学校编码: 10384

学 号: 17620070153788

分类号_____密级____ UDC

唇の大了

博 士 学 位 论 文

风险投资的角色定位与介入企业 绩效的关联性研究

Relevance Research Between the Role Positioning of Venture Captial and Performance Evaluation of its Target Company

杨丹

指导教师姓名: 沈维涛 教授

专业名称: 财务学

论文提交日期: 2013年 4月

论文答辩时间: 2013 年 月

学位授予日期: 2013年 月

答辩委员会主席: ______ 评 阅 人: _____

2013年 月

厦门大学学位论文原创性声明

本人呈交的学位论文是本人在导师指导下,独立完成的研究成果。本人在论文写作中参考其他个人或集体已经发表的研究成果,均 在文中以适当方式明确标明,并符合法律规范和《厦门大学研究生学术活动规范(试行)》。

另外,该学位论文为()课题(组) 的研究成果,获得()课题(组)经费或实验室的 资助,在()实验室完成。(请在以上括号内填写课 题或课题组负责人或实验室名称,未有此项声明内容的,可以不作特 别声明。)

声明人(签名):

2013年 月 日

厦门大学学位论文著作权使用声明

本人同意厦门大学根据《中华人民共和国学位条例暂行实施办法》等规定保留和使用此学位论文,并向主管部门或其指定机构送交学位论文(包括纸质版和电子版),允许学位论文进入厦门大学图书馆及其数据库被查阅、借阅。本人同意厦门大学将学位论文加入全国博士、硕士学位论文共建单位数据库进行检索,将学位论文的标题和摘要汇编出版,采用影印、缩印或者其它方式合理复制学位论文。

本学位论文属于:

- () 1.经厦门大学保密委员会审查核定的保密学位论文, 于 年 月 日解密,解密后适用上述授权。
 - () 2.不保密,适用上述授权。

(请在以上相应括号内打"√"或填上相应内容。保密学位论文 应是已经厦门大学保密委员会审定过的学位论文,未经厦门大学保密 委员会审定的学位论文均为公开学位论文。此声明栏不填写的,默认 为公开学位论文,均适用上述授权。)

声明人(签名):

2013年 月 日

摘要

自 1985 年我国关于科技体制改革的决定中提出风险投资的概念以来,全社会开始在风险投资领域进行多元化实践探索,截至 2011 年底,我国共有风险投资机构 950 家,拥有 1782.06 亿元的风险投资能力,培养了一批高科技企业成功上市。

风险投资在促进企业绩效提升,推动企业发展中发挥了重要作用。一方面由于中小企业具有高度的不确定性,它们很难从传统的渠道融集资金,但是这些企业潜在的高成长性却吸引了风险投资家的加入;另一方面,风险投资家会通过自身的关系网络和增值服务为企业带来绩效、治理结构和创新方面的提升和发展。关于风险投资家对企业绩效作用的机理,学术界一般分为"事前选择"和"事后影响"两种解释,风险投资家既扮演"侦探"角色,对企业进行"事前选择";又扮演"教练"角色,对企业造成"事后影响"。但是对风险投资家的两种角色进行区分的研究则比较少见,而在角色区分的基础上进一步深入探讨风险投资的作用机理和影响效果的研究则更为稀少,尤其是在我国,目前还没有进行过这方面的研究讨论。另外,与西方国家相比,风险投资对我国企业的促进作用整体偏弱,运作仍然面临许多问题,如何有效借鉴国外的最新实践,结合我国具体情况,探讨符合我国国情的风险投资运作与管理模式意义重大。

本文着眼于风险投资的角色定位与介入企业绩效之间的关联性研究,在文献 回顾和制度背景分析的基础上,综合运用上市企业和非上市企业样本,通过引入 工具变量控制风险投资的内生性,区分了风险投资家在我国企业中所扮演的"侦探"或"教练"角色,实证分析了风险投资的角色定位对我国企业经营绩效和治理 结构的影响,同时检验了风险投资对企业 IPO 抑价的影响假说在我国的适用性。

