

Patron Client Relationships and Co-operative Development in Rural China

A Thesis Submitted to the
College of Graduate and Postdoctoral Studies
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy
In the Department of Agricultural and Resource Economics
University of Saskatchewan
Saskatoon

By

QIAN WAN

© Copyright Qian Wan, May, 2023. All rights reserved.

Unless otherwise noted, copyright of the material in this thesis belongs to the author.

PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis work or, in their absence, by the Head of the Department or the Dean of the College in which my thesis work was done. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in my thesis.

DISCLAIMER

Requests for permission to copy or to make other uses of materials in this thesis in whole or part should be addressed to:

Head of the Department of Agricultural and Resource Economics
51 Campus Drive
University of Saskatchewan
Saskatoon, Saskatchewan S7N 5A8
Canada

OR

Dean
College of Graduate and Postdoctoral Studies
University of Saskatchewan
116 Thorvaldson Building, 110 Science Place
Saskatoon, Saskatchewan S7N 5C9
Canada

ABSTRACT

Agricultural co-operatives in China have developed rapidly since the Farmers' Specialized Co-operative (FSC) law came into force in 2007. Still, Chinese co-operatives have been criticized because a small group of core members dominates the co-operative movement by initiating and controlling the co-operatives. However, with more co-operatives initiated and more farmers joining co-operatives, combined with significant government support for co-operatives, core members' control over co-operatives appears acceptable to various stakeholders including government, co-operative core members, and ordinary farmer members. While the FSC law specifies that co-operatives should be controlled democratically, the question is why farmers and the government are willing to accept an institutional structure that provides more influence to these key members.

Using qualitative field studies and theoretical modelling, this dissertation explores the Chinese co-operative model taking into consideration the Chinese rural context such as the heterogeneity in holding and accessing resources, the social relationship among stakeholders, and the mutual-supportive social norms within rural communities. The co-operatives originate from both member heterogeneity in accessing economic resources and member homogeneity in relations, norms, and cultural perceptions. This dissertation suggests that the patron-client relationship is more appropriate in describing internal relationships in some co-operatives in China. The patron-client framework is consistent with features of co-operation in rural China in terms of resource heterogeneity and resource sharing, trust-building and reciprocation, as well as the power disparity between core members and ordinary members.

This dissertation suggests that rural China has a unique co-operative model and development path. The Chinese co-operative does not and may not resemble co-operatives observed in the West. This does not make Chinese co-operatives somehow inferior — it simply means that many of the ideas that have been used to discuss co-operatives do not apply to the Chinese case.

ACKNOWLEDGEMENTS

First and foremost, I extend my deepest appreciation to my supervisor, Dr. Eric Micheels. His invaluable guidance, unwavering support, and continuous encouragement throughout the entire research process have been instrumental in shaping this work.

I am immensely grateful to my committee members, Murray Fulton, Marc-Andre Pigeon, Tristan Skolrud, David Natcher, and my external examiner Kevin Chen. Their valuable insights, constructive advice, and guidance have greatly enriched this thesis. The diverse perspectives they brought to the table have broadened my understanding and improved the quality of my research.

I would like to extend my thanks to the staff and faculty of the Department of Agricultural Economics for providing me with a warm and welcoming home in Canada. Their support, resources, and the conducive academic environment they have created have been pivotal in my growth and development as a researcher.

DEDICATION

I dedicate my PhD thesis to the memory of my beloved mother, who departed from this world three years ago. It was her unwavering belief in me that served as the driving force behind my decision to pursue a PhD degree. Mom, although you are no longer physically present, I hope that somehow, you can witness this achievement and find pride in it.

I would also like to express my heartfelt gratitude to my precious 2-year-old, Annette, who has added an extra layer of challenge and profound meaning to my academic journey. Your innocent joy and boundless energy have been a constant source of motivation, reminding me of the importance of perseverance and setting a positive example for you. Annette, I am proud to say that your Daddy is now a PhD!

Speaking of challenges, I must acknowledge that completing my PhD would have been impossible without the unwavering support and immense sacrifices made by my wife, Cindy—the love of my life. Your selflessness, encouragement, and patience have sustained me through the long hours, countless setbacks, and moments of self-doubt. This thesis is dedicated to you, Cindy, as a token of my deepest appreciation and love.

TABLE OF CONTENTS

Chapter 1 Introduction	1
Chapter 2 Rationales Behind Agricultural Co-operatives	5
2.1 Co-operative definitions and principles	5
2.2 The economic nature of agricultural co-operatives.....	6
2.3 The cost of market contracting.....	8
2.3.1 Asymmetric market power.....	8
2.3.2 Cost of lock-in.....	9
2.3.3 Asymmetric information.....	10
2.4 Cost of ownership.....	11
2.4.1 The collective decision-making problem.....	12
2.4.2 The incentive problem	13
2.4.3 The agency problem.....	14
2.5 Conclusion.....	15
Chapter 3 –The history of co-operative development in rural China	17
3.1 Agriculture associations and farmers’ associations (the 1900s – 1940s).....	17
3.2 Early co-operative experiments by scholars and NGOs.....	19
3.3 Co-operative development by KMT government	21
3.4 Co-operative development led by the Chinese Communist Party (CCP) from the 1920s to the early 1950s	23
3.5 Collectivism from the 1950s to 1978.....	26
3.6 Co-operative development after 1978.....	28
3.7 Summary and discussion.....	31
Chapter 4 Elites’ domination in co-operative development and the Chinese rural context.....	34
4.1 The elites’ dominance in co-operative development.....	34
4.2 Co-operative development in China from a patron-client perspective	37
4.2.1 Patron-client Relationship.....	37
4.2.2 Patron-client framework in Chinese co-operative development.....	39
4.3 The important role of social relations in rural China	40
4.4 Heterogeneity among co-operative development stakeholders.....	42

4.5	Discussion	44
Chapter 5 The qualitative field study in Tai'an City – the methodology		45
5.1	Qualitative research method.....	45
5.1.1	Definition and features.....	45
5.1.2	Advantages to qualitative research methods.....	46
5.1.3	Disadvantages to qualitative research methods	47
5.2	Research methods.....	48
5.2.1	Why qualitative research approach for this research?	48
5.2.2	Research strategy and trustworthiness	50
5.2.3	Types of qualitative research used.....	54
5.2.4	Summary of studied co-operatives.....	55
Chapter 6 Resource heterogeneity, economic opportunity, and co-operation between core members and farmers		57
6.1	Who initiates the co-operatives?	57
6.2	Resource heterogeneity and economic co-operation: An “elites lead, farmers follow” approach	58
6.3	Core members’ access to key resources	65
6.3.1	Core members’ economic resources	65
6.3.2	Core members’ access to the government and policy support.....	68
6.3.3	Village cadres and their resources and important role in co-operative development 70	
6.4	Elites’ economic motivation to initiate co-operatives.....	73
6.5	Conclusion and discussion	74
Chapter 7 Social relations, social norms, and co-operative development in rural China		77
7.1	Social relations in Chinese rural co-operatives	77
7.1.1	Co-operatives initiated by rural elites	77
7.1.2	Co-operatives initiated by village committees.....	80
7.1.3	Co-operatives initiated by external businesspeople through rural partners’ networks 81	
7.2	Social relations motivate elites to be prosocial to develop co-operatives.....	83
7.2.1	Village cadres’ prosocial motivation to serve the villagers	84
7.2.2	Rural elites’ prosocial motivation to help the people in their networks	86

7.2.3	Elites’ prosocial behavior to reward supportive stakeholders	88
7.3	Social relations to exert social pressure to build trust in co-operatives	89
7.3.1	Farmers’ trust on certain local rural elites	90
7.3.2	Co-operative initiators’ trust in certain farmers.....	91
7.3.3	Rural partners build trust between farmers and outside co-operative initiators	94
7.4	Co-operative governance.....	95
7.5	Summary	98
Chapter 8	Selected cases of visited co-operatives	102
8.1	Brilliant Duck Co-operative: accumulating resources and growing at the “structural hole” position	102
8.2	New Special Vegetable Co-operative: A multi-stakeholder partnership to utilize economic resources and social capital	106
8.2.1	The local government and the SMA	107
8.2.2	The SMA and the village committee	108
8.2.3	The SMA and farmers.....	109
8.3	Lucky Pig Co-operative: facing challenges due to increased competition and the lack of rural relationship with farmers	109
8.4	Sunshine Tea Co-operative: agribusiness partners with rural elites to engage farmers. 112	
8.5	Buildwealth Sweet Potato Co-operative: different social relations, different way to co-operate with members.	114
8.6	Rivergate Tea Co-operative: village committee’s advantages and limitation in co-operative development	117
8.6.1	Village committee’s entrepreneurship and resource contribution at the early stage of the co-operative	117
8.6.2	Village committee mobilizes supports and resources from governments, farming elites, and farmers.....	118
8.6.3	Village-oriented strategy and limitation of scale	119
8.7	South Mountain Walnut Co-operative: back-to-village elite initiated co-operative using the village committee’s platform.....	120
8.8	Summary	122
Chapter 9	Modelling Chinese rural co-operatives	124
9.1	The settings of the co-operative in the model	124

9.2	A game theoretic model of co-operative formation	125
9.3	Variables.....	126
9.3.1	Variables for the economic motivations	127
9.3.2	Variables for elite’s prosocial motivation.....	128
9.3.3	Variables for the influence of social pressure to build trust	129
9.4	Return functions	131
9.5	When can co-operation be achieved?.....	133
9.6	Parameters that affect the likelihood of co-operation	137
9.6.1	Co-operative’s profitability and the social pressure for the elite	137
9.6.2	Elite’s prosocial motivation	138
9.6.3	The farmer’s cost (production and opportunity cost)	139
9.6.4	Social pressure on the farmer.....	140
9.6.5	A summary of variables’ effect on the likelihood of co-operation.....	141
9.7	The elite’s optimal choice and the return level for the elite and the farmer	143
9.7.1	Objective function.....	143
9.7.2	Interior solution.....	144
9.7.3	Corner solution.....	146
9.7.4	Benefits to the farmer.....	149
9.8	Discussion	150
9.8.1	Heterogenous access to economic resources	150
9.8.2	Relational factors: prosocial motivation and social pressure.....	151
Chapter 10 Conclusions and discussion.....		152
10.1	Members’ heterogeneity in accessing resources	153
10.2	Social relations and social norms	154
10.3	Chinese co-operative model from a patron-client perspective.....	156
10.4	The nature of Chinese rural co-operatives	156
10.5	The rationale behind the Chinese co-operative model.....	158
10.6	Challenges for Chinese co-operatives and the potential to embrace the model in the West	160
10.7	Implications for future research	162
APPENDIX A. SUMMARY OF THE CO-OPERATIVES STUDIED.....		171

APPENDIX B. THE IMPACT OF PARAMETERS ON THE ELITE’S OPTIMAL RETURN
LEVEL 177

APPENDIX C. ELITE’S CHOICE OF PROVIDING FREE BENEFITS TO THE FARMER 180

APPENDIX D. THE CHINESE FSC LAW 187

LIST OF TABLES

Table 6.1 Farmers' needs, elites' resources and co-operation types	59
Table 6.2 Facilities of co-operatives funded by the government	71
Table 7.1 Services that benefit members	87
Table 9.1 Description of variables in the model	126
Table 9.2 The relationship between variables and co-operation space	141
Table A.1 Co-operative industry and initiators	171
Table A.2 Stakeholders' role and member origin	173

LIST OF FIGURES

Figure 4.1 Two layers of patron-client relations in rural China's co-operative development	40
Figure 5.1 The location of Tai'an city.....	51
Figure 7.1 Co-operatives in Qi village.....	79
Figure 7.2 Brightspring Tea Co-operative	80
Figure 7.3 Sunshine Tea Co-operative.....	83
Figure 7.4 Governance structure in Chinese rural co-operatives versus traditional co-operatives	96
Figure 7.5 Co-operative initiation road map.....	100
Figure 8.1 Reinforcing cycle of Brilliant Duck Co-operative's development.....	103
Figure 8.2 The development path of Brilliant Duck Co-operative	104
Figure 8.3 The structure of New Special Co-operative	107
Figure 8.4 Buildwealth Sweet Potato Company's approach to reach out to farmers	115
Figure 8.5 Stakeholders in rural China's co-operative development.....	123
Figure 9.1 Co-operation outcomes.....	125
Figure 9.2 Return level for the farmer and the elite.....	131
Figure 9.3 Co-operation space	136
Figure 9.4 The effect of social pressure (on the elite) on co-operation space	137
Figure 9.5 The effect of elite's prosocial motivation on co-operation space.....	138
Figure 9.6 The effect of farmers' opportunity cost on co-operation space	139
Figure 9.7 The effect of the social pressure (on the farmer) on co-operation space.....	140
Figure 9.8 Interior solution	144
Figure 9.9 Optimal return for the elite in the scenario of corner solution	147
Figure B.1 The relationship of A and t and the influence in optimal return	178

LIST OF ABBREVIATIONS

FSC Farmers' Specialised Co-operative

Chapter 1 Introduction

Agricultural co-operatives in China have developed rapidly since the Farmers' Specialized Co-operative (FSC) law came into force in 2007. According to the data from Chinese Ministry of Agriculture, there were 26,000 formally registered co-operatives in China in 2007. Ten years later, in 2017, there were more than 1.9 million co-operatives, a nearly 70-fold increase. Over nearly the same timeframe, the number of farmers participating in co-operatives increased from 9 million in 2008 (4% of China's rural population) to 100 million in 2017 (47% of China's rural population).

While this growth has been extraordinary, Zhao and Yuan (2014) indicate that the co-operative model in China deviates significantly from the rest of the world, and as a result these numbers are context dependent. The co-operatives that have been formed in China are mainly "shareholding co-operatives" (Xu & Wu, 2014; Zhao & Yuan, 2014), with share-ownership "concentrated in the hands of the founding members," and the chairman often being the largest shareholder (Bijman & Hu, 2011, p. 109). While co-operatives in the West are owned and democratically controlled by members regardless of their individual investment amount, within Chinese co-operatives, ordinary farmer members possess few decision rights regarding production decisions and profit distribution. Instead, a small group of core members dominate the governance process by initiating and controlling the co-operatives (Lin & Huang, 2007; Zhao & He, 2012). The core members of Chinese co-operatives are typically comprised of rural elites, village committees (village cadres), and agribusiness companies or businesspeople.

The concentration of power with core members is a function of high levels of member heterogeneity in business resources and capabilities (Lin & Huang, 2007), ordinary members' lack of interests in co-operative governance due to their lack of knowledge of co-operatives and members' role, rights, and responsibilities (Hu et al., 2013), the inadequate enforcement of the co-operative law (Xiong, 2009), and the lack of government policies and regulations on democratic governance (Hu et al., 2013). For example, Wang (2010) suggests that managers and major shareholders have taken advantage of the members' indifference and the lack of co-operative ideology to gain control of co-operatives and exploit the members.

However, the core members' control over co-operatives appears acceptable to farmers and the government. Research reveals that farmers trust the core members and support their control within co-operatives (He & Zhuang, 2015) and that the co-operative members benefit from increases in output prices, market access, and income (Ma & Abdulai, 2017). Governments also provide large supports in promoting co-operatives (Deng et al., 2010; Song et al., 2014; Zhao & Yuan, 2014). That brings about the question: why are farmers, knowing they do not have decision rights in the co-operatives, willing to participate in these co-operatives and voluntarily support the core members? Alternatively, why would core members who control the co-operatives be willing to share the benefits with ordinary members (Ma & Zhu, 2020), even though it seems unnecessary? And why would the government support the co-operatives that are controlled by the core members?

Therefore, although some researchers regard Chinese co-operatives to be inauthentic, “judging by either international or Chinese standards” (Hu et al., 2017, p. 1), this comparison may be misleading – we may fail to embrace the idea that Chinese co-operatives, even though called co-operatives, are a unique model of co-operation among stakeholders and are shaped by China's unique social-economic-political environment. While Chinese co-operatives should not be called co-operatives, they are interesting to study, since they represent a novel organizational form that appears to be successful in addressing the key problems associated with the vertical relationships between farmers and other segments of the agricultural value chain. Although the term co-operative is misleading and does not align with the use of this term in the West, I will nevertheless continue to use the term since it is the one used in China.

The purpose of the research is to build a perspective to describe and explain the Chinese co-operative development model, taking into consideration the Chinese rural context, such as the heterogeneity in holding and accessing resources, the social relationship among stakeholders, and the mutual-supportive social norms within rural communities. To understand this context, qualitative field studies were carried out in rural China to provide rich firsthand information. I interviewed co-operative leaders, farmers, and government officials to explore the motivations of stakeholders and the role of rural China's social, cultural, and economic factors in shaping co-operative development. Secondly, following the findings from the field study and the literature, I model the relationship between elite members and ordinary members as a patron-client relationship. The model discusses how profits and costs (economic motivation), social pressure,

and prosocial motivations can change the parties' decision to initiate or participate in the co-operative.

This research contributes to the study of Chinese co-operatives by explaining the rationales behind the Chinese co-operative model dominated by the core members and suggesting that the patron-client relationship can be used to describe the internal relationships in some co-operatives in China. The patron-client framework is consistent with features of co-operation in rural China in terms of resource heterogeneity and resource sharing, trust-building and reciprocation, and the power disparity between core members and ordinary members.

Specifically, the analysis of the interview data suggests that co-operatives in rural China has a unique model and development path. The co-operative in China does not mean the co-operative in the West. This distinction does not make Chinese co-operatives somehow inferior — it simply means that many of the ideas that have been used to discuss co-operatives in other contexts do not apply to the Chinese case.

Farmers' co-operatives in China were created with the goal of modernizing agriculture and ensuring that farmers could benefit from this modernization process. The challenge for economic development in rural China is how to get capital and value chain resources to farmers in a way that these resources will be used wisely. The Chinese co-operative model is one way of doing this through the co-operation between the elites and the ordinary farmers: elites' access to value chain resources enables them to initiate the co-operative business, integrate farmers to produce, and “make a bigger pie to share” between themselves and the ordinary members.

Moreover, homogeneity among members in relations, norms, and cultural perceptions promotes cohesion. Social relationships and social norms play important roles in building consensus and trust and reducing the transaction costs in the co-operative. Data from the interviews suggests that many core members are careful to select members with whom they already have a good relationship with, because core members have stronger prosocial motivations to help them (due to their relationships) and because core members and the selected ordinary members tend to get along well with each other and trust each other. The prior existence of stable social relationships between core members and ordinary members provides a good foundation for the co-operative, and in turn, is strengthened through ongoing co-operative activities. If potential co-operative initiators do not have such a direct relationship with farmers, they will then try to build an indirect relationship with farmers through a coordinator or a broker,

whose relationship with farmers can enhance trust and coordination in the co-operative initiation and operation.

The theoretical model constructed is consistent with the findings of the field study and indicates that economic benefits, social pressure, and prosocial motivation can play positive roles in promoting co-operation between elites and ordinary farmers. Specifically, the model indicates that the initiator is more motivated to establish co-operatives when they see bigger profits that the co-operatives can make and when the farmer lacks alternative opportunities. The model indicates that the initiator's motivation increases with a higher prosocial motivation, which also benefits the farmer in the co-operative. The model also indicates social pressure makes the co-operation between the initiator and farmers more likely; and the social pressure on the farmer increases the initiator's motivation to establish a co-operative.

The dissertation has ten chapters. Chapters Two and Three review co-operative theories in the West and the history of co-operative development in rural China, respectively. Chapter Four discusses China's core-members-controlled co-operatives, patron-client frameworks, and the Chinese rural context that can be important in shaping co-operative development. Chapters Five through Eight present the qualitative field study. Chapter Five discusses the qualitative study method and why it is chosen in this dissertation to achieve the research goals. Chapters Six and Seven present the general analysis of the qualitative data collected from the field, targeting some key questions in co-operative development, while Chapter Eight illustrates selected representative cases of co-operatives visited in the field study. A theoretical model is built in Chapter Nine to describe the factors influencing the co-operation between the initiators and the ordinary members. Chapter Ten is the conclusion and discussion linking the reviewed co-operative theories, theoretical model, and qualitative analysis together to present a patron-client perspective of Chinese co-operative development.

Chapter 2 Rationales Behind Agricultural Co-operatives

Chapter Two provides a review of the literature on western co-operatives with regards to co-operative features, the rationale behind the co-operative establishment, and the cost of ownership associated with the co-operative model. Although much of the theory of western co-operatives is not applicable to the co-operative model in China, the review does highlight a number of key factors that have to be addressed when thinking about the relationship between farmers and other segments of the agricultural supply chain.

2.1 Co-operative definitions and principles

A co-operative is defined by International Co-operative Alliance (ICA) (1995) as “autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.” The Seven Principles by ICA and the Three Principles from the U.S. Department of Agriculture (USDA) further describe the identity of co-operatives.

ICA principles provide “a guide to realize and follow the values that co-operatives have established throughout their history” (Reynolds, 2014, p. 4). The ICA’s seven principles for co-operatives are:

1. Voluntary and open membership
2. Democratic member control
3. Member economic participation
4. Autonomy and independence
5. Education, training, and information
6. Cooperation among co-operatives
7. Concern for community

USDA principles exhibit “the virtues of being a concise definition that includes essential attributes of co-operatives” (Reynolds, 2014, p. 7). The USDA’s three principles are “user-owner principle, user-control principle, and user-benefits principle” (Meyer, 1994, p.5):

1. The user-owner principle: people who own and finance the co-operative are those who use it.

2. The user-control principle: people who control the co-operative are those who use it.
3. The user-benefits principle: the co-operative's sole purpose is to provide and distribute benefits to users based on their use.

Fairbairn's (2003) relationship view of co-operatives is a good addition to the USDA principles that "a co-operative is defined by, and draws strength from, its relationships." As Fairbairn (2003, p. 1) states, "co-operatives are highly adaptable and complex in situations; their essence cannot easily be captured by any simple formula or list of characteristics." This view highlights "the importance of issues of trust and of agency" such as shared values and understandings (Fairbairn, 2003, p. 6).

All these definitions highlight the co-operative's difference from other types of businesses such as investor-owned firms where ownership, control, and benefits accrue to shareholders, not users. Co-operatives follow the "one member, one vote" democratic rule in decision making. In what Cook and Chaddad (2004) refer to as traditional co-operatives, the benefits (profits) distributed to the farmers are proportional to their patronage, regardless of the amount of their investment. The investment return is commonly limited by legislation or the co-operative bylaws. Some new models of co-operatives (see Chaddad & Cook (2002)), such as New Generation Co-operatives, may relax the restriction on residual claim rights to increase the members' incentive to invest and reduce the cost of ownership within co-operatives.

Depending on what kind of users members are, co-operatives could be categorized as consumer co-operatives, producer co-operatives, worker co-operatives, multi-stakeholder co-operatives, etc. Co-operatives exist in various industries such as retailing, manufacturing, agriculture, finance, electricity, healthcare, funeral, etc. Agricultural co-operatives have three major economic functions: marketing farmers' produce, supplying inputs to farmers, and operating farming jointly (LeVay, 1983).

2.2 The economic nature of agricultural co-operatives

To understand the rationale to initiate agricultural co-operatives, we should understand farmers' needs and why the co-operative may provide a more favourable solution to farmers than other organizational forms. The approaches scholars have used to examine co-operatives have included neoclassic economics, transaction cost economics, new institutional economics, property rights

theory, game theory, and group public good theory (Torgerson et al., 1998). In addition to the economic rationales, co-operatives also have social objectives,¹ but economic activities should be put as the means to achieve social impacts rather than the reverse because “all types of co-operatives have to cover costs with revenues raised in a competitive context” (Fairbairn, 2003, p. 5).

In early theoretical studies, researchers did not recognize co-operatives as firms and suggested that they have no independent entrepreneurial, profit-seeking intentions, or volition. Emelianoff (1942) regards agricultural co-operatives as non-profit agents of farmers operating at cost and therefore co-operatives are an “aggregate” of “a number of individual (farm) firms, each of which retains its logical separability and independence” (LeVay 1983, p. 8). Phillips (1953) regards co-operatives as the joint extension of individual farms to maximize the profit of their individual agri-business. The co-operative, together with the member businesses, are treated by Phillips as a vertically integrated firm (Helmberger & Hoos, 1962).

Helmberger and Hoos (1962, p. 290) believe that co-operatives are firms with objectives different from profit-seeking firms, and should be treated as “an economic agent whose behaviour and performance are appropriate subjects for theory and research.” They suggest that the dependent non-firm perspective of co-operative is problematic because members are not homogenous and it is hard, therefore, to find one solution to maximize everyone’s profit. Therefore, “there is a corresponding need for the election of a ‘representative’ board so that conflicting interests may be compromised” and “the allocation of economic resources comes under the direction of a ‘single’ authority” (Helmberger & Hoos, 1962, p. 280). LeVay (1983) puts price and output determination as a major difference between co-operatives and for-profit firms and regards marketing co-operatives as bargaining instruments rather than an independent selling or buying organization.

More recent research sees agricultural co-operatives as producer-oriented firms (Bijman & Hendrikse, 2008, p.95). Hansmann (1999) states that the firm’s ownership arrangement depends on the cost of market contracting and the cost of ownership, specifically that the high cost of market contracting and the low cost of ownership are both essential for the existence of co-

¹ The dual (social and economic) objectives of co-operatives are “even used as a form of definition of what co-operatives are and what they are for: that they differ from other businesses because they have social goals” (Fairbairn, 2003, p. 2).

operatives. In fact, Hansmann (1999, p. 395) believes the cost of ownership may be more important:

“The costs of market contracting, in any case, generally appear to be far exceeded in importance by the costs of ownership. Where costs of ownership are particularly low for a given group, that group often ends up as the firm’s owners, even if the costs of market contracting for that group are relatively low. Many agricultural supply co-operatives may today be an example here.”

Hansmann’s perspective gives a good reference to analyze and understand the unique structure of Chinese co-operatives in this dissertation: whether the model with elites’ dominance, considering Chinese rural contexts appropriately addresses the high costs of market contracting and has low costs of control relative to other forms of organization.

2.3 The cost of market contracting

The cost for farmers in market contracting originates from the absence of competitive trading partners. If the market is competitive, farmers theoretically should be able to find the required services provided by cost-efficient competitive trading partners. However, in a situation characterized by market failure, parties have asymmetric information or market power, and therefore have the potential to act opportunistically. That leads to a higher cost of market contracting and a disincentive to invest and produce (Hansmann, 1999, p. 390). In such situations, farmers have motivations to establish co-operatives to internalize some market contracting costs, take ownership of counterparts of the value chain (vertical integration), or/and increase their bargaining power.

2.3.1 Asymmetric market power

The first type of cost of market contracting is the asymmetric market power between farmers and their trading partners (Bijman & Hendrikse, 2008) or what Hansmann (1999, p. 390) calls “simple market power.” The existence of market power relates to the existence of barriers for entry, obstacles that make it difficult for new firms to enter a market and compete with established firms. The presence of sunk costs is a key issue (Baumol & Willig, 1981). Sunk costs, once incurred, cannot be recovered: the risk of losing these investments discourages new

entrants from entering a market.

The economy of scale (Hansmann, 1999) or the efficient size (Bijman & Hendrikse, 2008) is a barrier for the new entrants as it is difficult for them to compete with scaled incumbents before the entrants can grow to the efficient size. With sunk costs, a new entrant may be hesitant to invest in the competition with the incumbents due to the perceived risks of losing these investments (Baumol & Willig, 1981). In addition, Staatz (1987) discusses asset fixity or immobility as an exit and entry barrier, arising due to the features of the asset or to poorly functioning factor markets. Besides, when the market is static or declining, the fading profits and high risks associated with sunk costs act as barriers for new entrants (Staatz, 1987, p. 89). In such a situation, one trading partner is likely to monopolize the local market and be more opportunistic as they have nothing to lose. Other factors such as regulation and cartelization may also limit market competition and contribute to market power (Hansmann, 1999)

Specifically, Bijman and Hendrikse (2008) state that there is market power disparity between farms and their trading partners (suppliers of farm inputs and processors of farm produce). While some trading partners can become one of a few players in the region due to economies of scale, many farms are family-based with a much smaller scale relative to their trading partners. Allen and Lueck (1998, p. 343) state that the optimal farm size is determined by “a trade off between moral hazard and gains from specialization.” The effects of seasonality and random shocks to farm output generate moral hazard incentives. When such effects cannot be properly mitigated, the cost of monitoring all the employees in a larger-scale corporate farm is high, outweighing the benefits of specialization and making family farms optimal structure.

In this situation, farmers establish co-operatives as bargaining associations to increase market power from a neo-classical perspective by creating a larger collective trading body. However, it is worthy noting that with technological development, monitoring performance and product attributes gets easier. In that sense, family-based farming structures may be threatened, and the role of co-operatives could be weakened (Fulton, 1995).

2.3.2 Cost of lock-in

Hansmann’s second type of cost of market contracting is what he terms “ex post market power” or “lock-in.” Once one party is locked in a relationship with the trading partner, there are costs (thus barriers) for the party to exit the contracting relationship, which may discourage future

entrants or investment.

One type of “lock-in” is that the party invests in transaction-specific assets. Staatz (1987, p. 88) states that “an asset becomes more specific to a particular use or user as the cost of transferring the asset to alternative uses increases...As an asset becomes more specific, its resale or salvage value diverges from its acquisition value.” Asset specificity takes a variety of forms including “physical, human, site-specific...” and “knowledge and skills that are incidentally acquired by the parties while working together” (Tadelis & Williamson, 2012, p. 10). These specific assets “cannot be redeployed to alternative uses or users without loss of productive value” (Tadelis & Williamson, 2012, p. 10).

Asset specificity is a major feature of the agriculture industry (Valentinov, 2007) as agriculture production requires “substantial up-front investments” (Bijman & Hendrikse, 2008, p. 97). The unequal asset specificity creates unequal bargaining power or market power. The weaker party is facing threats of being held up by opportunistic trading partners (Tadelis & Williamson, 2012). Hold-up threats can be especially high when “the proportion of sunk costs to total costs at the time of the transaction is high” (Staatz, 1987, p. 89) and when the product is highly perishable (Staatz, 1987; Hendrikse & Veerman, 2001, p. 206). It is costly for the party to turn around once they have “locked-in” one foot into the business. And the vulnerable party may have to accept an offer worse than previously expected or promised.

In summary, once individuals are locked into a relationship with the trading partners, they face costs or other barriers to exit from the relationship, which limits their ability to contract with other trading partners. The incumbent trading partners, therefore, gain market power, referred to as “ex post market power” by Hansmann (1999). In this situation, farmers set up co-operatives to vertically integrate suppliers or processors to internalize transactions.

2.3.3 Asymmetric information

Market transactions can be costly due to information asymmetry. Information asymmetry describes the situation where some information is only known by specific individuals, e.g. local people, due to the high “measurement cost” involved in measuring product attributes and human performance (Barzel, 1982). Information asymmetry may be due to the parties’ unequal identities, social networks, and capability to acquire and utilize information.

Akerlof (1978) explained how asymmetric information can create problems in markets,

leading to adverse selection and market failure. Specifically, he used the example of the used car market to illustrate how sellers with more information about the quality of their cars are more likely to sell low-quality "lemons" while buyers are hesitant to purchase cars of unknown quality, leading to a market breakdown. Another problem that may arise is moral hazard. In situations where one party has more information or control over a situation than another party, the party with more information or control may shirk (not work hard enough) or take more risks because they are not fully responsible for the consequences of their actions, hurting the counterparty (Arrow, 1963; Jensen & Meckling, 1976).

Farmers have established rural credit co-operatives due to the presence of asymmetric information. An example of adverse selection and its impact was the rural finance in India and Germany (Bonus, 1986, pp. 316–317). Commercial banks lack access to information needed to assess the farmers' creditworthiness. This prevented commercial banks from entering the rural market. On the other hand, local elite moneylenders, who possess "intimate knowledge" of the community, have been able to exploit this advantage and dominate the local market, charging exorbitant interest rates.

Farmers also set up co-operatives to address the measuring problem in their relationship with suppliers or processors (Bijman & Hendrikse, 2003, p. 97). Farmers are threatened by opportunistic input or service providers when it is difficult to measure the quality of the products (e.g., fertilizer) or services and when there is a lack of competition among trading partners to generate a price that fairly reflects the attributes of the products or services sold to farmers. In addition, processors may underpay farmers for high-quality produce due to the difficulty to measure the product quality, which leads to farmers' lack of motivation to improve the quality. On the other hand, Bonus (1986, p. 319) states that members would disclose sensitive local information to the co-operative rather than an outside institution "because they felt that the association was their own, and that they could trust it."

2.4 Cost of ownership

Klein (1998, p. 464) states that "internal organization brings another kind of transaction costs, namely problems of information flows, incentives, monitoring and performance evaluation." Hansmann (1999) terms the cost of owning a co-operative as the "cost of ownership," including the cost of monitoring, the cost of collective decision-making, the cost of the residual claim, and

the cost of risk-bearing.

Cook (1995, p. 1156) states that the “vaguely defined property rights” of co-operatives “lead to conflicts over residual claims and decision control” including five problems: “free rider problem,” “horizon problem,” “portfolio problem,” “control problem,” and “influence costs problem.” Similarly, LeVay (1983, p. 2) suggests that “co-operatives may have particular problems of participation, management and control not paralleled in conventional firms,” influencing their “market entry, growth, survival and competitiveness.” Co-operatives are facing challenges when it comes to attracting investment (Valentinov, 2007) and entrepreneurship (Ben-Ner, 1985) and the pressure of competition in a more competitive and coordinated agricultural industry (Bijman & Hendrikse, 2003). The cost of ownership in the co-operative can be summarized below.

2.4.1 The collective decision-making problem

Collective decision-making is an inevitable process “when ownership of a firm is shared among a class of patrons” (Hansmann, 1999, p. 392). Hansmann discusses two types of cost of collective decision-making: the cost of the decision-making process per se and the influence on organizational efficiency.

The cost of collective decision-making is related to the members’ heterogeneity. Nilsson (2001, p. 343) states that in a well-functioning co-operative, members “generally exhibit a high degree of homogeneity in many respects” and “there is a common philosophy, a group spirit, common problems, etc., which contribute to a sense of solidarity and reduce the transaction costs for the membership’s internal relationships.” However, the cost of collective decision-making will be high if it is costly to reach a consensus, which happens most if the heterogeneity of the members’ interests is high and an efficient method is absent to balance the different interests. Cook (1995) raises the “influence costs problem” for co-operatives: “diverse objectives among its members can lead to damaging influence activities” to influence the co-operative’s decision-making related to benefit distribution to favour themselves.

