance, and financial management. By learning both theory and practical skills, students can build a strong foundation for future entrepreneurial endeavor's practical experience. Second, practical experience is equally important. Institutions should organize diverse entrepreneurship competitions and internship programs to allow students to put their ideas into practice. These competitions and internships provide students with opportunities to work in real business environments, understand market demands, and develop problem-solving skills. Experienced mentorship regarding personnel with experience, successful entrepreneurs can be invited to share their experiences, offer guidance, and help students avoid common pitfalls. Establishing mentorship groups for one-on-one or group consulting can help students gain valuable insights and be inspired to persevere even when facing challenges. Campus entrepreneurial ecosystem for creating an entrepreneurial ecosystem on campus, establishing incubators and innovation centres is vital. Here, students can access resources, collaborate with like-minded individuals, and receive support for their startup ideas. Fostering an entrepreneurial mindset finally, promoting an entrepreneurial mindset is key. Students should be encouraged to be innovative, take calculated risks, and view failure as a learning opportunity. This positive attitude will help students pursue their entrepreneurial dreams with confidence and determination.

Expert 11th: He believes universities should prioritise practical entrepreneurship curricula. Integrating practical entrepreneurship first, universities should integrate practical entrepreneurship courses into their academic programs,

offering hands-on experiences like startup simulations. This will provide students with real-world knowledge. Qualified mentorship and campus culture regarding personnel, academically qualified advisors should offer tailored guidance, helping students refine business ideas based on their majors. Additionally, fostering an entrepreneurial culture on campus through competitions and workshops will stimulate innovation. Overall, these measures will better prepare students for the business world.

Expert 12th: He believes a structured approach to entrepreneurial education is essential, starting early in the academic journey. For first-year students (freshmen), a mandatory course on innovative thinking and business logic should be implemented. This course would emphasise integrating regional economic case studies, such as the development of the agricultural industry in Heilongjiang or the ice and snow tourism economy. Moving to the skill training layer, second-year students (sophomores) should be offered interdisciplinary, project-based, integrated courses. An example is the design of digital economy devices, which focuses on practical applications. The practical incubation layer is designed for third-year students and beyond. These students would connect with businesses and engage with the school of economics and management to undertake virtual entrepreneurship simulation training. Furthermore, Entrepreneurship Incubation Park activities should be organised. Crucially, a credit transfer system should be adopted to encourage practical entrepreneurship. This would allow students to count tangible entrepreneurial achievements (e.g., establishing a reputable company and successfully raising capital) toward their academic credits, instead of being required to complete traditional coursework.

Expert 13th: She believes that academic management at Heilongjiang University needs significant strengthening and stricter oversight. This involves establishing clear operational systems and fostering self-discipline among students. Many students struggle with motivation, so it's essential to promote motivational strategies and integrate psychological management principles into the curriculum and

time management guidance. Improving the efficiency of educational resource allocation and implementing early warning systems for individual students (e.g., for low grades or insufficient credits) are also crucial. Mentorship and advisory systems, whether one-on-one or group-based, drawing on alumni who have become entrepreneurs, can provide invaluable direct experience and build a knowledge network for current students. This also helps promote professional skills vital for entrepreneurs, including management, marketing and public relations, business accounting, resource management, innovative technology, and language proficiency. Furthermore, strengthening internship evaluations and fostering collaboration between industry and academia can effectively bridge the gap between student capabilities and job market demands.

Expert 14th: She believes that student learning management should be strengthened in three key areas: first, deep understanding of student learning one area is to gain a deep understanding of students' daily learning situations. This involves comprehending classroom dynamics, class meetings, and similar activities, and creating a roster of students facing academic difficulties. The second area is to create a positive learning atmosphere. This means organizing learning experience sharing sessions, holding academic competitions, and conducting other activities to stimulate interest in learning. The third area involves strengthening communication with teachers. This includes providing timely feedback on students' classroom performance and collaborating to establish support measures. Furthermore, regular communication with parents is essential to build home-school collaboration and help students grow and succeed.

Expert 15th: He believes that enhancing students' entrepreneurial management skills needs to align closely with market demands and practical applications. We should establish a dual-track training system that combines 'theory and practice,' encompassing not only foundational knowledge such as business logic and financial analysis but also enabling students to gain experience in product

refinement and customer engagement through real-world project incubation. A dynamic evaluation mechanism should be created to promptly adjust training directions based on market feedback. Concurrently, industry mentors should be introduced to share case studies and valuable resources, helping students rapidly develop core entrepreneurial competencies such as risk forecasting and team management, thereby achieving a precise connection between skills and the market.

Expert 16th: He believes that managing students' entrepreneurial skills needs to focus on practical application and adaptability. On the one hand, it's essential to establish a dynamic competency assessment system that accurately identifies the core entrepreneurial skills required by students, such as business planning, resource integration, and risk management, based on market demands and industry trends. On the other hand, practical skills will be enhanced through simulated projects and in-company training, while senior entrepreneurs will be brought in as mentors to provide situational guidance. Furthermore, emphasis must be placed on fostering psychological resilience, helping students develop and grow through trial and error, and elevating the deployment and application of entrepreneurial skills.

