

7

MINISTRY OF EDUCATION OF THE REPUBLIC OF BELARUS

BELARUSIAN NATIONAL TECHNICAL UNIVERSITY

FACULTY Marketing, Management, Entrepreneurship

(full name of the Faculty)

DEPARTMENT Business administration

(full name of the graduating Department)

SUBMITTED TO DEFENSE BY

Head of Department

(signature)

Zer-Losh E. V.

(name, surname)

05.04 2022

MASTER'S THESIS

**HIGH-TECH PROJECTS RESEARCH: EVALUATION METHODS AND
SELECTION CRITERIA FOR INVESTMENT**

Specialty 1-25 80 01 Economy

(code and specialty name)

Master student

(signature)

(date)

Xue Miyu

Supervisor

PhD in Economics,

Associate Professor_

(signature)

(date)

V. Rudkouskava

Minsk 2022

GENERAL CHARACTERISTICS OF THE WORK

Research Goal

The goal and objectives of the thesis is to study the theoretical foundations of investment activity, analyze its current state and develop practical recommendations for its development.

Research Objectives Tasks:

- 1) to study the theoretical foundations of investing in high-tech projects;
- 2) analyze the current state of investment activity;
- 3) find ways to increase investment in high-tech projects.

The task of study is:

- 1)Review the development process and origin of domestic and foreign investment;
- 2)This study examines investment activity is the theoretical basis of investment activities, the current situation of investment activities is analyzed ;
- 3)Put forward practical suggestions for the development of venture capita;
- 4)he main directions of increasing investment in high-tech projects are summarized.

The object of the research is investment activity

The subject of the research is investing in high-tech projects.

BIBLIOGRAPHY

1. R.T. Moriarty, T. J. Kosnik. High-Tech Marketing: Concepts, Continuity, and Change. Sloan Management Review M]. 1989, 30(4):7-17.
2. Carter B. Hancock, T. Morin J, and Robin N, Introducing RISKMAN: The European Project Risk Management Methodology M], NCC Blackwell Limited, UK, 1994.
3. Douglas W. Hubbard. The Failure of Risk Management: Why it's Broken and How to Fix It M]. John Wiley & Sons, Inc. 2009.
4. Zhang Luyang. Operation mechanism and model of venture capital industry in the eastern United States Z. Ministry of science and technology of the people's Republic of China, 2002
5. Fang Hanting, Wang Weiguang. International comparison of venture capital industry development and Its Enlightenment M]. Economic management press, 2004
6. Du benfeng. Investment risk management of Institutional Investors M]. Economic Science Press, 2004
7. Zhang Zhuyun, Fu Shouqing. Entrepreneurial risk M]. Science Press, 2004
8. Zhang Yuanping. Venture capital and risk management M]. China City Press, 2004
9. Liu Guoxin. Zhao Guanghui. Entrepreneurial risk management M]. Wuhan: Wuhan University of Technology Press, 2004
10. Zhang Yuchen. Venture capital management M]. Tongji University Press, 2005
11. An Shi. Theory and method of venture capital M]. Science Press, 2005
12. Hu Haitao. Venture capital M]. Capital University of economics and trade press, 2006
13. Zhu Pinghui. Investment risk management M]. Xiamen University Press, 2007
14. Jin Yonghong. Operation mechanism and risk management of venture capital institutions M]. Shanghai University of Finance and Economics Press, 2007
15. Zhang Luyang. Research on venture capital market M]. Fudan University Press, 2007
16. Su Yi. Investment risk management M]. Tsinghua University Press, 2008
17. Huang ou. Venture capital and enterprise management M]. Guangxi science and Technology Press, 2009
18. Liu Jiacheng, Huang Jinggui, Lin Tao. Venture capital: operation mechanism and international comparison M]. Hainan Publishing House, 2009
19. Wan Jun. venture capital M]. China Science and Technology Press, 2009
20. Liu Manhong. Venture capital Bible: angel investment theory and practice M]. Economic management press, 2009
21. Fang Shaohua. Chinese venture capital M]. Enterprise management press, 2010
22. Wang Yuan, Zhang Xiaoyuan, Liang GUI. China Venture Capital Development Report 2010 M]. Economic management press, 2010
23. Chi Guotai. Investment risk management M]. Tsinghua University Press, 2010
24. Liu Jinbo. Risk management M]. China finance press, 2010
25. Bruno A. V and Tyebjee T. T. , A model of venture capital investment activity J]. Management Science, 1984, 30:51-66.
26. MacMillan, I.C., Siegel, R & Subba Narasimha, P.N. Criteria used by venture capitalists to evaluate new venture proposals J]. Journal of Business Venturing. Vol. 1, Iss: 1, 1985: 119-128.
27. Belev G.C , Minimizing risk in high-technology programs J], Cost Engineering, 1989. 31(10), P11-15.
28. Hogan JT. A study of the salient factors involved in venture capital investment decisions in technology based ventures D]. The Union Institute, 1992.
29. J.C. Chataway. The Making of Biotechnology : A case study of radical innovation J]. Open University. 1992(5) :212-226.
30. Souder, William, Bethay, David. The risk pyramid for new product development: An application to complex aerospace hardware J]. Journal of Product Innovation Management. New York: 1993, 3:181-195.