In addition, Hansmann (1999, p. 393) states that there can be organizational inefficiency that a group of members exploits another group to make a suboptimal decision for the co-operatives in general. Hansmann (1999, p. 393) explains that “if the preferences of the median voter are not those of the mean, a majority voting mechanism may yield decisions that are not only inefficient,

but that are inferior to those that would be reached if the patrons simply contracted as individuals with a profit-maximizing firm.”

2.4.2 The incentive problem

The incentive problem describes the lack of incentive for stakeholders to invest in the co-operative business, including activities of raising and using capital. Co-operatives have challenges raising capital (Hansmann, 1999), especially raising equity investment from non-member individuals, or raising additional investment (than the minimum required investment) from members. This is because the investors cannot enjoy proportional voting rights, are eligible for only a limited return to investment, and have difficulty monitoring the performance and risks (e.g., compared to monitoring companies in the public exchange market). In addition, the capital investment has limited tradability and liquidity.

Specifically, Cook (1995, p. 1157) states co-operatives face “horizon problem.” Due to the lack of market for the co-operative’s shares, an individual farmer cannot receive the discounted future value of the assets by selling their shares. This creates a “disincentive for members to contribute to growth opportunities” for the wellness of co-operatives in a longer-term. That is also referred by Ben-Ner (1984) as the members’ shortsightedness.

Members’ risk aversion can also disincentivize investment in co-operatives (Ben-Ner, 1984), also discussed by Cook (1995) as the “portfolio problem” for co-operative businesses. Risk-averse farmers seek to diversify their investments by selecting a mix of assets that have negative correlations in their returns. However, if they allocate their capital to both their farm and the co-operative, they are effectively over-investing in assets that tend to move in tandem. As a result, farmers may be reluctant to invest in their co-operative and instead opt for alternative assets. Members may also try to direct or influence co-operatives to be conservative with investment.

The “free-rider problem” (Cook, 1995), including non-member free-riding and new member free-riding, also disincentivizes investment by members. While the risk and cost of investment are borne solely by its members (existing members), the benefits arising from such investment will not be exclusive to them. Instead, non-members (new members) will also partake in the benefits, thus diluting the returns for existing members. This situation creates a disincentive for members to invest in the co-operative.

In addition, co-operatives may have limited attractiveness for talented entrepreneurs and

managers (Ben-Ner, 1985; Helmberger, 1966). Due to the limited control rights and residual claim rights and the lack of transferable shares, the entrepreneurs or managers who would be capable in a for-profit environment will not be fully rewarded in a co-operative and will prefer to initiate or join investor-owned firms. However, it is worth noting that the financial incentives are not the sole factors: as LeVay (1983) states, entrepreneurs will also evaluate the importance of solidarity and social capital in initiating and developing the business, for which the co-operatives model outweighs private firms.

To address the incentive problem, many co-operatives embrace new models to “relax some or, in the limit, all restrictions on traditional co-operative ownership rights” to accept proportional voting, proportional residual claim rights, and greater transferability or redeemability (Chaddad & Cook, 2002, p. 17). Chaddad and Cook (2002) use an ownership rights typology to summarize and compare non-traditional co-operative models, including “proportional investment co-operatives,” “member-investor co-operatives,” “new generation co-operatives,” “co-operatives with capital seeking entities,” and “investor-share co-operatives.” For example, “new generation co-operatives” (NGCs), which are dedicated to more capital-intensive value-adding processing, adopt delivery rights to regulate the amount of produce farmers can deliver to the processing facilities (and thus and right to use and benefit from the co-operatives). The deliver rights are transferrable and proportional to the investment contribution. Such arrangements seek to align investment, patronage, and residual claim rights to increase the farmers’ investment incentives.

2.4.3 The agency problem

Co-operatives face a “control problem” that members of the co-operatives, the principal, face challenges to control and monitor their agent managers (Cook, 1995). The problem has two highly interrelated parts: the need for strong member control; and the difficulty to achieve that. Hansmann (1999, p. 398) states

“If managers are to be induced to act in the interests of the firm’s owners, strong direct member control is far more important in a co-operative than it is in an investor-owned firm. And this means, in turn, that co-operatives, in contrast to business corporations, are likely to thrive only where such control is possible.”

However, the control in the co-operatives is diffused because no single member can account for a substantial percentage of the total co-operative business or hold substantial voting rights in the co-operative. This is the first reason why member control is difficult and collective involvement in governance is important. From a technical perspective, it is hard for co-operatives, which are not purely for-profit, to find a simple indicator (such as financial indicators like share price or profit) to measure and monitor the performance of the management; other issues such as the quality of the service also matters. Therefore, as Hansmann (1999, p. 398) says, “to discipline managers, members must know much more about the firm and its services than the shareholders of a business corporation must know.”

When co-operative businesses increase in size, scope, and complexity, members can be more distanced from the management, which can make it more difficult to effectively monitor and communicate with the management. Members may also have low motivation caused by “excessive egalitarianism” (Ben-Ner, 1984, pp. 247–248). Without good control, the “cost of managerial opportunism” is a bigger threat (Hansmann, 1999). In addition, overconfidence by management (Fulton et al., 2015) and their lack of understanding of the co-operative business, members’ needs, and the importance of transparent communication (Fairbairn, 2003) may amplify the consequences of the agency problem.

2.5 Conclusion

This chapter reviews the literature on western agricultural co-operatives. Agricultural co-operatives are established by farmers to achieve their common needs and aspirations and are collectively owned and democratically controlled by members. The choice of the co-operative model is determined by the cost of market contracting and the cost of ownership.

Farmers are motivated to establish co-operatives when the cost of market contracting is high. This is because farmers cannot access products or services at a competitive price from competitive trading partners. One reason for this is that opportunistic trading partners take advantage of their neo-classical and/or lock-in market power to exploit the farmers. Another reason is that asset specificity and information asymmetry discourage investors from entering the community to provide services to the farmers.

In the West, cooperatives provide two options to reduce the cost of market contracting: bargaining associations to increase market power from a neo-classical perspective by creating a

larger collective trading body; and vertical integration to internalize transactions, as farmers own, control, and benefit from co-operatives as their trading partner.

Nevertheless, opting for a co-operative ownership structure that is democratically controlled comes with its own internal expenses. Collective decision-making can be costly and inefficient, especially when the membership becomes heterogeneous. Members and other investors may lack incentives to invest in co-operatives because investors cannot enjoy proportional voting rights, are eligible for only a limited return on investment, lack access to trade and liquidize shares, and have difficulty monitoring the performance and risks. In addition, members of a co-operative have challenges controlling and monitoring the management, as no single member can account for a substantial percentage of the total cooperative business or hold substantial voting rights in the cooperative.

Chapter 3 The history of co-operative development in rural China

The Chinese co-operative movement can be traced back to the early 1900s and has been dramatically shaped by the changes in government and the transformation of political and economic institutions. The co-operative movements in China can be summarized in the following historic periods: the early co-operative movement before the People's Republic of China was founded in 1949, the collectivism from the 1950s to 1970s, the re-emergence of the co-operative movement after the 1980s, and the accelerated co-operative development in 2000s especially after the Chinese co-operative law came into effect in 2007 (Hu et al., 2017; Xu, 2014; Du, 2002).

It is worth mentioning that in some periods of co-operative movement, even though the term “co-operative” is used by the government or scholars to categorize these organizations, the “co-operatives” established in China are quite different from the co-operatives in the West. “Co-operative” movements in China include attempts by Chinese governments to organize farmers and influence their activities. As such, at some point, it may not make sense to keep calling them "co-operatives" and instead use a different descriptor. In this chapter, I will discuss China's “co-operative” movements and the incentives and roles of government, farmers, and other stakeholders. The purpose of the chapter is to outline the ways in which “co-operatives” have developed in China to point out similarities in these various movements in terms of who had influence in the co-operative development.

3.1 Agriculture associations and farmers' associations (the 1900s – 1940s)

Agriculture associations were first established in 1907 during the Tsing Dynasty, the last one in Chinese history. The introduction of agriculture associations, with the purpose of developing Chinese agriculture, was among the measures of the Tsing Government's domestic economic reform. The structure of the association included three levels: the provincial headquarters in the provincial capital, the “fu” or county level associations, and the village level units. The main functions of farmers' associations included promoting advanced agronomic knowledge and production skills, organizing farmers in infrastructure construction, and disaster mitigation (Xu, 2014; Zhu, 1991).

A similar type of organization is the farmers' association, common during the time of the Republic of China (1912 - 1949). In 1930, the Nationalist party or *Kuo Min Tang* (KMT) government passed the Farmers' Association Act and later on in 1943, the Act was revised. Farmers' associations have four levels: provincial, city/county, district, and township level associations. The farmers' associations play an important role in supporting the government in the development of agriculture and the rural communities, including promoting land rent reduction, supporting the distribution of agricultural loans, and adopting technological and agronomic practices (Xu, 2014).

While both agriculture associations and farmers' associations were formally designed to be autonomous and democratically controlled (bottom-up by farmers), both associations faced challenges arising from the stakeholders' heterogeneous social class(es), power, and interests. Both tended to be controlled by elites and lacked representatives and participation from peasants.

Xu (2014) states agriculture associations during the Tsing Dynasty were the social entities under the supervision of governments and under the control of the "gentry and businessmen class." The governmental departments were responsible for the enactment of the regulations and bylaws regarding issues like membership and leadership eligibility, finance, association scale, activities, etc. Key issues of the agriculture associations needed to be approved by the governments (Xu, 2014). The associations generally relied on funding from the government, making them agents of the government in rural governance (Zhu, 1991).

With respect to farmers' associations, the KMT government regulated that governmental departments and the KMT lead and direct the activities of farmers' associations. The role of farmers' associations as government strategic supporters outweighed their role as the autonomous representatives of farmers. The farmers' associations were a vehicle for the partnership between the government and rural elites in rural governance to serve social and political purposes (Xu, 2014).

The agriculture associations and farmers' associations are not typically agricultural co-operatives. Indeed, in the Republic of China era, the farmers' associations co-exist with co-operatives in rural China. However, it is the start of formally established farmers' organizations with some modern organizational features.

3.2 Early co-operative experiments by scholars and NGOs

China's first co-operative, Peking University Consumers' Co-operative, was founded on March 30, 1918. It operated bookstores and grocery departments to serve faculty and student members (Bai, 1993). The initiation was led by a law professor Hu Jun at Peking University and went through a formal procedure (announcement, steering committee, fundraising and election) with wide participation of students and faculty.

In 1919, the Shanghai credit union, the first credit union in China, was founded by Professor Xue Xianzhou together with the faculty and students of Fudan University in Shanghai (Trescott, 1993; Han et al., 2008). Xue studied economics in Germany and the U.S. and was highly influenced by the co-operative movements in the Western world. Xue is believed to be the pioneer of the Chinese co-operative movement and one of the most influential educators and practitioners. His students promoted co-operative movement in Jiangsu province and made co-operative development policies in the KMT government (Han et al., 2008).

From the 1920s to the 1940s, various co-operative movements were carried out in rural China. One important group of promoters were NGOs, scholars, and social reformers, such as the China International Famine Relief Commission (CIFRC), Gong Ho or ICCIC (International Committee for the Promotion of Chinese Industrial Co-operatives), Liang Shuming, and Yan Yangchu. Many of these organizations and individuals were influenced by Western co-operative practices and were supported by the KMT Government in its Rural Reconstruction Movement. The co-operative movement was a part of a bigger exploration of the social, cultural, political, and economic development path for rural China and was undertaken together with education programs and local governmental and institutional reforms.²

The co-operative movement trial in Zouping, Shandong province led by Liang Shuming is believed to be one of the most influential (Yan & Chen, 2015). Liang advocated a distinct path from capitalism and communism: Chinese rural society should restore traditional Confucius moral standards and achieve harmonious autonomous governance through less governmental interference (Li, 2008). In 1930, Liang started his trial in Zouping county with the support of the then Governor of Shandong Province, Han Fuqu. In 1933, Zouping was selected as one of many experimental or trial counties by the KMT Government. Co-operatives were initiated to organize

² The most representative movement is the Mass Education Movement led by Yan Yangchu (Y. C. James Yen)

farmers in production, marketing, and accessing financial services. By the end of 1936, Zouping county had 307 co-operatives with a total membership of 8,828 households, including 156 cotton co-operatives, 21 silk co-operatives, 23 forestry co-operatives, 48 credit unions, etc. (Li et al., 2008). The most successful co-operative was the cotton co-operative structured as a two-tier co-operative federation. The headquarters was responsible for processing, grading, marketing, seed selection, and providing financial and technical support to serve the 156 village-level co-operatives who organized the farmers in their communities in production (Li et al., 2008). This co-operative movement created significant benefits for the farmers and saw improvements in terms of co-operative expansion and farmers' participation. The trial was expanded to another 27 counties in Shandong province and drew nationwide attention. However, the movement stopped after the Japanese invasion into Shandong in 1937 (Li et al., 2008).

Charities and NGOs funded by Chinese and international donors played a very important role in Chinese co-operative development. China International Famine Relief Commission (CIFRC) is one representative. CIFRC was a charity established in 1921 by Chinese and Western (mostly American) people dedicated to helping people who suffered from serious drought and famine in northern China. CIFRC promoted co-operatives as mutual-help institutions for disaster preparation and mitigation on farms. CIFRC was not directly involved in the initiation procedure but acted as an external financial and intellectual resource.³ Thanks to its foreign charity role, CIFRC enjoyed more convenience and faced less government interference in the co-operative promotion in Hebei province in the 1920s and later all over China.

CIFRC started in Hebei province to develop credit unions. By 1930, CIFRC facilitated 946 co-operatives with 25,727 members in Hebei province, which is believed to be the most significant co-operative movement in China in the 1920s (Xue, 2003). CIFRC also promoted co-operatives involving input supply, consumption, production, and marketing. In the 1930s, as vast areas of China were hit by natural disasters, CIFRC co-operated with the KMT government to do disaster mitigation and co-operative development in many provinces (Xue, 2003). However, the fruits of co-operative movement were largely destroyed by the Japanese invasion (Xue, 2003).

³ CIFRC firstly provided technical support and guidance to the interested parties to facilitate credit union development. When the credit unions were established by the communities and were registered officially, CIFRC provided loans to fund the qualified co-operatives (upon CIFRC's investigation and assessment) (Xue, 2003).

3.3 Co-operative development by KMT government

Facing the serious rural crisis caused by decades of civil war and social instability (Xin & Zhao, 2003, p. 165), the KMT government promoted co-operative development in rural China beginning in 1928 (Sun, 2008). In 1936, there were 37,318 co-operatives (most of which were credit unions) with 1.6 million members in 16 provinces (Yan & Chen, 2015, p. 182). After 1937, promoting rural co-operatives became an important measure to support the country in the war against the Japanese invasion (Sun, 2008). The KMT government was heavily influenced by Western co-operative development experiences, especially the German Raffaisen model (Bernardi & Miani, 2014). The KMT's co-operative movement was designed and implemented in a top-down manner. Major government activities include legislation, setting up administrative bodies, financial support, and training and education.

One major government activity was co-operative legislation. The government promulgated Interim Provisions on Rural Co-operatives in 1931, Ten Principles of Co-operatives Law in 1933, the Co-operatives Law in 1934, and Co-operatives Law Implementing Regulations in 1935 (Sun, 2008). Especially, the Co-operative Law of 1934 specified the founding requirements of co-operatives, members' rights and responsibilities, and regulations regarding the management, supervision and distribution mechanism in the co-operatives (Yao, 2008).

The government also formed a nationwide registration, administration, and promotion system: Co-operative Department (established in 1935) at the central government level, which was replaced by Co-operative Administrative Bureau (in 1939); and the steering agencies at the provincial or local government level (Sun, 2008). For example, Jiangsu province was the pioneer and representative of governmental efforts to promote co-operatives. It set up a provincial-county two-level system in 1929 to supervise and promote co-operatives, including the provincial steering committee and local steering/directive offices. Committee members or officers were trained and then assigned to local offices (Yao, 2008).

In addition, the government founded China's Farmers Bank and provincial Farmers' Banks to provide loans to co-operatives. Major commercial banks were also directed to provide and administer loans to co-operatives (Xin & Zhao, 2003, p. 168). The government also contributed to promoting co-operative philosophy through training and projects. The government published co-operative journals to promote knowledge dissemination and discussion, established co-operative college and training workshops, and partnered with top universities to deliver courses

on co-operatives (Sun, 2008). The government also supported scholars and social reformers to trial their rural reform experiments such as Yan Yangchu's Dingxian County (in Hebei Province) experiment (Xi, 2006), Liang Shuming's Zouxian County (in Shandong) (Li et al., 2008), and the co-operative experiments in Jiangsu (Han et al., 2008).

Academia has both positive and negative opinions on the co-operative development promoted by the KMT government. On one hand, KMT's co-operative movement supplied desperately needed liquidity to rural communities and helped to curb the widespread usury (Xin & Zhao, 2003; Sun, 2008). The introduction of credit unions brought about a shift in the borrowing habits of farmers or peasants. Previously, they primarily borrowed money for consumption purposes, but with the presence of credit unions, they began to borrow money for agricultural production (Zhao & Liu, 2007). Agricultural co-operatives promoted the adoption of improved farming practices and increased productivity (Yao, 2008; Zhao & Liu, 2007; Sun, 2008), which mitigated the food crisis during wartime. Co-operatives helped producers bargain with value chain players to increase farmers' income (Zhao & Liu, 2007). Co-operatives also transformed rural society by improving farmers' knowledge levels, moral standards, sense of co-operation, and the new ideology (Sun, 2008).

On the other hand, the top-down co-operatives were believed to be political and bureaucratic (Zhao & Liu, 2007). Although the KMT government promulgated comprehensive laws and regulations learning from co-operative practices in the West, these laws and regulations were not implemented well and were not effective in promoting co-operative development in rural China (Xu, 2014, p. 112). Co-operatives were generally small.⁴ Co-operatives commonly lacked internal resources, capacity and resilience, and therefore largely relied on external resources such as low-interest loans from the government and commercial banks (Sun, 2008; Xin & Zhao, 2003, p. 169).

Sun (2008, p. 132) believed "this movement did not achieve the goal of rural revitalization" for two reasons. Firstly, the overall participation of the rural population, especially the poor peasants, was very limited and there was significant unequalness of co-operative development in

⁴ Even in Jiangsu Province, which has "the earliest, most scaled and most influential" movement in all provinces (Xin & Zhao, 2003, p. 165), a co-operative only had 29 to 36 members on average (Xin & Zhao, 2003, p. 169).

different regions.⁵ In addition, a few rich and powerful elites controlled the co-operatives and held most of the low-interest loans. Credit unions' strict borrowing requirements and complex application procedures required to access their services were bigger obstacles for smallholder peasants than for elites (Zhao & Liu, 2007, p. 88).

3.4 Co-operative development led by the Chinese Communist Party (CCP) from the 1920s to the early 1950s

Xu (2014, pp. 101–105) summarizes three stages of the CCP's rural movement in the Republic of China era. From 1921 to 1927, the CCP promoted peasants' associations widely in 12 provinces in South China. The CCP was the ally of KMT before and during the "Northern Expedition." In the coalition, the CCP members took most positions in the Department of Rural Affairs and led the rural movement to build peasants' associations, which, according to the CCP's plan, would be the lowest level of the rural government body in the new regime.

From 1929 to 1934, after the coalition was broken with the KMT, the CCP founded its regime in their controlled Rural Revolutionary Base (Soviet Region) in southern China. Rural movements were implemented, and co-operatives (in production, consumption, and credit) were founded to support the CCP to survive the economic and military blockage by the KMT government.

From 1935 to 1949, the CCP continued to implement their rural and co-operative movement in the Shaan-Gan-Ning Border Region after the CCP's central committee relocated to this region. The rural and co-operative movement was extended to the entire mainland China after defeating the KMT in the civil war. At this stage, labour co-operation was the major form of cooperation.

Different from the KMT government and scholars, who mainly viewed co-operatives as a tool to develop the economy and mitigate livelihood challenges, the CCP aimed "to break the power of the gentry, to gain the support of the peasant masses, and to bring local control structures under Communist Party regulation" (Skinner, 1951, p. 90). The CCP believed that co-operatives were the "important component of workers' and peasants' movement and the social transformation" (Xu, 2014, p. 111). In other words, the CCP's co-operative movement was an

⁵ Sun used several data to show the low percentage of farmer participation. For example, membership as a percentage of the country's population, in 1936, is 0.37%. The number is 0.6% for Jiangsu Province and 0.5% for Hebei in 1934, two provinces with the best co-op development in the country. (Sun, 2008)

extension of a rural reform, and the rural reform, in which the fundamental power and property redistribution took place, was the institutional context for the CCP's co-operative movement. Therefore, to understand the CCP's co-operative movement, it is helpful to discuss briefly the CCP's rural movement.

Skinner (1951) summarizes five stages of the CCP's rural movement. From stage one to stage three is the preparation and implementation of the rural administrative reform. These stages set up a power system controlled by the CCP as preparation for coercive land reforms. The new administrative system replaced the previous "pao-chia" system in which the rural communities were under the control of the gentry class. Rural cadres were trained by the CCP, peasant associations were established or reshaped, and the "People's Tribunal" and "Agrarian Reform Committee" were established (p. 91). In addition, population data and landholding data were collected. In stage four, "land, tools and houses of the upper classes were confiscated," peasants were mobilized to fight "against landlords," the new rural administration punished the "criminal elements," and "peasant associations redistributed the confiscated land" (pp. 91-92). A co-operative movement with the purpose to boost production was the final stage, in which "agricultural mutual aid groups are being encouraged, production groups for rural handicraft industry are organized, and marketing and consumers' co-operatives widely established and expanded" (p. 92).

Co-operatives developed by CCP at this stage seem to be different from agricultural co-operatives in the West that are autonomous and democratically controlled business entities in the market economy. CCP's co-operatives were established in the context of subsistence agriculture (Du, 2002); and were an important means for the CCP to increase agricultural output to support their government and military (Xu, 2014, p. 111). The CCP, like other co-operative promoters at that time, was confronted by the challenge of mobilizing peasants. The reason is that a significant proportion of peasants were "hired labourers without land" and peasants "generally lack draught animals, production tools and daily industrial products" (Du, 2002, p. 13). The land revolutions prior to the co-operative establishment granted peasants access to the land and increased the motivation of peasants, who were previously at a lower social and economic stratification, to join the co-operatives. The CCP's agricultural co-operatives, e.g., the mutual aid groups (Du, 2002, p. 13), focused on addressing the shortage of production resources by sharing and better utilizing the limited production resources like animals, tools, and labour. Compared with the KMT's co-

operative movement which focused on credit co-operation, CCP's action was more straightforward and down-to-earth for the peasants.

Another issue worth highlighting is the CCP's flexibility and localization efforts in their co-operative movement. Xu (2014) discusses the CCP's policy change in co-operative development in Shaan-Gan-Ning Border Region to fit the local context. In the beginning, the CCP took top-down coercive measures to initiate co-operatives following the pattern they used in South China, the region the CCP was ruling before they relocated. Although some were successful, many co-operatives lost peasants' interests and effective participation. The CCP then realized the mistake and changed the policy to voluntary participation. In addition, the CCP promoted the local traditional ways of mutual help, *zha gong* (surplus labour hired by farms facing labour shortage) and *bian gong* (exchange tools, animals and labour for mutual needs), to address the shortage of labour, farming animals, and tools (Xu, 2014, pp. 104-105). This change dramatically increased the motivation and participation of peasants in the co-operative movement (Xu, 2014, pp. 113-114).

Compared with other co-operative promoters, the CCP took a very different approach to deal with one major challenge for co-operative development: the social and economic unequalness between the gentry-elites class and the peasant class in rural China. The KMT, scholars, and NGOs mostly followed Western co-operative practices and took a mildly and incrementally reformative approach. For example, in dealing with peasants' access to farmlands, KMT requested landlords to reduce the rent they charge peasants. Liang Shuming, a scholar and co-operative promoter, chose the co-operative movement experiment sites in Zouping because Zouping had few large landlords and he believed the absence of large landlords was beneficial for his co-operative development trials (Li, 2008).

In comparison, the CCP took a more aggressive approach in dealing with the internal rural conflicts by transforming rural governance and property rights (e.g., confiscating and redistributing lands). The CCP's leaders, especially Mao, had rich knowledge about peasants and decades of experience in organizing peasants' movements. They understood the peasants' strongest needs (e.g., land) and mental patterns (e.g., being resentful towards the rich). The co-operative movement and the rural movements "were aided by the widespread loss of confidence in the KMT and by agrarian discontent, compounded by war, graft, spoliation, intensification of land concentration, and growing population pressure on the land." (Skinner, 1951, p. 91). As a

result, the co-operative movement by the CCP was able to mobilize more peasants.

3.5 Collectivism from the 1950s to 1978

The CCP defeated the KMT in the civil war and founded the People's Republic of China in 1949. In the early 1950s, farming was organized in three ways: individual household farming (*dan gan*), which was the mainstream format; mutual aid groups (*hu zhu zu*), which were voluntarily initiated by peasants and protected by the government; and “co-operatives,” many of which were coercively established by local cadres (Xiang, 2006).

The rural co-operation movement started in the 1950s and existed until the early 1980s. “Co-operatives” were widely established in rural China during that period. Despite the term “co-operative (*he zuo she*)” used by the government, co-operative movements in this stage represent a fundamental deviation from the western model (Bernardi & Miani, 2014). The “co-operatives” were established coercively and controlled top-down. In addition, the “co-operatives” had mandatory membership, no autonomy, no private property rights for members, and very limited and ill-defined residual claim rights.

The rural co-operation movement in China was part of the nationwide collectivism of all industries. In the agriculture sector, collectivization targeted the whole value chain including production, supply, credit, and marketing. Xiang (2006) states that Mao and the CCP's leaders believed that the only development path from small-holder agriculture was social collectivism, as capitalistic scaled production should be ruled out. Bernardi and Miani (2014, p. 15) say that Mao favoured collectivism and believed “individualism represented absolute evil and individualists were selfish, putting their personal interests first”; and co-operative models (which significantly deviated from the co-operative model in the West) were used “ideologically in a bid partially to disguise his plans of forced collectivization and propaganda.” However, Xu (2014) indicates a realistic reason: the new regime was facing the challenge of getting enough agricultural products to deal with inflation, fund industrialization, paying foreign debt, providing supplies to the military in the Korean War, and providing supplies to the urban residents and workers; therefore, the rural co-operative is an “inevitable” option to gain the control of the agricultural resources.

The rural co-operation movement went through stages of Mutual Aid Groups, Elementary Co-operatives, Advanced Co-operatives, and in the end, the People's Commune. Along with the evolution, the scale of the co-operative was getting larger, the structure was getting more

hierarchical, and the individuals' property rights, autonomous economic decision-making, and the right to exit from the organization were gradually taken away.

Between 1949 and 1957, mutual aid groups were widely established. At the beginning, temporary mutual aid groups consisting of four or five households from a neighborhood were formed, with participation being voluntary. Despite all means of production being privately owned, labor, farm animals, and tools were shared or exchanged only during busy seasons. Temporary mutual aid groups were further developed into larger groups typically consisting of seven to more than ten households. In these groups, means of production were still mainly privately owned, but there may be collectively owned assets that were accumulated through retaining gains. Compared to temporary mutual aid groups, there was generally more collaboration and division of labor within a wider range of activities.

Between 1954 and 1957, elementary co-operatives were established, which typically included more than 20 households. The elementary co-operative has three levels: production groups functioned as a collective production unit, operating under a larger production team, which in turn was under the co-operative. In the elementary co-operatives, the means of production were still privately owned and maintained but were rented to the co-operative for collective use. Previously privately owned land was counted as shares of collectively owned land. Income distribution within the co-operative was primarily based on working hours, with dividends paid on the land shares and the rental fees for animals or equipment. While some participations were voluntary, some elementary co-operatives involved forced participation.

Between 1955 and 1958, advanced co-operatives were established that typically comprised 150 households. Under this system, production was centrally planned and managed, with participation being mandatory. All means of production were collectively owned, except for a small "private plot" allotted to households for vegetable cultivation. Income distribution within the co-operative was solely based on workload.

The People's commune, which existed from 1958 to 1978 (with a few still in existence today), typically consisted of 4,000 to 5,000 households. Communes were hierarchical systems with three or four levels of organization, ranging from the lowest-level production team to the highest-level commune. Communes also functioned as local governments with broad powers and functions, although such power was later transferred to production teams after 1962. Participation in the commune was mandatory.

Under this system, all means of production were collectively owned, with private plots being confiscated (and later returned after 1960). Both production and daily consumption were centrally planned, monitored, and controlled. Income distribution within the commune was based on "work points" or the number of working hours that a person accumulated, after deducting various taxes and fees paid to the government.

The commune was the last stage of the co-operative movement and saw the peak of centralized planning and control ranging from consumption to production. State-owned "co-operative" giants, such as Supply and Marketing Co-operatives and Rural Credit Unions (both still exist today), were established and became monopolistic players in the value chain in rural China.

However, rural co-operation "proved dramatically ineffective and inefficient when it came to fulfilling Mao's projected goals" (Bernardi & Miani, 2014, p. 14). Collectivization had a significant negative impact on agricultural production. By forcibly combining individual farms into collective units, the Chinese government disrupted traditional farming practices and reduced farmers' incentives in agricultural production. Some farmers even acted in an economic suicide-type way when their tools and assets were confiscated and they were forced to join the co-operatives: "destroying tools, killing animals, and cutting trees" (Xiang, 2006).

For example, Li and Yang (2005) state that the Great Leap Forward campaign, which aimed to rapidly transform China into an industrialized society through a centrally planned economy, resulted in widespread famine (the Great Famine) in China during the period of 1958-1961. Lin and Yang (1998) analyzed that the policies and institutions that were put in place during the Great Leap Forward campaign, including the collectivization of agriculture, the establishment of communes, and the forced industrialization of rural areas, led to a decline in agricultural productivity and food production.

3.6 Co-operative development after 1978

After 1978, China experienced a significant change in political and economic institutions.⁶ Jia et al. (2012, p. 665) state that "the household farming economy, together with China's market reforms" transformed the rural market. These institutional changes paved the way for developing

⁶ For more about how the political and institutional arrangements influence the co-operative development in China, see Zhao (2010)

the type of co-operatives where participation is voluntary and motivated by growing social and economic needs. The co-operatives emerged in a form of “Farmers’ Agronomy Associations” from the late 1970s to the 1990s and the “Farmers’ Specialised Co-operatives” (FSC) from the mid-1990s (Du, 2002). Zhao and Yuan (2014) summarize three periods that the reform and changing environment shaped co-operative development.

From the 1980s to the mid-1990s, “with the shift to the household contract responsibility system and the decollectivization of agriculture, Chinese farmers’ cooperatives emerged in order to reduce the transaction cost and risk and to achieve scale economies” (Zhao & Yuan, 2014). In rural communities, the commune system collapsed and part of its administrative function was taken by the village (and party) committee, which, by law, should be elected by villagers. In terms of agricultural production, although the village still retained and managed some “collective owned” assets (*ji ti cai chan*), individual farming households, under the Household Responsibility System, regained the right to use lands (distributed from the village committee). Individual households regained rights to make decisions and claim returns over their farming activities, and therefore regained economic incentives in agricultural production. The centrally administered input supply and farm product acquisition was also abolished (Du, 2002).

The second period started in the 1990s, as Zhao and Yuan (2014, p. 35) state:

“The transition to a full-fledged market economy in China has significantly affected many institutional arrangements, such as financial reforms, tax and fiscal reforms, and public policies concerning agricultural industrialization and modernization. With the shift of the state’s policy focus, rural development was overlooked. The process of capitalization, marketization, and privatization caused a setback for cooperatives.”

The third period started in the early 2000s and witnessed accelerated co-operative development in rural China. Government and policy support plays a major role in promoting co-operatives (Deng et al., 2010; Song et al., 2014; Zhao & Yuan, 2014). The support includes “fiscal, legal, and moral support to co-operatives by granting project funds, subsidies and rewards, registration convenience, tax preferences, and other financial supports” from central and local governments (Zhao & Yuan, 2014, pp. 35-36). The implementation of the Chinese Co-operative law in 2007 further promoted co-operative development (Song et al., 2014).

The government and legislative support for co-operative development is a response to the economic and social issues related to agriculture and the rural communities. Song (2014, p. 99)

states that “the government’s main interest informing the new law is to integrate groups of well-organized farmers as modern, economic agents capable of supplying food in an efficient, controlled and safe way to society – more efficiently and safer than they are able to do individually.” Jia et al. (2012, p. 665) states that “the upstream agro-food market in China is dominated by a vast number of small farmers and traders” and farmers’ co-operatives are “considered to be an important strategy by the Chinese leaders” “to promote small farmers’ access to the commercialized agro-food market.”

In addition, Song et al (2014, p. 95) state that “macro-economic development dynamics have led to rapid and massive processes of industrialization and urbanization. These, in turn, have contributed to a changing face of agriculture characterized in many rural areas by the feminization and ageing of the rural population.” Such trends impose challenges to the traditional family life and farming practices in rural China and create the need for co-operation in the rural communities.

After the implementation of the Farmers Specialised Co-operative Law in 2007, the number of registered co-operatives in China increased from 26,000 in 2007 to more than 1.9 million in 2017. From 2008 to 2017, the number of participating farmers increased from 9 million (4% of China’s rural population) to 100 million (47% of China’s rural population).⁷

While the number of agricultural co-operatives increased rapidly, the authenticity and quality of the co-operatives is a concern. Zhao and Yuan (2014) point out that the co-operative model in China deviates significantly from the rest of the world as a small group of core members dominate the initiation and governance of Chinese co-operatives (In Chapter Four, the feature of “core members’ dominance” will be further discussed). In terms of the motives for the co-operative initiation, Zhao and Yuan (2014, p. 33) summarize Xu (2012), saying that

“The phenomenon of establishing cooperatives can be explained as ‘a task’ (i.e., for local governments to be evaluated on their political achievements), as ‘a fashion’ (i.e., for social organizations and agencies conducting poverty alleviation projects), and as ‘a trick’ (i.e., for various initiators to elicit government support and funding).”

Hu et al. (2017, p. 1) state that “judging by either international or Chinese standards, the vast majority of these agricultural cooperatives are not authentic and fail to deliver expected benefits

⁷ Data source: China Ministry of Agriculture.

to smallholders.” Hu et al. (2017) summarize four types of inauthentic co-operatives: “shell co-operatives” that are “frauds” with “no organizational framework” or genuine farmer members (p. 3); “private agribusinesses that have market-based transactions with participating farmers” (p. 3); decooperativized cooperatives; and failed co-operatives due to “poor leadership, lack of management experience or skills, or hostile external market environments” (p. 4). According to Hu et al (2017, p. 1), “four barriers impede the long-term prospects of authentic cooperatives: social differentiation, lack of trust, unpredictable markets, and poor policy design and implementation.”