Expert 17th: He believes that enhancing students' entrepreneurial management skills should focus on integrating innovation and practical application. By utilizing digital tools to create a virtual entrepreneurial platform, students can improve their operational skills through simulated business competitions, joint ventures, and other real-world scenarios. We aim to build an open community that encourages students to form interdisciplinary teams, share resources, and cultivate teamwork and communication skills. Incorporating cutting-edge industry trends, we offer new courses such as livestream e-commerce and metaverse marketing, and invite young entrepreneurs to share their experiences to help students’ quickly master practical entrepreneurial skills

Expert 18th: She believes that enhancing students' entrepreneurial management skills requires breaking free from traditional models, embracing creative thinking, and leveraging modern technology to develop online skill-learning platforms. We can improve learning efficiency through short video courses and live Q&A sessions that train critical thinking and discussion skills. By introducing agile management concepts, utilizing small entrepreneurial projects as a driving force, students can rapidly develop skills such as market analysis and resource integration through rapid iterations. Concurrently, building a collaborative community across institutions and disciplines will encourage students to foster innovative inspiration, igniting the entrepreneurial potential of young people in a way that resonates more closely with them

Expert 19th: She believes that enhancing students' entrepreneurial management skills should be based on practical application and systematic training. Modular courses should be established, covering core competencies such as business planning, market operations, public relations principles, business accounting, and teamwork. Real-world business case study simulations should be implemented, and a dynamic evaluation mechanism created to assess skill mastery through project presentations and outcome reviews. Promoting deep collaboration between schools and enterprises would allow students to participate in actual corporate projects, enhancing their ability to integrate resources and manage risks in real situations. Additionally, entrepreneurial mentors should be provided to guide them throughout the process, helping students transform their skills into entrepreneurial success.

Expert 20th: He believes that enhancing students' entrepreneurial management skills should be guided by market demands and involve the creation of a systematic training program. On one hand, we focus on core skills such as business planning, resource integration, and team management, developing modular courses and practical projects to allow students to gain experience through simulated

business competitions. On the other hand, establishing a dynamic evaluation mechanism and optimizing training curricula based on industry trends can help students develop practical problem-solving abilities through one-on-one mentorship from corporate advisors and cross-institutional project collaboration. This will foster a deep connection between entrepreneurial skills and market needs.

Expert 21st: He believes that enhancing entrepreneurial management skills should be based on 'demand-driven and practice-driven' principles, establishing a hierarchical training system that covers the entire process from building business acumen to project implementation. We would strengthen foundations by analyzing classic case studies and simulating business negotiations. Real corporate projects would be introduced to allow students to practice their abilities in resource integration and risk management during product development and marketing. Furthermore, a multi-dimensional evaluation mechanism would be created, involving industry experts and investors in the assessment to provide accurate feedback on skill weaknesses and help students rapidly grow into entrepreneurs with both innovative ideas and practical capabilities.

From those information on academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. The researcher can summary in the table 2.

Table 2 Summary of results from analysis by interviewing an expert in academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology.

No	Data	Expert 1st	Expert 2nd	Expert 3rd	Expert 4th	Expert 5th	Expert 6th	Expert 7th	Expert 8th	Expert 9th	Expert 10th	Expert 11th	Expert 12th	Expert 13th	Expert 14th	Expert 15th	Expert 16th	Expert 17th	Expert 18th	Expert 19th	Expert 20th	Expert 21st
1	Systematize student academic management support.	✓				✓					✓			✓								
2	Establish a continuous review cycle for professional curricula to ensure market relevance.	✓								✓	✓											
3	Define the core competency framework to develop the core curriculum.	✓								✓	✓											
4	Enhance assessment effectiveness using diverse tools.	✓						✓		✓												✓
5	Structure an accessible digital knowledge repository to support learning and research.	✓									✓											
6	Implement real-time student progress tracking.	✓					✓	✓														
7	Develop a rigorous and transparent teaching quality assurance system.	✓												✓	✓							
8	Establish a clear departmental governance structure, defining roles and responsibilities.		✓																			
9	Regularly evaluate the organization's core management mechanisms.		✓																			✓
10	Encourage faculty to use Active Learning and increase out-of-class communication.		✓																			

Table 2: Summary of results from analysis by interviewing an expert in academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. (Continued)

No	Data	Expert 1st	Expert 2nd	Expert 3rd	Expert 4th	Expert 5th	Expert 6th	Expert 7th	Expert 8th	Expert 9th	Expert 10th	Expert 11th	Expert 12th	Expert 13th	Expert 14th	Expert 15th	Expert 16th	Expert 17th	Expert 18th	Expert 19th	Expert 20th	Expert 21st
11	Integrate cultural diversity into teaching and extracurricular activities.		✓									✓										
12	Revise professional curricula by benchmarking international business standards.			✓	✓				✓		✓		✓									
13	Continuously promote modern knowledge and concepts in teaching and research.			✓					✓													
14	Strategize entrepreneurship incubation, grounding ventures in students' core field of study.			✓																		
15	Drive faculty development via workshops on marketing skills and modern global business.			✓												✓						
16	Define a hands-on, project-based learning approach for business marketing skills.			✓												✓						
17	Drive integrated technological thinking skills.			✓																		✓
18	Promote strategic skills programs (e.g., scenario planning) to handle unforeseen events.				✓	✓								✓								
19	Cultivate a forward-thinking culture through forums and futures research.				✓									✓								

Table 2: Summary of results from analysis by interviewing an expert in academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. (Continued)

No	Data	Expert 1st	Expert 2nd	Expert 3rd	Expert 4th	Expert 5th	Expert 6th	Expert 7th	Expert 8th	Expert 9th	Expert 10th	Expert 11th	Expert 12th	Expert 13th	Expert 14th	Expert 15th	Expert 16th	Expert 17th	Expert 18th	Expert 19th	Expert 20th	Expert 21st
20	Reform the curriculum by integrating innovation theory with global business market analysis.						✓		✓													✓
21	Establish an "Entrepreneurs-in-Residence" (EIR) program for real-entrepreneur consultation.						✓		✓	✓	✓	✓				✓		✓		✓	✓	✓
22	Apply modern educational management to form interdisciplinary academic support groups.									✓										✓		✓
23	Design a practical entrepreneurship curriculum focused on real-world experience.											✓								✓		✓
24	Design a structured entrepreneurship pathway for continuous skill development from foundational to advanced.												✓									
25	Integrate regional economic case studies into courses for real-world business analysis.												✓									
26	Establish a clear system to evaluate and transfer credits from demonstrable external entrepreneurial achievements.												✓									