研究结论显示:风险投资家在选择企业进行投资时,同样会关注企业的人力资本,并试图通过这些人力资本来促进企业绩效的增长。风险投资家在促进我国企业经营绩效增长方面扮演了"侦探"角色,但是扮演的"教练"角色不明显;在促进我国企业治理结构完善方面扮演的"侦探"角色不明显,但是扮演了一定的"教练"角色。风险投资家在投资后通过增值服务和监控等手段参与企业经营管理,

对企业绩效提升有较大帮助。风险投资在企业 IPO 过程中表现出了较强的逆向选择效应和逐名效应,认证功能比较微弱,多家风险投资机构的共同投资表现出了一定的筛选和监控功能,也发挥了一定的认证作用。

本文的创新之处在于在现有风险投资研究的基础上,首次填补国内研究空白,区分了风险投资家的角色定位和不同角色的作用机理;同时选择上市企业和非上市企业进行应用研究,运用调查问卷获得非上市企业"一手数据",更全面地反映了风险投资对不同发展阶段企业的影响,提高了研究结论的适用性和准确性。另外,通过对宏观环境进行分析和讨论,为进一步发挥风险投资的作用和促进企业快速成长提出可供借鉴的政策建议。

关键词: 风险投资 角色定位 企业绩效 IPO 抑价

Abstract

Since 1985 when the concept of venture capital was promoted from the decision to reform the science and technology system in our country, a lot of research about venture capital investment has been put into practice. By the end of year 2011, there are 950 venture capital companies in total in our country which owns the investment capability of RMB 178.2 Billion and successfully boosted the public listing of many high tech companies.

Venture capital plays an important role in promoting company performance an long term development. We can see this from two factors. first, small and medium high tech companies face great uncertainty in their future which turn away the investment in traditional way, however this in the opposite attracts venture capital who pay more attention on the possibility of fast development. Second, the professional expertise and vast netword of various resources from venture capital can benifit the target company in terms of corporate performance, governance structure an innovation capability. When talking about through which way the venture capital influence their invested company, there are two roles from these researches. One is Selection in Advance, the other is Influence after Investment. This means venture capital needs to both scout and select in advance and coach to influence after. However there is rare research to differentiate these two roles, not mention to the research on their respective role and influencing method especially in China, this kind of research is still blank. Comparing with the western countries, the role of venture capital to the industry is much weeker and many obstacle still exist. These challenges signifies the research on venture capital's role and operating mode in China by integrating the successful practice from west with China's own situation.

This paper focus on the relevance research between how to position venture capital's role and the target company's corporate performance. To achieve the goal to differentiate the role of Scout and Coach of venture capital, justify the influence of

role positioning to corporate operational performance and governance structure and test the applicability in China of the hypothesis that venture capital prefer to underprice IPO, we will learn from the researches in the past, analyse the current social and economic system, create samples pool by selecting from both listed and non-listed companies, and control the endogenesis from venture capital by introducing instrument variable.

After research, it concludes that before investment decision made, venture capital will consider the human resource in the target company which they think can promote the increase of target companies corporate operational performance this reflects that the venture capital in China is more of a scout than coach. However this differs when we look at the impact to corporate governance structure. Venture capital will step in the management of their target management via value-added service and monitoring to improve the corporate performance. In the process of IPO of their target company, venture capital tends to have strong adverse selection and grandstanding, and low function of certification however there is a certain level of screening and monitoring and certification function appears in the situation that many ventrue capital form a syndication.

The breakthrough of this paper come from below points: we are the first one to differentiate the role of venture capital and their respective influencing mechanism, we select bot listed companies and non listed companies and get first hand data through questionnaire to non listed companies, our research covers all the stages of the way in which venture capital influence their target companies to have more accurate and applicable conclusion, we also propose some policy suggestion to further promote venture capital and their target companies development by analysing the macro economic environment.