However, Liang (2015, p. 99) summarizes another opinion from the literature that there is no need to argue about the authenticity of co-operatives; the co-operatives should be recognized as long as they are legally registered and are able to benefit the farmers. Zhao and Yuan (2014) state that Chinese co-operatives have contributed to rural poverty reduction by providing technical, input supply and marketing services. Co-operatives have also promoted community development and created employment opportunities for marginalized groups such as women and those left behind in the villages (Zhao & Yuan, 2014)

3.7 Summary and discussion

Before 1978, co-operatives in rural China were developed through various top-down approaches led by different political parties, such as the KMT, CCP, and independent NGOs or scholars. The choice of co-operative development paths reflects the ruling political parties’ governing philosophy. The agricultural co-operatives were used as a tool to mobilize farmers and exploit agricultural resources to serve political parties’ macro-economic and/or political purposes such as supporting the revolution, war, and urban industrialization. After 1978, co-operative development aligned with incremental legal and institutional reforms (such as the adoption of the household responsibility system and the market economy, rural development, and the co-operative law, etc.), which laid the foundation for the current co-operative boom in rural China.

The term “co-operative” has different meanings in China in different stages, in different locations, and from the perspectives of different promoters. The use of the term “co-operative” is not the same in China and the West. The difference between rural China and western rural societies should be a key issue to consider when applying Western co-operative practices and theories to Chinese co-operative development. In the West, agricultural co-operatives are

organized voluntarily by farmers who face common economic issues and have similar social needs. The member-owners are relatively homogeneous and are willing to use democratic approaches to run their co-operative. This type of grassroots co-operative movement cannot easily happen in China for several reasons.

First, Chinese rural societies are imbalanced and heterogeneous. Most farmers in China farm with far less land and live in communities with increased density and mutual dependence (Xu, 2014). Before 1949, gentry landlords, ordinary farmers, and peasants have very unequal social and economic status in the rural communities, limiting the social coercion and the participation of peasants in the co-operatives. Especially, the peasants who comprise most of the Chinese rural population did not own lands before 1949. After 1978, while the imbalance narrowed in some areas (such as farmers' access to land), it was maintained in other areas (such as human capital and access to economic and social resources). Ordinary farmers still lack economic resources, human capital, and a sense of co-operation to establish their co-operatives (Xin & Zhao, 2003). Ordinary Chinese farmers also lacked incentives to join co-operatives due to the self-sufficient household economy dominating most rural societies for centuries, the centrally planned economy, and the aftermath of the rural collectivist movements that mentally impact farmers' motivations to invest in co-operatives.

Such contexts in rural China led to the choice of a top-down approach to develop co-operatives. Before 1949, co-operatives relied heavily on external resources, political and policy support, and a dedicated top-down promotion, and were not able to expand widely and effectively in China to serve a large proportion of the rural population (Du, 2002). In addition, the gentry class who had more knowledge, land, and power than the ordinary farmers and peasants, held control over the rural populations (Skinner, 1951, p. 89). It enables "elite capture" where corrupted powerful elites use co-operatives' public resources, such as the support from governments or NGOs, to gain individual benefits (see, for example, Platteau (2004)). Due to the lack of local social capital and resilience, most achievements of the co-operative movement did not persist during the Japanese invasion when the external support ceased.

The co-operative development after 2007 has covered a much bigger rural population, but it also heavily relies on a small group of rural and business elites and somewhat relies on government support. However, it is worth exploring whether the current co-operative movement led by the elites can involve bigger social capital and be more resilient.

In summary, Chinese co-operative development history indicates the strong influence of China's unique social, economic, and cultural contexts in China's co-operative development. Such unique contexts should be taken into consideration when seeking to understand or explain the Chinese co-operative model, which will be the focus of the remainder of the dissertation.

Chapter 4 Elites' domination in co-operative development and the Chinese rural context

4.1 The elites' dominance in co-operative development

Agricultural co-operatives in China have developed rapidly since the Farmers' Specialized Co-operative (FSC) law was established in 2007. However, Liang and Hendrikse (2013, p. 244) state that “the genesis of cooperatives in China is due to entrepreneurial farmers and the government, rather than a bottom-up, collective action process of many small farmers.”

Zhao and Yuan (2014) suggest that the co-operative model in China deviates significantly from that of the rest of the world. While co-operatives in the West protect individual member's residual control rights, Chen (2017) states that within Chinese co-operatives, members vary in their level of power and ordinary farmer members possess few decision rights regarding production and profit distribution. Instead, a small group of core members dominates the governance process by initiating and controlling the co-operatives (Lin & Huang, 2007; Zhao & He, 2012), holding substantial “ownership rights, decision rights, and income rights” (Liang et al., 2015, p. 198).

The core members of Chinese co-operatives are typically comprised of rural elites, village cadres, and agribusiness companies or businesspeople.

Specifically, “rural elites” (Zhao & Develtere, 2010, pp. 43–44) are groups of people in rural communities who are “likely to have a better educational background and better access to modern technologies, as well as more market and relationship networks.”

Village cadres make up the membership of village committees. These committees are elected by villagers and approved by the local government to manage village affairs and the collective assets of the village. While Zhao and Develtere (2010, pp. 43–44) distinguish “rural elites” from village cadres saying the concept of “rural elites” refers to “elites of wealth, respect and knowledge rather than elites of power,” Zhao and Fu (2015) regard both village committees and rural elites as the “elites” of farmers, a superior stratification to the “ordinary farmers” in rural societies.

The third type of core members, the agribusiness companies or businesspeople, include input providers, midstream processors, downstream retailers, and brokers (Jia et al., 2012).

The shareholding co-operative is the dominant model for Chinese co-operatives (Xu & Wu, 2014; Zhao & Yuan, 2014). Share-ownership is usually “concentrated in the hands of the founding members, with the chairman the largest shareholder” (Bijman & Hu, 2011, p. 109).

The important role of core members in co-operative development is partially allowed by the FSC law (see Appendix D for the official English translation of the FSC law).⁸ The law (see Article 15) explicitly allows non-farmers to be members of farmers’ co-operatives. The law (see Article 17) allows core members to have more decision rights than ordinary members (a small group of members could hold additional votes up to 20% of total votes). The law (see Article 37) also allows investors to claim more residual than that in western traditional co-operative (up to 40% of the total profit could be allocated based on investments). But generally, the FSC law still protects the overall democratic control and profit distribution within the members, while it also encourages elites to step in and help promote FSCs where farmers and non-farmer members can share in the profits.

However, the elites’ dominance in co-operatives in the real world goes beyond what the FSC law regulates (Liang et al., 2015). Bernardi and Miani (2014, pp. 8–9) suggest that although the FSC law was “purposefully introduced to improve the economic initiative and participation of members,” it allocated “too much power to higher-level co-operatives and organizations.” Even so, Xiong (2009, p. 3) points out that the institutional arrangement of Chinese co-operatives has significantly deviated from what the law regulates, and enforcing the regulations does not seem to be a priority for regulators. In addition to the government’s “acquiescence,” research also reveals that farmers trust the core members and support their control within co-operatives (He and Zhuang, 2015) and that the co-operative members enjoy higher output prices and increased income (Ma and Abdula, 2017).

Many co-operatives in developing countries have been accused of being undemocratic. Simmons and Birchall (2008, p. 2132) state that, from the 1950s onward, many nationalist governments’ “planned use of co-operatives for economic development tended to distort their

⁸ Note that the revised Chinese FSC law came into effect on July 1st, 2018. As the field study was done in spring 2018, the older version (2007) of the FSC law is relevant to the co-operatives visited and studied in the scope of this dissertation. Therefore, the articles discussed in this paragraph are from the 2007 FSC law. And to be consistent, the FSC law presented in Appendix D is also the 2007 FSC law. Indeed, the content from the 2007 FSC law that is discussed in this paragraph was not changed in the new law. In this dissertation, I will not focus on interpreting the FSC law and the revision but instead focusing on analyzing Chinese rural contexts which have shaped a co-operative model deviating from what the law regulates.

character, creating vested interests among politicians, civil servants and political parties.” Rural elites and middle-income people, instead of the poor, benefited from the co-operatives (Simmons & Birchall, 2008). Birchall (2011) states that excessive government control and manipulation of colonial and nationalist governments in developing countries in the 20th century disabled co-operatives to be autonomous and member-controlled, resulting in the “disappointing” performance of co-operatives, despite enormous aid and support from donor countries and domestic governments is disappointing. Many co-operatives were seen to be influenced to meet the ruling parties’ political interests, and as a result, corruption was common. There are numerous cases of “elite capture” where corrupt powerful elites use co-operatives’ public resources, such as support from governments or NGOs, to gain private benefits (see, for example, Platteau (2004)).

The rationale behind the elites’ dominance in the current Chinese co-operative movement seems to be different, as it is not shaped by the government authority but by the rural settings (in fact the government and the co-operative law encourage democratically controlled co-operatives). Although “elite capture” is also a concern in China (Mattingly, 2016), core members’ dominance in Chinese co-operatives is more derived from their financial and human resource contribution to the co-operatives.

Zhao and Fu (2015) state that “different groups of stakeholders, with different resource endowments and economic, political, and social status, have heterogenous motivations and capabilities in co-operative developments.” The more capable, risk-tolerant, motivated, and equipped individuals with more financial and human resources may have a greater ability to contribute to the co-operative and thus become core members. Conversely, smallholder farmers become ordinary members, many of whom hope to benefit from the resources and capabilities of the core members. Core members, with more capability and contributions, “naturally and logically” control the co-operatives along with the residual claim rights (Lin & Huang, 2007). The concentration of power with core members is also caused by the institutional environment including inadequate enforcement of the co-operative law (Xiong, 2009), the lack of government policies and regulations on democratic governance, and the lack of interest among ordinary members in co-operative governance due to their lack of knowledge of co-operatives and members’ role, rights, and responsibilities (Hu et al., 2013).

However, questions remain around why the co-operatives with the poor adoption of one

member, one vote rule that the law requires (Ma & Zhu, 2020, pp.1015-1016) are allowed to operate and are supported by the government. Further, why are farmers, knowing they do not have decision rights in the co-operatives, willing to participate in these co-operatives and voluntarily support the core members? Alternatively, why would core members who control the co-operatives (in many co-operatives, if not all) be willing to share benefits with ordinary members (Ma & Zhu, 2020), even though it seems unnecessary? With more co-operatives initiated and more farmers joining co-operatives, combined with significant government support for co-operatives (Deng et al., 2010; Song et al., 2014; Zhao & Yuan, 2014), the core members' control over co-operatives appears acceptable to various stakeholders.

4.2 Co-operative development in China from a patron-client perspective

Xiong (2009, p. 4) raises an interesting question: should the Chinese co-operative organizations be regarded not as “co-operatives” in a “normal sense” but as a creation of “co-operative organizations with Chinese Characteristics?” Indeed, He and Zhuang (2015) and Zhao and Fu (2015) use a patron-client relationship framework to examine the relationship between core and ordinary members in co-operative organizations.

4.2.1 Patron-client Relationship

Eisenstadt et al. (1980, p. 49) describe the patron-client relationship as “a distinct mode of regulating crucial aspects of institutional order: the structuring of the flow of resources, exchange and power relations and their legitimation in society.” Boissevain (1969, p. 379) indicates a definition more focused on the resource itself: “patronage is the use of resources by a person — the patron — to assist or protect some other person — his client — who does not control such resources.” Boissevain (1969, p. 379) believes that the power relationship and social order are a result of the flow of resources: “the difference between patron and client thus implies a difference in control over resources, thus a difference in power. Differential access to resources, however, need not imply social stratification, unless stratification is defined purely in terms of power.” The definition from Platteau (1995, p. 767) illustrates some major features of the patron-client relationship: “patron-client ties are usually understood as asymmetrical, long-term and multifaceted relations that comprise a strong element of affection and stretch over a wide and

loosely defined domain.”

Patron-client relationships could be traced to ancient agricultural society, existing between landlords and tenants. The landlords provide tenants with farmland to use, daily protection against out-of-community threats, and urgent help, especially during tenants’ tough times. Tenants, in return, provide the landlord with rent, labour, and obedience to the landlords’ decisions on community issues. A major objective of the patron-client relationship is to deal with social and economic uncertainties. As Platteau (1995, p. 767) explains:

“...the mutual obligations of the two parties do not end with the exchange of specific goods and services because these relations are mainly motivated by the need to insure against unforeseen or random fluctuations, such as fluctuations in labor requirements for the patron or fluctuations in income for the client. More precisely, by establishing clientage relations, the patron secures access to a readily available, trustworthy, and compliant workforce, which enables him to economize on a variety of transaction costs. As for the client, by entering into such a relationship, he obtains a guaranteed access to the necessities of life through regular employment and/or various kinds of flexible assistance provided by the patron when special (emergency) needs arise.”

The main features of a patron-client relationship can be summarized by Hicken (2011), Eisenstadt et al. (1980) and Graziano (1976). First, patron-client relations are dyadic; interactions and transactions happen face-to-face directly. Multiple patron-client ties could form a chain or even a network, with the “broker” in the middle who is the “patron” of the lower-level clients and the “client” of the upper-level “patron.” The key element of this feature is “directness”: all transactions between a patron and a client are individual without the third party’s supervision. The “directness” feature makes patron-client relationships efficient in cooperation because parties’ actions can be easily observable and parties can be easily held accountable. However, “directness” also means no supervision and adjustment from the outside is in place.

Secondly, patron-client relations are long-term reciprocal (with ongoing iteration). The support from one party to the other is supposed to be rewarded at a later stage. However, compared with typical exchanges, the content and the time of a patron-client exchange may not be predetermined. This also reflects the “anti-uncertainty” purpose of patron-client relations. Patron-client relations exist in a long term with ongoing reciprocal support and are

commonly stable as there is a cost to terminate it for both parties.

Thirdly, patron-client relations are asymmetric or unequal (at least in terms of the control of resources). Patrons are at a higher level of the hierarchy, having more access to resources and thus more power while clients are in a weaker position.

4.2.2 Patron-client framework in Chinese co-operative development

Zhao and Fu (2015) state that due to stakeholders' (governments, business entities, rural elites, and ordinary farmers) different interests and resource endowments, these stakeholders cooperate in co-operative development through two layers of patron-client relationships (shown in Figure 4.1).

The first layer is between the local government (the patron) and the potential co-operative initiators (i.e., businesspersons or rural elites). The governments support those initiators to develop co-operatives, who benefit the government as co-operatives contribute to achieving economic and social objectives.

The second layer is between the core members that initiate and control the co-operatives and the ordinary members who join the co-operatives. Those initiators and core members select and support farmers in their network, enabling them to access services, products, and other economic resources while the farmer members contribute to the co-operative businesses.

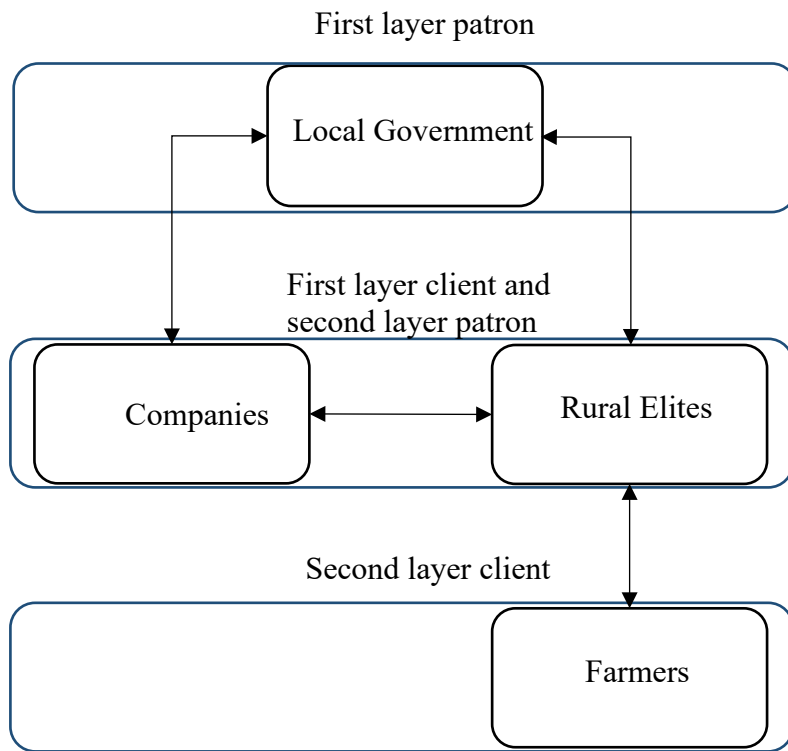


Figure 4.1 Two layers of patron-client relations in rural China’s co-operative development

Note: information in the figure is based on Zhao and Fu (2015)

Therefore, co-operatives are built on relational structures that are socially and economically exclusive to internal members. The patron-client model promotes cooperation and is reinforced by cooperation, as the establishment and continuity of patron-client relationships relies on the frequent interaction and the cultivation of interpersonal relations (Zhao and Fu, 2015).

In this dissertation, I will discuss the unique social context of rural China for co-operative development to explore stakeholders’ motivation, interactions, and relations in co-operative development.

4.3 The important role of social relations in rural China

Chinese rural society is a typical “*guan xi*” society (Peng, 2004), a “relation-based society” (*ren qing she hui*) (Huang & Xu, 2006) or an “acquaintance society” (Zhu & Wang, 2008). Peng

(2004, pp. 1048–1049) states that “linkage networks are a distinctive and prominent feature of Chinese village life.” The network is linked through ties of different strength, within which “blood ties (*xue yuan*) are defined as the strongest ties” and social ties extend “from the family (the core) to relatives, friends, and so on.” The strength of the tie matches the level of trust and obligations between the parties. Similarly, Zhu and Wang (2008) suggest that interactions within Chinese rural societies are built on “blood bond” and “geographical bond”; rural people are conservative and tend to trust and interact more with kin or acquaintances, while at the same time they tend to repel others.

In Chinese rural society, the village is “a basic identity and action unit” (Xu, 2014, p. 81). Still, within the village, there may be factions (within which members regard each other as “own buddies”) bonded based on “kinship” and “friendship.” Such social relationships shape a “co-operative culture” within groups as “strong ties provide the bonds and obligations” and “cultural identity generalizes bilateral bonds and obligations into group loyalty” (Peng, 2004, p. 1051). In rural China, the role of social relations is especially critical, as formal institutions, such as contracts, tend to be only supplementary to informal institutions that enforce transactions in rural China (Zhu & Wang, 2008).⁹

The social relations construct a “community” (a small society with shared resources, norms, traditions, and values), shaped through long-term continuous interactions. Such communities become the foundation for co-operatives as the communities involve “identity commitment,” “sense of community,” and “acquaintance” (Gao & Kong, 2015). In rural China, co-operatives are initiated and developed from rural relationships (Huang & Xu, 2006). For example, He and Zhuang (2015) find that most of the members of the co-operatives they visited were relatives and previous colleagues and employees of co-operative initiators. Gao and Kong (2015) state that the success of co-operative initiation and early development often relies on the interpersonal relationships and the level of social capital the co-operative initiator has developed within their rural communities. Li and Zheng (2008) state that the rural elites’ social capital substitutes the role of formal institutions to maintain the operation of co-operatives and that the Chinese co-operative model is an institutional innovation in the rural communities with the lack of effective

⁹ The role of social relations can be viewed as social capital, social norms, and informal institutions that can change stakeholders’ behaviors. Liang (2015, p. 98) summarizes that “social capital is complementary to formal institutions and the necessity of social capital is decreasing with more functioning formal institutions.”

formal institutions.

Specifically, Huang and Xu (2006) believe that interpersonal relations or networks build trust to reduce transaction costs and facilitate cooperation. He and Zhuang (2015) state that interpersonal relations and public opinions in the community, instead of written agreements or contracts, determine the responsibilities and effectively constrain the behaviours of co-operatives and their members. This creates mutual trust between core members and participating members. Huang and Xu (2006, p. 66) state that the governance in rural co-operatives is “largely built on interpersonal relationships or affections rather than formal institutions or the agreement on co-operative philosophy.” Especially, it is believed that kinship is essential in Chinese co-operatives as it acts as the “lubricant” working together with other factors like loyalty and capability in co-operative governance (Huang & Xu, 2006).

The critical role of social relations, like the heterogeneity among stakeholders, is a unique context of rural China that may potentially explain Chinese co-operatives’ deviation from western co-operatives and IOFs. As Gao and Kong (2015, p. 9) explain, “the relationship among co-operative members is not a purely economic relationship, and purely economic reasons cannot explain the trust, mutual support, and interactions.” In the next few chapters, I will outline the details of these relationships through a qualitative field study.

4.4 Heterogeneity among co-operative development stakeholders

A well-recognized context of rural China that strengthens the elites’ role in the co-operatives is that there is significant heterogeneity among the stakeholders in the rural economy and co-operative development. Zhao and Fu (2015) state that “different groups of stakeholders, with different resource endowments and economic, political and social status, have heterogenous motivations and capabilities in co-operative developments,” which decides their role or status and influence in the co-operatives.

In terms of resource endowments, the heterogeneity lies both within the rural population and between rural and non-rural stakeholders of co-operative development. Zhao and Fu (2015) explain that migration, employment diversification, and land transfer (*liu zhuan*) after the 1980s stimulated increasing heterogeneity in rural China. He (2011) summarizes five classes of farmers: non-agriculture population who left the rural communities to the cities, mixed employment population whose family income comes from agriculture production and migrant

work in the cities, rural professionals (such as village cadres, teachers, businessmen, technicians) whose income comes from both agriculture and their professional skills in the rural communities, typical farmers, and the poor or weak class.

The rural professionals are the elites in rural societies, and they capture most of the benefits from rural development (He, 2011). The rural elites also tend to be more sensitive to government policies and related opportunities compared to their rural peers (Zhao & Wang, 2013). Village cadres also have specific resources as they have the administrative power over the redistributing of land-using contracts, the allocation of housing sites, the permit for building residential houses, the details in land transfer, and the distribution of income from village-owned resources (for example selling collectively owned land), due to collective rural land ownership (Wang, 2008).

In addition to the rural stakeholders, the government and businessmen are important stakeholders in co-operative development. Different groups of rural and non-rural stakeholders of co-operatives have unequal access to natural resources (such as land), financial capital, human resources such as marketing and management capacities, and social network resources (Lin & Huang, 2007). “Embedded in local institutional and social contexts,” the elites in rural communities “may have better knowledge of local conditions and stronger relationships with local farmers” (Zhao & Yuan, 2014, p. 50). Therefore, they could serve as brokers between parties, making it easy to accumulate power and social and economic resources and to gain or strengthen their influence in community affairs (Zhao & Fu, 2015).

In the area of co-operative development, heterogeneity in resource endowments between ordinary farmers and elites leads to their heterogeneous levels of risk tolerance and contribution to the co-operatives. Elites or core members, with more capability and contributions, “naturally and logically” control the co-operatives and the residual claim rights (Lin & Huang, 2007). Similarly, Liang et al. (2015, p. 211) explain that the “entrepreneurial farmers” with “substantial asset capital, marketing capabilities, or social relations” organize “common farmers” into co-operatives, while these common farmers “are aware of their lack of these capabilities and relinquish parts of their rights to core members.”

Therefore, different from the situation where relatively homogenous members pool their resources to initiate the co-operatives, in rural China, heterogeneity enables a patron-client type of “special mutual exchange relation” where the patron, the resource holders with higher status, initiate the co-operatives, share resources with the clients, and get reciprocal returns from them.

4.5 Discussion

Where there is a strong influence of social relationships along with increased heterogeneity among rural stakeholders, patron-client relationships may provide a useful lens through which to examine co-operative development. Specifically, the patron-client relationship originates from stakeholders' unequal access to resources, leading to the client's reliance on the patron and their unequal power status (the "asymmetric" feature discussed earlier). The relationship within the co-operative may resemble the patron-client relationship because the co-operative originates from the core members' superior access to human and economic resources, which may make co-operative leaders or core members more powerful than other members.

In addition, one characteristic of rural China is that formal institutions such as contracts and the co-operative law can be weakly enforceable, while social relationships act as effective informal institutions. Such a context helps create a co-operative structure where social relationships play a key role in building trust and facilitating cooperation. Co-operative leaders may be motivated to recruit members based on the relationship, which shapes the co-operative into a "closed and exclusive" social structure (Zhao and Fu, 2015). That structure resembles the patron-client relationship which fosters mutual monitoring, accountability, and trust (thanks to the "directness" feature of the patron-client relationship).

Furthermore, the prosocial motivation to support the people in their network matches the "reciprocity" feature of the patron-client relationship. The patron-client framework may be able to explain why ordinary members can still benefit from the co-operative when the core members control the co-operatives.

With these initial thoughts and assumptions in mind, a qualitative field study was conducted in rural communities to explore the details of co-operative development in rural China. Through this research I explore the behaviours and motivations of co-operative stakeholders, particularly how interactions and relations between different stakeholders influences co-operative development.

Chapter 5 The qualitative field study in Tai'an City – the methodology

In this dissertation, I use qualitative research methods to collect information about stakeholders' motivations, influencing factors, and their corresponding behaviours in co-operative development in rural China. I collected the data through interviews with co-operative development stakeholders, including rural and business elites that initiated co-operatives, ordinary farmers, and government officials. In addition, I also used online documents and the material provided by government officials and co-operative leaders.

5.1 Qualitative research method

5.1.1 Definition and features

While different scholars define qualitative research in different ways (see Rahman (2020, p. 103) for a brief overview of the definitions of qualitative research), the definitions usually focus on qualitative research's three main differences from quantitative research. Firstly, the data collected and analyzed in qualitative research is narrative or non-statistical data. Strauss and Corbin (1990, p. 11) state that qualitative research is “any type of research that produces findings not arrived at by statistical procedures or other means of quantification.” Flick's (2014, p. 542) definition states that qualitative research analyzes “subjective meaning or the social production of issues, events, or practices by collecting non-standardised data” and analyzes “texts and images rather than number and statistics.”

Secondly, qualitative research is “interpretive and ethnographic” (Ochieng, 2009, p. 13) and studies events “in their natural settings” (Denzin & Lincoln, 2008, p. 2). Ochieng (2009, p. 14) explained the importance of taking “settings” into consideration in research. He says, “human behaviour is significantly influenced by the setting in which it occurs” such as “the physical setting e.g., schedules, space, pay, and reward and the internalized notions of norms, traditions, roles, and values.” Therefore, “research must be conducted in the setting where all the contextual variables are operating.” Therefore, fieldwork is often required in qualitative research to study important matters in their particular settings.

Thirdly, qualitative research can “address questions concerned with developing an understanding of the meaning and experience dimensions of humans’ lives and social worlds.” (Fossey et al., 2002, p. 717). In order to explore and interpret the “meaning,” a qualitative research approach “requires detailed observation, explanation and assumes that it is impossible to define exactly what elements are important and crucial and should be considered to the exclusion of others” (Ochieng, 2009, p. 13). Therefore, qualitative research methods “usually involve close contact between the researcher and the research participants, which are interactive and developmental and allow for emergent issues to be explored” (Moriarty, 2011, p. 2). That refers to another feature of qualitative research that the “researcher is the primary instrument for data collection and data analysis,” and as a result must “be immediately responsive and adaptive” (Merriam, 2002, p. 5).

5.1.2 Advantages to qualitative research methods

The question of whether qualitative research can be more appropriate compared with alternative research methods depends on two things. First, what type of information is needed to serve the research objective, and second, what is the best approach to collect the information?

Shakouri and Nazari (2014, p. 672) explain that “reality is not a tangible phenomenon that can be reached by proving or disproving a set of hypotheses” and sometimes “words and pictures appear to be more informative than numbers.” In addition, Ochieng (2009, p. 14) highlights the situation where quantitative data collected can be “artifacts.” First, “subjects [can become] either suspicious or wary, or they [can become] aware of what the researchers want and try to please them.” Second, “subjects sometimes do not know their feelings, interactions, and behaviors, so they cannot articulate them to respond to a questionnaire.”

In such situations, qualitative research may be a better option than quantitative methods. Qualitative research, as a “responsive, adaptable, holistic approach” (Lincoln & Guba, 1985, p. 102), aims to and can collect rich, detailed, and unique or heterogeneous context-related data. Specifically, Rahman (2020, p. 104) summarizes six advantages of qualitative research methods. Qualitative research:

- “produces thick (detailed) description of participants’ feelings, opinions, and experiences; and interprets the meanings of their actions,”
- “holistically understands the human experience in specific settings,”

- “has abilities to understand different people’s voices, meanings and events,”
- enables researchers to “discover the participants’ inner experience and to figure out how meanings are shaped through and in culture,”
- enables researchers to “interact with the participants directly” to have a “subjective and detailed” data collection,
- and makes the research design more interactive and flexible with the possibility of modifications or reconstruction.

5.1.3 Disadvantages to qualitative research methods

Along with the benefits of qualitative research, there are also several shortcomings. Firstly, qualitative research highlights “uniqueness” and lacks generalizability (Denzin & Lincoln, 2008). As Ochieng (2009, p. 17) states “no attempt is made to assign frequencies” to discuss whether the fact discovered is a rare or a common phenomenon. In other words, the findings “cannot be extended to wider populations” with statistical significance (Ochieng 2009, p. 17). A related disadvantage of qualitative research is that the goal of digging rich and detailed information through direct and interactive data collection makes qualitative research time-consuming and less able to have a large sample size (Shakouri and Nazari, 2014). In addition, as the data collected for analysis is not measured by exact quantitative values (e.g. the ambiguities of the human language (Ochieng 2009, p. 17)), the subjective interpretation by the researcher seems inevitable and comes without strict statistical standards. The “researcher” as a research instrument “has shortcomings and biases that might have an impact on the study” (Merriam, 2002, p. 5).

However, Peshkin (1988, p. 18) states that “subjectivity can be seen as virtuous, for it is the basis of researchers making a distinctive contribution, one that results from the unique configuration of their personal qualities joined to the data they have collected.” Meanwhile, Peshkin (1988, p. 18) highlights the importance to “actively seek out” one’s subjectivity and “to be aware of it in [the] process, mindful of its enabling and disabling potential while the data were still coming in, not after the fact.” Therefore, Merriam (2002, p. 5) emphasizes that “rather than trying to eliminate these biases or ‘subjectivities,’ it is important to identify them and monitor them as to how they may be shaping the collection and interpretation of data.”

Cope (2014, p. 89) summarizes from the literature five criteria to evaluate the trustworthiness

of qualitative research, including credibility, dependability, confirmability, transferability, and authenticity.¹⁰ Cope suggests that a qualitative researcher should enhance the credibility and trustworthiness of the research using various measures including “triangulation” (using multiple information sources); “thorough data collection and fieldwork” with “prolonged engagement,” “persistent observation,” and “reflexivity”; member feedback and check; and the provision of a research strategy description and direct quotes from the participants. This dissertation will follow these suggestions to increase the trustworthiness of the research. The actions that were taken in this research will be further explained in subsequent sections of this dissertation.

5.2 Research methods

5.2.1 Why qualitative research approach for this research?

Qualitative research is chosen in this dissertation to serve its research objective: to explore and understand the practice of co-operative development in rural China in its unique social and cultural settings, the stakeholders’ role and motivation, and their relationship with each other. The qualitative research approach is chosen for several reasons.

First, it allows the researcher to study the Chinese co-operative model in context, which is vital because the research aims for an in-depth understanding of rural society and its influence on co-operative development. Qualitative research enables the researcher to immerse themselves in the rural community, have conversations and observe actions in a natural setting, record rich and detailed context-based data, and interpret the meaning carefully with the help of the research respondents.

Qualitative research is also good at researching and presenting details and meanings. Although quantitative research targeting specific variables can help understand co-operative development in rural China, qualitative study offers a more comprehensive lens to present vivid and detailed stories to the readers. It would be especially attractive for interested readers that

¹⁰ “Credibility refers to the truth of the data or the participant views and the interpretation and representation of them by the researcher.” “Dependability refers to the constancy of the data over similar conditions.” “Confirmability refers to the researcher’s ability to demonstrate that the data represent the participants’ responses and not the researcher’s biases or viewpoints.” “Transferability refers to findings that can be applied to other settings or groups.” “Authenticity refers to the ability and extent to which the researcher expresses the feelings and emotions of the participant’s experiences in a faithful manner.” (Cope, 2014, p. 89)

have never been to rural China to build a vivid perception of the Chinese co-operative model and its uniqueness compared with the rest of the world. As Ochieng (2009, p. 16) states, “qualitative research is good at simplifying and managing data without destroying complexity and context...highly appropriate for questions where pre-emptive reduction of the data will prevent discovery.”

In addition, qualitative methods enable the research to be explorative. Although the existing literature has reached a consensus that most Chinese co-operatives tend to be controlled by a core group of members, there has not been sufficient research to explore in-depth the relationship or interactions within the co-operatives. Researchers mainly assume that the core members and other members are in a problematic principal-agent relationship that prevents achieving democratic governance (Lin & Huang, 2007; Wang, 2010; Ma & Meng, 2008; Huang, 2007), while a few saw them from a patron-client relationship perspective (Zhao & Fu, 2015; He & Zhuang, 2015). In this dissertation, the approach is that neither principal-agent nor patron-client relationship will be presumed to describe the relationship in the co-operative. Therefore, instead of pre-screening variables for quantitative examination, the qualitative approach will be taken to explore the relationship (and motivations) of the stakeholders in the co-operatives.

Another critical reason to choose a qualitative research approach is related to what data is needed and how the data can be collected. A rich and detailed description or explanation (the meaning of people’s words and behaviours) is needed to serve the research goal. However, as rural residents can be defensive, conservative, and worried about political, cultural, and privacy issues, taking a prolonged process to build trust with farmers in their familiar environment is a key step to getting authentic and rich information. In addition, many farmers (even members and initiators of the co-operatives) are not familiar with co-operative-related knowledge and terminologies. Given that limitation, a qualitative research approach allows for flexibility. The researcher can explore different ways to phrase the questions, explain and clarify questions and responses, and seek different communication strategies depending on the situation and people. The tone and the body language of participants can also be useful information and signals for the researcher to follow up or change communication strategy.

However, as China’s rural societies are large and diversified, the aim of the research is not to rush for generalization but to choose a purposely selected area to deeply understand the co-operative development practice. In the next stage, building on this research, quantitative

approaches may be used if specific questions or variables from this research draw special interest.

In this dissertation, this qualitative study functions as a parallel component to the literature review and the theoretical modelling, which taken together can help to better understand the co-operative development model in rural China.

5.2.2 Research strategy and trustworthiness

The qualitative research strategy in this dissertation aims to achieve high trustworthiness, incorporating methods that the literature recommends in qualitative research. The measures taken include careful selection of study regions and communities, balancing between purposeful sampling and random sampling in choosing co-operatives and stakeholder interviewees, collecting multiple sources of information with peer check and feedback on collected data (triangulation), having prolonged and persistent field visits, interview and observation, interviewing in a flexible and reflective way, and last but not least, using direct quotes in reporting to support the analysis.