Table 2: Summary of results from analysis by interviewing an expert in academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. (Continued)

No	Data	Expert 1st	Expert 2nd	Expert 3rd	Expert 4th	Expert 5th	Expert 6th	Expert 7th	Expert 8th	Expert 9th	Expert 10th	Expert 11th	Expert 12th	Expert 13th	Expert 14th	Expert 15th	Expert 16th	Expert 17th	Expert 18th	Expert 19th	Expert 20th	Expert 21st
27	Promote critical thinking by training faculty in inquiry-based learning (IBL) and Socratic methods.																✓			✓		
28	Integrate mandatory practical skills (e.g., simulations, OJT) into the curriculum, linked to measurable learning outcomes.																✓			✓		✓
29	Implement a robust assessment system (e.g., competency-based rubrics) to identify, track, and validate core entrepreneurial skills at key milestones.																	✓				
30	Mandate integrating modern innovation frameworks into core courses, focusing on practical application and commercialization.																	✓				
31	Implement and resource a dedicated virtual platform to develop and refine student operational skills.																	✓	✓			
32	Establish a rapid curriculum development (RCD) process to launch modern courses that meet industry and market demands.																	✓				

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able 2: Summary of results from analysis by interviewing an expert in academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. (Continued)

No	Data	Expert 1st	Expert 2nd	Expert 3rd	Expert 4th	Expert 5th	Expert 6th	Expert 7th	Expert 8th	Expert 9th	Expert 10th	Expert 11th	Expert 12th	Expert 13th	Expert 14th	Expert 15th	Expert 16th	Expert 17th	Expert 18th	Expert 19th	Expert 20th	Expert 21st
33	Foster teamwork and quality communication skills via complex group assignments and process-focused feedback.																	✓				
34	Drive an innovation culture by fostering an environment for new ideas and inspiration.																		✓			
35	Restructure the learning process by applying Agile principles (e.g., Sprints, Stand-ups, Retrospectives).																		✓			
36	Design flexible modular curricula, linking each module (e.g., business planning, marketing) to practical projects.																			✓		
37	Define the learner development strategy, prioritizing core skills in business planning and resource integration.																				✓	
38	Integrate risk management knowledge as mandatory content in strategy and finance modules.																					✓

The researcher synthesized data from unstructured interviews with 21 experts and categorized the resulting variables using the POLC management process framework (Planning, Organizing, Leading, and Controlling) by Robbins and Colter. The results of this synthesis, classified by these four dimensions, are presented as follows:

Table 3 The results Variable academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology

No	Variables studied
Planning	
1	Define the core competency framework to develop the core curriculum
2	Revise professional curricula by benchmarking international business standards
3	Strategize entrepreneurship incubation, grounding ventures in students' core field of study
4	Define a hands-on, project-based learning approach for business marketing skills
5	Reform the curriculum by integrating innovation theory with global business market analysis
6	Design a practical entrepreneurship curriculum focused on real-world experience
7	Design a structured entrepreneurship pathway for continuous skill development from foundational to advanced
8	Integrate regional economic case studies into courses for real-world business analysis
9	Integrate mandatory practical skills (e.g., simulations, OJT) into the curriculum, linked to measurable learning outcomes
10	Mandate integrating modern innovation frameworks into core courses, focusing on practical application and commercialization
11	Design flexible modular curricula, linking each module (e.g., business planning, marketing) to practical projects
12	Define the learner development strategy, prioritizing core skills in business planning and resource integration
13	Integrate risk management knowledge as mandatory content in strategy and finance modules

Table 3: The results Variable academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology (Continued)

No	Variables studied
Organizing	
1	Systematize student academic management support
2	Structure an accessible digital knowledge repository to support learning and research
3	Establish a clear departmental governance structure, defining roles and responsibilities
4	Establish an "Entrepreneurs-in-Residence" (EIR) program for real-entrepreneur consultation
5	Apply modern educational management to form interdisciplinary academic support groups
6	Establish a clear system to evaluate and transfer credits from demonstrable external entrepreneurial achievements
7	Implement and resource a dedicated virtual platform to develop and refine student operational skills
8	Establish a rapid curriculum development (RCD) process to launch modern courses that meet industry and market demands
9	Restructure the learning process by applying Agile principles (e.g., Sprints, Stand-ups, Retrospectives)

Table 3: The results Variable academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology (Continued)

No	Variables studied
Leading	
1	Encourage faculty to use Active Learning and increase out-of-class communication
2	Integrate cultural diversity into teaching and extracurricular activities
3	Continuously promote modern knowledge and concepts in teaching and research
4	Drive faculty development via workshops on marketing skills and modern global business
5	Drive integrated technological thinking skills
6	Promote strategic skills programs (e.g., scenario planning) to handle unforeseen events
7	Cultivate a forward-thinking culture through forums and futures research
8	Promote critical thinking by training faculty in inquiry-based learning (IBL) and Socratic methods
Leading (Continued)	
9	Foster teamwork and quality communication skills via complex group assignments and process-focused feedback
10	Drive an innovation culture by fostering an environment for new ideas and inspiration
Controlling	
1	Establish a continuous review cycle for professional curricula to ensure market relevance
2	Enhance assessment effectiveness using diverse tools
3	Implement real-time student progress tracking
4	Develop a rigorous and transparent teaching quality assurance system
5	Regularly evaluate the organization's core management mechanisms
6	Implement a robust assessment system (e.g., competency-based rubrics) to identify, track, and validate core entrepreneurial skills at key milestones