Key Words: Venture Capital;Role Positioning;corporate performance;IPO Underpricing

目 录

第·	一章	绪	论	•1
	1.1	问题	的提出与研究意义	···1
	1.2	研究	思路与研究方法	•••4
			研究思路	4
		1.2.2	研究方法	5
	1.3	研究	内容与研究框架 ····································	5
		1.3.1	研究内容	5
		1.3.2	研究框架	6
	1.4	主要1	创新点	8
第.	二章	玉	内外研究综述	9
	2.1	风险	投资的角色定位和功能发挥 ·	9
			风险投资在企业中的角色定位	
		2.1.2	风险投资在企业中的功能发挥	10
		2.1.3	基本评述	13
	2.2	风险	投资对企业绩效的影响研究	·13
		2.2.1	风险投资与企业经营绩效	14
		2.2.2	风险投资与公司治理结构	16
		2.2.3	基本评述	18
第.	三章	我	国风险投资发展现状与制度背景分析 ·······	20
	3.1	我国	风险投资发展现状	·20
		3.1.1	风险投资机构及专业投资经理	20
		3.1.2	资本规模及来源	23
		3.1.3	投资规模及投资特征	25
		3.1.4	风险投资退出概况	26
		3.1.5	风险投资支持企业概况	28

3.2	我国	风险投资发展的制度背景	30
	3.2.1	我国风险投资发展的制度演变	30
	3.2.2	我国风险投资发展的政策措施	34
第四章	凤	.险投资的角色定位对上市企业绩效影响的实证研究····	36
4.1	风险	投资的角色定位对上市企业经营绩效的影响	36
	4.1.1	研究假设	36
	4.1.2	数据选取及配对方法	37
	4.1.3	研究变量选取	39
	4.1.4	风险投资家角色定位的实证检验	41
		风险投资家不同角色影响效果的实证检验	45
4.2	风险	投资的角色定位对上市企业治理结构的影响	46
	4.2.1	研究假设	47
	4.2.2	研究假设数据选取	48
	4.2.3	研究变量选取	48
	4.2.4	风险投资家角色定位的实证检验	49
	4.2.5	风险投资家不同角色影响效果的实证检验	51
4.3	风险	投资的角色定位对上市企业绩效影响的稳健性检验	53
	4.3.1	考虑时间跨度的影响	53
	4.3.2	重新控制风险投资的内生性	54
4.4	风险	投资的角色定位对上市企业绩效影响的实证研究小结	56
	4.4.1	风险投资的角色定位对上市企业经营绩效的影响结果	56
	4.4.2	风险投资的角色定位对上市企业治理结构的影响结果	57
第五章		.险投资对企业 IPO 抑价影响假说的适用性检验	58
5.1	风险	投资对企业 IPO 抑价的影响	·58
	5.1.1	风险投资支持企业 IPO 抑价程度低	58
	5.1.2	风险投资支持企业 IPO 抑价程度高	59
5.2	风险	投资对企业 IPO 抑价影响的实证检验 ····································	61
	5.2.1	数据选取	62
	5.2.2	研究变量选取	63

	5.2.3	有无风险投资支持企业的差异比较分析	64
	5.2.4	有无风险投资支持企业的差异细分检验	68
	5.2.5	风险投资对企业 IPO 抑价影响的回归分析	74
5.3	风险	投资对企业 IPO 抑价影响的实证检验小结	·76
	5.3.1	有无风险投资支持企业的对比分析结果	76
	5.3.2	风险投资对企业 IPO 抑价影响的回归分析结果	77
第六章	间	卷调查与描述性统计分析	78
6.1	非上河	市企业样本选择与数据收集	·78
	6.1.1	非上市企业样本选择	78
	6.1.2	非上市企业数据收集	83
6.2	问卷	设计与调查	·83
	6.2.1	问卷设计	83
		问卷调查	
6.3	调查	问卷描述性统计	·88
	6.3.1	中小企业基本情况	88
	6.3.2	中小企业团队特征 · · · · · · · · · · · · · · · · · · ·	91
	6.3.3	问卷信度和效度检验	94
第七章		,险投资的角色定位对非上市企业绩效影响的实证研究:	100
7.1	风险	投资的角色定位对非上市企业经营绩效的影响 ·························	00
	7.1.1	数据选取 1	00
11	7.1.2	研究变量选取1	00
	7.1.3	有无风险投资支持的非上市企业差异比较分析	.01
77	7.1.4	风险投资家角色定位和影响效果的实证检验1	.02
7.2	风险	投资的角色定位对非上市企业治理结构的影响	05
	7.2.1	研究假设1	05
	7.2.2	数据选取	.06
	7.2.3	研究变量选取	.06
	7.2.4	有无风险投资支持的非上市企业差异比较分析1	.07
	7.2.5	风险投资家角色定位和影响效果的实证检验1	.08