Site selection and co-operative sampling

According to the Ministry of Agriculture of China, there were more than 2.2 million registered farmers' co-operatives as of October 2019, which means a city-level (*di ji shi*) administrative region (in total 333 of them in China) on average has more than 6,600 registered farmers' co-operatives. However, much Chinese co-operative research, especially quantitative research, commonly samples co-operatives scattered in one or more provinces. Although such a sampling method increases geographical generalizability, given the high density of co-operatives in China, the researchers may have to choose only a few well-known co-operatives to represent one region. An efficient way is to consult local governments and experts in respective regions and get their support and coordination in co-operative selection and data collection. However, such an approach may introduce a bias towards larger co-operatives as it may neglect a large number of small and less-known co-operatives that represent an important part of the rural co-operative movement and can help understand stakeholders' interactions within the rural communities. It might also introduce a bias toward co-operatives viewed as friendly to patrons.

Therefore, I choose to focus the study in Tai'an city in Shandong Province to be able to select co-operatives of different sizes. The first reason to choose Tai'an is that Tai'an is a relatively representative municipality in terms of agriculture. It has both mountainous and plains regions and therefore produces diverse agricultural products. It is located at the relatively central location of Shandong Province, which ranked 1st in gross agricultural output in all provinces as of 2020. Tai'an enjoys convenient roads and railway transportation and is close to ports to access both domestic and international markets.

The second reason to choose Tai'an is that it is my hometown. Therefore, it is more time and cost-efficient for me to engage in pro-longed fieldwork and get immersed as much as possible in rural communities. As Ochieng (2009, pp. 14-15) states, "reality that cannot be split or unitized without losing the importance of the whole phenomenon. For some qualitative researchers, the best way to understand what's going on is to become immersed in it." In addition, I am able to utilize my local network to reach the co-operative stakeholders and get their approval for interviews. They are also more likely to trust me (as a local person) and share more information and personal stories with me. At the same time, I was unaware of the co-operatives studied and therefore did not know the co-operative stakeholders interviewed. There are no obvious factors to cause biasedness in my interpretation of the interviews and co-operative cases.

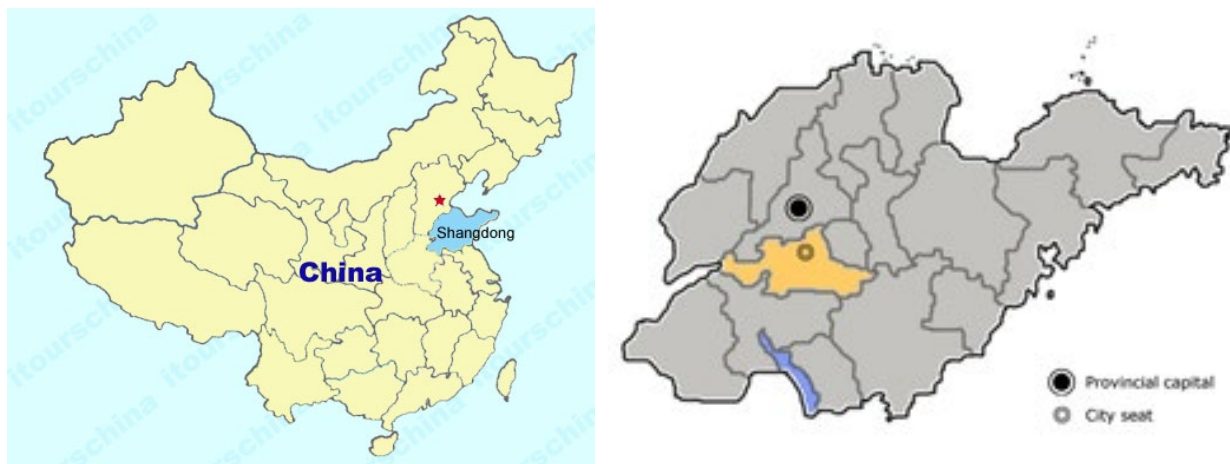


Figure 5.1 The location of Tai'an city¹¹

¹¹ Data source: www.baidu.com

To increase the richness and diversity of the samples, I selected co-operatives by asking for recommendations from government officials, contacting acquaintances scattered in different townships to ask about the co-operatives they had heard about, and driving randomly along country roads to seek out co-operatives. The co-operatives I studied are diversified in terms of size, industries, and initiating stakeholders. In terms of the membership size, the co-operatives recommended by government officials were usually large. The biggest co-operatives operate in multiple villages and townships, serving hundreds of households. Co-operatives recommended by farmer friends were mostly middle-sized and are commonly known by their own villagers. Those co-operatives have 10-150 members and mainly serve their village community. And co-operatives observed randomly along the country road were mostly small. Many of them have less than 10 members and are normally involve cooperation among relatives, neighbours, or friends.

Triangulation and flexible inquiry

From February to May 2018, I interviewed 27 rural elites, village leaders, and businesspeople who (or whose companies/village committees) initiated 34 co-operatives. I also interviewed 15 farmers and 8 government officials. All these government officials work in positions related to rural development and know about co-operative development. They work in the Bureau of Animal Husbandry, Bureau of Business, Bureau of Forestry, Bureau of Agriculture, Bureau of Finance, Committee of Development and Reform, and Bureau of Transportation in local county-level governments and township governments.

The interviews with government officials and most co-operative leaders were prearranged, but when it came to interviewing farmers, I chose to reach out to them (no matter whether they are co-operative members or not) by randomly visiting the households near the office of the co-operatives. After some warming-up conversations, I asked them for their opinions on co-operatives in general and their decision on co-operative participation.

Visiting the field to randomly interview farmers is an effective approach compared with other methods such as phone calls and emails. One reason is that it is hard to find co-operative members in advance just based on registration information. Some farmers' membership is just on paper. Other farmers, though not listed as members, are de facto members as they participate in the co-operative business. In comparison, as the field study was implemented during the farming season and Chinese villages have a high population density, I can easily spot farmers to make

attempts to start a conversation. In addition, farmers feel more comfortable joining casual face-to-face conversations than phone or online conversations given their lifestyle, as well as the level of IT adoption.

To check the authenticity of the information as well as to compare different perspectives from different stakeholders, government officials, co-operative leaders, and farmers were each asked to express opinions on the same issues or to comment on opinions of other respondents (whose identity was kept confidential).

The inquiry was designed to be very flexible in terms of tone, time frame, questions, and structure. As Ochieng (2009, pp. 14-15) explains, “rather than approaching measurement with the idea of constructing a fixed instrument or set of questions, the researcher should allow the questions to emerge and change as they become familiar with what they are studying.” In my field study, general questions are used in priority at the beginning, for example, “can you share your story of initiating the co-operative?” When trust can be built through early-on warming up and networking, such general questions often lead to very good outcomes in data collection. Many respondents can talk about their experiences, opportunities, motivations, and achievements for more than an hour. For other respondents who were shy or defensive, I would ask more specific questions or initiate unrelated conversations to break the ice, depending on the situation.

After my first week visiting the rural communities, I put more time into interviewing co-operative leaders than ordinary farmers because farmers’ feedback was found to be very similar. Based on the interviews, farmers normally do not have awareness of co-operative ideology and detailed knowledge of their co-operative businesses. They neither have interests nor the sense of legal rights to participate in co-operative governance. Farmers have similar motivation to join the co-operatives, which is to trust and follow the elites’ decisions and to seek economic opportunities.

In addition to the information about specific co-operatives, government officials also shared their opinions on the general co-operative development questions, such as “why could and should co-operatives be developed,” “what is the nature of co-operatives in China,” and “what is the prospective development pattern of co-operatives?”

In addition to interviews, this research also collected data by researching documents (official information of co-operative development provided by government officials and co-operative leaders) and non-participant observation (visiting co-operatives’ sites and witnessing the

operation of the co-operatives as well as the transactions between co-operatives and the farmers).

Social desirability

“Social desirability bias refers to the tendency of research subjects to choose responses they believe are more socially desirable or acceptable rather than choosing responses that are reflective of their true thoughts or feelings” (Grimm, 2010, p. 1). Social desirability bias affects the validity of findings especially in experimental and survey research (Nederhof, 1985). Grimm (2010) summarises that social desirability bias may occur in two situations. First, “questions relate to what are widely accepted attitudes, or behavioral or social norms” (Grimm, 2010, p. 1). Second, “the subject responds to a question in the way he or she believes the researcher desires” (Grimm, 2010, p. 1).

This research aims to reduce the risk of social desirability bias. First, my role as a willing-to-learn student from an overseas school may be helpful to facilitate information sharing from respondents. I made myself clear that the aim of the conversation is purely to learn about community members’ life experience and opinions, instead of comparing answers to certain preferred standards or assumptions. Most questions asked in the interviews were open, flexible, and explorative, and were asked in a humble attitude. Conversations were carried out in their familiar settings in a very casual way after thorough warming up. It could make farmers more comfortable and confident to share the authentic information and thoughts. In addition, using qualitative field study method allows follow-up questions (to find details), triangulation, and observation of respondents’ gestures, facial expressions, and tones to help verify the answers.

5.2.3 Types of qualitative research used

This qualitative research uses three approaches: basic interpretive qualitative research, narrative analysis, and case study. Merriam (2002) gives a good description of these methods.

Basic Interpretive Qualitative Study (p. 6-7):

“In conducting a basic qualitative study, you seek to discover and understand a phenomenon, a process, the perspectives and worldviews of the people involved, or a combination of these. Data are collected through interviews, observations, or document analysis. These data are inductively analyzed to identify the recurring patterns or common themes that cut across the

data. A rich, descriptive account of the findings is presented and discussed, using references to the literature that framed the study in the first place.”

Narrative Analysis (p. 9):

“The key to this type of qualitative research is the use of stories as data, and more specifically, first-person accounts of experience told in story form.”

Case study (p. 8):

“The case study is an intensive description and analysis of the phenomenon or social unit such as an individual, group, institution, or community...By concentrating upon a single phenomenon or entity (the case), this approach seeks to describe the phenomenon in depth. The unit of analysis, not the topic of investigation, characterizes a case study.”

In this qualitative research, Basic Interpretive Qualitative research was used to explore the pattern of co-operative development in rural China in a **theme-oriented** way, deepening the understanding of key issues raised in the literature as well as by the theoretical model in this dissertation. The case study was used to focus on the “**unit,**” a co-operative or a community, to analyze in-depth some representative co-operative development stories selected from the co-operatives I visited. In particular, the case study method has advantages in exploring how and why questions in-depth (Yin, 2009). For both parts, narrative analysis is a tool using the self-described life stories of co-operative initiators as the key data source to understand the background and process of co-operative development in rural China.

5.2.4 Summary of studied co-operatives

In this qualitative study, I gathered information about 34 co-operatives from co-operative leaders, farmers, and government officials. In terms of the industries, the 34 co-operatives include one e-commerce co-operative, four tea co-operatives, one dairy co-operative, three nursery co-operatives, one pig co-operative, four fruit co-operatives, three poultry co-operatives (chicken, pheasant, and duck, respectively), two grain co-operatives, three vegetable co-operatives, four walnut co-operatives, one fish co-operative, one herb co-operative, two sweet potato co-operatives, one farming machinery co-operative, one tourism co-operative and one land investment co-operative. See Appendix A. Summary of Co-operatives Studied for the co-

operative, industries, initiator types, and the role of stakeholders in the development of co-operatives studied.

Chapter 6 Resource heterogeneity, economic opportunity, and co-operation between core members and farmers

The field study explores the resources, motivations, behaviours, and roles of co-operators in rural China.¹² The relationship between core members and ordinary members is also studied. The findings reveal that core members and ordinary members have heterogeneous access to resources, which leads to different levels of motivation and capability in co-operative development. The outcome is that Chinese co-operative development tends to be an elite-dominant farmers-follow route and this leads to unequal roles and power status between core and ordinary members.

6.1 Who initiates the co-operatives?

The field study finds that a co-operative in rural China is usually initiated by one (or a small group of) leading individual(s) who are motivated by their own economic or prosocial reasons. They use their own or their partners' resources. The initiators assess community needs and business opportunities based on their own experience and knowledge and make business decisions based on their own judgment. Then, they take efforts to identify and select farmers to join the co-operatives as (ordinary) members. The initiators are core members of the co-operatives after initiation and control and manage the co-operative business.

The 34 co-operatives studied were initiated by three types of stakeholders: 13 co-operatives were initiated by village committees (or village cadres); nine by local farming and agribusiness experts; and 12 by businesspeople and companies coming from outside of the rural communities to pursue business opportunities.¹³ The reason to categorize initiators is to discuss their respective social networks, resources, and approach to developing co-operatives. It is worth mentioning that the types of initiators can be interchangeable. It is observed that a person can initiate co-operatives in his village and other villages. In the home village, he will be regarded as

¹² A resource is defined as a service or other asset used to produce goods and services that meet human needs and wants (McConnell, Brue, & Flynn, 2011). The meaning of resource in this dissertation is the service or other asset used to achieve the success of farmers' agribusinesses.

¹³ Three out of the 34 co-operatives that were visited are not co-operatives but family farms, in which the members are the initiators' family members regardless of who the registered members are.

a local “farming expert” or “rural elite” initiator, but an external “businessperson” initiator in another village. Similarly, a local farming expert can be at the same time a village cadre. The difference is that “village cadre” initiators initiate and apply for government support in the name of the village (all villagers collectively). The co-operatives will be regarded as village-owned and controlled by village cadres as the representatives of the villagers. On the other hand, local “rural elite” initiators initiate the co-operatives in the name of themselves so that the co-operatives will be regarded as their personal businesses by themselves and the ordinary members.

In terms of the initiators’ role in the supply chain, they are input providers, producers, brokers, processors (or buyers), land tenants, landlords, or/and employers (see Appendix A for details). Note that the co-operatives’ initiators labelled as producers may also organize farmer members to buy inputs through the initiators’ channel in order to bargain for better input prices, but they will not be labelled as input providers if they do not produce or sell inputs as part of their original business.

6.2 Resource heterogeneity and economic co-operation: An “elites lead, farmers follow” approach

It was discussed in Chapter 4 that one of the unique contexts of rural China for co-operative development is that Chinese farmers can be divided into various classes with heterogeneous capabilities and access to resources. Moreover, rural and non-rural stakeholders also have unequal economic resources and social capital that are key to co-operative development.

The field study found that resource heterogeneity boosts economic co-operation and the initiation of co-operatives. Most co-operatives studied were established in the context when only certain individuals (the elites) in the community can provide or have access to affordable, secure, and convenient services. Potential co-operative initiators (the elites) and farmers are motivated to come together in the way that elites share their resources with farmers through the co-operative platform. In addition, many farmers and government officials believe the “elites lead, farmers follow” pattern is the ideal pattern for co-operative development in rural China. They said that most farmers are conservative and unwilling to bear the costs and risks of new business and that they only patronize new businesses when they can see existing proof of the success of a person they know. Ordinary farmers also lack co-operating incentives and entrepreneurship. Many co-operative initiators mentioned how difficult it was to attract members when the co-operative

businesses were at the early and exploring stage. The self-interested conservative farmers would prefer to free-ride and wait for other people to explore unknown business areas, accumulate related experience and resources, and prove a way to success.

A government official shared an example in a village under his township administration. Some years ago, several villagers tried to initiate an investment co-operative in their village to raise money for a commercial real estate investment near the village. However, the idea faced indifference in the village and only a few villagers, mainly the ones who proposed this idea, joined the co-operative. They had to put in more money than previously planned (if more villagers can join) to make this investment. “After they made money from the investment, the other villagers all request joining the co-operative, but the opportunity was no longer there...they won’t hesitate too much to join if these guys (the co-operative initiators) come up with new opportunities in the future.”

Co-operation between elites and farmers is achieved when elites utilize their resources to invest in agriculture in response to farmers’ needs. Table 6.1 summarises farmers’ needs in agricultural production (six issues) and how Chinese co-operatives integrate the resources of elite initiators and ordinary members to create “a bigger pie to share” between them. Farmers are facing challenges caused by their small farming scale, their weak bargaining power, and the high transaction costs due to information asymmetry, the existence of multi-layers of brokers, and the perishability of agricultural products. Chinese rural co-operatives are initiated to increase market power, reduce transaction costs, produce value-added products, and achieve economies of scale, consistent with the purposes of agricultural co-operatives in the West.

Table 6.1 Farmers’ needs, elites’ resources and co-operation types¹⁴

Issues	Challenges for farmers	Elites’ resources	Co-operation types
--------	------------------------	-------------------	--------------------

¹⁴ Table content is summarised based on the co-operatives visited in the field study.

<p>1. Low income from conventionally farming traditional crops, uncultivated land,¹⁵ and unemployment.</p>	<p>(1) Farmers are working in the cities so that their lands are uncultivated.</p> <p>(2) The products the farmers grow make little money; farmers seek changes but lack capacity.</p> <p>(3) Some senior and female farmers cannot find jobs in the cities or farms, so they are unemployed in the rural communities.</p>	<p>(1) Elites' agribusinesses need farmland that can be rented from farmers to grow the desired products.</p> <p>(2) Elites have capacity to guide farmers to grow untraditional or organic products and commercialize these products.</p> <p>(3) Elites' agribusiness could create job opportunities for unemployed local farmers.</p>	<p>(1) Elites pool farmers' lands for scaled ag production, and farmers receive rents or dividends.</p> <p>(2) Elites persuade and support farmers to grow the products for their agribusiness.</p> <p>(3) Elites hire local farmers as workers for the agribusiness.</p>
<p>2. Market power or/and transaction cost in purchasing input</p>	<p>Scattered and smallholder farmers do not have access to affordable and reliable inputs, such as fertilizers and animal medicine.</p>	<p>(1) Elites have social influence and are capable of organizing farmers to make a good deal with input providers.</p> <p>(2) Elites are large-scale farmers and have relationships with input providers to get deals.</p> <p>(3) Elites are input providers themselves and can provide farmers with affordable reliable inputs using their channel.</p>	<p>(1) Elites initiate co-operatives to buy input for (themselves and) farmers using the elites' channel, with better prices than individual farmers could get. Elites might (or not) charge part of the price difference as the brokerage fee.</p> <p>(2) Elites who are input suppliers initiate co-operatives to sell inputs to farmers, charging less as they save from lower transaction costs.</p>
<p>3. Production requirements and economy of scale</p>	<p>Farmers have no access to some services, facilities, technology or even a production license (e.g. the duck feeding license) which are necessary to production.</p>	<p>Elites have the resources, knowledge, good relationships (with government, researchers, and businesses) to provide services, facilities, technologies, and other conveniences in production.</p>	<p>Elites initiate co-operatives to provide farmers with pre-, mid-, and post-production services that farmers cannot get elsewhere.</p> <p>While farmers benefit from the resources and services, elites profit from selling the services to farmers or from selling value-added agri-products to the market.</p>

¹⁵ The reason is that land is collectively owned by the village and cannot be sold freely

4. Perishable products	Farmers grow perishable products (tea leaves, fruits, etc.) and have high transaction costs. Therefore, farmers need reliable buyers, storage, or processing facilities.	Elites have processing facilities or cold storage; or have secure contracts with processors and buyers.	Elites initiate co-operatives to market or process the members' products, often offering farmers better-than-market prices and guaranteed acquisition despite the uncertain market.
5. Transaction costs in marketing the products	Farmers have no or limited access to the market: the farmers' location is not convenient, the quality of the products is hard to control, and the product variety and quantity from an individual farm are limited. Therefore, these farmers individually often feel hard to find buyers as many buyers feel costly to purchase from these farmers.	Elites are large-holder farmers or brokers, have expertise in production and marketing, and have good relationships with both buyers and local farmers. Buyers often rely on these local elites' personal networks to buy agri-products believing that the quality, variety, and quantity can be met. Transaction cost can be reduced with the elites' coordination.	Elites initiate co-operatives to sell products of small farmers whose credit is not verified and who produce products in limited variety and quantity. The co-operatives benefit buyers and producers by reducing transaction costs. Elites often charge brokerage gratitude.
6. Market power in marketing products	Scattered smallholder farmers face low prices suppressed by buyers	Elites have social influence in the community and the ability and authority to unite farmers as a group to market products at a better price	Elites initiate co-operatives to market farmers' agricultural products as a group. Elites might (or not) charge a tiny part of the revenue as gratitude for organizing and coordinating.

Specifically, farmers face various challenges during each step of making farming-related decisions, starting from the choice of land use (leaving it uncultivated, leasing it out, or farming and the choice of products to grow) to buying inputs, growing, and marketing their products. Those challenges and needs will decide what resources farmers need from the elites, and therefore what type of elites are able to establish attractive co-operatives. Ordinary members in Chinese rural co-operatives could be producers (buying input, processing, and marketing products through co-operatives), employees of the co-operative, or even the landlords that lease their land to the co-operatives.

The tree nursery sector in Tai'an provides good examples in terms of when and why co-operatives can be initiated. A comparison is Qi village (which has three nursery co-operatives) and Riverstone village (which has none), which are geographically close to each other, and both have many tree nursery farmers. The village leader of Qi village said their village is remote and has inconvenient traffic. Therefore, when buyers can find trees more easily in other villages, they seldomly come to their village. Facing such a challenge, some farmers must go outside to expand their market networks. When they have their network, they build co-operatives to help their neighbours and friends sell the trees. However, for Riverstone village, which is located along the road, when asked why there is no tree nursery co-operative, the village leader said, "we don't need to: every transaction season, many buyers come to buy our seedlings, so we don't need to worry much about the marketing."

Another example is All Happy Tree Nursery Co-operative which was initiated by a farmer who has good relationships with many buyers nationwide. Most of the co-operative's clients are the initiator's "old partners" because, as he said, "I worked in other provinces in horticulture for twenty years and the people I used to co-operate with all trust me and my products." He went back to his hometown and shared his knowledge and network with his neighbours and friends. He initiated the co-operative and became the focal person all members must rely on. He said that in the co-operative, there are several things that he must undertake: contacting market buyers, coordinating members, and controlling the product qualities. He said although he wished he could retire, he cannot, as members need him so much that he is irreplaceable in his co-operative. All Happy Nursery Co-operative provides an example of a co-operative establishment when farmers rely on the elites' resources to thrive.

Brilliant Duck Co-operative is another example of a co-operative providing members with services covering all the six issues listed in Table 6.1. The co-operative initiator (manager and largest shareholder) uses "Seven Even Though" statements to describe duck farmers' dependence on the co-operative:

"Even though you have the skills to feed ducks, you cannot get the land approved to feed ducks (under the background of the strict environment inspection); even though you get the land-use approval, you do not have the capital to build the qualified duck house; even though you have your qualified duck house built, you may not have the energy to apply for various licences; even though you have your licenses, you do not have the facility to process the

manure (to qualify the environmental standards); even though you have all facilities and licenses, you probably run out of money to buy inputs; even though you get everything and are able to feed the ducks, you may not feed them well with production risks and technology issues; and even though you feed them well you cannot make sure to sell them at a good price with market uncertainties... therefore, there is no reason not to cooperate with us.”

Everlasting Pheasant Co-operative also connects farmers to the upstream and downstream supply chain and marketing channel. Everlasting Pheasant Co-operative sells pheasant chicks to the members and guarantees to sell the members’ pheasants. Members heavily rely on this promise as pheasants are not everyday products and buyers are limited and difficult to find. The co-operative is the only agency in this region having a mature marketing network. “Pheasants are special products and marketing would be hard without a network,” the co-operative leader said, “when I first entered the industry, selling pheasants is hard; but now I have built my marketing network, making it easy for my members.”

Perishability of produce increases transaction costs and is a considerable challenge for farmers who do not have secure marketing channels or processing facilities. For example, because tea leaves need to be processed within the same day after being picked, many tea co-operatives are attractive to farmers as the core members promise to acquire the members’ tea leaves at a close location. The core members have facilities to pre-process the tea leaves and provide greater access to the market. Co-operatives become a reliable market partner to farmers, especially when the market demand is depressed. As one farmer said in the interview, he participated in the Sunshine Tea Co-operative because when other brokers or buyers stop acquiring tea leaves, the co-operative will still buy tea leaves from and only from its members, and with a fair price.

The co-operatives not only focus on the existing challenges farmers face in producing the already adopted crops, the co-operatives (the initiators) also lead farmers to adopt new crops and practices and embrace niche market opportunities. Based on the interviews, many co-operatives lead farmers to adopt new products that generate more income than planting traditional crops like wheat and corn. Examples are tea (Rivergate Tea Co-operatives), duck (Brilliant Duck Co-operatives), sweet potato (Build Wealth Sweet Potato Co-operatives), and herbs (the Gold Mountain Herb Co-operatives). Some co-operative initiators guide farmers in how to grow organic products (e.g., organic tea, organic walnuts, organic vegetables, etc.). As farmers have no

experience producing these new crops and no connections with the input suppliers and marketing channels, the co-operatives provide agronomic and technical guidance and connect farmers with value-chain players. Some of these co-operatives even incubate a new supply chain and industry in the region over time. I will present some detailed cases in Chapter 8.

Therefore, the co-operatives brought disruptive and innovative agribusinesses to local communities, which were much more profitable than the farmers' farming practice at the time of the co-operative initiation. That is partly due to the "elites lead, farmers follow" way of Chinese co-operative development. As discussed earlier, co-operative initiators in rural China utilize their own resources and make their own decisions; they do not rely much on the approval and financial contribution of a large group of people. These elite initiators, with the resources, expertise, and foresight that the ordinary members do not have, are able to establish a co-operative business that is beyond ordinary farmers' mindset. In the beginning, some farmers may be skeptical about the new business but will seek to join the co-operative when they see the success of co-operative members.

Moreover, with limited farmlands and high population density, Chinese rural communities are in need of co-operatives to develop more diverse, value-adding agriculture to enhance household income. As government officials and farmers both pointed out in the interviews, "it is just so difficult to make money from planting traditional crops." In addition, with urbanization and the development of the economy, many rural people become migrant workers in the city and the primary household income comes from their city jobs. These households tend to be open to co-operatives that create jobs for the elders and women staying in the village or provide a solution to make money from their uncultivated farming land.

For example, New Special Vegetable Co-operative and Gold Mountain Herb Co-operative rent lands and hire workers to grow vegetables and herbs, respectively. The co-operatives provide additional income (rent and wages) to the families joining the co-operatives.

Another example is the Rivergate Tea Co-operative whose members are very grateful the co-operative led them to grow tea, "People could make more money by going out for urban temporary jobs. But for people aged about 50 or more, like us, it is not quite convenient because factories, for example, are not willing to employ us. Most males in our village commonly go out for those jobs. But it is ok, we have two sources of income." In fact, when the farmers can make similar or more money from the new business (such as planting tea and feeding ducks) than from

their jobs in the cities, they are willing to stay at home full-time in the village.

6.3 Core members' access to key resources

Why do a small group of people (the elites) rather than others have access to key resources?

Zhao and Fu (2015) explained that migration, employment diversification, and land transfer has accelerated resource heterogeneity in rural China. The field study found that co-operatives' core members' resources are often accumulated by themselves from their farming, business, and political career in and outside of the rural communities.

A key access to resources for the core members is associated with their position in the social, political, and business networks, or in other words their relationship with stakeholders such as businesses, researchers, government officials, or farmers. Many co-operative initiators are in a powerful and advantageous position, the “structural hole” position in the network: the only trusted individuals that can effectively connect farmers and external stakeholders such as value chain businesses and governments.

The elites' resources, according to the field study, can be put into three categories: economic resources, political resources, and social resources. Economic resources include the factor and value chain resources (of their own or their partners') related to input supply, technology, agronomy, marketing, financial capital, access to farmlands, etc. The second is the government support thanks to their relationship with the government, including the government's investment in facilities, financial support, and other policies supporting the co-operatives. The third is the social capital thanks to core members' social relationship with farmers, their social influence, and the social norms in the rural community, which builds trust and reduces transaction costs during the process in which elites initiate and manage the co-operatives. This chapter focuses on the economic and government support resources while the social capital will be discussed in the next chapter.

6.3.1 Core members' economic resources

Core members' access to key economic resources is one reason why the core members can generate profit they can share between themselves and the farmer-members. Many of the core members, before initiating the co-operatives, have been successful producers, input providers,

processors, or brokers in the industry. They accumulated key economic resources for agricultural production and marketing that other ordinary members do not have, such as technological and agronomic resources, networks, and value chain resources.

The initiators have technological and agronomic resources because they are farming experts and through their networks they have partnerships with universities or related service providers. For example, the initiator of Build Wealth Sweet Potato Co-operative has partnerships with several agricultural universities. Through these partnerships, they have developed several new sweet potato varieties that are adapted to the local climate and have also built seedling nursery bases. The initiator himself has advanced knowledge in the area of sweet potato production. With the high and stable quality of the sweet potato variety he grows, he is the selected supplier of a large international food company. Therefore, he initiated three sweet potato co-operatives to meet the increasing demand. Similarly, the initiator of Rainyuan Vegetable Co-operative has a partnership with university professors: the co-operative is the trial base for new breeds and, in return, gets agronomic advice from the university.

Many co-operative initiators are well-known farming experts in the communities that farmers normally approach for help. Mountain Peak Tea Co-operative and Brightspring Tea Co-operative were both initiated by tea-growing experts in growing organic tea. The initiator of Thunder Mountain Walnut Co-operative was described by the local government official as “the very first farmer, or at least one of the first farmers to grow walnut in scale and grow organic products in the region.” Before the co-operative’s initiation, he had already helped his neighbours to buy fertilizer and pesticides for the right type and better price.

Another resource mentioned from the interviews is that the initiators know somebody that can support the co-operative initiation and operation. For example, the initiator of Qi Tourism Co-operative (also the village leader) receives facility and operational support from a businessman through a personal relationship. Boss Village Vegetable Co-operative hired the manager (an agronomist) through the village cadres’ personal network. Also using their personal network, the initiator (the village leader) of Westzhou Village E-commerce Co-operative found an IT expert as a partner to manage the online store and teach villagers how to open e-stores.

However, the most frequently mentioned resources that enable co-operative initiators to develop co-operatives are the supply chain, value chain, and market channel resources. Similarly, the co-operative initiators have these resources either because they are key players in the value

chain, or because they partner with the key players. For example, the initiator of the Everlasting Pheasant Co-operative owns a pheasant nursery company and a network with major buyers in the country. The initiator of Lucky Pig Co-operative is the local sales representative for a feed company and a pig pharmaceutical company and was the only provider of vet service when initiated. Initiators of Rivergate Tea Co-operative, Brightspring Tea Co-operative, and Sunshine Tea Co-operative all have partnerships with the biggest tea processor in the city. The initiator of the Mountain Peak Tea Co-operative has a loyal and high-level customer base for his organic tea. The initiator of South Mountain Walnut Co-operative (also village leader) knows the input suppliers very well because he used to work in seeds and fertilizer service in town and used to have his own business. The initiator of All Happy Nursery Co-operative has loyal customers from many provinces he connected through his horticulture career.

Two more examples will be presented as they reveal how initiators' resources in the value chain and market channel become the foundation for co-operative initiation. New Special Co-operatives (a crop planting co-operative, a vegetable co-operative, and an agricultural machinery co-operative) were initiated by the local Supply and Marketing Company ("*gong xiao she*"). The manager of the company said that "the purpose (to build the co-operatives) is to make use of our supply chain and networks in order to benefit farmers and ourselves" and that their advantages include "resources of government support, adequate financial capital, input supplies and marketing, technology, brand, certification, storage, etc." The manager described how their resources are utilized in their vegetable co-operative:

"We have networks to reach individual farmers and customers: online sales, offline stores, and the sales network for special (niche) agricultural products. Our e-commerce system connects to the provincial e-commerce network. Regionally, our ground transportation network could send vegetables from our 600-mu organic production base to consumers on their request in terms of pickup time and vegetable categories.¹⁶ Our company buys vegetables from farmers through co-operatives, packs and processes them in the industrial area with planting, processing, logistic and marketing facilities ...

We partner with village committees and provide farmers with before-mid-after production services...So by building the co-operative, we could make money from two ends: by selling

¹⁶ One *mu* equals about 666.67 square meters

high-quality vegetables to the market and by selling fertilizers and seeds to farmers. We could also help the government and farmers on rural development issues.”

Another example is the Brilliant Co-operatives including one duck co-operative, one fruit co-operative and one grain co-operative. The three were initiated by a private company. The latter two co-operatives are initiated to serve the needs of the duck co-operative: the grain co-operative provides grain to be processed into duck feed and the fruit co-operative utilizes the processed duck manure to produce organic fruits. The duck co-operative became the largest duck producer and service provider in the region thanks to the company’s three major resources.

First, the company owned assets in the value chain, including the duck house construction department, duck slaughterhouse, duck processing plants, duck manure processing plant, and duck nursery department. In addition, the company partners with large duck buyers and processors and serves as a local sales representative for some large duck feed and veterinary companies. With the co-operative, farmers can enjoy better prices than they can get individually. Moreover, the company has a good relationship with the local governments and has received government and policy support (such as land permits and production licenses that were difficult to get after the local environment inspection). The local government views this co-operative as a model in local duck industry and in environmentally friendly production.

6.3.2 Core members’ access to the government and policy support

The Chinese co-operative law does not allow local governments to directly initiate, hold shares of, and manage the co-operatives. However, the law highlights the role of government in supporting the development of co-operatives. Consistent with the literature (Deng et al. 2010, Zhao, 2010), the interviews found that government support is a major motivation for people to initiate co-operatives. Most of the initiators said they had received financial awards from the governments once or multiple times. Government officials, farmers, and co-operative initiators all said in the interviews that the initiation of a large number of co-operatives is motivated by government awards or subsidies.

Governments have both the motivations and the financial and policy resources to pursue social and economic goals in rural China. One of the goals and work priorities of both central and local governments is to fight against and eradicate poverty (“*fu pin*”). According to some

business leaders and the government officials interviewed, government support for co-operatives reflects the government's change of strategy in supporting Chinese agriculture, the rural areas, and farmers ("three rural issues" or "*san nong*"): from individual-based (lumpsum compensation allocated to individual farmers) to project-based (supporting the pilot projects and communities). Therefore, governments are willing to support projects that can maximize the positive effect of government support in the long run.

In addition, as the government is somehow distant from farmers, they also need the "leaders" (*dai tou ren*) in the business and rural communities to mobilize and organize farmers. The village committees and agribusiness and rural elites, who have local influence and familiarity with business and rural issues, are ideal partners for the government. Therefore, the co-operatives initiated by these rural and business leaders are ideal government support recipients, as they are expected by the government to sustainably create jobs, increase farmers' income, and stimulate economic growth in the rural communities.