From Table 3 it can be concluded that the synthesis of variables according to the POLC process with academic management to enhance entrepreneurial skills of students at Heilongjiang University of Technology, from the summary of expert interviews, found that 1) Planning composed of 13 variables as follows: 1.1 Define the core competency framework to develop the core curriculum 1.2 Revise professional curricula by benchmarking international business standards 1.3 Strategize entrepreneurship incubation, grounding ventures in students' core field of study 1.4 Define a hands-on, project-based learning approach for business marketing skills 1.5 Reform the curriculum by integrating innovation theory with global business market analysis 1.6 Design a practical entrepreneurship curriculum focused on real-world experience 1.7 Design a structured entrepreneurship pathway for continuous skill development from foundational to advanced 1.8 Integrate regional economic case studies into courses for real-world business analysis 1.9 Integrate mandatory practical skills (e.g., simulations, OJT) into the curriculum, linked to measurable learning outcomes 1.10 Mandate integrating modern innovation frameworks into core courses, focusing on practical application and commercialization 1.11 Design flexible modular curricula, linking each module (e.g., business planning, marketing) to practical projects 1.12 Define the learner development strategy, prioritizing core skills in business planning and resource integration 1.13 Integrate risk management knowledge as mandatory content in strategy and finance modules, 2) Organizing composed of 9 variables as follows: 2.1 Systematize student academic management support 2.2 Structure an accessible digital knowledge repository to support learning and research 2.3 Establish a clear departmental governance structure, defining roles and responsibilities 2.4 Establish an "Entrepreneurs-in-Residence" (EIR) program for real-entrepreneur consultation 2.5 Apply modern educational management to form interdisciplinary academic support groups 2.6 Establish a clear system to evaluate and transfer credits from demonstrable external entrepreneurial achievements 2.7 Implement and resource a dedicated virtual platform to develop and refine student operational skills 2.8 Establish a rapid curriculum development (RCD) process to launch modern courses that meet industry and market demands 2.9 Restructure the learning process by applying Agile principles (e.g., Sprints, Stand-ups, Retrospectives),

3) Leading composed of 10 variables as follows: 3.1 Encourage faculty to use Active Learning and increase out-of-class communication 3.2 Integrate cultural diversity into teaching and extracurricular activities 3.3 Continuously promote modern knowledge and concepts in teaching and research 3.4 Drive faculty development via workshops on marketing skills and modern global business 3.5 Drive integrated technological thinking skills 3.6 Promote strategic skills programs (e.g., scenario planning) to handle unforeseen events 3.7 Cultivate a forward-thinking culture through forums and futures research 3.8 Promote critical thinking by training faculty in inquiry-based learning (IBL) and Socratic methods 3.9 Foster teamwork and quality communication skills via complex group assignments and process-focused feedback 3.10 Drive an innovation culture by fostering an environment for new ideas and inspiration 4) Controlling composed of 6 variables as follows: 4.1 Establish a continuous review cycle for professional curricula to ensure market relevance 4.2 Enhance assessment effectiveness using diverse tools 4.3 Implement real-time student progress tracking 4.4 Develop a rigorous and transparent teaching quality assurance system 4.5 Regularly evaluate the organization's core management mechanisms 4.6 Implement a robust assessment system (e.g., competency-based rubrics) to identify, track, and validate core entrepreneurial skills at key milestones

Summary in the analysis of academic management for enhancing students' entrepreneurial skills at Heilongjiang University of Technology, found that of 4 dimensions 38 variables; the following details are shown in figure 5.

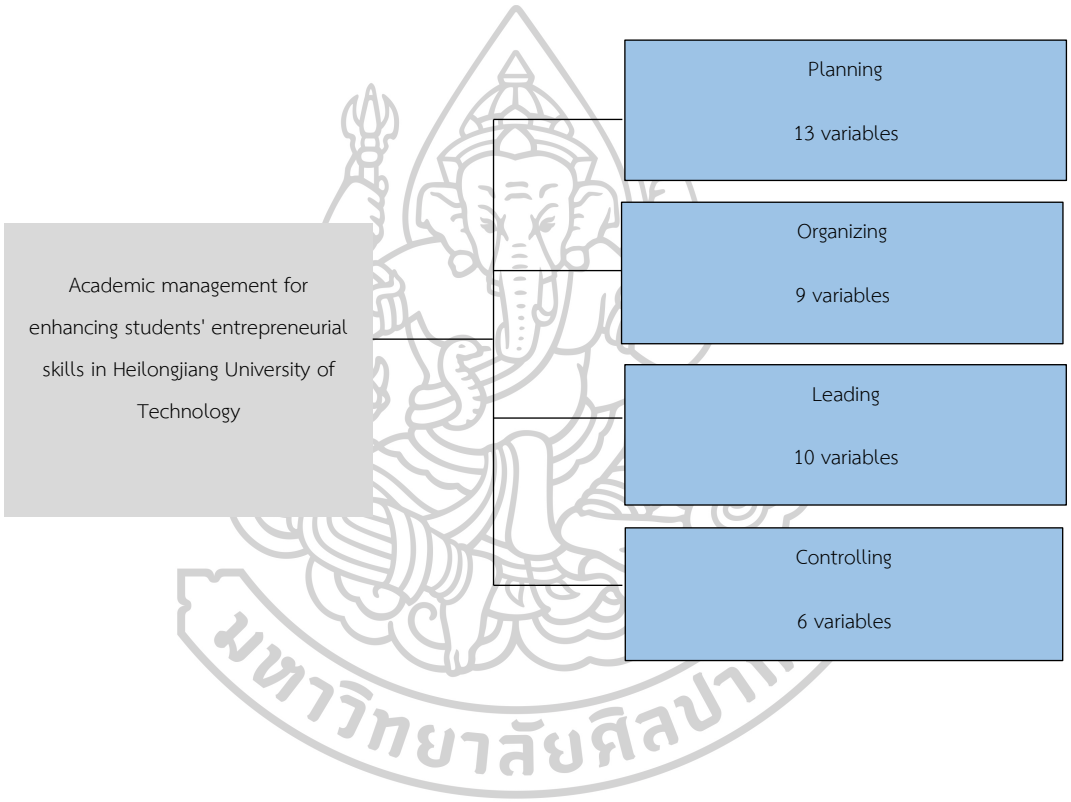

Figure 5 shows academic management for enhancing students' entrepreneurial skills.