7.3	风险	投资家的投资后管理对非上市企业绩效的影响	····· 111
	7.3.1	研究假设	111
	7.3.2	数据选取	111
	7.3.3	研究变量选取	112
	7.3.4	投资后管理对非上市企业经营绩效影响的实证分析	113
	7.3.5	投资后管理对非上市企业治理结构影响的实证分析	···· 114
7.4	福建	省风险投资发展研究	·····115
	7.4.1	风险投资评估与决策研究	115
	7.4.2	风险投资环境研究	117
第八章	面	· · 究结论与政策建议····································	122
8.1	研究:	结论	122
		风险投资的角色定位对企业经营绩效影响的研究结果	
	8.1.2	风险投资的角色定位对企业治理结构影响的研究结果	123
	8.1.3	风险投资家的投资后管理对企业绩效影响的研究结果	125
	8.1.4	风险投资对企业 IPO 抑价影响假说的适用性检验结果	125
	8.1.5	风险投资评估与决策研究结果	126
		风险投资环境分析结果	
8.2	政策	建议	126
	8.2.1	我国发展风险投资的政策建议	126
	8.2.2	福建省发展风险投资的政策建议	130
8.3 研	究局	限性与未来研究方向	136
参老文	−献…	•••••••••••••••••••••••••••••••••••••••	138
17			
附件:	福建	省中小企业调查问卷····································	···· 149
致 谚	╅		····159

Contents

Chapter 1	Introduction	1
1.1 Origin	and its Affect	1
	ch Logic and Methods	
1.2.1	Research Logic	4
1.2.2	Research Methods	
1.3 Resear	ch Coverage and Research Structure	
1.3.1	Research Coverage	
1.3.2	Research Structure	6
1.4 Main I	Innovations	8
Chapter 2 l	Literature Review	9
2.1 Role P	ositioning and Way of Influence of venture Capital	9
2.1.1	Role positioning	9
2.1.2	Way of Influence	10
2.1.3	Key Conclusions	13
2.2 Influer	nce of Venture Captial to Corporate Performance	13
2.2.1	Venture Captial and Corporate Operational Performance	14
2.2.2	Venture Captial and Corporate Governance Structure	16
2.2.3	Key Conclusions	18
_	Status quo of venture capital in China and its instit	
3.1 Curror	nt Sstatus of venture Capital Development in China	20
3.1.1	Venture Capital companies and professional investment managers	
	Volume of Capital and its Source	
3.1.3	Investment Volume and its Characteristics	
3.1.4	Status of VC Exit.	
	Status of VC-backed Companies	
	stitutional Background for Venture Capital in China	
3.2.1	Evolvemnt of Institution for Venture Capital in China	
3.2.2	Policies and Regulations for Venture Capital in China	
Chapter 4	Empirical Research on Role Positioning and Performance	rmance
Influence o	f Venture Capital to Listed Companies	36
4.1 Influe	ence of Role Positioning from Venture Capital to Corporate Op	perational
	nco to Listad Campany	36