For example, the vegetable plantation base of the New Special Vegetable Co-operative, initiated by a company with a semi-official background, is partially funded by the government project to showcase a vegetable production model in the region. Rivergate Tea Co-operative, supported by the government, has become a model for other tea producers in the region. The government organized the region's village cadres to visit Rivergate and learn from their tea production and business experience. Thanks to Rivergate's influence and guidance, tea production has expanded to five townships covering 23 villages, creating 15,000 jobs.

Another good example is Brilliant Duck Co-operative which became the government's strategic partner in making and implementing local environmental protection and economic development policies. In 2017, the government implemented a strict environmental protection movement targeting both industrial and agricultural production. More than 80% of farmers in livestock and poultry feeding were forced to exit their business as they cannot reach the environmental standard. As a result, the local government faced a dilemma: the orders from the central and provincial governments on environmental inspection should be implemented, but the social stability issues and pressure from farmers also need to be taken care of.

Facing this challenge, the local government chose to support Brilliant Duck Co-operative to expand its business. Upon the government's request, the co-operative promised to enroll the government-banned duck farmers as members, train them to adopt best practices in duck feeding

that meet the environmental standards, and provide facilities and services to get them back to business. The government also planned to cultivate the Brilliant Duck Co-operative as a model in the region's "economic development path transformation" in agriculture. Specifically, the city's party leader visited the co-operative and had long meetings with the co-operative leader asking about the co-operative's development plan and what support is needed from the government. The government later requested all the township leaders and department directors fully support the co-operative as they implement the expansion plan, including that "township party leaders are responsible to allocate land to the co-operative's production bases," "related departments and bureaus are responsible to approve license application as soon as possible," and "governments help to coordinate bank loans." As a gratitude for the government support, the leader vowed to "be fully dedicated" to the industry and rural development and proposed a "Three Two One" plan: in three years, make two hundred duck farmers earn one million yuan.

Like New Special, Rivergate, and Brilliant, most co-operatives leaders said their co-operatives have received or can receive government support. However, based on the interviews, co-operative leaders have a consensus that co-operatives initiated by village committees and by people who have a good relationship ("*you ren de*") with the local government are prioritized to get government support and tend to get more support than others. Out of all the co-operatives visited, seven co-operatives received project funding from the government to build facilities and infrastructure for the co-operative business. Six of them were initiated by village committees and the remaining one was initiated by a company that used to be state-owned. The next section will discuss village cadres as an example of how co-operative initiators utilize their position in the network to access government support as well as other resources.

6.3.3 Village cadres and their resources and important role in co-operative development

In Chinese villages, village cadres, the members of village committees, are the "management teams" elected by villagers to manage the village affairs and the collectively owned assets. The top village cadres are the party secretary of the village and the village director. In co-operative development, village cadres play roles as initiators or initiators' partners. Out of 32 co-operatives I visited, village committees initiated 11 co-operatives as the biggest shareholders as well as supported two co-operatives' initiation as the minority shareholder and partners. The village

cadres' key role in co-operative development is due to the resources they have gained thanks to their position in rural society.

The first resource is government support. Village cadres are elected representatives of farmers. The election results of village cadres also need to be officially approved (sometimes the candidates are nominated) by the township government. Therefore, they are also the village-level representatives of government administration to support the government's activities in the village. Such a dual role enables village cadres to be the connecting agents between the government and farmers. The village cadres often have a close relationship with the local government and as a result, have an advantage in receiving financial and policy support from the government.

Based on the interviews, 9 out of 11 co-operatives initiated by village committees received financial support from the local governments to build production facilities and infrastructure. Table 6.2 lists the facilities fully funded by government pro-agriculture or anti-poverty projects. These facilities required a substantial investment that the villages alone cannot afford. These facilities became the foundation for the initiation and development of the co-operatives.

Table 6.2 Facilities of co-operatives funded by the government

Co-operatives initiated by village committees	Facilities funded by the government
• Rivergate Tea Co-operative	Tea plantation base
• Qi Tourism Co-operative	The renovation of houses for rentals to tourists
• Riverfront Kiwi Co-operative	Cold storage for fruits
• Boss Village Vegetable Co-operative	Vegetable greenhouses
• Harvest Walnut Co-operative	Wells, land preparation, roads
• Mountain Water Fish Co-operative	Fish feeding base (invested by the Water Conservancy Bureau)

In addition, the government also provided various subsidies, awards, and training opportunities to support the co-operatives. For example, South Mountain Walnut Co-operative

received a package of government support, including the subsidy on land transfer (*liu zhuan*), the ex-post subsidy (30% to 50%) on planting walnut trees (*xian gan hou bu*: farmers act first, the government compensates after), an award on the initiation of co-operative business (100 thousand yuan per co-operative), and the eligibility to apply for interest-free loans. The village cadre also participated in free conferences and workshops (organized by the government for village leaders) to gain the knowledge about co-operative businesses and the agriculture market. Interviews with the Harvest Walnut Co-operative, Golden Ox Walnut Co-operative, and Rivergate Tea Co-operative also revealed that the government supported the co-operatives to buy seedlings and plant the walnut and tea trees.

Village cadres, farming elites, and government officials verified in the interviews that village cadres were “much more likely to get financial support from the government” and receive training. The reason was well explained by one township government official in the interview:

“The government wants co-operatives to be a place that pools resources to better serve the farmers and increase their income. Therefore, we, in principle, encourage all stakeholders to be involved in co-operative development. However, we see in previous years that some so-called “co-operatives” were built to illegally raise funds from farmers for usury or to apply for government support for initiators’ own businesses. These co-operatives do not benefit many farmers. Therefore, the government is more and more cautious and considerate in offering financial support to co-operatives. But we think the co-operatives initiated by village committees are relatively safe as they are endorsed by village-owned assets and the village cadres’ reputation in the community. Therefore, we support village committees in priority in the co-operative development.”

The second resource is that the village committee manages the village-owned assets. Those assets include the land compensation fund (received from the government and their business partners to buy the villages’ farmlands for urbanization and real estate development purposes), lands, buildings (e.g. offices and storage), and other facilities (e.g. the ones listed in Table 6.2).¹⁷ When necessary, these assets become key resources or infrastructures of the co-operatives. These resources are especially important for co-operative initiation in rural China considering that

¹⁷ A township officer said, “many villages are rich now as they get the ‘compensation for house demolition and farmland development,’ and with such capital the village committee have stronger intentions in investing business.”

Chinese farmers are often too conservative and risk-averse to be willing to invest in the co-operative start-up.

For example, Rivergate Tea Co-operative, the first tea grower in this region, was initially built on a small piece of village-managed land, a type of land that is not contracted to individual households. When the village committee brought up the business idea, no one wanted to try growing tea using their own land as they were not familiar with the process and uncertain about the income that growing tea can generate. Therefore, the village used this plot of land for a trial at first. The village committee restored the land and planted tea trees. When tea trees were able to produce quality tea leaves, the village committee leased the parcels of the tea farm to farmers (free for the first three years) and farmers were gradually motivated to plant tea trees. The tea co-operative was initiated and later developed into a National Model co-operative. Similarly, Boss Village's Vegetable Co-operative built greenhouses on the village-owned land using government support and village-managed funds. Ruilin Fruit Co-operative (a fruit marketing co-operative) and Westzhou E-commerce Co-operative used their village committee office buildings as the storage of products and offices for the employees, which are "just enough for the co-operative's needs."

6.4 Elites' economic motivation to initiate co-operatives

What motivates elites to initiate co-operatives? In general, the core members have two types of motivations: self-interested economic motivations and prosocial motivations. In most cases, it is a mixture of both. This section will focus on economic motivation. As core members' prosocial motivation is found to be highly related to their social relations, it will be discussed in the next chapter. The field study found that self-interested economic motivation is an important or even a dominating motivation for most initiators. Businesspeople initiate co-operatives primarily because there are "opportunities," either pure market opportunities or opportunities to receive government support. When it comes to village cadre initiators, according to the interviews with them as well as the peer villagers, some village leaders are the biggest beneficiaries of the co-operative business as they are some of the biggest growers in the village. For local agribusiness elites, helping other farmers (the ordinary members of the co-operatives) is built on the condition that their own business interests are not threatened. For example, as the leader of Thunder Mountain Walnut Co-operative said, "we sell their (the members') products if we could have an

extra ability to sell after selling our own walnuts.”

Another example reflecting the initiator’s self-interested motivation is that the initiator of a tea co-operative established a separate company to do the value-adding processing and marketing of tea. The co-operative is only responsible for acquiring tea leaves from the members and selling tea leaves to the company. However, the company, solely owned by him, captures the most profits. He admits that the reason to establish a company in addition to the co-operative is to protect his economic benefits. He said although at this moment such an arrangement is not very necessary because nobody oversees the profit-sharing in the co-operative, “this is a preparation for the future when the regulation of profit-sharing in the co-operative must be implemented.” “I deserve this (the bigger share of the profits) as myself developed all of these (the co-operative business and related economic opportunities).” He said very honestly that he believes the co-operative already helps farmers a lot by providing farmers with agronomic guidance and purchase contract that is secure and better than local market prices. He also plans to provide free fertilizer to the members in the future.

However, self-interested motivation or behaviours does not necessarily repudiate the contribution of the initiators to the members. As per the field study, some co-operative initiators have been or can be successful on their own with their own capital, expertise, and networks. But they chose to involve more people through co-operatives. Therefore, although the initiators are often the biggest beneficiary of the co-operative, the initiators do not exploit the ordinary members, since the initiators do offer the ordinary members a better price or better service than they would otherwise get. Moreover, the lack of prosocial motivation does not necessarily lead to the failure to establish the co-operative or attract farmers to join in. The success and popularity of co-operatives largely depends on the market and the ordinary members’ needs. It is the core members’ personal choice whether and to what extent to be prosocial.

6.5 Conclusion and discussion

Based on the information from the interviews, I find evidence to suggest that Chinese co-operative development seems adapted to the heterogeneity of resource endowment. Rather than pooling resources (such as financial capital, social capital, human capital, etc.) from all members, the co-operatives are initiated by the major resource owners (the elites/core members) integrating the resource seekers (the farmers). A major reason that a co-operative can be established is to

“build a bigger pie to share” between the core members and ordinary members.

It is important to note that the concept “member heterogeneity” means differently in Western co-operatives and in Chinese co-operatives, because Chinese co-operative is a different model of co-operation from Western co-operatives. In the West, the co-operatives are invested and controlled by members collectively and the heterogeneity refers to the differences among members horizontally. Therefore, heterogeneity is often seen as a challenge for co-operatives as it makes it difficult to align interests and coordinate diverse groups in the decision-making (Cook, 2018). On the other hand, the heterogeneity between the core members and ordinary members in China relates to their unequal access to agricultural value chain resources vertically. It is the origin of the co-operative initiation in rural China to modernize agriculture. It is the reason the core members have the resources and capacity to develop the co-operative business and are able to attract the other farmers who do not have better alternatives.

However, other evidence from the interviews suggests that farmers’ and elites’ access to resources is changing over time. As a result, the co-operation between elites and ordinary farmers also changes, which may threaten the survival of co-operatives. Below are some examples.

- A co-operative can be **seasonal or temporary**. For example, Thunder Mountain Walnut Co-operative only provides marketing services to the farmers when farmers cannot find enough buyers from the market (“a bad year” for the farmers) and when the co-operative leader has extra marketing capacity after selling his own walnuts (“a good year” for the co-operative leader).
- A co-operative can **fail** when the elite loses their advantageous access to resources. For example, a mushroom co-operative in a village I visited ceased operation after the co-operative leader lost his marketing partner.
- A co-operative can **re-structure or re-emerge** by affiliating to new core members and their resources. For example, the initiator of Buildwealth Sweet Potato Co-operative said that the initiators of two other sweet potato co-operatives brought their co-operatives to join Buildwealth Co-operative, as these two co-operatives can no longer survive with their initiators’ resources.
- A co-operative can also **divide** when ordinary members accumulate their own economic resources and do not rely on the core members anymore. Instead, they initiate their own co-operatives as new core members attracting their own followers to join (e.g., Tea Co-

operatives in Rivergate Village).

Therefore, although resource heterogeneity contributes to the co-operative development and service provision to the farmers, an over-reliance on individual elites' resources can threaten the viability and solidarity of the co-operatives.

Chapter 7 Social relations, social norms, and co-operative development in rural China

While elites' and ordinary farmers' unequal access to economic resources incubates economic opportunities for co-operative initiation, social and cultural factors are also pivotal in their development. The field study found that the mutual supportive social relationships between the elite-controllers of the co-operative and the ordinary members and the social norms that constrain their behaviours make Chinese co-operatives different from conventional private firms that are also controlled by large shareholders. The social relations and social norms, together with the heterogeneity of members, shape co-operative development and the co-operative model with "Chinese characteristics." This chapter presents the field study findings regarding the role of social relations and social norms in Chinese co-operatives.

7.1 Social relations in Chinese rural co-operatives

Data from the field study shows that social relations play a significant role in most co-operatives.¹⁸ Social relations may dictate where co-operative initiators locate their co-operatives and select specific groups of farmers as members. Unlike western co-operatives that have open membership or membership upon collective approval from existing members, I find that the founding members have the power to select additional members in the Chinese co-operatives I studied. Further, the tendency was to utilize their social relations to select the people who can "get along well with them" and "share similar ideas or ideology (*li nian*)." Sorted by the social relationship within the co-operative, the co-operatives I visited in the field study can be put into the following three types.

7.1.1 Co-operatives initiated by rural elites

The first type of co-operative is initiated by rural elites (i.e., experts in growing or marketing

¹⁸ I do see a few co-operatives where the role of social relationships is insignificant. Some of them are no different from the investor-owned firms, as one co-operative manager said in the interview "you should understand that co-operative is no different from other types of business...it is just a label." The members are just the business owners' clients. Some co-operatives are just family business and "members" are just members of a family.

specific crops) and joined by the willing members they selected, such as friends, relatives, neighbours, or people within the village. Although most of these co-operatives are small, as they are built upon the initiators' networks, they account for a sizable portion of all co-operatives and play critical roles in local economies.

I will describe two representative cases of such co-operatives. The first example is the co-operatives in Qi Village. Like many Chinese rural communities, farmers in Qi Village grow more than one crop. The village leader described co-operatives as vehicles of villagers' specializations and mutual supportive interactions built upon social relationships among friends, relatives, and neighbours. The farmers who are more capable in one crop may initiate a co-operative targeting this product to help other farmers in their network while joining other co-operatives initiated by other farmers targeting a different crop. Qi village is an excellent example that the network of co-operatives reflects the community network (displayed in Figure 7.1). The co-operatives appear in clusters as their members are connected in strong social relations. However, that also leads to a limited scale of the co-operatives (e.g., there are three nursery co-operatives and two kiwi co-operatives in Qi village).

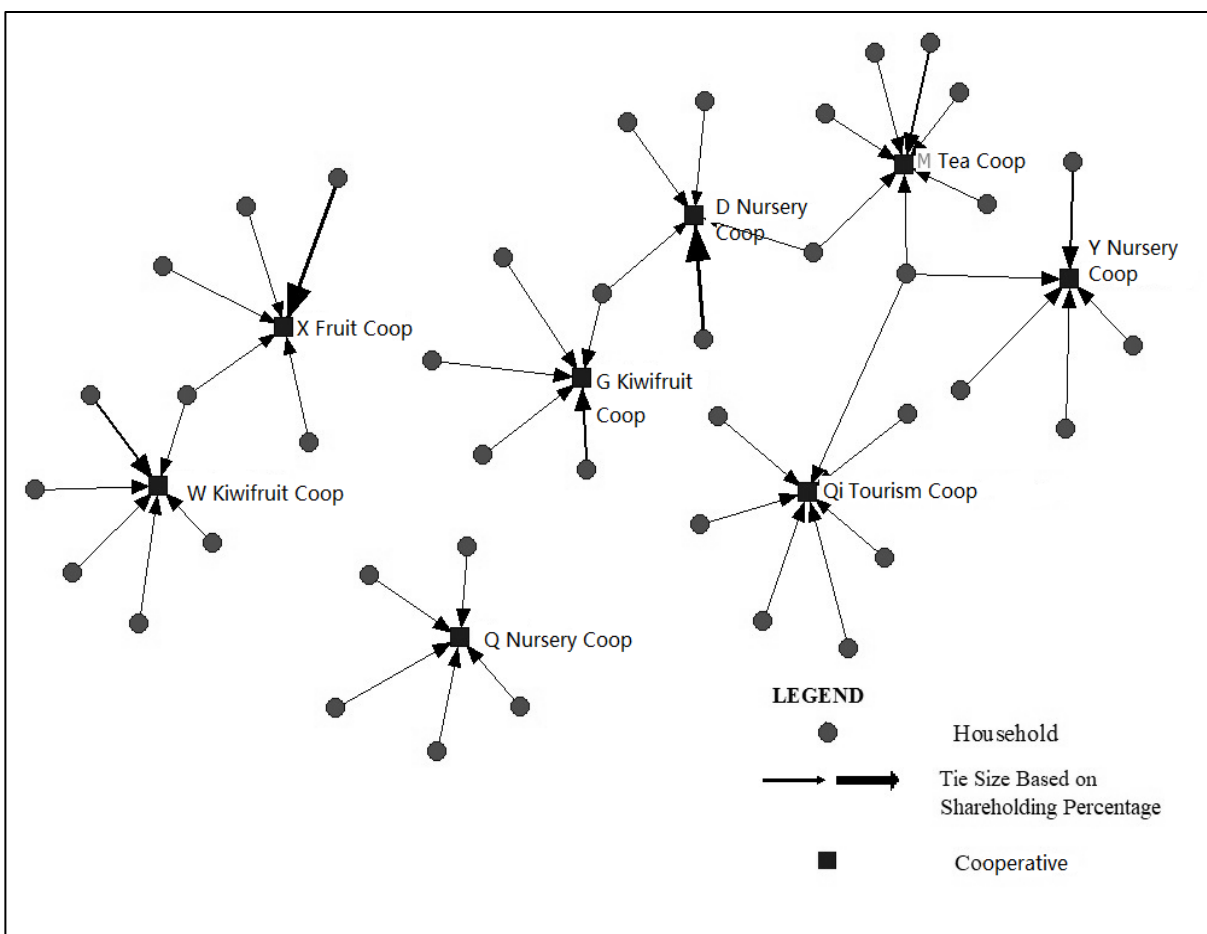


Figure 7.1 Co-operatives in Qi village

Brightspring Tea Co-operative is another example of how a co-operative was initiated and expanded through social relations. Brightspring was initiated in 2010 by a tea grower in the area who is described by local government officials as a “very smart, visionary and social person.” Before initiating the co-operative, he contracted with a local tea processing and marketing company and therefore gained a secure market channel to sell tea. He initiated the co-operative to allow the eight friends and neighbours to share in meeting the contract. He later developed his own processing and packaging facilities with his own brand for the tea product. And the co-operative further expanded through the network of the eight initial members. Brightspring Tea Co-operative is built on the networks (of the eight initial members) of a network (centered by the co-operative leader). The co-operative leader, the core of the core members, is the major decision-maker and consults with the eight core members in the decision-making process. The

eight core members are responsible for the members from their network. The process is described by the co-operative leader below and shown in Figure 7.2.

“At the very beginning, nine people including me initiated the co-operative. I found the downstream partner to sell my tea leaves, but the peer farmers could not. The tea processing plants won’t accept those eight people’s tea in their own names, but they accept the tea leaves under my name. Therefore, they joined the co-operative. Later, the tea products we processed by ourselves widened the market and we never need to worry about the sales problem. So, the nine people took more followers they were familiar with into the co-operative. Every initiator brought in 10-20 members. But the core members of the co-operative are the nine people.”

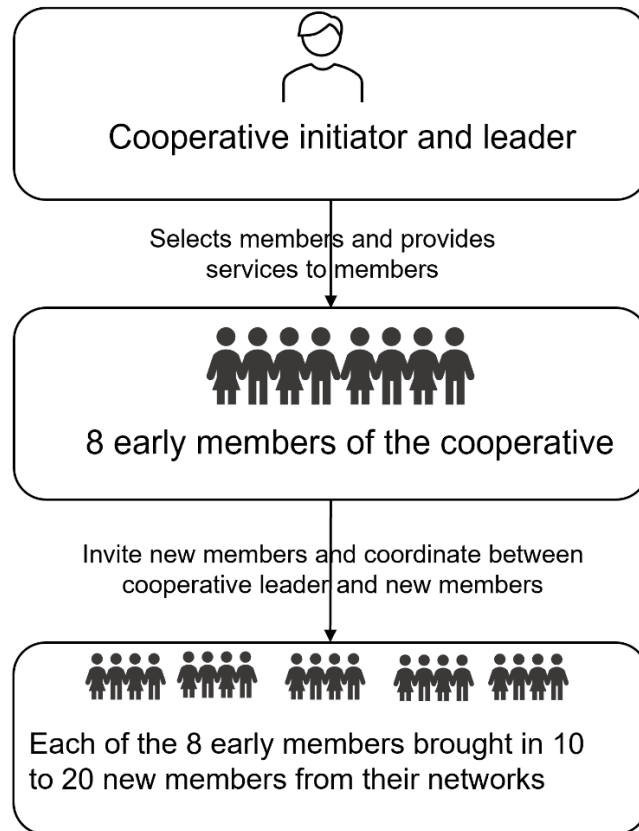


Figure 7.2 Brightspring Tea Co-operative

7.1.2 Co-operatives initiated by village committees

The second type of co-operative involves co-operatives initiated by the village committee. The

village committee and leaders are often very influential in the local community due to their administrative power in village affairs, personal capability and reputation, and their access to external government supports and business resources. These village-based co-operatives are open only to local villagers for two reasons. Firstly, relationships between the village committee and local villagers make it easy for village leaders to convince and organize the farmers in co-operative initiation and development as well as to monitor free-riding, product quality, and holdup issues. Secondly, these co-operatives often have limited capital or other resources, and their villagers are prioritized to benefit from these co-operatives.

Riverside Tea Co-operative is a typical example of a village-initiated co-operative. Riverside Village is the first village that adopted tea production in the city and initiated the first tea co-operative in the region more than 20 years ago. Since then, tea production has been widely adopted in the region, but Riverside Tea Co-operative still only operates at the village level and only serves its villagers.

7.1.3 Co-operatives initiated by external businesspeople through rural partners' networks

The third type involves co-operatives that were initiated by businesspeople who are originally non-rural residents and who partner with selected rural people as the local manager or coordinator. The local managers then select the farmers from within their network to be members of the co-operative. Those businesspeople may be input providers, brokers, or processors who seek to exploit opportunities in the agriculture industry through co-operatives in rural communities. However, outsiders do not have the requisite local information and social influence to coordinate and enforce member cooperation through informal mechanisms as formal institutions, like contracts, are not typically effective (Zhu & Wang, 2008). Therefore, to build good relationships with farmers in order to reduce transaction costs, non-rural initiators commonly require local partners, often influential and well-connected with farmers in the community to provide legitimacy and help with coordination.

From the interviews, I found that the businesspeople initiators either partner with local villagers (such as Sunshine Tea Co-operative, Gold Mountain Herb Co-operative, and Village Cloud Co-operatives) or village committees (such as New Special Co-operatives) to initiate the co-operative. Businesspeople hire, give shares to, or share benefits with these rural partners. In

return, the rural partners help manage the co-operative in the local communities, build trust, and coordinate between the businesspeople and local farmers. The selected local partners in rural China play a key role as organizers and coordinators in the co-operative initiation and remain to be a special group of membership (core members), connecting farmers and business elites and having more voice than ordinary members within the co-operatives.

A typical example of a co-operative initiated by businesspeople together with their rural partners is the Sunshine Tea Co-operative (shown in Figure 7.3). Sunshine Tea was established by a leading regional tea processing and trading company (holding 98% of the shares) and 261 other rural farming elites (holding 2% of the shares in total) as partners. Each rural elite is the manager in their village(s), responsible for organizing local tea farmers for the company. These rural partners coordinate and build trust between the company and farmers by providing services, exchanging information, and purchasing tea leaves. On one hand, farmers know these local managers well and trust their good faith, credibility, and capability in providing a reasonable offer and quality services. On the other hand, because tea leaves are perishable (i.e., fresh tea leaves must be picked every day and stir-baked on the same day) and the planting area is large, mountainous, and hard to reach, the company requires local agents in different villages to acquire tea leaves from the farmers, supervise the quality, and perform initial processing (such as stir baking).

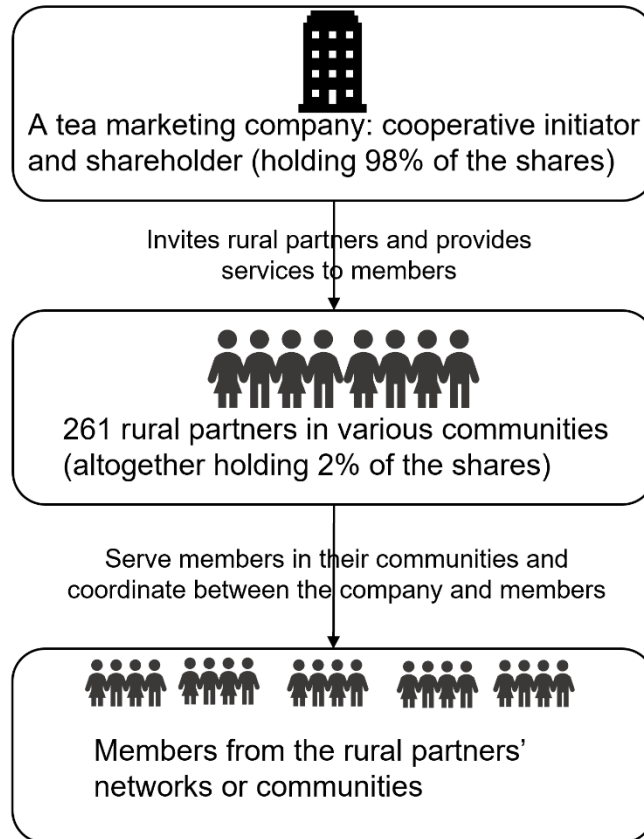


Figure 7.3 Sunshine Tea Co-operative

Similarly, the initiator of Gold Mountain Herb Co-operative chose to initiate the co-operative and build the production base in the village where his brother-in-law was living and asked him to be the acting manager. The initiator of Build Wealth Sweet Potato Co-operative initiated and managed a sweet potato co-operative in his village. He also co-initiated two co-operatives in other villages partnering with two local elites. The local elites manage their respective co-operative and coordinate between the villagers and the outside initiator who provides marketing, input supplies, and agronomic services to the co-operatives. Similarly, Village Cloud is a company dedicated to initiating co-operatives in Shandong province. Its strategy is partnering with retired village leaders to initiate co-operatives in their communities.

7.2 Social relations motivate elites to be prosocial to develop co-operatives

Given the importance of personal networks in agricultural co-operatives, psychological and

economic motivations may contribute to the initiation and development of these ventures. One such factor is the prosocial motivation of core members who want to develop a co-operative. Grant and Sumanth (2009, p. 928) define prosocial motivation as “the desire to expend effort to benefit other people.” Prosocial motivation can be egoistic and altruistic (Batson, 1987). The prosocial behavior is “mutualism” if the person committing the prosocial behavior benefits both themselves and the beneficiaries; and “altruism” if the person committing the prosocial behavior bears a net cost (Wittek & Bekkers, 2015). Dovidio (2001, p. 159) says prosocial behavior can be “shaped by cognitive (e.g., assessments of costs and rewards) and affective (e.g., arousal and emotion) processes.”

In addition to economic motivation, prosocial motivation is seen as an important reason for co-operative initiators as they want to help those they care about in their network. When the initiators’ resources are limited, they prefer to help farmers who give them the most prosocial gains. Therefore, the factor of prosocial motivation may influence the co-operative's location, the members they select to participate, and the overall governance mechanisms used to operate the co-operative.

When initiating and developing the co-operatives, different initiating stakeholders give prioritized attention to different people depending on their social network. A township government official commented that “the co-operatives initiated by the village committees often put the villagers’ benefits on the top, and some rural elites are also sincerely willing to help their neighbours, relatives, and friends in the rural communities.” Non-rural business initiators who get support from stakeholders such as government and rural partners will also need to consider the benefits of the people these stakeholders care for the most.

7.2.1 Village cadres’ prosocial motivation to serve the villagers

During the interviews, all village leaders emphasized that they initiated the co-operatives for the villagers’ benefit. For example, the initiator of the South Mountain Walnut Co-operative is its village leader, who came back to the village and gave up his career in a city when the village asked for him to come back to lead them. “They trust me because of my experience in business management and agronomic expertise. I also thought that as a member of the community, I should take this social responsibility for the village’s prosperity.” He said, “therefore, I put my attention back to the village. I got elected as the Village Party Secretary and initiated the co-

operative.”

Similarly, the initiator of Peace Village Vegetable Co-operative used to be a wealthy businessperson. However, he chose to leave his business, donate his wealth, and return to his village to serve as the village leader in order to develop the co-operative. He said being at his age, he began to feel guilty and uncomfortable that the people in his community were still poor.

A government official also emphasized and praised the village leaders’ spirits and efforts especially in some poor communities:

“In some rich villages, it is common to see people compete for village leaders, while for some poor villages, it is likely to see that nobody wants to serve in this position because the salary is very low, the resource is limited, work is time-consuming, and the responsibility is heavy. And people will blame you if you cannot do well...therefore, if people are not prosocial, they really do not have the motivation to serve in that position.”

The Mountain Water Fish Co-operative was initiated in a village that used to be extremely poor. As a farmer depicts, “the village committee was even unable to afford the tea to host the visit of government officials”; but “the village is much better now after the very capable new village leader applied for the government support and initiated the fish co-operative...Now the village allocates free rice, flour and oil to the farmers before the (Chinese) New Year.”

One of the most difficult tasks for the village leaders in co-operative development is to persuade farmers to join the co-operatives. While many co-operatives, especially those initiated by farming elites, do not advertise much and only include members that are willing to co-operate, some village leaders were seen to use their own resources and make tremendous efforts to persuade farmers with the intention of leaving no one behind. For example, the leader of Peace Village spent considerable time persuading farmers, household by household repeatedly, to participate in the vegetable co-operative, because farmers used to suffer large losses in planting vegetables. He also utilized his network and organized farmers to visit the successful vegetable-producing villages on his cost.

When the village leaders made limited progress in recruiting members, some of them chose to take the responsibilities and risks of establishing the co-operative and later on accepted farmers to join the co-operatives to free-ride after the co-operative witnessed success. For example, Rivergate Tea Co-operative was also initiated under doubt as farmers did not believe tea could be planted in such a northern location. But the village cadres carried on with the plan.

They said they overcame tremendous difficulties to build relationships with business partners and buyers and seek government support, but finally succeeded and became a successful model of agribusiness in the region. Currently all villagers are members of the Rivergate Co-operative.

7.2.2 Rural elites' prosocial motivation to help the people in their networks

Rural farming elites also initiated co-operatives for prosocial reasons. For example, the initiator of All Happy Nursery Co-operative is a horticulture agronomist who came back to his community and initiated this co-operative after decades of experience working in the nursery industry all over the country. He accepted five households who are his friends and neighbours into this co-operative, teaching them planting skills and marketing their products utilizing his business networks. He said he used the name "All Happy" because he wanted to make all the members, not just himself, happy and rich. His assistance to the members is free (while a small brokerage fee is charged for the assistance to non-members). He said,

"We commonly say 'give and take', and therefore as long as you would like to give, people will be willing to help you when you need to 'take.' As we are all close neighbours, I don't think too much about my temporary benefits. You never know when you will need help from the community...I wish I could retire, but I cannot because nobody could replace me for this position."

Several Tea Co-operatives (Mountain Peak, Sunshine, and Brightspring) initiated or co-initiated by rural elites are also prosocial examples. Rather than maximize their own economic benefits, these rural elites offer benefits to members including free agronomy service, free fertilizer and pesticide, a price better than the market, and guaranteed acquisition if the tea leaves meet the quality standard (see Table 7.1 for a summary of the services provided by the tea co-operatives studied). A member of the Sunshine Tea Co-operative) said he is loyal to the co-operative as "when the market is down and other buyers refuse to acquire tea leaves, he still acquires the tea leaves from his members at a fair price while refuses to accept tea leaves from non-members." The initiator of Mountain Peak Co-operative explained:

"Even though the co-operative cannot sell all the tea processed in the current year, we will still keep our promise of buying tea leaves from the members as long as their tea leaves meet the quality standard...The price we offer to the farmers is commonly better than others... and

are very stable over years; although the market is fluctuating dramatically, the fluctuation is absorbed by ourselves for the farmers.”

Table 7.1 Services that benefit members

Tea Co-operatives	Free agronomy service	Free fertilizer and pesticide	Better than market price	Members required to sell tea to the co-operative	Guaranteed purchase if tea leaves meet quality standard
Mountain Peak	When requested by the member	Yes	Most of the time yes	Yes	Yes
Sunshine	Occasionally	No	Almost the same	No	Yes
Brightspring	When requested by the member	Not yet but is in the plan	Yes	Yes	Yes
Rivergate	Regularly (organized by the village committee)	No	A bit higher / almost the same; but co-op pays health insurance for the villagers	No	Yes

Another example is the initiation of Thunder Mountain Walnut Co-operative, which is described by the initiator as “a kind favour” to the community.

“Because we are of the first households to plant walnut on such a scale and with a marketing ability, the government recognized us as a model of rural development. The villagers saw the profits we made from walnuts and followed our steps to plant walnuts. We then built the co-operative. The co-operative is mainly owned and controlled by our family. We provide them with planting guidance and let them buy fertilizer and pesticide with us to get the right type and good price. We also help market their products if we have extra capacity to sell after selling our own walnuts and if they feel difficult to sell by themselves. We help them because we are from the same community and are in a nice relationship with each other. Our help is regarded by us and the farmers as a kind favour. Participation is totally voluntary. They would come for help when they need, and we would try our best to help. We may deduct a

tiny fee if we can market their products at a very good price.”

However, a local government official has another interpretation of the prosocial behaviors of the Thunder Mountain Walnut Co-operative (cannot be verified by the initiator himself),

“He (the initiator) rented a lot of lands, many of which were barren hills, at a very low price from the farmers and the village committee in both his village and the neighbour village. At that time, people thought the land was barren and nobody cared about it, but in recent years, there is increasing dissatisfaction from villagers... The initiator wants to maintain a good relationship with the community.”

The point from the government official leads to another type of prosocial motivation as a reward for the support from village committees, communities, or/and the governments, who need co-operatives to help achieve the social and economic goals in the rural communities. Such a prosocial behaviour is a “mutualism” type of prosocial behaviour motivated by egoistic reasons (e.g. maintaining the long-term mutually beneficial relationship) through cognitive calculation of costs and benefits.