Chapter 5

Conclusion, Discussion and Recommendations

This research, which focuses on academic management for enhancing student's entrepreneurial skills in Heilongjiang University of Technology was conducted with a thorough and rigorous process. The objective was to investigate academic management for enhancing student's entrepreneurial skills in Heilongjiang University of Technology. Ethnographic Futures Research (EFR) was employed as the methodology for data collection, encompassing both research procedures and research methodologies. The study drew insights from interviews with 21 experts, and content analysis was used to interpret the findings across various issues. The research was structured into three distinct steps: Step 1 involved preparing the research project, Step 2 focused on implementing the research, and Step 3 entailed reporting the research findings.

Conclusion of research findings

According to the experts' opinion, by analyzing the POLC process, it was found that there are 4 dimensions that need to be considered in studying academic management to enhance entrepreneurial skills of students at Heilongjiang University of Technology as follows: 1) Planning composed of 13 variables, 2) Organizing composed of 9 variables, 3) Leading composed of 10 variables, 4) Controlling composed of 6 variables

The detailed of those variable were as follows: 1) 1) Planning composed of 13 variables: 1.1 Define the core competency framework to develop the core curriculum 1.2 Revise professional curricula by benchmarking international business standards 1.3 Strategize entrepreneurship incubation, grounding ventures in students' core field of study 1.4 Define a hands-on, project-based learning approach for business marketing skills 1.5 Reform the curriculum by integrating innovation theory with global business market analysis 1.6 Design a practical entrepreneurship curriculum

focused on real-world experience 1.7 Design a structured entrepreneurship pathway for continuous skill development from foundational to advanced 1.8 Integrate regional economic case studies into courses for real-world business analysis 1.9 Integrate mandatory practical skills (e.g., simulations, OJT) into the curriculum, linked to measurable learning outcomes 1.10 Mandate integrating modern innovation frameworks into core courses, focusing on practical application and commercialization 1.11 Design flexible modular curricula, linking each module (e.g., business planning, marketing) to practical projects 1.12 Define the learner development strategy, prioritizing core skills in business planning and resource integration 1.13 Integrate risk management knowledge as mandatory content in strategy and finance modules, 2) Organizing composed of 9 variables as follows: 2.1 Systematize student academic management support 2.2 Structure an accessible digital knowledge repository to support learning and research 2.3 Establish a clear departmental governance structure, defining roles and responsibilities 2.4 Establish an "Entrepreneurs-in-Residence" (EIR) program for real-entrepreneur consultation 2.5 Apply modern educational management to form interdisciplinary academic support groups 2.6 Establish a clear system to evaluate and transfer credits from demonstrable external entrepreneurial achievements 2.7 Implement and resource a dedicated virtual platform to develop and refine student operational skills 2.8 Establish a rapid curriculum development (RCD) process to launch modern courses that meet industry and market demands 2.9 Restructure the learning process by applying Agile principles (e.g., Sprints, Stand-ups, Retrospectives), 3) Leading composed of 10 variables as follows: 3.1 Encourage faculty to use Active Learning and increase out-of-class communication 3.2 Integrate cultural diversity into teaching and extracurricular activities 3.3 Continuously promote modern knowledge and concepts in teaching and research 3.4 Drive faculty development via workshops on marketing skills and modern global business 3.5 Drive integrated technological thinking skills 3.6 Promote strategic skills programs (e.g., scenario planning) to handle unforeseen events 3.7 Cultivate a forward-thinking culture through forums and futures research 3.8 Promote critical thinking by training faculty in inquiry-based learning (IBL) and Socratic methods 3.9 Foster teamwork and quality communication

skills via complex group assignments and process-focused feedback 3.10 Drive an innovation culture by fostering an environment for new ideas and inspiration 4) Controlling composed of 6 variables as follows: 4.1 Establish a continuous review cycle for professional curricula to ensure market relevance 4.2 Enhance assessment effectiveness using diverse tools 4.3 Implement real-time student progress tracking 4.4 Develop a rigorous and transparent teaching quality assurance system 4.5 Regularly evaluate the organization's core management mechanisms 4.6 Implement a robust assessment system (e.g., competency-based rubrics) to identify, track, and validate core entrepreneurial skills at key milestones.

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Discussion

The research results revealed that academic management for developing entrepreneurial skills of students in Heilongjiang University of Technology has 4 dimensions: 1) Planning; 2) Organizing; 3) Leading; 4) Controlling. The application of the POLC management framework is a comprehensive, systematically interconnected process for achieving goals effectively. The process begins with planning to establish clear direction and goals. This process then progresses to organizing, creating a structure, and allocating resources to support the plan. Next, leadership drives and motivates personnel to implement the plan. Finally, control measures and evaluate performance, using this information to inform future planning cycles and foster continuous improvement. If anyone dimension is missing, the cycle will be incomplete and management will fail. Therefore, coordinating all four dimensions is key to creating a robust system for developing successful entrepreneurial skills. **(UNESCO)** As cited, academic management in educational institutions involves systematic planning and promotion of academic freedom. There is diversity in the transfer of knowledge, emphasizing academic advancement and the quality of education in accordance with international standards. At the same time **Robbins and Colter** stated, "It must meet the plan's requirements to drive coordination of activities across the central part and structure the work so that it is communicated