	4.1.1	Research Hypothesis	
	4.1.2	Data Selection and Matching Method	37
	4.1.3	Research Variables Selection	39
	4.1.4	Empirical Research on Role Positioning of Venture Capital	42
	4.1.5	Empirical Research on the Influence from Venture Capital's Role	45
4	.2 Influne	ece from Venture Capital to Listed Companies' Governance Struct	ure46
	4.2.1	Research Hypothesis	47
	4.2.2	Data Selection	
	4.2.3	Research Variables Selection	
	4.2.4	Empirical Research on the Role Positioning of Venture Capital	
	4.2.5	Empirical Research on the Influence from Venture Capital's Role	51
		nability Test of the Influence from Venture Capital's Role Positioning	
C	Companie	s' Performance	
	4.3.1	Time Control	
	4.3.2	Endophytism Control	
		usion of Empirical Research on the Influence of Venture Cap	-
P		g to Listed Companies' Performance	
	4.4.1	Influence of Venture Capital's Role Positioning to Listed Companies'	Operational
		mace	
	4.4.2	Influence of Venture Capital's Role Positioning to Listed	-
	Gover	nance Structure	57
		Applicability Test of IPO Underpricing Hypothe	
Vent	ture Ca	pital	
			58
		pital	58
	.1 Impact	of IPO Underpricing Hypothesis from Venture Capital	58 58
5	5.1.1 5.1.2	apital of IPO Underpricing Hypothesis from Venture Capital Low Degree of IPO Underpricing to VC backed Companies	58585859
5	5.1.1 5.1.2	tof IPO Underpricing Hypothesis from Venture Capital Low Degree of IPO Underpricing to VC backed Companies	58585859
5	5.1.1 5.1.2 2 Empri	apital	585858616263
5	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3	Low Degree of IPO Underpricing to VC backed Companies	585859616263 VC backed
5	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3 Comp	Apital	585859616263 VC backed64
5	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3	Low Degree of IPO Underpricing to VC backed Companies	585859616263 VC backed64 anies68
5	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3 Comp	Apital	585859616263 VC backed64 anies68
5	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5	Low Degree of IPO Underpricing to VC backed Companies	585859616263 VC backed64 anies68
5	5.1.1 5.1.2 2 Empri 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5 3 Conclus	Apital	585859616263 VC backed64 anies6874
5	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5	Apital	585859616263 VC backed64 anies687476
5.	5.1.1 5.1.2 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5 3 Conclus 5.3.1 5.3.2	Low Degree of IPO Underpricing to VC backed Companies High Degree of IPO Underpricing to VC backed Companies High Degree of IPO Underpricing to VC backed Companies Cal Test on IPO Underpricing Hypothesis from Venture Capital Research Hypothesis Data Selection Comparing Analysis on Variance from VC backed and non canies Detail Variance Analysis from VC backed and non VC backed Comp Regression Analysis of IPO Underpricing Hypothesis Sion on Emprical Test Comparing Analysis Results	585858616263 VC backed64 anies687476
5. S. Chaj	5.1.1 5.1.2 2 Empri 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5 3 Conclus 5.3.1 5.3.2	Apital	585859616263 VC backed64 anies68747676
5. S. Chaj	5.1.1 5.1.2 2 Empri 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5 3 Conclus 5.3.1 5.3.2	Apital	58585859616263 VC backed64 anies6874767677
5. S. Chaj	5.1.1 5.1.2 .2 Empri 5.2.1 5.2.2 5.2.3 Comp 5.2.4 5.2.5 3 Conclus 5.3.1 5.3.2 pter 6 (Apital	585859616263 VC backed64 anies6874767677

	6.2.1	Questionnaire Design	83
	6.2.2	Questionnaire Investigation	88
6	3 Descrij	ptive Statistics	88
	6.3.1	Basic situation of Small and Medium Companies	88
	6.3.2	Group characteristics of Small and Medium Companies	91
	6.3.3	Reliability and Validity	94
Chap	ter 7	Empirical Research on Influence of Venture (Capital's
Role	Positio	oning to non Listed Companies' Performance	100
7.	1 Influe	ence of Venture Capital's Role Positioning to non Listed C	Companies'
$\mathbf{O}_{\mathbf{I}}$	peration	nal Performance	
	7.1.1	Data Selection	
	7.1.2	Research Variables Selection	100
		Comparing Analysis on Variance from VC backed and non V	
	Comp	panies	101
		Empirical Research on the Impact and Influence from Venture Capital	
		ence of Venture Capital's Role Positioning to non Listed C	
G	overnan	ce Structure	
	7.2.1	Research Hypothesis	105
	7.2.2		
	7.2.3	Research Variables Selection	
	7.2.4	F. S	
	-	panies	
		Empirical Research on the Impact and Influence from Venture Capital	
		ence from Venture Capital's Involvement after Investment to 1	
Co		es' Performance	
		Research Hypothesis	
		Data Selection	
	7.3.3		
	7.3.4	Empirical Research on the Influence from Venture Capital's Involvence	
// \		tment to non Listed Companies' Operational Performance	
<i>(</i>)>>.	7.3.5	Empirical Research on the Influence from Venture Capital's Involvence	
		tment to non Listed Companies' Governance Structure	
7.4		rch on Venture Capital Development in Fujian	
	7.4.1	Research on Venture Capital's Evaluation and Decision Making	
	7.4.2	Research on Investment Environment	117
Chap	ter 8 (Conclusion and Suggestion	122
8.	1 Conclu	usion	122
	8.1.1	Research Conclusion to the Influence from Venture Capital's Role Po	sitioning to
	Target	t Companies' Operational Performance	122
		Research Conclusion to the Influence from Venture Capital's Role Po	
	Target	t Companies' Governance Structure	123