31. Hansen PB. Corporate failure among venture capital funded small companies: a case study approach D]. University of Southampton, 1994.
32. T Chotigeat, IMPandey, DJ Kim. Venture Capital Investment Evaluation in Emerging Markets J]. Multinational Business Review, 1997.
33. Jyrki Kontio, Victor R. Basili, Empirical Evaluation of a Risk Management Method J], the SEI Conference on Risk Management, Atlantic City, NJ. 1997.
34. Ciecharowiz, Zdigniew. Risk analysis: Requirements, Conflicts and Problems J]. Computer and Security, 1997, (3):223~232.
35. VMRAO Tunmala. Applying a Risk Management Process (RMP) Lo manage cost risk of EHV J]. Transmission line project. 1999, 17(4):223-235.
36. V M Rao Tummala, John F Burchett, Applying a Risk Management Process (RMP) to manage cost risk for an EHV transmission line project J], International Journal of Project Management, Vol. 17, No.4, 1999, P223-235.
37. Cao rongning, Zhang Zhiguang. Improvement of investment evaluation method of high-tech projects [J] . JOURNAL OF NANJING FORESTRY UNIVERSITY (NATURAL SCIENCE EDITION). January 2005 (55-58)
38. Sun Fuqiang, Wang Jingrong. On risk management of venture capital projects J]. Science and management, 2005 (03)
39. Hu Haifeng, Wang Jia. Some empirical analysis of American venture capital J]. Management world, 2005 (10)
40. Zuo Junying, Hua Liyuan. Analysis of financing risks and risk control problems faced by venture capital institutions [J] . Journal of North China Electric Power University (SOCIAL SCIENCE EDITION), 2005 (01)
41. Ling Chunhua, Shen Jing. Dilemma Analysis and Countermeasures of China's venture capital supply system [J] . Research on technical economy and management, 2005 (04)
42. Wei Juan, Liang Jingguo. Analysis on the operation mode of corporate venture capital companies in China J]. Business research, 2005 (09)
43. Jiang Yu. Fuzzy clustering comprehensive evaluation of high-tech project risk in China J]. China's forestry economy, 2006-6 (27-30)
47. Liang Yuhong, Cheng Aidi. Venture capital risk management based on enterprise life cycle J]. Investment research, 2007 (12)
48. Yang Liwei. Research on segmented investment in venture capital J]. Statistics and decision making, 2007 (07)
49. Liu Erli. Research on the impact of venture capital value-added services on the growth performance of start-ups J]. Industrial technology and economy, 2008 (08)
50. Chen Haitao, Cai Li. Empirical Study on the characteristic dimension division of entrepreneurial opportunities J]. Industrial technology and economy, 2008 (02)
51. Lu Zhiyong, Li Peng. Comparative study on the exit mechanism of venture capital in China J]. Times economic and trade (zhongxunjian), 2008 (S4)
52. Tang Fanya. On China's venture capital exit mechanism J]. Decision making and information (Financial observation), 2008 (05)
53. Zhu Xia, Xu Xiaosheng. Investment risk identification and preventive measures for high-tech projects J]. Research on coal economy 2008.12(24-26).
54. Xie Haidong. Analysis on the risk structure and management mechanism of venture capital in China J]. Jiangsu business theory, 2009 (01)
55. Chen Jian. Discussion on financial management of venture capital enterprises J]. Enterprise technology development, 2009 (04)
56. Liu Jingbo. Research on the exit mechanism of venture capital in China J]. Cooperative economy and science and technology, 2009 (08)
57. Cui jinxun. Risk management countermeasures of venture capital. China Economic and trade guide, 2010 (02)