centrally and through other parts so that the components can track and monitor their performance. The guidelines are the key feedback loops (critical feedback) to close the loop on the operating system. At the same time, **Porter**, who cited that Planning is the most important intellectual process in management, planning is the conscious determination of future actions to achieve predetermined objectives, planning serves as a "blueprint" that forms the foundation for all other management actions, planning provides direction, reduces the impact of uncertainty, eliminates waste and redundancy, and establishes goals or standards for future control processes. According to **Gulick and Urwick,** said that planning helps define goals and operational guidelines to achieve them, and that organization involves determining the agency's authority structure and organizational structure. According to **Henry Mintzberg,** said that Organization is the process of implementing plans, including structured roles and responsibilities, coordinating and working together across all departments of an organization. It can reduce conflict and maximize efficiency. According to **Bass,** said that leading this function deals with the "people" dimension of management. It is the process of influencing, motivating, and directing employees to work willingly and enthusiastically toward achieving organizational goals. Perfect plans and structures will fail without effective leadership to energize and engage employees, guide human behavior, and ensure that individual efforts are aligned with the strategic direction of the organization. **And According to Kaplan and Norton,** said that controlling is the process of overseeing activities to ensure they are carried out as planned and taking corrective action when significant deviations occur. Controlling provides important feedback and closes the management cycle to ensure performance aligns with plans, protects organizational assets, and supports the next planning cycle.

From the findings on academic management for enhancing students' entrepreneurial skills in Heilongjiang University of Technology. The researcher was able to break down the discussion into the following components:

1) Planning composed of 13 variables: 1.1 Define the core competency framework to develop the core curriculum 1.2 Revise professional curricula by benchmarking international business standards 1.3 Strategize entrepreneurship incubation, grounding ventures in students' core field of study 1.4 Define a hands-on, project-based learning approach for business marketing skills 1.5 Reform the curriculum by integrating innovation theory with global business market analysis 1.6 Design a practical entrepreneurship curriculum focused on real-world experience 1.7 Design a structured entrepreneurship pathway for continuous skill development from foundational to advanced 1.8 Integrate regional economic case studies into courses for real-world business analysis 1.9 Integrate mandatory practical skills (e.g., simulations, OJT) into the curriculum, linked to measurable learning outcomes 1.10 Mandate integrating modern innovation frameworks into core courses, focusing on practical application and commercialization 1.11 Design flexible modular curricula, linking each module (e.g., business planning, marketing) to practical projects 1.12 Define the learner development strategy, prioritizing core skills in business planning and resource integration 1.13 Integrate risk management knowledge as mandatory content in strategy and finance modules, This is consistent with the findings of **Pujowati and Lesmana** studied on the analysis of the impact of entrepreneurship education and curriculum innovation on entrepreneurial motivation and student performance in private universities in East Java, **Innovative Curriculum must be continuously developed to maintain the body's health and incorporate the business dimension into supervision.** This is consistent with the findings of **Bauman and Lucy's** study on enhancing entrepreneurial Education: Developing competencies for Success **Educational management must constantly update its "educational curriculum programs.** This is consistent with the findings of **Fellnhofer**. A study on entrepreneurship education revisited the idea that perceived entrepreneurial role models increase perceived behavioral control. **The curriculum should be integrated to suit contemporary society.** This is consistent with the findings of **Gangi and Sirelkatim.** Study on the best practices in entrepreneurship education: a review, conceptual model, and propositions. Planning for experiential learning and evaluating learning outcomes should be considered as best practices. This is

consistent with the findings of **Nwobike et al.**, A study on business educators' perception on producing quality entrepreneurship education graduates in Rivers State universities **Entrepreneurship courses should recommend using practical teaching methods such as "case studies."** And According to **Tsolakidis, Mylonas, and Petridou** mentioned that Entrepreneurs must have management skills for "innovation development".

2) Organizing composed of 9 variables as follows: 2.1 Systematize student academic management support 2.2 Structure an accessible digital knowledge repository to support learning and research 2.3 Establish a clear departmental governance structure, defining roles and responsibilities 2.4 Establish an "Entrepreneurs-in-Residence" (EIR) program for real-entrepreneur consultation 2.5 Apply modern educational management to form interdisciplinary academic support groups 2.6 Establish a clear system to evaluate and transfer credits from demonstrable external entrepreneurial achievements 2.7 Implement and resource a dedicated virtual platform to develop and refine student operational skills 2.8 Establish a rapid curriculum development (RCD) process to launch modern courses that meet industry and market demands 2.9 Restructure the learning process by applying Agile principles (e.g., Sprints, Stand-ups, Retrospectives) **Henry Mintzberg,** mentioned that **organizational management helps clarify operations, defines the roles and responsibilities of specialized personnel, and enables effective and efficient oversight.** According to **Zhou et al.**, academic management is a systematic operation (operational system) that covers structural support for development and support for learning. According to **Gangi and Sirelkatim,** mentioned that interdisciplinary approaches. The application of academic knowledge is one of the best practices for entrepreneurship education programs.

According to **Stormer et al.,** online and blended learning techniques, as well as "MOOCs (Massive Open Online Courses)," are platforms that help transfer skills to large numbers of learners. This is consistent with the findings of **Fiore and Sansone**. Study on entrepreneurship education in a multidisciplinary environment: evidence from an entrepreneurship programme held in Turin. Entrepreneurship education programs should be "diverse and cross-disciplinary" and emphasize the importance

of “building diverse teams.” And consistent with the findings of **Bauman and Lucy's** study on enhancing entrepreneurial Education: Developing competencies for Success. Educational management must "adjust the processes, procedures, and curriculum programs to be modern.