8.1.3	Research Conclusion to the Influence of After-inv	estment
Invol	vement to Traget Companies' Performance	125
8.1.4	Results of Applicablity Test on the Underpricing Hypothesis from	Venture
Capita		125
8.1.5	Results of Venture Capital's Evaluation and Decision Making	126
8.1.6	Results of Research on Venture Capital's Investment Environment	126
8.2 Sugges	tion	126
8.2.1	Policy Suggestion on the Venture Capital Development in China	126
8.2.2	Policy Suggestion on the Venture Capital Development in Fujian	130
8.3 Research	ch Restrictions and Possible Breakthrough of Futher Research	136
Reference		138
Appendix		149
Acknowled	gment	159

第一章 绪论

1.1 问题的提出与研究意义

风险投资起源于 20 世纪 40 年代的美国硅谷,主要是指由专业人才管理的投资中介向具有潜能的高新技术企业投入股权资本,并辅之以管理参与的投资过程,也是协调风险投资家、技术专家、投资者的关系,利益共享、风险共担的一种投资机制。美国第一家真正意义上的风险投资公司 American Researchand Development (ARD) 成立于 1946 年,从此以后,风险投资在以美国为代表的西方国家迅速发展,推动了 50 年代的半导体硅材料、70 年代的微型计算机、80 年代的生物技术,90 年代之后以微软为代表的信息产业的兴起。

各国风险投资活动的特点与特征不同,美国的风险投资主要致力于扶持中小 高科技企业,而欧洲和日本的风险投资则主要致力于投资大财团。1985年3月, 我国关于科技体制改革的决定中提出风险投资的概念是中国风险投资的起点。同 年 9 月,国务院正式批准成立第一家全国性专营风险投资的机构——"中国新技 术创业投资公司"。此后,一些地方和部门相继成立了以科技融资为主要业务的 各类投资公司,但由于观念及体制上的障碍,科技体制改革与经济体制改革不配 套,再加上融资渠道不畅通、资本市场欠发育、契约关系不健全、分配制度不合 理及知识产权不明确等原因,致使我国初期的风险投资事业举步维艰,发展极为 缓慢。民建中央在1998年3月全国政协九届一次会议上提出《关于加快我国风 险投资事业的几点意见》的"一号"提案,掀起了我国风险投资事业发展的热潮, 全社会开始在风险投资领域进行多元化实践探索。我国科技部等七部委在 1999 年联合制定的《关于建立风险投资机制的若干意见》中正式将风险投资定义为: 向主要属于科技型的高成长性创业企业提供股权资本,并为其提供经营管理和咨 询服务,以期在被投资企业发展成熟后,通过股权转让获取中长期资本增值收益 的投资行为。这种定义高度概括了风险投资的基本内涵,在国内具有一定的权威 性。十多年来,国民经济的持续高速增长和政府各项鼓励和扶持政策的出台极大 推动了风险投资的发展,中国风险投资历经酝酿、蓬勃兴起、调整、新发展以及 后经济危机等五个时期,诞生了新浪、百度、盛大、无锡尚德等著名企业,极大 Degree papers are in the "Xiamen University Electronic Theses and Dissertations Database". Full texts are available in the following ways:

- 1. If your library is a CALIS member libraries, please log on http://etd.calis.edu.cn/ and submit requests online, or consult the interlibrary loan department in your library.
- 2. For users of non-CALIS member libraries, please mail to etd@xmu.edu.cn for delivery details.