7.2.3 Elites’ prosocial behavior to reward supportive stakeholders

Many co-operative initiators, especially the businesspeople from outside of the rural communities, take some prosocial moves to reward their local supporters such as the local governments. For example, the Build Wealth Sweet Potato Co-operative gives free seedlings to poor households to reward the villages and the government for renting land to the co-operative and supporting the building of greenhouses. New Special Co-operative and Brilliant Duck Co-operative, which receive significant government support, set “anti-poverty” as one of their major missions according to the interviews and their internal documents.

Brilliant Duck Co-operative plays a key role in local social stability and economic transformation. The co-operative partnered with the government and villages to re-organize the farmers into environmentally friendly duck production, as thousands of farmers were banned from feeding ducks under the government’s environmental inspection movement. The leader of Brilliant Duck Co-operative said,

“with the support and expectations from the government, I feel a stronger sense of social responsibility and will keep focusing on helping more members to explore an

environmentally friendly, intelligent, and modernized agricultural development pattern...which will be the key contribution of our co-operative to the region.”

With strong governmental support, Brilliant Co-operative expanded quickly and vowed to achieve “3/2/1” goals: “in three years, make two hundred duck farmers millionaires.”

In conclusion, the statements above echo findings in other areas on prosocial motivations in entrepreneurship and business development (Yu et al., 2020). Within the interviews, I have found that many core members have high levels of prosocial motivation that contributes to the desire to initiate a co-operative that can benefit others within their network.

7.3 Social relations to exert social pressure to build trust in co-operatives

Social relations also provide informal mechanisms to constrain people’s behaviour through social pressure.¹⁹ People are expected to act in a mutually beneficial way or risk social repercussions. As such, the role of social relations may be critical in enforcing cooperation and building trust between parties in rural China, as formal contracts are not very effective. As a government official commented,

“Even though contracts are available in some cases, the role of contracts themselves is mainly to clarify the details of the cooperation but with a questionable enforcing and monitoring power.”

The interviews show that for both farmers and initiators, opportunistic behaviours are one of the major worries (and initiators’ worries are a bigger concern as they need to invest in more transaction-specific assets). The field study found that initiators utilized direct or indirect relationships with farmers to find the farmers they trust and that also trust them.

¹⁹ The effect of social pressure on individuals relates to the normative goal of a person (do things following the norm) in the behavioural economics. A departure from following the rule or norm or what other people expect will cause a person psychological discomfort (Lindenberg, 2001; Lindenberg & Steg, 2007; Osterloh & Frey, 2012). From an “identity” perspective (Akerlof & Kranton, 2005), when people have an identity by putting themselves in a social category, there are certain expectations of what they should do and failing to do so causes a disutility.

7.3.1 Farmers' trust on certain local rural elites

Farmers may forego other business opportunities by participating in the co-operatives and believe the initiators could help them achieve economic success. In such conditions, farmers are vulnerable to opportunism from the initiators. The ongoing social relationships are a big reason why farmers trust these initiators and join the co-operatives. These initiators are often reputable, respected, and well-known people in their network. Initiators are under social pressure within the co-operative because if they act opportunistically, they will sacrifice their reputation and break their relationships with peers.

This could be best described by the case of the Brilliant Duck Co-operative. Its initiator used to be a local farmer and had a good relationship with duck farmers in his community before the co-operative was initiated. In 2010, shortly after the co-operative was founded, he promised to acquire the ducks from members at 8 yuan/kilo. But the market went down, and he could sell to the market only at 6 yuan/kilo. Friends and families suggested that he should walk away because no contracts were signed. But he decided to buy all the ducks from members at the promised price and therefore suffered a loss of 400 thousand yuan, a huge number for him at that time. He said in the interview that “at that time what I was thinking was just that everybody knows me here, and if I break my promise, I cannot even stay here anymore.” After this incident, more duck farmers, even from other villages, were attracted to his co-operative.

The interview with the initiator of Brightspring Tea Co-operative also revealed the social pressure on the co-operative initiators. He talked about his hesitation to establish the co-operative:

“To tell the truth, at the very beginning when I wanted to initiate the co-operative, even the other eight primary shareholders doubted the decision and hesitated. They worried that what if we build the co-operative and organize people but, in the end, it turns out that we are not able to meet their expectations to sell all the tea from members.....Later, the product we processed widened the market and we don't need to worry about sales anymore. Therefore, the initial core members took more followers into the co-operative.”

The social relationship between rural elites and farmers is a big reason why farmers trust these elites and the co-operatives they initiated. From the interviews, the initiators of many co-operatives (especially farming elites and village leader initiators) said their relationship with

farmers and their reputation in the communities are the reasons why the farmers trust them.

7.3.2 Co-operative initiators' trust in certain farmers

When the core members initiate co-operatives, they may need to invest in transaction-specific assets and include free support as part of the service in exchange for farmers' support in the co-operative business. For example, the initiators of New Special Vegetable Co-operatives invested in the production base and land preparation for organic vegetable plantations. The initiator of Mountain Peak Tea Co-operative provides free agronomic guidance and organic fertilizer and pesticides to help farmers increase the quality of their tea leaves. Under these conditions, the co-operative initiators can be vulnerable to opportunism from ordinary members. A typical example is that farmers enjoy the benefits from core members' specific investment and free support. However, the farmers can sell (or buy) products to (from) the co-operatives' competitors if they offer a slightly better price. In instances where there is greater competition, social pressure that ensures reciprocal behaviours of ordinary members becomes crucial.²⁰

According to data collected during the interviews, to limit the potential for opportunistic behaviours by ordinary members, core members often select farmers they know to be grateful, loyal, and reciprocal. These farmers are often the initiators' close friends, relatives, and neighbours (for rural elite initiators) or peer villagers (for the village committee initiators). Due to these close ties, these ordinary members are under social pressure to act reciprocally because any opportunistic behaviour would break the mutual supportive norm, damage their reputation, and weaken the relationship with the core members.

For example, a member of Sunshine Tea Co-operative said in the interview that he sells his tea leaves only to the local agent of the Sunshine Co-operative. Although he has the absolute freedom to sell the tea leaves to any business, he explained:

²⁰ Note that as per the interviews, not every co-operative requires the farmers to sell their products to the co-operative. There will be social pressure on farmers to sell the products to the co-operative only when there are expectations on farmers to do so. Although all co-operative initiators that are vulnerable to farmers' opportunistic behaviours want to select members that are under high social pressure, some are less worried as they have a high margin and monopolistic control over value chain resources. Some co-operatives (as per the interviews) could provide a better than market price to farmers so that farmers will not be motivated at all to do business with the competitors of the co-operatives.

“That guy (one of the core members) and we (ordinary) members know each other very well and he is very trustworthy... when the market is down and other buyers refuse to acquire tea leaves, he still acquires the tea leaves from his members at a fair price. Most of the time the price will be very similar and even though other buyers offer a slightly better price, it is “losing face” (*diu mian zi*) to switch to other buyers just for this small benefit (*ying tou xiao li*), as you and him know each other well and he always helps you in your difficult time.”

The village committee initiated the Ruilin Fruit Co-operative to market the fruits grown by the villagers as a united group to increase the bargaining power and eliminate price competition among farmers. The co-operative charges members a small levy. When asked how to make sure all farmers will participate, the leader said,

“Farmers know it is good for them, and besides, you will feel uncomfortable not to participate if others do...Someone must do something. We (the village committee) would be the only possible party to legitimately and effectively organize farmers as a united group thanks to the committee’s influence.”

Similarly, the village committee initiated the Harvest Walnut Co-operative and levy 5% of the output on farmers “as the reward to the village,” a type of commitment different than committing to doing business with the co-operative. As the co-operative leader said, “all the preparation and initial investments are arranged by the village (committee) including the seedlings, wells, roads, electricity, and water.” When asked what happens if farmers do not pay this 5%, the leader said, “it is doubtful: farmers are all neighbours and peers in the community, and it will be a shame if they do not do so.”

Farmers are also facing social pressure in terms of guaranteeing product quality. For example, the initiator of the Brightspring Tea Co-operative emphasized the role of social pressure to maintain quality control:

“The use of fertilizer and pesticide is under watch. Our members’ farms are close to my place. I could see how much and what kind of pesticide they use and when. Before we control this, the overuse of pesticides is a problem because farmers often sell to buyers outside (along the main road near the farms), and those buyers cannot control the quality. In our co-operative, we have two ways to monitor. First, as I said, I could go and monitor it by myself. Second, neighbours know each other, and their farms are next to each other. There is almost

no secret in terms of quality control. I could get the information at home from others, so there is the effect of peer pressure on quality control...Almost every day, they come to sell their tea leaves to me (the co-operative), and we could see each other and communicate every day. Then people may feel shame if they lie to me and overuse pesticides.”

Similarly, the leader of the Rivergate Tea co-operative, a committee-initiated co-operative, said the co-operative only accepts products from farmers within the village. The reasoning is that peers and Party members monitor farmers in the village. Therefore, the farmers know not to risk their reputation to violate the quality standard by overusing fertilizer and pesticides.

“Our co-operative does not accept tea from outside of our village, as we cannot guarantee its quality. The village committee organizes some Party Members to monitor the growing practice. Every Party Member of this group will be assigned to an area to watch the use of pesticides and chemical fertilizer and exchange information related to marketing and technology between the co-operative and the farmers. If the farmers over-use pesticides, we will not buy their tea...The farmer is unwilling to take the risk because nobody would want to buy their tea around the community if their unethical behaviour is known, which means all their hard work is wasted. The within-community self-monitoring is the most efficient way to control the quality. Party members are extremely responsible and hard-working because they know if they do not watch carefully, the reputation of their village’s tea may be threatened, and the whole community’s welfare could be damaged.”

Sometimes, a relationship such as coming from the same village is not enough to exert social pressure on farmers, and therefore initiators use additional screening to choose reliable members. For example, all of Mountain Peak Tea Co-operative’s 170 member households are from the same village and were well known to the initiator before the initiation of the co-operative. However, there are still “some selfish and short-sighted households who do not understand mutual-benefit,” the co-operative leader said:

“I provide them with organic pesticides, organic fertilizer, and agronomic guidance for free and I signed the contract with farmers regulating that they could only sell tea leaves to me...But for some farmers, the contract is just a piece of wasted paper. They will sell their tea leaves to others even though their price is slightly higher occasionally because I cannot watch the competitor’s price all the time...I have kicked out 20 households and only

members who share the value of mutual benefits could stay.”

The interviews may explain why the core members only include the ordinary members that “are grateful,” “share the same value and goal,” and “get along well” with them. Therefore, most of the co-operatives I talked with are small. The selection of members based on dyadic relationships reduces the chances of moral hazard.

7.3.3 Rural partners build trust between farmers and outside co-operative initiators

As discussed earlier, when businesspeople from outside of the rural community initiate co-operatives, they partner with rural people to connect and build trust with farmers in their network. The rural partners, such as rural elites and village committees, often serve as the local managers or coordinators. As discussed in Chapter Four, in rural China, the relationship within the village is an effective informal institution, while formal institutions like contracts tend to be less effective. In co-operative development, these businesspeople must rely on the local partners to coordinate and build trust with the farmers to reduce transaction costs caused by information asymmetry, asset specificity, and opportunism.

Two government officials in separate interviews explained why external co-operative initiators should partner with rural elites and with village committees, respectively.

“Chinese rural society is still a society of relations and a society of favours and rewards (*ren qing*). There could be contracts in the co-operation, but it is the relations, favours, and benefit sharing norms (*you qian yi qi zhuan*) that play the major roles. Therefore, some local elites who have good economic performance, local influence, and good reputation are the ideal partners for the companies from the outside (of the rural communities), who worries about the difficulty in dealing with farmers and enforcing the contracts.”

“There might be so many potential conflicts between the outside co-operative initiators and the villagers: such as road and facility building, water and electricity using, land using, traffic, security, and noise. Therefore, inviting the village committee as a coordinator, shareholder and decision maker could bundle up the mutual benefits and address the conflicts between businesspeople and the villagers.”

New Special Co-operative is a good example. The initiator, an agri-food marketing and input

supply company, reached out to the village committee to coordinate land issues, labour hiring, and other daily management issues. The village committee was given 30% of the shares in the co-operative. The village committee also receives a bonus for every villager hired by the co-operative. The co-operative initiator explains their partnership with the village committee:

“We reached the village committee for cooperation. We asked them to persuade the villagers to participate in the co-operative. We asked them to persuade and organize the farmers to rent their land to us. We also asked them to hire people and manage them. Because we know almost nothing about the village and we are too distanced from farmers to discuss issues, gain their trust, and make them cooperate...the company (the initiator) must deal with so many issues with the villagers, but with the help of the village committee things will be so much easier.”

Another piece of evidence that the relationships with members are needed is that Lucky Pig Co-operative, which does not have rural partners, faced significant challenges in enforcing purchase agreements and maintaining trust with farmers. The Lucky Pig Co-operative’s manager said, “our members are scattered in multiple districts...many members that do not share our mutual-supportive values were attracted by short-term interests. They receive the free veterinary service from us but buy pig feed from other sources, which are not allowed as per the contract.” The co-operative leader admits that his co-operative is barely surviving as the competition increases among feed suppliers and it is costly for the co-operative to provide free veterinary service. He said he has diverted his attention to another business.

Among all businesspeople I interviewed, only one businessperson made a statement that he was able to do business with farmers independently without needing the coordination of rural partners. However, the co-operative is not facing competition in the region and the elite does not invest in community-specific assets, so there is no opportunism risk for the businessperson.

7.4 Co-operative governance

Consistent with the literature, the field study found that co-operatives in China are controlled and de facto (although on paper it is collectively) owned by the core member(s) (see Figure 7.4 for the governance structure of Chinese rural co-operatives compared to a traditional co-operative model). These core members can even decide who can join the co-operatives. The core

member(s) is (are), in most cases, the initiator(s) and biggest individual shareholder(s) in the co-operative. One exception seen from the field study is that a businessperson bought an existing co-operative (the Lucky Pig Co-operative) from the initiator who had to move to another province, which also indicates private ownership and the transferability of shares. In the field interviews, when farmers mentioned co-operatives, they used the term “*ge ren de*” (individual’s or private) co-operatives to describe the co-operatives initiated by individual elites or companies and “*cun li de*” (village’s) co-operatives to describe the co-operatives initiated by the village committee, rather than “our” co-operatives or “their” co-operatives. Their reactions show that the farmers naturally think that the co-operative is not owned by ordinary members.

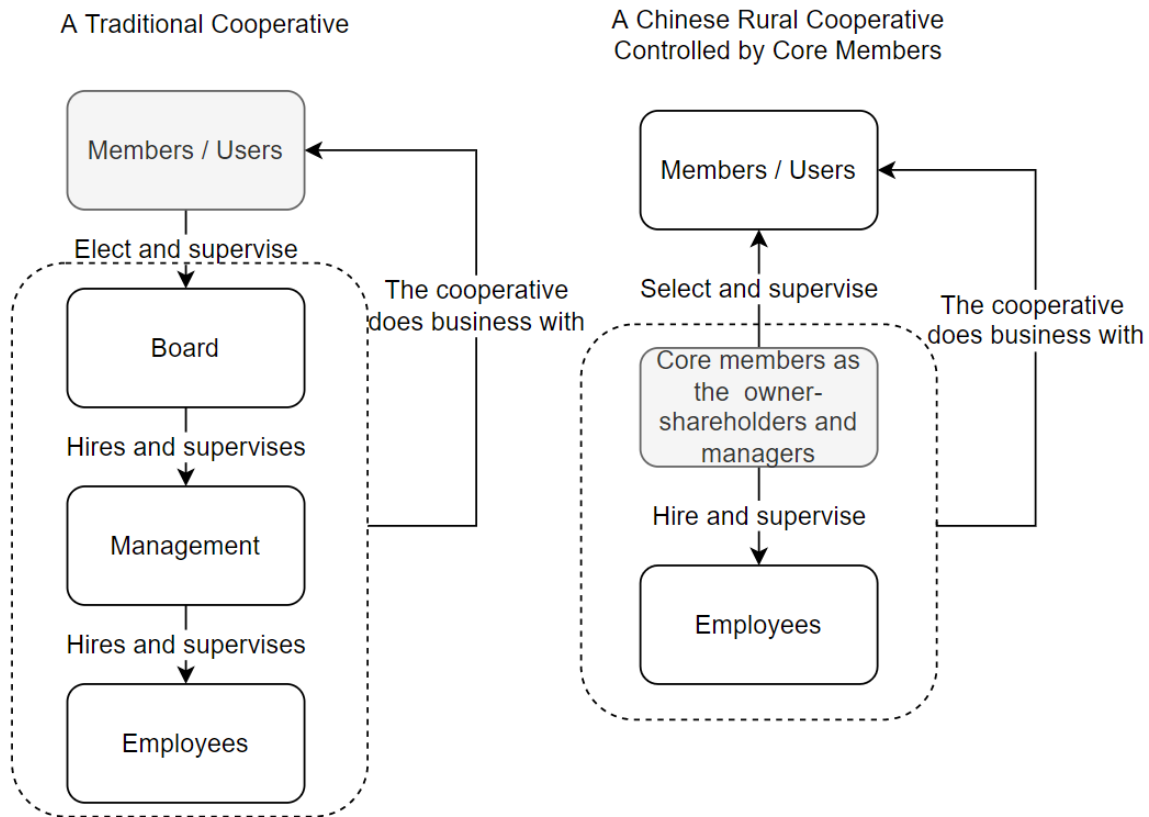


Figure 7.4 Governance structure in Chinese rural co-operatives versus traditional co-operatives

As per the interviews, the core members’ control over co-operatives is accepted by both core and ordinary members. There are two reasons for this. Firstly, core members believe that co-

operatives are initiated by them through their efforts and their social and financial capital and business resources. For many core members, the initiation of co-operatives is a result of their prosocial efforts to bring their own success to others. Most ordinary members do not need to pay anything, either capital investment or membership fees, to be members. From the perspective of core members, they believe that they deserve their status as leaders and their voice should be respected by the other members, as they are giving favours to the members. Core members can decide who can join the co-operative to get what services under what terms (price and quantity), and in fact, as discussed earlier, core members only want to include people who are easy-going, reciprocal, trustworthy, and grateful. When core members think ordinary members violate these principles, values, or rules of the co-operative (which do not mean the co-operative principles and values of ICA), core members can deprive these ordinary members of membership.

Secondly, ordinary members do not have any intention or interest in participating in the governance of the co-operative. When asked “do farmers want to participate in the decision making” and “is there anything like General Assembly or members’ meeting,” the farmer laughed and said, “who would want to participate in any meetings?...farmers are busy and do not want to waste any time in this...co-operatives are like initiators’ private business, and it is so rare that there is a farmer truly know what a co-operative is.” Another farmer, when talking about their village’s discussion on developing a co-operative, said that “it is wrong” to ask farmers to put their time and resources into the co-operative, “you just let farmers do their own stuff. If some people do really great in some areas, then they can lead us and help us, and we learn from them and follow them; my ideal co-operative should be like this rather than bothering everyone.” These statements seem to reflect the sentiment shared by many farmers who stated that “if two men ride a horse, one must ride behind.”

Should the government enforce the co-operative law more strictly to ensure democratic control and profit-sharing? Although the effect can be complicated, evidence from the interviews indicates that such a measure, at least in the short-term, may conflict with the norms and informal institutions in rural China, disincentivizing the elites to initiate co-operatives and harming the farmers. Another possibility is that the elites can figure out a way to “follow” the regulations. The Brightspring Tea Co-operative serves as a good example. The co-operative leader said:

“The processing plant, the marketing company and the co-operative are actually working

together but the accounting is separate. I separated the company (which owns the trademark and processing plant) from the co-operative in 2010. The Co-operative is just responsible for growing and acquiring raw material (fresh tea leaves) for the company to process, pack and sell in the market...

The benefit of this action is that I don't need to allocate to the members the profit made by the company. Meanwhile, I won't violate the Co-operative Law, either. I have already given a price premium to the members when acquiring the tea leaves from the members. If I add the profits from the company into the co-operative's distributable profit to members, I need to give out the major part of the profits which is much bigger than the amount right now. This is not fair to me because the trademark and processing plant were invested and developed solely by me, irrelevant to the other members."

Therefore, this form of co-operative governance cannot be simply explained as core members depriving ordinary members of their rights and benefits. It is the norm, the social relationship, and the resource heterogeneity that decide people's capability and incentives, and therefore influence their perception of their roles, decision rights, and the relationship between each other in the co-operatives.

7.5 Summary

The field study shows a unique co-operative development path (as shown in Figure 7.5) compared with that in the rest of the world. In the West, the co-operatives are invested and controlled collectively by relatively homogenous members to provide services to meet the common needs. In rural China, the co-operatives are initiated by resource-holding elites followed by ordinary farmers. The elites' and ordinary farmers' unequal access to resources gives parties economic motivation to co-operate and enables the elites to initiate the co-operative business to "make a bigger pie to share" between themselves and the common members.

Secondly, this qualitative study found that social relations play an important role in co-operative development in rural China. Almost all rural co-operative initiators interviewed developed co-operatives utilizing their social relations or social networks (which, in turn, even get strengthened by co-operative activities), while many non-rural initiators found rural partners and utilized their networks to develop co-operatives. The reason is that the initiators utilize social

relations to coordinate and build trust with members, especially when the business model and market competition requires them to do so to avoid opportunism. The role of social relations can be also explained by co-operative initiators' prosocial behavior to help those people in their network and the appreciation, respect or support the core members could more likely get from ordinary members. This is important, especially when formal contracts are less effective, and the monitoring and enforcement is easier due to prior relationships and cultural norms.

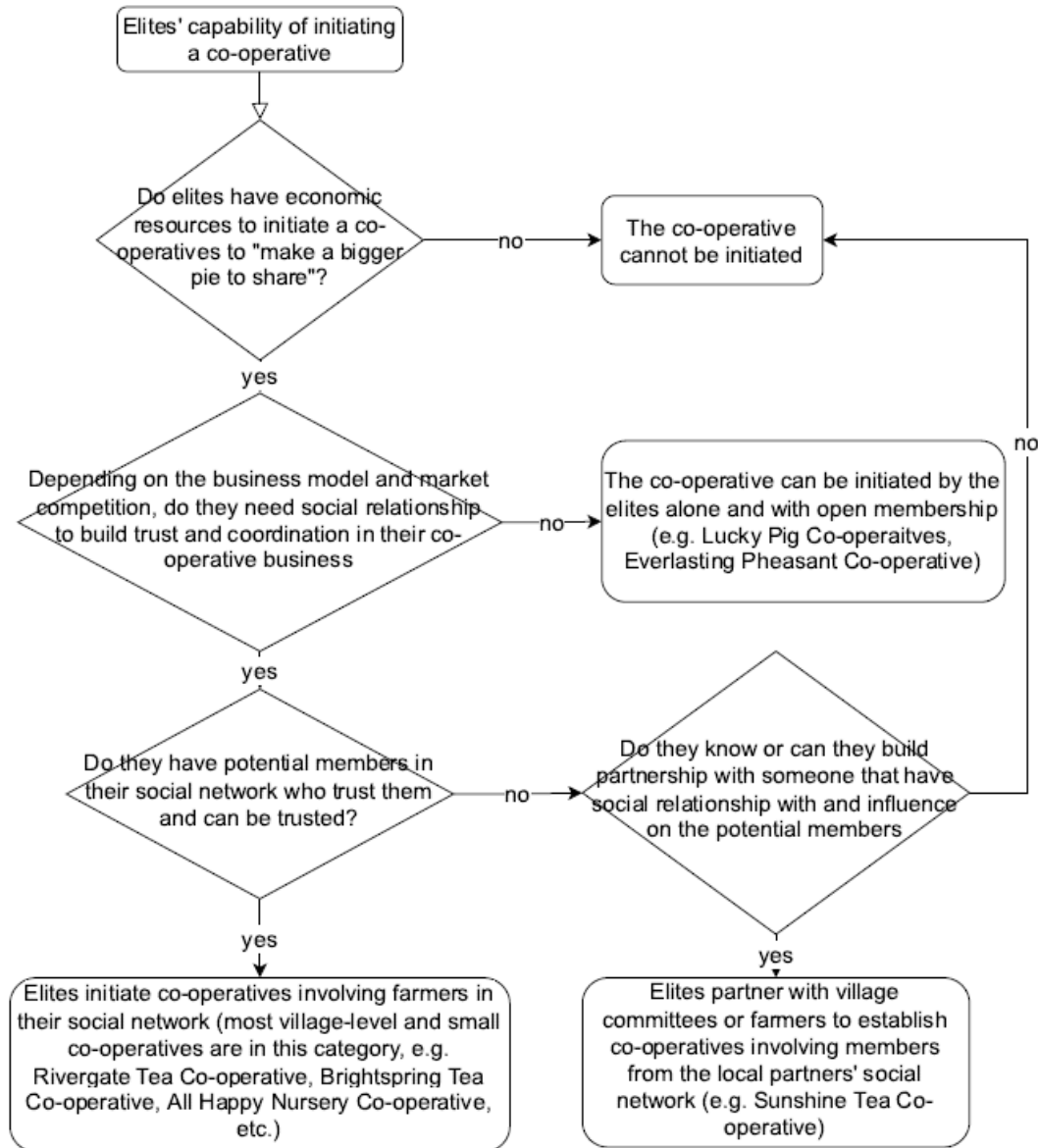


Figure 7.5 Co-operative initiation road map²¹

In that sense, it seems that co-operatives do not create a new social group of members but rather, they are built on existing social relations. Therefore, it seems that the dominant form of relationship within the co-operative is still the mutual-supportive rural relations with co-operatives adding economic functions to these rural relationships. In this manner, it seems the

²¹ Drawn by author based on the co-operative initiators' initiating experience shared in the interviews.

relationship between the ordinary members and the core members can be viewed through the lens of the patron-client relationship. The co-operative is initiated by the core members (the patrons) who have access to certain economic resources to share the resources and benefits with the ordinary members (the clients) in their network, who have no access to these resources and must rely on the core members (the patrons). The relationship is dyadic, ongoing, stable, and reciprocal, and the legitimate power belongs to the core members instead of the ordinary members.

Chapter 8 Selected cases of visited co-operatives

In this chapter, the focus of my research will move from general questions (exploring overall co-operative development patterns) to individual cases (describing in detail the most representative co-operatives visited). These cases provide further evidence to the discussion in Chapter 6 and Chapter 7 to reflect the important role of the elites' economic resources and the social relations in Chinese co-operatives.

The cases presented in this chapter can also reveal the interactions among various stakeholders in co-operative development in rural China: local governments, business elites, village committees, rural elites, and ordinary farmers. Different stakeholders have different economic and social resources and motivations to develop co-operatives. Yet, co-operatives can be an approach to meeting mutual interests of different stakeholders, utilizing their complementary resources.

8.1 Brilliant Duck Co-operative: accumulating resources and growing at the “structural hole” position

The field study finds that co-operative initiators are often the connectors between the farmers and the value chain players. Co-operative initiators utilize their networks to develop co-operatives and, with the co-operative platform, further accumulate power and economic resources. Brilliant Duck Co-operative is one such example. According to an official of the local government's livestock department, people like the initiator of the Brilliant Duck Co-operatives are called “chicken heads or duck heads” who have “their own business secrets and networks on both sides of the supply chain.” Those “heads” often have a big influence in local communities and therefore many businesses would like to partner with them to deal with farmers. “The market players know that rural China is a relational society (*ren qing she hui*), and the contract is not as powerful as the elite's personal influence obtained through patronage (*en hui*) and benefit sharing.”

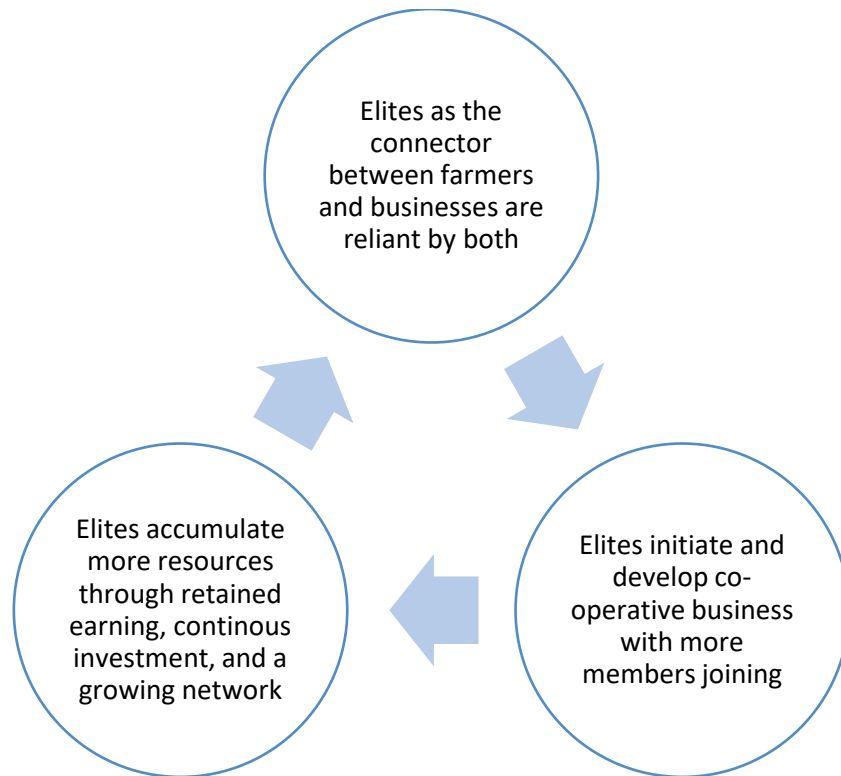


Figure 8.1 Reinforcing cycle of Brilliant Duck Co-operative’s development

The initiator established and developed the Brilliant Duck Co-operative through five stages (see Figure 8.2) from a small broker to a local duck industry leader. From one stage to the next, the co-operative kept strengthening its position as the only effective connector (the “structural hole”) between farmers and other market players. The initiator’s connections with farmers attract value chain partners while at the same time, the initiator’s connections with value chain partners attract farmers to join as members. As the initiator’s network expanded, co-operative’s scale, efficiency, and bargaining power increased, and the co-operative can provide better prices and services for the members, which attracts more members. The growing membership enabled the co-operative to invest in more assets and build more partnerships with market players. The cycle continues and shows how the elite’s dominance in the co-operative can be reinforced over time (see Figure 8.1).

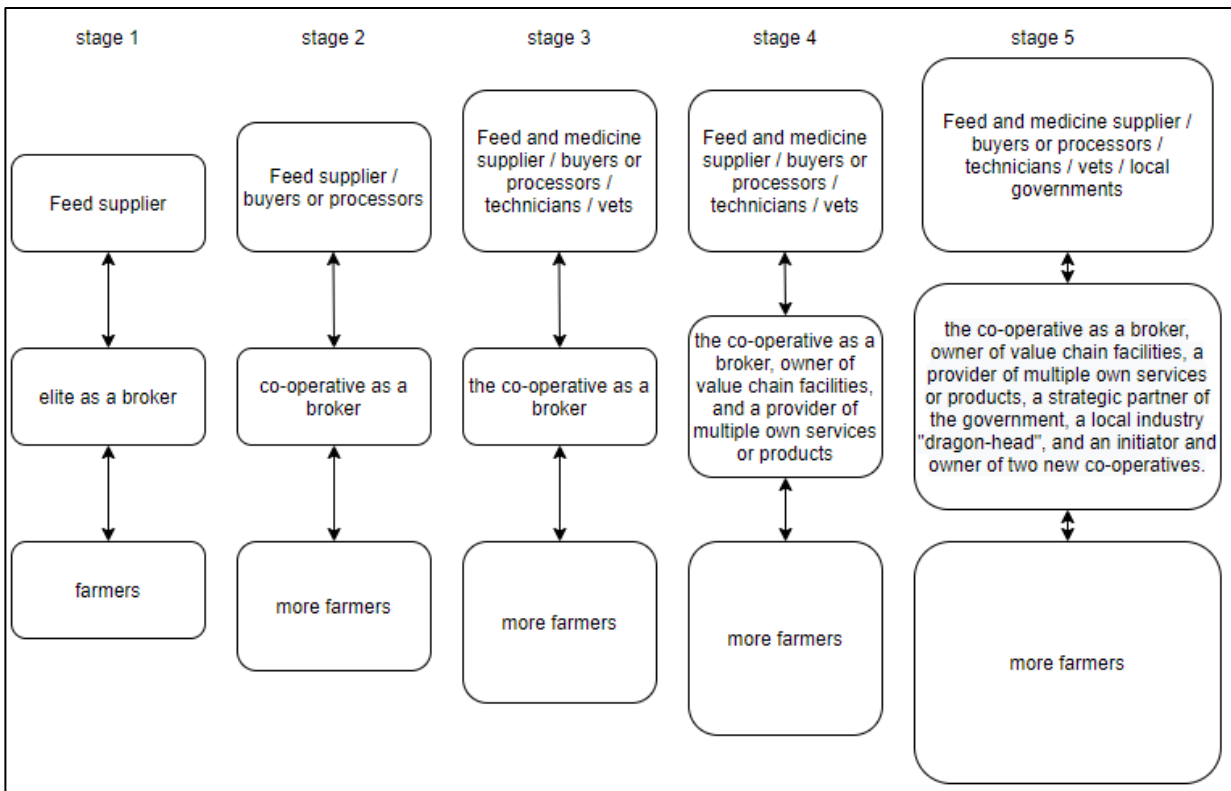


Figure 8.2 The development path of Brilliant Duck Co-operative

Before initiating the co-operative, the initiator made a living by selling grain to a livestock feed producer. However, because the company cannot afford to pay him the bill, he had to accept the feed directly from the company as compensation and was therefore forced to sell feed to the duck farmers in the local community. But when he got familiar with duck farmers, he began to sell feed full-time as an agent for feed companies and a broker between duck farmers and external duck buyers/processors. As his relationship with local duck farmers developed, in 2009 he initiated Brilliant Duck Co-operative together with local duck farmers.

The first example of rapid growth of the co-operative occurred in 2010, shortly after the co-operative was founded. Due to a depressed market, the market price of ducks was much lower than the acquisition price the co-operative leader promised to the members. Against all the opposition from his family, the initiator kept the promise due to social pressure (for details see 7.3.1) and took a loss. However, that move dramatically increased his reputation and attracted farmers to join the co-operative. With more bargaining power, the co-operative leader was able to

negotiate with suppliers of duck feed and pharmaceuticals for better services and prices. He also made the input suppliers agree to send technicians and vets to the co-operative to serve the members. Such services were not available in this region other than within the co-operative.