3) Leading composed of 10 variables as follows: 3.1 Encourage faculty to use Active Learning and increase out-of-class communication 3.2 Integrate cultural diversity into teaching and extracurricular activities 3.3 Continuously promote modern knowledge and concepts in teaching and research 3.4 Drive faculty development via workshops on marketing skills and modern global business 3.5 Drive integrated technological thinking skills 3.6 Promote strategic skills programs (e.g., scenario planning) to handle unforeseen events 3.7 Cultivate a forward-thinking culture through forums and futures research 3.8 Promote critical thinking by training faculty in inquiry-based learning (IBL) and Socratic methods 3.9 Foster teamwork and quality communication skills via complex group assignments and process-focused feedback 3.10 Drive an innovation culture by fostering an environment for new ideas and inspiration. This is consistent with the findings of **Rodrigues**. Study on Entrepreneurship Education Pedagogical Approaches in Higher Education. In entrepreneurship education leadership, there must be an emphasis on experiential learning, collaborative teaching methods, and project-based learning. According to **Hernandez-Lara and Serradell-Lopez** said that the entrepreneurship education institutions should support specialized training skills to equip students with business perspectives. At the same time, **Chatham** said entrepreneurs need innovative and actionable ideas. Entrepreneurial skills are the engine that shifts mindsets and aligns them with business realities. Entrepreneurs need to understand marketing channels, the techniques required for their brands, be resilient to changes in any situation, have vision, and recognise new growth opportunities. Moreover, **Fellnhofer's** study on entrepreneurship education revisited reveals that perceived entrepreneurial role models increase perceived behavioural control. Entrepreneurial learning in the era of

innovation and technology integrates market demands, business competition, diverse teaching styles, technology, and business games to enhance teaching. Moreover, **Stormer et al.,** these key business skills include adapting attitudes and behaviors to changing societal and technological needs, innovation, and transferring skills from one educator to a wider audience. Using learning platforms that are accessible to learners anytime, anywhere can significantly enhance the potential of future educators. Soft skills include teamwork, critical thinking, active participation in activities, developing professional networks, understanding processes, collaborating effectively, continuous learning, and generating new ideas and technologies. **World Intellectual Property Organization (WIPO).** Explains that academic management is to promote "innovation and creativity". And according to **Schoeniger,** emphasizes the need to “Create a Culture of Innovation”, recognizing the factors that promote or hinder entrepreneurial attitudes and skills.

4) Controlling composed of 6 variables as follows: 4.1 Establish a continuous review cycle for professional curricula to ensure market relevance 4.2 Enhance assessment effectiveness using diverse tools 4.3 Implement real-time student progress tracking 4.4 Develop a rigorous and transparent teaching quality assurance system 4.5 Regularly evaluate the organization's core management mechanisms 4.6 Implement a robust assessment system (e.g., competency-based rubrics) to identify, track, and validate core entrepreneurial skills at key milestones. This is consistent with the findings of **Nwobike et al.** A study on business educators’ perception on producing quality entrepreneurship education graduates in Rivers State universities. Educational institutions should regularly review the academic management of entrepreneurship programs. This is consistent with the findings of **Gangi and Sirelkatim**. Study on the best practices in entrepreneurship education: a review, conceptual model, and propositions. Evaluating learning outcomes and “evaluating and measuring impact” are part of best practices. At the same time, **Enterprise Resource Planning (ERP).** Said that in an enterprise context, however, the concept

of "real-time data updates" with analytical tools supports technical concepts that can be applied to student progress tracking.

Recommendations

1) Recommendation in general

From the findings, the researcher can recommend that:

Planning

Strategic Curriculum Reform: Universities should reform their entrepreneurship curriculum to be holistic, establishing a clear Core Competency Framework. The curriculum should be regularly revised, citing international business standards and integrating innovation theory with global market analysis. Furthermore, the curriculum should be designed in a flexible, modular format, linking each topic to a hands-on project. Emphasize Practice-Based Learning: The paradigm should shift from theory-based teaching to practical learning by incorporating project-based learning and integrating practical skills, such as simulations and on-the-job training (OJT), into the curriculum. And Create a Clear Skill Development Pathway: Establish a learner development strategy and design a structured entrepreneurial pathway from beginner to advanced levels, including an entrepreneurship incubation strategy and integrating essential knowledge, such as risk management, into the curriculum.

Organizational Restructuring

Restructure for Flexibility and Systemization: Universities should systematically provide adequate academic support to students and establish clear governance structures within departments. They should also apply modern educational practices to create interdisciplinary academic support groups to break down barriers between disciplines.

Invest in Digital Infrastructure: Create a digital knowledge repository that is easily accessible to students to support learning and research, and provide resources for virtual platforms so students can practice practical skills anytime, anywhere. And Build an Agile and Externally Connected Ecosystem: Establish a formal "Entrepreneurs-in-Residence" program. To enable students to consult with real entrepreneurs, a rapid curriculum development process should be established and agile principles adopted to respond to market and industry demands promptly.

Leading

Develop Faculty into 'Coaches' and 'Facilitators': Faculty should be encouraged to shift their teaching styles to Active Learning and increase communication outside the classroom. Universities should invest in continuous faculty development through workshops to enhance cutting-edge global business skills and train them in teaching techniques that promote critical thinking, such as Inquiry-Based Learning. Cultivate a Culture of Innovation: Administrators should lead in driving an innovation culture by creating an environment conducive to generating new and inspiring ideas and fostering a forward-thinking culture through forums and future research. And Promote Future-Ready Skills: Instruction should be designed to build high-quality teamwork and communication skills through complex group assignments. Moreover, drive the development of integrated technological and strategic thinking skills to prepare students for unexpected events.

Controlling:

Establish a Continuous Quality Assurance Cycle: Implement continuous curriculum review cycles to ensure the curriculum remains current and relevant to the market. A robust and transparent Teaching Quality Assurance System should be developed, along with regular evaluations of the organization's core management mechanisms. And Develop a Competency-Based Assessment System: Enhance

efficiency by using diverse assessment tools and robust competency-based rubrics to identify, track, and certify students' entrepreneurial skills at each learning stage. Additionally, real-time student progress-tracking technology should be used to ensure timely assistance.

2) Recommendation for future research.

1. Analysis of the dynamics of entrepreneurial success in Heilongjiang Province

2. Cross-cultural studies for entrepreneurship learning

3. The Application of Algorithms and Virtual Worlds to Refine Business Acumen

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Appendix

Appendix A: Requesting a letter for a research interview

No. 6812.2/.....