- 58.Huang Yanyan. Research on financial risk management based on venture capital financing [J]. Enterprise Herald, 2010 (05)
- 59.Ge Dongxia. Financial difficulties and Countermeasures of venture capital enterprises [J]. Business economics, 2010 (02)
- 60.Wei Wei. Research on the optimization of financing structure of high-tech enterprises in the start-up period [J]. Economist, 2010 (03)
- 61.Xiong Yijian, Guo Sidai. Moral hazard analysis of venture capital based on exit game matrix [J]. Enterprise economy, 2010 (11)
- 62.Yang Zhou. Research on agency risk control caused by information asymmetry in venture capital in China [J]. Journal of Guizhou Normal University, 2010 (08)
- 63.RJChapman.The controlling influence on effective risk identification and assessment for construction design management [J]. International Journal of Project, 2001, (19):147-160.
- 64.Fiona D. Patterson, Kevin Neailey, A Risk Register Database System to aid the management of project risk [J], International Journal of Project Management, 2002.20, P365-374.
- 65.Zhao Jianfeng, research on evaluation model of high-tech investment projects [J], scientific and technological progress and countermeasures, 1999.6 (62-63)
- 66.Wu Tianzu. General law of the development of high-tech enterprises [J]. China soft science. 2000.11 (32-35)
- 67.Gao Chengliang, sun Jun. evaluation of high-tech investment projects [J]. Technical economy. 2000.9 (56-58)
- 68.Li Keqiang. Theoretical framework of risk management in venture capital [J]. Hebei journal. March 2001 (72-76)
- 69.song Ruimin. On the risk and prevention of venture capital [J] . Journal of Guilin Institute of electronic technology. March 2001 (99-101)
- 70.Cao Yashu, Liu Xiaowen. Risk and control in venture capital in China [J]. Journal of Shanghai University (NATURAL SCIENCE EDITION), 2001 (S1)
- 71.fan bonai, Shen Rongfang, Ma Qingguo. Research on supply mechanism and development strategy of venture capital in China [J] . Journal of Shanghai Jiaotong University (SOCIAL SCIENCE EDITION), 2001 (01)
- 72.Zhang Guofu, sun Jinhua. Risk prevention and control in high-tech venture capital [J].Journal of Peking University (PHILOSOPHY AND SOCIAL SCIENCES EDITION), 2001 (05)
- 73.Weng Liang. Risk identification, evaluation and management of venture capital [J] : Research on technology, economy and management. 2002.4 (22-23)
- 74.Li Changzhi, key. Research on risk assessment methods of venture capital [J]. Research on financial issues. 2002.10 (42-44)
- 75.Wang Zhenqiang, Liu Yujie, Yu Jiuru. Research on the application of SCERT in risk analysis and management of large-scale engineering projects [J], China soft science, 2002.7
- 76.Peng Zhizhong, Qiu Xiaodong. Venture capital risk analysis and evaluation of high-tech enterprises [J]. Economist. 2002.12 (9-10)
- 77.Yang Yanping. Risk identification, evaluation and control methods of venture capital [J]. Economist, 2003, 7 (34-35)
- 78.Wang Shibo. Evaluation of venture capital projects based on analytic hierarchy process [J]. Industrial technology and economy, 2003.6 (87-90)
- 79.Mou Yonghong. Personnel risk and management in Entrepreneurship [J] . Economic management. 2003.7 (52-55)
- 80.Xie Kefan. Game Analysis of venture capital [J]. Financial theory and practice. May 2003 (2-5)
- 81.Yu Chuanlong. Risk prevention of high-tech investment. Technical economy. [J]. 2003, (6)

82. Zhu Qichao, Kuang Xinghua, et al. Review of risk matrix method and application [J]. China Engineering Science, 2003.1 (13-17)
83. Wei Linwei. High tech industry development and project management [J]. Technical economy. 2000.4 (29-32)
84. Lu Xianwen. Tracking management of growth risks of start-ups [J]. Academic exchange, 2004 (07)
85. Luo Honglang, Wang Huanchen. Portfolio theory with risk value constraint [J]. Journal of Shanghai Jiaotong University, 2004 (03)
86. Li Zhi. Application of VaR and CVaR in venture capital risk management [J]. Learning and exploration. 2005.5 (175-178)