From 2009 to 2011, the co-operative's duck feed sales increased from 400-500 tons to 5,000-6,000 tons and sales revenue increased from less than 20 million *yuan* to 300-400 million *yuan*). The co-operative expanded to multiple townships and invested in key assets with accumulated capital, aiming to “reduce supply chain risk, capture a larger share of the margin, and gain more bargaining power with outside players.” The co-operative built the slaughterhouse in late 2011 (finished in 2013), a duck-related food processing plant in 2013, a duckling nursery farm in 2013, two hatcheries in 2014 and 2016 respectively, and a construction department in 2017 building environmentally friendly modern duck houses. The co-operative's sales reached 600 million *yuan* in 2016. The co-operative was no longer a pure broker or service coordinator as it built its own facilities and provided its own services.

After 2017, the co-operative saw new rapid growth. Government support played a key role at the time. In 2017, the government implemented a strict environmental protection movement targeting industrial and agricultural production. Over 80% of livestock farmers (or 3440/4243 households), whose livestock feeding practices did not reach the environmental standard were banned from livestock farming. Meanwhile, as the co-operative provided members with the access to the co-operative's duck manure facilities and organized farmers in environmentally friendly farming practices, the movement had almost no influence on the co-operative members' production.

The local government was in a dilemma: they should implement the order from the upper-level governments, but they were also concerned about social stability issues as farmers asked for help to resume their production. In addition, in the same year, the provincial government promoted a strategic plan called “economic development path transformation,” encouraging value-adding and environmentally friendly economic development. With this background, Brilliant Duck Co-operative was chosen to be a strategic partner in the local duck industry. The co-operative leader regards such a partnership as the “rebirth of the co-operative.” The government provided a series of supports (see 6.3.2 for details), which provide the opportunity for the co-operative to develop.

At the time of the field study, the co-operative has developed into a large agribusiness with

thousands of duck farmer members in Xintai city (a county-level region under Tai'an city). The co-operative's services include 24-hour emergency help, vet services, inputs provision with personalized schedules and amounts, free returns and refunds for unused feed, manure processing, protected sales price, zero upfront payment for inputs (cost deducted after selling the ducks to the co-operative), production insurance against duck disease, and application for production license from the government, etc. As a result, the farmers' reliance on the co-operative has significantly increased, especially since the environmental protection measures came into effect (see 6.2 for the "seven even though" the co-operative leader summarized to explain farmers' reliance on the co-operative). The co-operative leader also initiated two other co-operatives along the value chain: a grain co-operative supplying grain to the duck feed plant and an organic fruit and vegetable co-operative utilizing processed manure as organic fertilizer.

8.2 New Special Vegetable Co-operative: A multi-stakeholder partnership to utilize economic resources and social capital

The field study finds that co-operative development can involve multiple rural and non-rural stakeholders. New Special Vegetable Co-operative is an example as it involves businesspeople, the government, village committee, and farmers. New Special Vegetable Co-operative was initiated by the city's Supply and Marketing Agency (SMA) or *gong xiao she*, an agribusiness with a state background. The co-operative is co-owned by SMA (holding 70% of shares) and the village committee (holding 30% of shares). Figure 8.3 shows the relationships among stakeholders, which will be explained below.

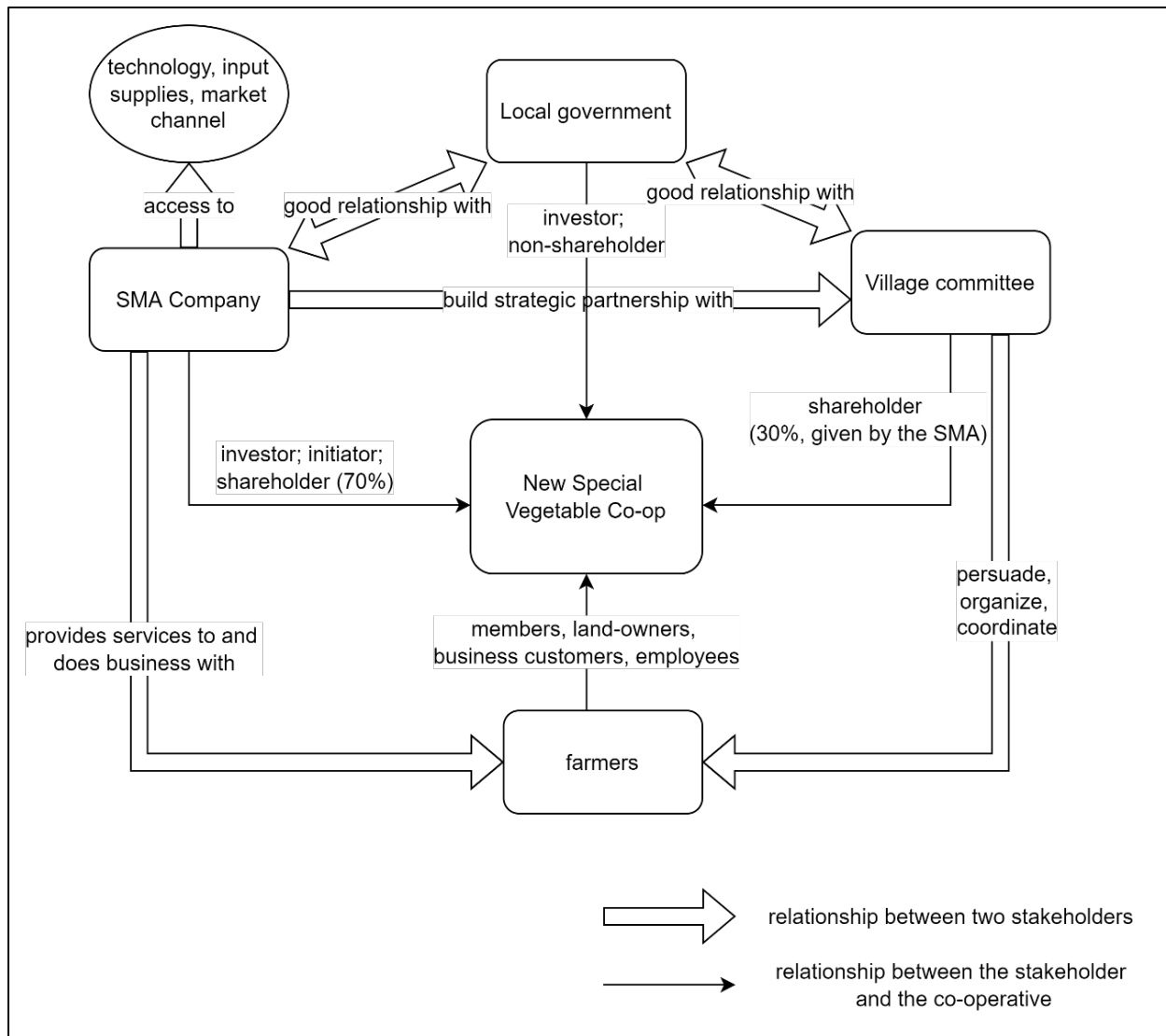


Figure 8.3 The structure of New Special Co-operative

8.2.1 The local government and the SMA

The SMA has a close relationship with the local government and often serves as the partner or representative of the government in local agricultural programs. The manager said the local government (agriculture department) invested in the co-operative’s vegetable production base and provided financial, policy, and taxation supports. The local government also introduced SMA to many villages for potential co-operation.

The SMA receives support from the government thanks to the SMA’s close relationship with the government. Such a relationship was built when the government established the SMA system

as the state-owned monopolistic player in providing farm inputs and marketing farm produce, during the period of collectivism. Although the role of the SMA was significantly weakened and the local SMA is no longer purely state-owned, its relationship with the government persists. The SMA still has a “deep network and connection with both farmers and the market.” The government still values the SMA and expects the SMA to take social responsibility to promote rural employment and agricultural development.

The managers said both government and farmers were satisfied with the SMA’s contributions in rural communities. The SMA has managed 550 thousand *mu* lands,²² benefited more than 10,000 households, and helped initiate 36 standardized agricultural production areas, ten agri-food processing companies, and four model grain and vegetable growing base. The SMA believed they have “created big social and economic benefits.”

8.2.2 The SMA and the village committee

The manager of SMA described that reaching out to the village committee is their second step in initiating a co-operative, just after the business evaluation (market and geographic etc.). The explained that the SMA “knows almost nothing about the village” and is “too distanced to farmers to discuss issues with them, gain their trust and make them cooperate.” Therefore, the SMA needs the village committee’s support to “convince the villagers to participate in the co-operative and arrange lands for the co-operative to work on.”

Therefore, the village committee served as the broker and coordinator between businesses and the villagers. The village committee also has motivations to co-operate with the SMA. There are three reasons. First, the SMA gives the village 30% of the co-operative’s shares to participate in decision-making and benefit-sharing. Second, the SMA allows the village committee to be responsible for hiring workers for the co-operative. The village committee will receive bonus or gratitude for every villager hired. Third, the village committee’s promotion and coordination in the co-operative was appreciated by the villagers as villagers can receive help from the co-operative. They earn additional income by renting to the co-operative the uncultivated farmland (because many farmers go to cities for jobs) or/and working for the co-operative.

New Special Co-operative is mainly controlled by the initiating company the SMA. The

²² *Mu* is a land size measurement unit used in China. One *mu* is approximately 0.1647 acre.

village committee also holds seats in the board and takes part in the decision-making as a minor shareholder.

8.2.3 The SMA and farmers

The manager of the SMA stated that the purpose of the co-operative is “to make use of our supply chain and networks to benefit farmers and ourselves.” The resources the SMA holds include brands of some reputable local vegetables, several organic certificates and labels, input supplies, storage facilities, market channels, and access to government support, financial capital and technology.

Particularly, the SMA can reach individual farmers and customers through three networks: online stores, offline stores, and contracted partners.²³ Therefore, with the co-operative, SMA can help farmers to stabilize their income in a bumpy market, get access to external consumers, earn income from uncultivated lands, and get employed within the community.

The SMA could also make money from selling high-quality vegetables to consumers and from selling fertilizers and seeds to farmers. Farmers do not need to pay the co-operative upfront for the purchased farm inputs. Instead, the cost could be deducted when farmers sell vegetables to the co-operative. The SMA, partnering with village committees, also provides agricultural services “pre-, during, and post-production.”

8.3 Lucky Pig Co-operative: facing challenges due to increased competition and the lack of rural relationship with farmers

The field study finds that elites’ and farmers’ unequal access to resources is the economic rationale behind the co-operative establishment while social relations play a role in building trust and co-operation. However, what will happen to a co-operative when those two conditions are missing? The Lucky Pig Co-operative provides an example. The Lucky Pig Co-operative used to be highly successful but is facing challenges due to increased competition and a lack of social relations with members to maintain commitment and trust. It provides a special lens to see the importance of the elite’s economic resources and social relations with farmers.

²³ SMA’s e-commerce system is connected into the provincial e-commerce network. And SMA’s ground network sends vegetables from their 600 *mu* organic production base directly to consumers.

Lucky Pig Co-operative's members are pig feeding farmers scattered in various parts of the region. Quite different from many co-operatives initiated by business elites examined during the course of this dissertation, the Lucky Pig Co-operative does not engage with local coordinators to build or strengthen their relationships with the members. This is uncommon considering the scattered geographical distribution of these members, which makes monitoring more difficult. Furthermore, when the market gets more competitive, the lack of social pressure from the social relationship makes members more likely to defect as there is not enough social pressure to constrain opportunistic behaviour.

The Lucky Pig Co-operative was founded in 2005 by a local feed producer, who used to be a local farmer. He entered the pig feeding industry in 1998 selling other companies' feed to the local feedlot. With increasing sales, he began to produce feed by himself in order to capture more profit. In 2005, he already owned a feed company and a breeding company and founded the co-operative. In 2007, just two years after the cooperative was initiated, the co-operative's membership grew from 50 local feeding households to more than 280 households in a broader region.

The co-operative promoted the pig industry in this region and directly and indirectly influenced thousands of households. The co-operative was subsequently named a national model co-operative (*guo jia ji shi fan she*). The government gave a financial award to the co-operative (about 700-800 thousand *yuan*) to encourage the co-operative to further promote the local livestock industry and improve the income of feedlot owners. The initiator was also awarded numerous city, provincial, and national level awards for his contribution to agricultural and rural development. The co-operative provided five "unified" services to the members: unified supply of piglets, unified supply of feed, unified disease control, unified risk management, and unified marketing. The co-operative also provided feedlot construction services, guidance to apply for loans, technological services, and a mobile information platform.

However, the initiator moved and sold the co-operative to another local businessman in 2009, the person I interviewed during the field study. After 2009, the co-operative closed the feed plant and only served as the local agent for feed and medicine companies, where the owner profits from the price difference between the wholesaling and retailing price. The co-operative still provides free disease control and marketing service for the members, but to be eligible for such services, the farmers are required to buy feed only from the co-operative. Luck Pig Co-

operative's leader believes that the marketing brokerage service is one of its major benefits to the members:

“The pork processors and buyers commonly contact our co-operative rather than the farmers to buy pigs because we have the information advantages. We know exactly which members have pigs that are ready for the market so that we can coordinate between buyers and farmers. The coordination is especially important when buyers transport pigs in summer from our area to southern China. Pigs cannot bear the hot weather and the searching and negotiating costs are too high for the buyers. We charge the buyers 5 to 10 yuan for each pig sold from our members.”

However, with greater market competition, the members' reliance on the co-operative has weakened. The industry structure has changed dramatically in recent years, and according to a government official in the city's livestock department who commented in the interview: the number of feed plants in this district fell from more than 30 in 2007 to just several in 2018, and the percentage of small feedlot decreased significantly from more than half of the total feedlots in 2007 to just a small percentage in 2018. A few large-scale feed suppliers are able to reduce production cost and offer better prices to farmers. In addition, as pig farmers also increase their production scale, “more pig farmers directly negotiate with input companies nowadays, and it is much easier than before to get a good deal,” according to the official. This diminished the members' reliance on the Lucky Pig Co-operative in organizing farmers for a competitive price.

The co-operative manager admitted that the co-operative was facing challenges and was striving hard to break even. The dilemma is that they can neither cut their free vet service, which is the main reason why farmers stay in the co-operatives, nor increase the feed price to offset the cost of other services because of market competition. What imposes more challenges is the lack of a mechanism to enforce members to buy products from the co-operative: “they receive free veterinary service and marketing services from us while buying medicine or feed from other sources.” The co-operative leader said, “many members were kicked out because they failed to follow the co-operative's ‘mutual supportive principle’: The number of member households has dropped from 280 to about 100.” The owner admitted that he just hopes to keep the business operational and has already changed his focus to other businesses.

8.4 Sunshine Tea Co-operative: agribusiness partners with rural elites to engage farmers.

The field study finds that when businesspeople plan to initiate co-operatives, partnering with local rural elites to involve farmers from their networks is an efficient approach to establish and maintain co-operation with farmers. Sunshine Tea Co-operative is a good example, in which the agribusiness initiator leverages the rural partners' network and influence to do business with a large group of farmers in different communities. It is interesting to compare the model of Sunshine Tea Co-operative with Lucky Pig Co-operative (which does not have local coordinators) and the New Special Vegetable Co-operative (which partners with the village committee).

Sunshine Tea Co-operative was initiated and led by a regional tea processing and trading company (holding 98% of the shares of the co-operative) and 261 other rural elites (holding 2% of the shares in total) (see Figure 7.3). The company is the biggest buyer, processor, and seller of tea leaves in the region, and one of the major recipients of government support in the local tea industry. Rural elites are the coordinators and managers of the company's tea business in their respective communities. They play a role as the bridge between the company and farmers: connecting companies agronomic services to the members, exchanging information, and purchasing tea leaves from the members.

Local agents' importance relates to features of tea production. Tea production is small-scale labour-intensive and tea leaves are perishable. Fresh tea leaves must be picked from the tea trees by farmers every day and processed the same day they are picked. Therefore, the company needs help from these local agents in different villages to guarantee the acquisition of quality fresh tea leaves from a vast mountainous area. The specific responsibilities of the rural elites include buying tea leaves every day from farmers, stir-baking the leaves the same day, and then sending pre-processed tea leaves to the company for further value-adding processing.

The company also needs the rural elites and their reputation and social capital in local communities. Firstly, rural elites' influence in local communities could help to monitor farmers to ensure the fresh tea leaves meet the co-operative's quality standards. Secondly, the rural elites could maintain a stable and efficient supply of tea leaves to the company thanks to their social capital and familiarity with rural people and rural affairs. During the field study, the tea farmers indicated that most of their tea leaves (except the part sold directly along the country road) are

sold to a fixed buyer.²⁴ The farmers have good relationships with their preferred buyers and have co-operated with them for many years. Therefore, the company realized that finding reputable and influential partners in the rural communities is the key to building long-term stable relationships with the farmers.

In Sunshine Tea Co-operative, the rural elites and farmer members are mostly neighbours, friends or at least acquaintances. When the market is down and most buyers stop acquiring tea leaves, the elite will still accept tea leaves from the members at a fair price while refusing to accept tea leaves from non-members. By doing this, the elite internalizes the temporary economic loss to guarantee the farmers' stable cash flow, mainly due to his sense of social responsibility and his promise of stable co-operation. The members tend to be loyal to the elite (only sell tea leaves to him), as the farmers were originally in a good relationship with the elite and become even more grateful for his support in difficult times. According to a farmer, it is believed to be shameful to sell tea leaves to other buyers just for a slightly better price (for a detailed quote see Section 7.3.2)

The local rural partners can also take advantage of the co-operative to serve themselves and their network (e.g. friends and neighbours). The co-operative is a source of agronomy support to the rural elites and their members. More importantly, as tea leaves are perishable, the existence of co-operative in the communities as a stable buyer of tea leaves reduces transaction costs and farmers' risk in planting tea. Some rural partners even utilize the company's resources to build their own brand and market channels (other than through the co-operative) to make extra income.

In terms of the governance, the co-operative is controlled by the company. It makes general decisions including setting up the overall acquisition price and the quantity contracted with the local rural partners. However, local-level decisions, such as from whom to buy fresh tea leaves and the price paid to farmers, are made by the rural partners. The rural partners may be able to buy more from the farmers or pay more to them than the company suggests as they have extra capacity to process and sell tea products (other than selling to the co-operative).

²⁴ There is a country road connecting the villages to the city and buyers may drive to the village to buy tea leaves. Farmers whose tea fields are next to the road will sell some tea leaves directly to the buyers and get paid in cash.

8.5 Buildwealth Sweet Potato Co-operative: different social relations, different way to co-operate with members.

The field study finds that social relations are key factors to consider when the initiators set up co-operatives and include partners and members. Buildwealth Sweet Potato Co-operative is an example. The initiator was involved in establishing four sweet potato co-operatives but used different approaches depending on the social relations. The approaches was displayed in Figure 8.4 and will be discussed below.

Buildwealth Sweet Potato Co-operative was built by a local farmer and businessman. Before initiating the co-operative, he compared sweet potatoes produced from different regions in China and realized that the sweet potatoes produced in his hometown are good in sugar percentage but bad in texture. He believed that his hometown could produce very good sweet potatoes if the varieties could be slightly modified. Therefore, he started a company, partnered with universities, and successfully developed the desired variety. His company, with the sweet potato variety they developed, was selected by a large international agri-food company to be their sweet potato supplier. This partnership paved way for the initiation of the co-operative and the growth of his company.

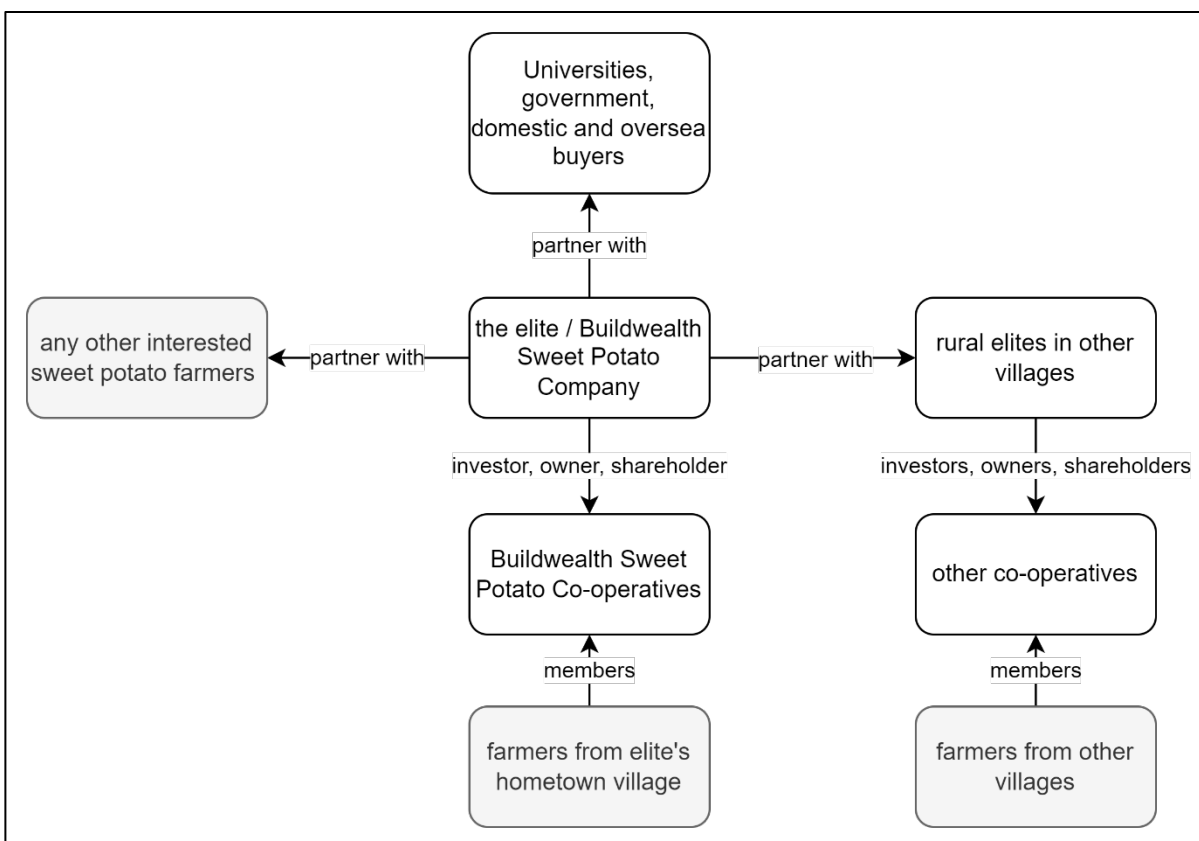


Figure 8.4 Buildwealth Sweet Potato Company’s approach to reach out to farmers

At the time of the field study, the company manages greenhouses in local villages, nursery bases, and 2,000 square meters of cold storage. The company holds two-million-kilo/year contracts with the international sweet potato buyer and has partnerships with domestic online sales platforms and food processors. The company also has patents and technologies partnering with various sweet potato research teams in major agricultural universities. The co-operative also received government support including financial support, permits for using land and construction, and e-commerce training. According to the officials in the township government and the City’s Bureau of Commerce, the local government gave and will continue to give the co-operative support due to the co-operative’s contribution to the local community and agricultural industry.

The co-operative initiator said that he has full confidence to produce good quality sweet potatoes and sell them at a good price, thanks to the market, input, and technological resources

he holds. All he needs is more land and more farmers producing more sweet potatoes. Therefore, he was involved in the development of four co-operatives to expand the membership and increase the production capacity (see Figure 8.4). He initiated two co-operatives (including Buildwealth) by himself in his hometown village. During the process, he negotiated with the village committee to rent land. Then he organized farmers by himself to plant sweet potatoes. These two co-operatives are solely controlled by him.

In addition, he partnered with two co-operatives in other villages initiated and operated by their respective rural elites. Those elites have advantages in organizing and coordinating the farmers in their villages but lack the market, input, and technical resources. His company gives these two co-operatives technical support and signs sweet potato acquisition contracts, in which a minimum price is guaranteed. The rural elites, the owners of the two co-operatives, help him to organize their members in production and co-ordinate the implementation of the agreement. The rural elites welcome the co-operation because their co-operatives could survive, their members are satisfied, and they could receive bonuses rewarding their coordination. These two co-operatives partnering with him are mainly controlled by their initiators (local rural elites).

The services provided to the businessperson's own co-operative members are also a bit different from those provided to the members of the partnering co-operatives. He provides free seedlings to the members of his co-operatives but sells seedlings to the members of the partnering co-operatives, due to the different strengths of relationships and prosocial motivation. However, as the contract he signed with international buyers has strict requirements on the quality of the sweet potatoes, the business elite provides all members with free agronomy service as well as the designated type and amount of fertilizer and pesticide.

The business elite said he did not worry too much about being held up by the members (selling sweet potatoes to other buyers after enjoying the free services). Thanks to the contracts he holds and his knowledge of the market, he will always offer farmers an acquisition price higher than any possible competitors could offer in the region. In recent years, many farmers have followed him to grow sweet potatoes for a better income. "The farmers used to grow peanuts and make 100 *yuan/mu*, but now they grow sweet potatoes with me and make 200 *yuan/mu*... There is no reason for them not to participate in my co-operative," the initiator said.

8.6 Rivergate Tea Co-operative: village committee's advantages and limitation in co-operative development

In rural China, many co-operatives were initiated by village committees. In the field study, 11 co-operatives studied were initiated by village committees and out of these 11 co-operatives, Rivergate Tea Co-operative is the most representative and successful example. The case of Rivergate Tea Co-operative reveals the special advantage of the village committee as the leader in rural development and co-operative development. This includes the control over village-owned assets (e.g. lands), the advantage in getting government support, the trust of the villagers, social influence to persuade, monitor, and coordinate farmers, and the prosocial motivation to explore solutions for the collective good. However, these advantages are often limited within the village boundary and the village committee may lack ambitions and resources to expand the co-operative beyond the village.

8.6.1 Village committee's entrepreneurship and resource contribution at the early stage of the co-operative

Rivergate Tea Co-operative was initiated by the village committee to shift from less profitable farming practices towards new opportunities, as the co-operative leader described:

“Because growing grains is less and less profitable, the village committee were thinking to grow other crops. At the very beginning, we tried planting landscape plants and vegetables. However, there are several big challenges. Firstly, the city has limited demand for vegetables while more and more people produce vegetables. Secondly, the village does not have the advantage in terms of location and transportation Many families then suffered huge losses in 1987-1988. We found vegetables and trees were not good options for our village. In order to tackle the problem, the village is discussing a new direction to go.”

Then the village committee brought the plan of planting tea trees and persuaded some farmers to participate, “farmers cannot benefit from planting landscaping trees and vegetables at that time, and therefore it was not that hard to convince them.” At that moment, the village committee's authority and control over the land played an important role to implement the tea planting trial without exposing individual farmers to too much risk. During 1988-1989, the village leader adjusted the land allocation and collected some lands (one *fen* or 66.667 square

meters per household) from each household to put it into patches of trial lands for tea production. Some people doubted whether it was a good idea to produce tea in such a northern location. But the village leaders' persistence pushed the plan forward because "we need to grow something others do not have in order to be competitive."

In 1994, the village committee built the Rivergate Tea Co-operative to organize farmers into tea production and marketing. The initiator proudly said that their co-operative is "one of the first co-operatives initiated in China with verification from 16 national departments." In order to encourage villagers to participate, the village leased the collectively owned tea tree fields to the villagers for free for the first three years. Villagers were only responsible for managing the tea fields. The co-operative provided agronomic services for farmers and unified the tea processing and marketing. However, in the first few years, their tea was not popular. For example, from 1995-1997, the village leaders relentlessly visited potential buyers such as government agencies and other companies to promote their tea and all tea was given to the potential clients as gifts for free. "They initially do not believe a region this north could produce good tea and therefore even do not want to drink. Then after the tea was accepted and welcomed, it was no longer a problem to sell our products. Mainly thanks to the government support and promotion, our tea became popular." The village then built their own tea processing plant and marketing department to collect production and market information and to unify the quality standard and price. The initiator said the co-operative now can produce 17-18 tons of tea per year.

8.6.2 Village committee mobilizes supports and resources from governments, farming elites, and farmers

Multiple stakeholders participated in the development of Rivergate Tea Co-operative. The village committee initiated the co-operative, as the co-operative leader summarized, to "organize farmers together, manage the production scientifically, and introduce marketing and technological information" with the village's advantage of "being more familiar with government policies and getting government support more easily." According to the co-operative leader, building a connection with the government is one, if not the most, important task for the village leaders since the start-up of the co-operative.

The local government gave Rivergate a lot of support, including financial support and market promotion (especially when the co-operative just started), to promote Rivergate to be a role

model for the local tea industry and for neighbouring villages. The co-operative leader said:

“From 1998-2002, the city government paid big attention to our development. A department was purposely organized to promote the regional tea industry development. Tea farmers could apply subsidies based on the size of their tea farms (800 *yuan/mu* for farms sized 20-50 *mu*; 900 *yuan/mu* for farms sized 50-80 *mu*; 1000 *yuan/mu* for farms sized 80-100 *mu*; 1200 *yuan/mu* for farms sized 100-200 *mu*). After a successful growth, our village became a model for the tea industry. Guests and village leaders from our city and other cities came to our village learning our practices and experiences.”

The pilot model of Rivergate leads to a prosperous industry. From 2002, tea production began to develop fast, reaching 37,000 *mu* in Tai’an city at the end of 2017.

Farming elites also play important roles in Rivergate as shareholders and decision-makers. The co-operative is controlled by the board, including the village cadres plus other relatively large shareholders (the farming elites). As the co-operative leader described: “the capital of the co-operative came from both individuals and the village, and only large shareholders and village committee members could attend the board meetings.” Although farming-elite shareholders devoted significant intellectual contributions to the board, as the village committee holds majority shares, the final decisions are made by the village committee. The same board also invested in and managed the tea processing plant, which is registered separately from the co-operative (and, therefore, is officially not part of the co-operative).

8.6.3 Village-oriented strategy and limitation of scale

The co-operative only accepts farmers from the local village as members, not only for prosocial reasons but also for convenient monitoring, as the village committee can exert social pressure on their villagers to control the quality of their tea. “Our co-operative does not accept tea from outside of our village, as we cannot guarantee its quality.” Peer pressure and within-community self-monitoring is mentioned by the village leader as the most effective tools to prevent overusing pesticides. One person’s “unethical behavior” will harm the co-operative's brand and therefore the economic benefits of all the villagers. And that person, if discovered, will destroy their reputation in the community (see 7.3.2 for details regarding the social pressure in Rivergate to ensure the quality).

The co-operative distributes profits by buying tea leaves from farmers: recording the amount of tea bought from farmers through the year and paying at the end of the year. While such an approach appears to resemble the practice in Western co-operatives that profits are distributed based on patronage, several farmers in the field mentioned that the village cadres happened to be the largest patrons. In addition, the farmers also mentioned that waiting for so long (till the year-end) to get paid makes it less attractive to do business with the co-operative, especially with the co-operative only offering a slightly higher price than other buyers.

However, the village also pays medical insurance for the farmers. The benefits the village co-operative creates for the farmers help “strengthen the relationship between farmers and the village (cadres).” The co-operative leader explained,

“it is like you get a job in the city, and the boss hires you and pays you. How couldn’t you respect him? As long as farmers get benefits, they respect the village leaders more, and are more likely to cooperate in some other aspects of the community governance.”

Yet, it seems the village-controlled tea co-operative cannot fully realize the individual’s ambitions or needs. Tea farmers in other villages cannot join Rivergate Tea Co-operative. Even for its own villagers, the attractiveness is questionable as individuals initiated their co-operatives. The registrar data available online shows that there are seven tea co-operatives in the village alone and more tea co-operatives in the area, most of which are also small and dominated by core members. It is interesting to compare the Brilliant Duck Co-operative and the Rivergate Tea Co-operative, which both had the potential to become the regional leader in the industry. Brilliant Duck Co-operative expanded well in the region while Rivergate Tea Co-operative, the first mover in the industry, still operates solely within the village boundary.

8.7 South Mountain Walnut Co-operative: back-to-village elite initiated co-operative using the village committee’s platform

The field study finds that many co-operatives were initiated by prosocial village leaders utilizing their capability and resources. South Mountain Walnut Co-operative is an example. South Mountain Co-operative was initiated by the village leader in 2016. Before serving as the village leader, he worked in public service and the private sector in the town in the area of seed and fertilizer. Then the villagers invited him back to be the village leader to help the development of

the community. For prosocial reasons, he accepted the invitation, gave up his career, and was elected as the village's Party Secretary. He explained,

“They trust me because of my experience in both business management and agronomy. I am also thinking that as a member of the community, I should take this social responsibility for the village's prosperity. Therefore, I put my attention back to the village.”

In South Mountain village, 60% of villagers go to cities for temporary labour. Therefore, there is a need to re-arrange and better utilize the uncultivated or inefficiently used land. The newly elected village leader chose to produce walnuts in the village.

The village leader, together with his committee members, proposed a plan to initiate a walnut co-operative, which gained support from the villagers. The village leader explained, “we have advantages in persuading villagers to participate. They trust us because of the prestige and authority of the village committee and myself.” And in 2016, the walnut co-operative was initiated. The village collected lands from both the village's collectively managed lands and voluntary villagers' lands, arranged them for walnut production in a unified process, and then leased the arranged land to participating members.

“We served as the brokers in the process of land rearrangement and reallocation. The renting price is at cost (which is the sum of labour cost, rent paid to the original landlords, and construction cost, deducting the government subsidies). After that, we unify the walnut production practice, including unified pesticide spray, fertilization, management, pruning, and marketing. The farmers are only responsible for the daily care and harvesting.”

The elites, including the experienced walnut farmers and the village cadres, were particularly optimistic about walnut production. Therefore, many other farmers followed their steps and participated in the co-operative, as these farmers trust the decisions of the elites. In total, 40 households rented the land and participated in the walnut co-operative. The farmers could benefit in the following ways. First, farmers, who go to cities as labourers, can earn rents from the unused land. Second, farmers benefit from the economy of scale as households with only a small piece of land could join the co-operative to buy input and receive technical support and marketing services. Third farmers can also earn employment income as the co-operative employs villagers for walnut production. Fourth, farmers have access to other external resources and government support. In the name of the co-operative and the village, it is much easier than

individually to access government support, research institutes or universities, and buyers.

Particularly, government support played a key role in the development of the co-operative. In 2015, the township government was promoting co-operative development in that area, giving various supports to the local villages. South Mountain was one of the support recipients. “They (the government) planned to support the co-operative development with a goal of initiating 500 co-operatives in our area at that time. But we are one of a few that operate a real business and are in good condition,” said the co-operative leader. According to him, the government tends to prioritize support for the co-operatives initiated or organized by the village committee. The support includes interest-free loans and various subsidies on land usership transfer (*liu zhuan*), walnut production (*xian gan hou bu*—the government repays 30% to 50% of the cost of planting walnut trees to farmers), and the co-operative business (100 thousand *yuan*). “The government also organized us (the village leaders) to participate in conferences and workshops to learn the knowledge of co-operative business and the agriculture market,” said the co-operative leader.