Department of Educational Administration
Faculty of Education, Silpakorn University
Nakhon Pathom, Thailand 73000

27th March 2025

Subject: Interview for Research

Dear:

Mr. Jiang NanNan, I.D. No. 650630069, who is a Ph.D. Candidate, majoring in Educational Administration at the Faculty of Education, Silpakorn University, Thailand. He has been approved to conduct the doctoral dissertation on the topic of "**THE ACADEMIC MANAGEMENT FOR ENHANCING STUDENTS ENTREPRENEURIAL SKILLS IN HEILONGJIAN UNIVERSITY OF TECHNOLOGY".**

We would like to ask for your kind cooperation to allow Mr. Jiang NanNan having an interview for your opinion and view on the scenario of **the academic management for enhancing student's entrepreneurial skills in Heilongjiang University of technology** in the next ten years, during 28 March – 5 April 2025.

Your kind cooperation will be highly appreciated and thank you very much for your kindness.

Best regards,

Saisuda Tiacharoen

(Asst. Prof. Saisuda Tiachareon, Ph.D.)
Head of the Department of Educational Administration
Silpakorn University

Department of Educational Administration
Telephone /Fax No. +669 3979 3455

Expert interview

THE ACADEMIC MANAGEMENT FOR ENHANCING STUDENTS ENTREPRENEURIAL SKILLS IN HEILONGJIAN UNIVERSITY OF TECHNOLOGY

Instruction:

1. This data collection aims to use your feedback for analysis.

2. The information you provide will be valuable feedback for setting the direction. The academic management for enhancing student's entrepreneurial skills in Heilongjiang University of technology, the researcher assures that they will use the information received from you to analyze the results and present it only as an overview of the research. The researcher would like to thank you for kindly taking your valuable time to cooperate in this interview.

Mr. Jiang NanNan

Doctoral Student

Doctor of Philosophy Program

Major in Educational Administration

Graduate School

Silpakorn University

Section 1: Background Information

No	
1.	Age:_____
2.	Gender: ( ) Male ( ) Female
3.	Education Level: ( ) Doctorate Degree ( ) Bachelor's Degree ( ) Master's Degree
4.	Work position ( ) Senior executives (Faculty Deans) ( ) Teachers ( ) CEO of the company
5.	Work experience ( ) over ten years ( ) 5 – 10 years

Section 2: You’re Opinion on The academic management for enhancing students entrepreneurial skills in Heilongjiang University of technology

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Appendix B: Experts List

Experts	Name	Job position and workplace
7 senior executives (Faculty Deans)	Wang hunye	Director of the Employment Guidance Center, College of Innovation and Entrepreneurship Education.
	Peng haibin	Director of Entrepreneurial Guidance Center Heilongjiang University of Technology.
	Teng shuyi	Associate Dean of the International Education Institute Heilongjiang University of Technology.
	Hong dong	Dean of the School of Innovation and Entrepreneurship Education, Heilongjiang University of Technology.
	Zhang mingqiu	Director of Academic Affairs Office, Heilongjiang University of Technology.
	Xu Bo	Professor at the School of Environmental Engineering Heilongjiang University of Technology.
	Du jian	School-level Superintendent Heilongjiang University of Technology.
7 teachers	Sun lili	Chief of the Social Training Department of the School of Innovation and Entrepreneurship Education Heilongjiang University of Technology.
	Sun you	Director of the Student Management Office of the School of Modern Manufacturing Engineering Heilongjiang University of Technology.
	Shen yue	Director of the Student Management Office of the School of Marxism, Heilongjiang University of Technology.
	Pan lei	Director of the Student Management Office of the School of Economics and Management, Heilongjiang University of Technology.
	Xiong huihui	Director of the Student Management Office of the School of Resource Engineering, Heilongjiang University of Technology.

Experts	Name	Job position and workplace
	Li ye	Director of the Student Management Office of the School of International Education, Heilongjiang University of Technology.
	Chen fangyuan	Director of the Student Management Office of the School of Electrical Information Engineering Heilongjiang University of Technology.

Experts	Name	Job position and workplace
7 CEO of the company	Shang jianwei	General Manager of Jixi Shangyang Arts and Crafts Co., Ltd. Jixi City, Heilongjiang Province
	Lu jing	General Manager of Jixi Tiosha Baking Co., Ltd. Jixi City, Heilongjiang Province
	Lv lingyan	Principal of Zihan Culture and Art School. Jixi City, Heilongjiang Province
	Meng fanrui	General Manager of Jixi Xinyuan Evaluation Co., Ltd. Jixi City, Heilongjiang Province
	Zhang baiwan	General Manager of Zhang Wanwan Catering Co., Ltd. Jixi City, Heilongjiang Province
	Li jiuqing	General Manager of Vodak Network Technology Co., Ltd. Jixi City, Heilongjiang Province
	Jiang mingkun	General Manager of Jixi Yimei Time Western Food and Catering Co., Ltd. Jixi City, Heilongjiang Province

VITA

NAME JIANG NANNAN

INSTITUTIONS ATTENDED

Education Background :

September 2004 - July 2007	Hegang Mining Bureau Senior High School
September 2007- July 2010	College for professional training Jixi University
May 2008 - December 2010	Bachelor's degree Harbin Normal University
January 2020 - July 2022	Master's Degree, Krirk University
November 2022 - Present	Ph.D., Silpakorn University

Work Experience :

October 2010 - July 2013	Counselor in the Department of Safety at Jixi University.
July 2013- July 2016	Counselor of the Department of Environment at Heilongjiang Institute of Technology.
July 2016- June 2020	Counselor at the Department of Economics, Heilongjiang University of Technology.
June 2020 to June 2023	College of Innovation and Entrepreneurship Education, Heilongjiang University of Technology.
June 2023 present	Discipline Inspection Commission of Heilongjiang Institute of Technology.