In terms of governance, shareholders and village committees (partly overlapping) control the co-operative, but the village leader is often the final decision-maker. The village leader is also the biggest and most professional walnut producer in the village. He explained in the interview, “they (the villagers) support me to make the main decisions. They trust me because they know what kind of person I am, and they know my professional experience and insights in this sector.” In terms of the profit distribution, the leader said, “the profit is mainly made on marketing the walnut as the service we provide to members is charged mainly at cost. We allocate 60% of profit based on transaction volume and 40% on shares.”

8.8 Summary

This chapter discusses the model of co-operative development in rural China using selected cases from the field study. As shown in Figure 8.5, multiple stakeholders participate in the co-operative development: business elites, village cadres (or village committee), farming elites, the government, and farmers. Different stakeholders may hold different kinds of resources and have different motivations to initiate or participate in the co-operatives. Therefore, in order to successfully initiate co-operatives, stakeholders utilize social relationships to partner with each other to exchange resources (social and financial capital, etc.) to achieve mutual goals. Such relationships could be existing relationships, or relationships built or strengthened by

stakeholders purposely for the co-operatives.

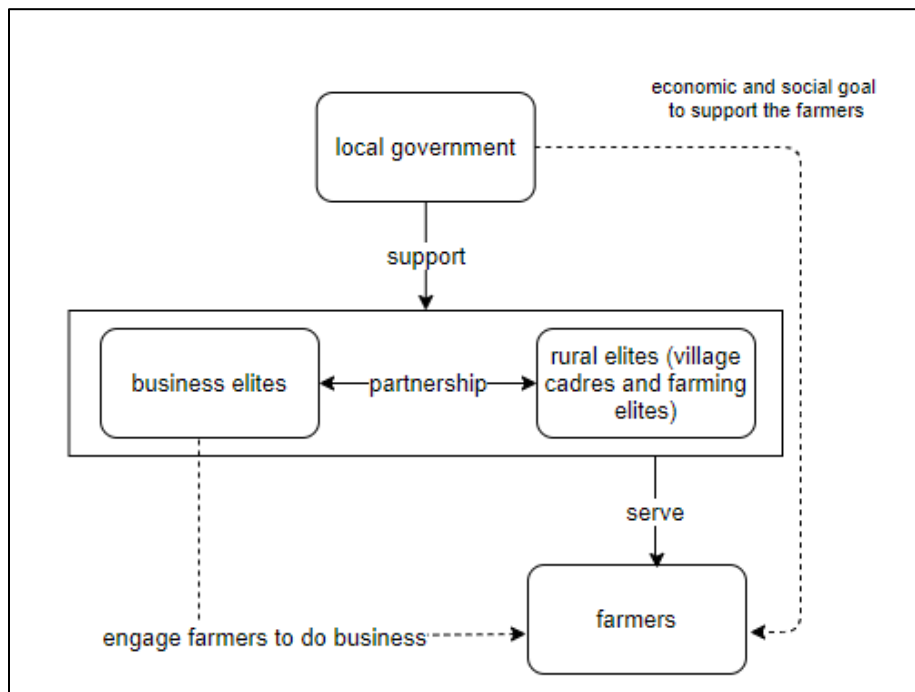


Figure 8.5 Stakeholders in rural China's co-operative development

Governments serve as important supporters in co-operative development as they make policies to promote co-operatives and distribute subsidies, investments, or awards to co-operatives. Based on data collected during the interview, the local government believes that supporting co-operatives is a sustainable approach for rural social and economic development compared with the traditionally used transfer payment to individual farmers. Such a preference motivates the government to support the rural and non-rural stakeholders to develop rural co-operatives.

The elite group, business elites, village cadres, and farming elites, hold value chain resources (input, market, and technological resources), financial capital, social capital, and the ability to get government support. They serve as the initiators, key partners, or coordinators in the co-operative development. Farmers, having no access to these resources, rely on the elites' resources and are in a weaker position in the co-operative governance.

Chapter 9 Modelling Chinese rural co-operatives

In this chapter, a theoretical model will be built to help formalize my observations regarding the establishment and operation of co-operatives in rural China. Two features of rural China are considered in the model: heterogeneity in accessing and holding economic resources and the influence of social relations in constraining behaviour. These two features shape the stakeholders' capacities and motivations to initiate or join the co-operative and therefore their behaviours and interactions.

9.1 The settings of the co-operative in the model

Here I outline the settings of the co-operative in this model within the Chinese rural context. The co-operative is established by an elite and a group of ordinary farmers. Each of the ordinary farmers has dyadic relations with the elite. The elite utilizes their business resources, such as access to the market, knowledge, and financial capital, to invest in and operate the co-operative business, which benefits farmers who neither have access to these resources nor have the obligation to contribute capital to the co-operative business. This is different from the co-operative practice in the West where all members pool capital to create the services they need.

As the elite does not rely on any specific person financially to initiate and operate the co-operative business, they can choose the farmers they would like to work with as the co-operative members (and, of course, if the members want to join the co-operative as well). The elite controls the co-operative. The elite may have prosocial motivations to benefit their fellow clients in addition to self-interests under the influence of social norms or social relations. And lastly, once the elite and the farmer enter the co-operation and promise to support each other, both may be under the social pressure to fulfil their obligation. Defecting from their obligation may result in the person losing mental, social, and/or economic utility. The level of the disutility can be related to the strength of the social ties between the farmer and the elite. For example, as Peng (2004, pp. 1048–1049) states: “in traditional Confucian ethics, the norm against failing one's obligations to kin (*liu qin bu ren*) is so strong that it is considered an act of inhumanity.”

9.2 A game theoretic model of co-operative formation

We can try to understand these actions through a game theoretic approach. Suppose an elite and a farmer are involved in a game to decide whether to do business with each other within the co-operative. The elite has valuable resources that the farmer does not have, for example, access to the market, capital, knowledge, entrepreneurial skill, etc. The farmer could also provide valuable resources for the elite such as land and human capital to produce agricultural commodities for the co-operatives to market or process. Therefore, both parties are needed in the game for the co-operative to operate functionally. The co-operative is financed and managed by the elite to make profits by processing or marketing farmers' products.

Before the co-operation, both parties need to decide whether to co-operate or not. When the farmer decides to co-operate (honour the agreement with the elite), the farmer sells the products to the elite, while when the farmer decides not to co-operate, the farmer rejects selling products to the elite (e.g., sells to the co-operative's competitor). When the elite chooses to co-operate with the farmer, the elite will make farmer-specific investments (e.g. providing the facilities and free support to the farmer) and distribute a portion of the profit to the farmer. When the elite chooses not to co-operate, the elite rejects making transaction-specific investment or distributing profit to the farmer.

		The Farmer	
		Co-operate	Not co-operate
The Elite	Co-operate	Both the elite and farmer fulfil the co-operation duties	The elite fulfils the co-operation duty while the farmer defects
	Not co-operate	The farmer fulfils the co-operation duty while the elite defects	Neither the farmer nor the elite fulfils the co-operation duty

Figure 9.1 Co-operation outcomes

Therefore, there are four possible outcomes of the co-operation pattern as shown in Figure

9.1. When both the elite and the farmer fulfil their co-operation duties, the elite invests in the farmers and shares profit to the farmer while the farmer sells the produce to the elite. When the farmer fulfils the co-operation duty while the elite refuses to co-operate, the farmer produces the product as the elite requested and forgoes other opportunities, however, the elite refuses to invest and share the profit to the farmer as promised. When the elite fulfil the co-operation duty while the farmer does not co-operate, the elite invests in the farmer, but the farmer refuses to sell the produce to the elite. When neither the farmer nor the elite fulfils the co-operation duty, the co-operative is not established or established without actual attempt to operate.

To successfully establish a functioning co-operative where all necessary transactions can be accomplished, the incentives of both parties must be such that they both choose to co-operate. For the scenario in which only one party fulfil the co-operation duty, the co-operative can be initiated but the co-operation cannot be achieved as one party will defect.

9.3 Variables

The variables of the models are listed in Table 9.1 and will be explained under several categories.

Table 9.1 Description of variables in the model

Variable	Description
----------	-------------

π	Total revenue (net of variable costs) the co-operative generates
π_f	Revenue distributed to the farmer (as a part of π)
c_e	The elite's ex-ante transaction-specific cost (investment, free support or benefits to attract the farmers to join, etc.) associated with promised services to the farmer, independent from variable costs of the agribusiness
c_f	The cost associated with producing for the co-operative plus the opportunity cost (giving up other sources of opportunities and income) for the farmer doing business with the elite (the co-operative)
u_f	The benefit the farmer gets from the elite's free support and specific investment (can be interpreted as the willingness to pay for these benefits if not provided for free)
s_e	The prosocial gain for the elite to help the farmer they care about $s_e = A(\pi_f + u_f - c_f)^t, A \geq 0 \text{ and } 0 < t < 1$
γ_e	The loss for the elite when they betray the co-operation, which is when the farmer co-operate but the elite does not.
γ_f	The loss for the farmer when they betray the co-operation, which is when the elite co-operate but the farmer does not.

9.3.1 Variables for the economic motivations

When both the elite and the farmer co-operate within the venture, using the resources from both parties, the initiating elite could generate profit π for the co-operative to distribute between the farmer (who receives π_f) and the elite (who receives $(\pi - \pi_f)$). When if the elite co-operates with the farmer to establish the co-operative, the elite may need to invest resources (e.g. financial and human capital, free support to the farmer, etc.), as measured by the c_e , to attract the farmer, prepare the necessary facilities, or meet other conditions. The example from the field study is the organic fertilizer the elite gives farmers for free to produce organic tea. The farmer gets a return of u_f from the elites' investment. u_f can be interpreted as the willingness to pay for these benefits if not provided for free. u_2 could be 0 in some situations, for example, when the elite invests nothing to benefit farmers apart from agri-product transactions).

Note that π measures the revenue, net of variable costs, of the co-operative in processing or marketing farmers' products, while c_e is the fixed cost of establishing the co-operative. Thus, c_e can exist even if the farmer refuses to sell products to the elite, for which $\pi = 0$, as no revenue is generated from processing or marketing activities.

If the farmer co-operates and transacts with the elite, the farmer follows the elite's rules or guidance (e.g., production instructions and quality standards) and sells the product to the elite. That means the farmer gives up the other production and marketing opportunities. The opportunity cost plus the production cost is c_f , in which the opportunity cost measures the income they could make by doing business with partners other than the elite's co-operative. Therefore, the net benefits the farmer could get from co-operating with the elite could be denoted as NB_f :

$$NB_f = \pi_f + u_f - c_f \quad (9.1)$$

where π_f is the profit the farmer receives from the elite, u_f is the benefit the farmer gains from the elite's investment or support, and c_f is the production cost and opportunity cost of doing business with the elite.

9.3.2 Variables for elite's prosocial motivation

In addition to the economic incentives, the elite may have the prosocial motivation to support the member due to their relationship or the social norms. Grant and Sumanth (2009, p. 928) define prosocial motivation as "the desire to expend effort in order to benefit other people." In the model, prosocial motivation is measured by s_e . The prosocial gain may come from the satisfaction from helping the farmer and the resulting reputation, which is assumed to be positively related to the farmer's net return NB_{farmer} that is driven by the elite's help. The prosocial gain could be expressed using the equation:

$$s_e = A * NB_f^t$$

$$s_e = A(\pi_f + u_f - c_f)^t \quad (9.2)$$

The assumption for prosocial return is that the elite's actions benefit farmers (instead of causing loss), which is also the farmer's individual rationality constraint. The condition holds that

$$\pi_f + u_f - c_f \geq 0 \quad (9.3)$$

s_e is a function of the farmer's net return ($\pi_f + u_f - c_f$) driven by the elite's help. Function $s_e(\pi_f)$ is assumed to have a concave downward shape ($\frac{\partial s_e}{\partial NB_f} \geq 0$, $\frac{\partial^2 s_e}{\partial NB_f^2} < 0$). $\frac{\partial s_e}{\partial NB_f} \geq 0$ means that the elite is neutral or prosocial. $\frac{\partial^2 s_e}{\partial NB_f^2} < 0$ means there is a decreasing marginal prosocial return. The diminishing marginal prosocial return must hold because otherwise, the elite will likely give all they have to others to gain the maximum prosocial return.

From the prosocial perspective, the reason why the elite wants to share the benefit is that the marginal return of sharing the benefit is bigger than keeping it for themselves. However, with more benefits shared, the marginal return of sharing will keep decreasing and will be equal to, and then lower, than the marginal return of not sharing. The point at which the marginal return of sharing and not-sharing are equal determines the amount of benefits the elite chooses to share with the farmer. Parameter A and t together determine the slope and convexity of the function: how much the farmer's net return could transform into the elite's prosocial return. Assume $A \geq 0$ (non-negative transformation: elite is neutral or prosocial) and $0 < t < 1$ (decreasing marginal utility transformation). Therefore, the net benefits the elite could get from the co-operative (when both parties co-operate) can be expressed as

$$NB_e = (\pi - \pi_f) - c_e + A(\pi_f + u_f - c_f)^t \quad (9.4)$$

9.3.3 Variables for the influence of social pressure to build trust

In addition to the issue of whether both the elite and the farmer can potentially benefit from the co-operation, they also must consider the issue of "trust." Both parties must have faith that once they take efforts in supporting the co-operation, the other party will not act opportunistically

against them.

Trust is, according to Barney and Hansen (1994, p. 176), “the mutual confidence that no party to an exchange will exploit the vulnerability of another.” Raimondo (2000, p. 2) defines trust, “whether in someone or something,” “as an attitude, characterised by the belief in the counterparty’s reliability, for example supplier or client.” Trust is especially important in rural China as formal mechanisms like contracts are less effective in forcing parties to adhere to the agreed terms. In rural China, as discussed in Chapter 4, it is the social relationships and social norms that create trust and enforce the reciprocation.

In this model, it is assumed that the elite and the farmer have asymmetric information about each other and are vulnerable to each other’s opportunistic behaviours. The farmer does not know whether the elite will invest in the farmer specifically and share the profits as promised. At the same time, the elite does not know whether the farmer will sell the produce to the co-operative. The elite and the farmer, therefore, participate in a simultaneous game. Trust is needed for both parties.

In the simultaneous game, it is supposed that a mutually supportive norm exists, thanks to the social relationship, to build and maintain trust between the elite and the farmer. Once one party fulfils their responsibility in the cooperation, the mutual and social expectation is that the counterparty should also fulfil their responsibility. That means the elite’s co-operative benefits the farmer and shares some profits with the farmer, and the farmer supports the elite and sells products to the elite’s co-operative. When one party fulfil the responsibility of the co-operation, the other party, if defect, would face social pressure and the resulting psychological and social disutility. Elite suffers γ_e if they betray the farmer, and the farmer suffers γ_f if they betray the elite.²⁵ γ_e and γ_f can be measured by the value of the minimum monetary compensation required to offset the disutility of betrayal. For example, if a farmer has made a commitment selling the produce to the co-operative, the co-operative’s competitor must pay higher price to compensate the farmer’s disutility of betrayal. γ_f may equal the minimum price difference the co-operative’s competitor needs to pay.

²⁵ The scenario of “the farmer co-operates, the elite does not co-operate” and “the farmer does not co-operate, the elite co-operates” only happen when both parties make a commitment to the co-operation but later on one party defects. They do not describe the situation in which one party wants to co-operate but the other party does not. If one party says no to co-operation at the beginning, the other party will say no as well even if they want to co-operate: that would result in the scenario of neither party co-operating.

9.4 Return functions

With variables explained, the return for the farmer and elite is displayed in Figure 9.2 depending on the elite's and farmer's decision on co-operation.

		The Farmer	
		Co-operate	Not co-operate
The Elite	Co-operate	$\pi_f - c_f + u_f$ $\pi - \pi_f - c_e + s_e$	$u_f - \gamma_f$ $-c_e$
	Not co-operate	$-c_f$ $\pi - \gamma_e$	0 0

Note: Farmer benefits (NB_f) on top, elite benefits (NB_e) on bottom.

Figure 9.2 Return level for the farmer and the elite

Both parties co-operate

When the farmer and the elite both co-operate, the return or net benefit function for the farmer is

$$NB_f = \pi_f - c_f + u_f$$

The farmer receives π_f , the portion of co-operative profit distributed by the elite, and u_f , the benefit from the elite's investment or free supports, at a cost of c_f . c_f includes cost to produce the designated products for the co-operative and the opportunity cost, the best income they can get if they take the economic opportunity other than working with the co-operative (e.g., growing other crops or selling to other buyers).

The net benefit for the elite is

$$NB_e = \pi - \pi_f - c_e + s_e = (\pi - \pi_f) - c_e + A(\pi_f + u_f - c_f)^t$$

$\pi - \pi_f$ is the profit the elite retained for themselves after (after distributing π_f to the farmer)

at a cost of c_e , the cost of investment to establish the co-operative. In addition, the elite gain prosocial return s_e , a function of the net benefit for the farmer NB_f .

The elite co-operates but the farmer defects

When the elite chooses to fulfil the duty of the co-operation but the farmer defects, the net benefit for the farmer is

$$NB_f = u_f - \gamma_f$$

The farmer does not sell produce to the elite. However, the farmer will have already gained benefits u_f from the elite's investment or free support. Because the farmer betrays the elite, the farmer faces a loss γ_f .

The net benefit for the elite is

$$NB_e = -c_e$$

The elite loses c_e , the sunk cost they invested. As the farmer refuse to sell produce to the elite, the elite cannot generate any income.

The farmer co-operates but the elite defects

When the farmer chooses to fulfil the duty of the co-operation but the elite defects, the net benefit for the farmer is

$$NB_f = -c_f$$

Because the elite defects, the farmer loses c_f : the farmer will not get any compensation or benefits from the elite to compensate their production cost and opportunity cost. w

The net benefit for the elite is

$$NB_e = \pi - \gamma_e$$

The elite still receives farm produce from farmer, which is used to generate income π . The elite keeps all of π as they refuses to distribute profit to the farmer. The elite also does not make transaction-specific investment to benefit the farmer as promised. However, because the elite betrays the farmer, the elite faces a loss γ_e .

Neither party co-operates

When neither elite nor the farmer fulfils the co-operation duty. Both parties' welfare is

unchanged. The net benefit for both parties is 0.

$$NB_f = 0$$

$$NB_e = 0$$

9.5 When can co-operation be achieved?

In a simultaneous game, there is a strong assumption that both the elite and the farmer cannot know or track the other party's choice as a reference for their own decisions. To achieve the co-operation between the elite and the farmer, the scenario "both parties co-operate" needs to be the **Nash Equilibrium (NE)** of the game and be optimal if there are more than one NE.

It is easy to see that the bundle "neither party co-operates" is a NE because neither party has an incentive to move away from this status quo: when the elite does not co-operate, the farmer has no incentive to change their action from "not co-operate" ($NB_f = 0$) to "co-operate" ($NB_f = -c_f$); and when the farmer does not co-operate, the elite has no incentive to change their action from "not co-operate" ($NB_e = 0$) to "co-operate" ($NB_e = -c_e$).

For the scenario "both parties co-operate" to be the NE, neither party should have an incentive to step out of the cooperation. Firstly, given the farmer's choice "co-operate," the elite would not have an incentive to move from "co-operate" to "not co-operate," leading to farmer's trust that the elite will not defect. The following condition, or the elite's Incentive Compatibility Constraints, must hold:

$$NB_e(\text{both cooperate}) > NB_e(\text{elite defects}) \quad (9.5)$$

$$\pi - \pi_f - c_e + s_e > \pi - \gamma_e$$

$$\pi_e + c_e < s_e + \gamma_e \quad (9.6)$$

The left-hand side of expression (9.8) is the cost of creating the co-operative (the profit the elite has to give plus the cost of forming the co-operative), while the right-hand side is the

benefit of forming the co-operative (the prosocial gain plus the loss of defection).

Secondly, given the elite's choice "co-operate," the farmer should not have incentives to move from "co-operate" to "not co-operate," which leads to the elite's trust that the farmer will not defect. The following condition, or the farmer's Incentive Compatibility Constraints, must hold:

$$NB_f(\text{both cooperate}) > NB_f(\text{farmer defects}) \quad (9.7)$$

$$\pi_f - c_f + u_f > u_f - \gamma_f$$

$$\pi_f - c_f > -\gamma_f \quad (9.8)$$

The left-hand side of expression is the benefit (net of cost) for the farmer from delivering to the co-operative, while the right-hand side is the defection cost of delivering to the co-operative's competitor. Since the right-hand side is negative when $\gamma_f > 0$, the farmer may deliver to the co-operative even if $\pi_f - c_f < 0$, i.e., the co-operative does not provide a better price than competitors.

In addition, the bundle "both parties co-operate" needs to dominate "neither party co-operates" meaning that the co-operation will make both parties better off, in which the following conditions (parties' Individual Rationality Constraints) hold:

$$NB_e(\text{both cooperate}) > NB_e(\text{neither cooperate}) \quad (9.9)$$

$$NB_f(\text{both cooperate}) > NB_f(\text{neither cooperate}) \quad (9.10)$$

$$\pi_f < s_e - c_e + \pi \quad (9.11)$$

$$\pi_f > c_f - u_f \quad (9.12)$$

In summary, the co-operation can be achieved (“both parties co-operate” is the optimal choice) when all four conditions are met. Condition (9.11) guarantees that the elite will be better off with the co-operative than without. Condition (9.12) guarantees that the farmer will be better off with the co-operative than without. Condition (9.7) guarantees that the elite will not have an incentive to take advantage of the farmer when the farmer is vulnerable (the farmer could trust the elite). And condition (9.9) guarantees that the farmer will not have an incentive to take advantage of the elite when the elite is vulnerable (the elite could trust the farmer). Four conditions could be summarized as

$$\max\{(c_f - u_f), (c_f - \gamma_f)\} < \pi_f < \min\{(s_e - c_e + \pi), (s_e - c_e + \gamma_e)\}$$

If such a range of π_f exists, that means the co-operation can be achieved, i.e., a benefit-sharing scheme exists that both the elite and farmer accept. I call this the “co-operation space” in this dissertation. The value of both $(s_e - c_e + \pi)$ and $(s_e - c_e + \gamma_e)$ must always be bigger than the value of both $(c_f - u_f)$ and $(c_f - \gamma_f)$.

A more simply way to express the “co-operation space” is

$$c_f - \min(u_f, \gamma_f) < \pi_f < s_e - c_e + \min(\pi, \gamma_e) \quad (9.13)$$

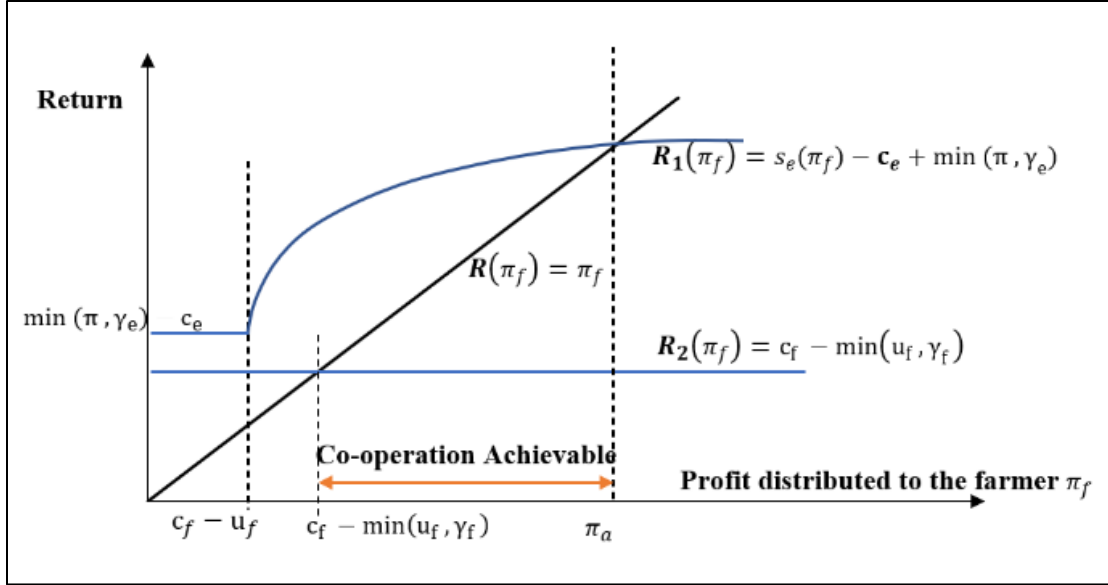


Figure 9.3 Co-operation space

The co-operation space can be displayed in Figure 9.3. The x-axis is π_f and the y-axis measures the value of the benefit. According to (9.15), the co-operation space is the range of π_f that is smaller than $(c_f - \min(u_f, \gamma_f))$ while bigger than $(c_f - \min(u_f, \gamma_f))$. In order to display all the constraints, I created three functions: $R(\pi_f) = \pi_f$; $R_1(\pi_f) = s_e(\pi_f) - c_e + \min(\pi, \gamma_e)$; and $R_2(\pi_f) = c_f - \min(u_f, \gamma_f)$. These functions are all functions of π_f and can be drawn as three lines or curves in Figure 9.3.

Note that $R_1(\pi_f)$ contains two parts: the horizontal line when $0 \leq \pi_f \leq c_f - u_f$ and a concave function when $\pi_f \geq c_f - u_f$. The shape of the concave part of the $R_1(\pi_f)$ is shaped by $s_e(\pi_f)$: $s_e(\pi_f) = 0$ if $\pi_f \leq c_f - u_f$ (the elite will have no pro-social gain because they do not benefit the farmer); and $s_e(\pi_f) = A(\pi_f + u_f - c_f)^t$ if $\pi_f \geq c_f - u_f$.

The co-operation space, therefore, is the range of π_f that enables $R(\pi_f)$ to be below $R_1(\pi_f)$ and above $R_2(\pi_f)$. $R(\pi_f)$ intersects with $R_1(\pi_f)$ at π_a . $R_1(\pi_f)$ intersects with $R_2(\pi_f)$ at $(c_f - \min(u_f, \gamma_f))$. It is easy to see that Figure 9.3 presents a scenario in which $\gamma_f < u_f$. The co-operation space is $(c_f - \min(u_f, \gamma_f)) \leq \pi_f \leq \pi_a$. In such situation, if the elite distributes π_f to the farmer that is between $(c_f - \min(u_f, \gamma_f))$ and π_a , both the elite and the farmer will accept and stay in the co-operation.

9.6 Parameters that affect the likelihood of co-operation

9.6.1 Co-operative's profitability and the social pressure for the elite

In general, the co-operative's profit π and the social pressure on the elite γ_e have a non-negative effect on the likelihood of co-operation. Specifically, however, it is the minimum of $\{\pi, \gamma_e\}$ that affects the co-operation space.

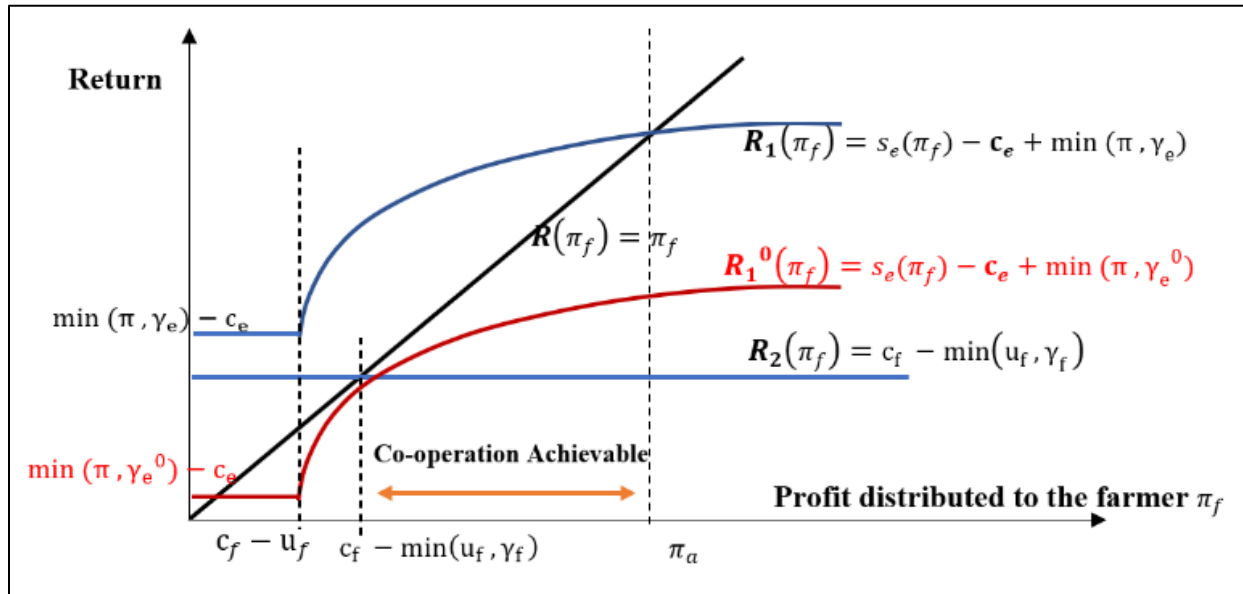


Figure 9.4 The effect of social pressure (on the elite) on co-operation space

For example, Figure 9.4 indicates how γ_e affects the co-operation space when $\pi > \gamma_e$. When γ_e decreases to γ_e^0 , the line $R_1(\pi_f)$ moves lower to the position of $R_1^0(\pi_f)$, which is completely below $R(\pi_f)$. Co-operation space no longer exists. Therefore, the decrease of γ_e will erase the co-operation space: the smaller γ_e , the less π_f the elite accepts sharing with the farmer. When it comes to π , as long as $\pi > \gamma_e$, the change of π will not affect the co-operation space. In such a situation, the social pressure on the elite, rather than the ability to establish profitable co-operative, is the major concern.

In contrast, when $\pi < \gamma_e$, π rather than γ_e positively impacts the co-operation space. In this situation, the elite's capability to create profits is key to extending the co-operation space.

In addition, a higher c_e (elite's transaction specific investment) moves $R_1(\pi_f)$ downwards,

making the co-operation less likely to be achieved. That means co-operation is more likely when the cost is lower for the elite to invest in establishing the co-operative. The elite's local knowledge and their access to external funding and support may contribute to a lower c_e .

9.6.2 Elite's prosocial motivation

The impact of elite's prosocial motivation on the co-operation space is shown in Figure 9.5. A stronger prosocial motivation of the elite can be reflected as a larger A or t in $s_e =$

$A(\pi_f + u_f - c_f)^t$. In Figure 9.5, when the elite becomes more prosocial, from $s_e = s_e^0(\pi_f)$ to $s_e = s_e(\pi_f)$, $R_1^0(\pi_f)$ become more concave and higher and move to the position of $R_1(\pi_f)$.

The co-operation space expands from $(c_f - \min(u_f, \gamma_f)) \leq \pi_f \leq \pi_a^0$ to $(c_f - \min(u_f, \gamma_f)) \leq \pi_f \leq \pi_a$.

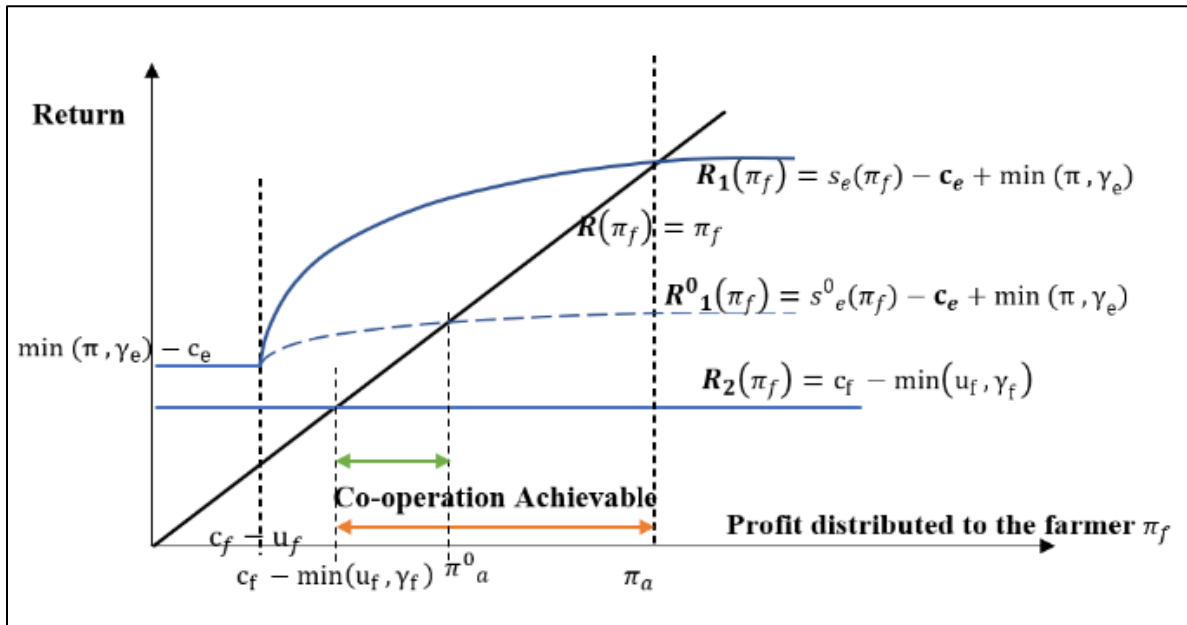


Figure 9.5 The effect of elite's prosocial motivation on co-operation space

Figure 9.5 indicates that a more prosocial elite will accept sharing more profit with the farmer. A more prosocial elite is more likely to establish co-operation with the farmer, holding all other factors unchanged.

9.6.3 The farmer's cost (production and opportunity cost)

Figure 9.6 shows how farmer's cost c_f affects the co-operation space. As c_f exists in $R_1(\pi_f)$ and $R_2(\pi_f)$, when c_f changes, both curves move. As shown in Figure 9.6, when c_f increases to c_f^0 , $R_2(\pi_f)$ shifts vertically by $(c_f^0 - c_f)$ to the position of $R_2^0(\pi_f)$. Meanwhile, the concave part of $R_1(\pi_f)$ moves horizontally to the right by $(c_f^0 - c_f)$ to the position of $R_1^0(\pi_f)$.

Before c_f increases, the co-operation space exists, which is $c_f - \gamma_f \leq \pi_f \leq \pi_a$. However, after c_f increases to c_f^0 , the co-operation space no longer exists as no part of $R(\pi_f)$ can be found below $R_1(\pi_f)$ and above $R_2(\pi_f)$.

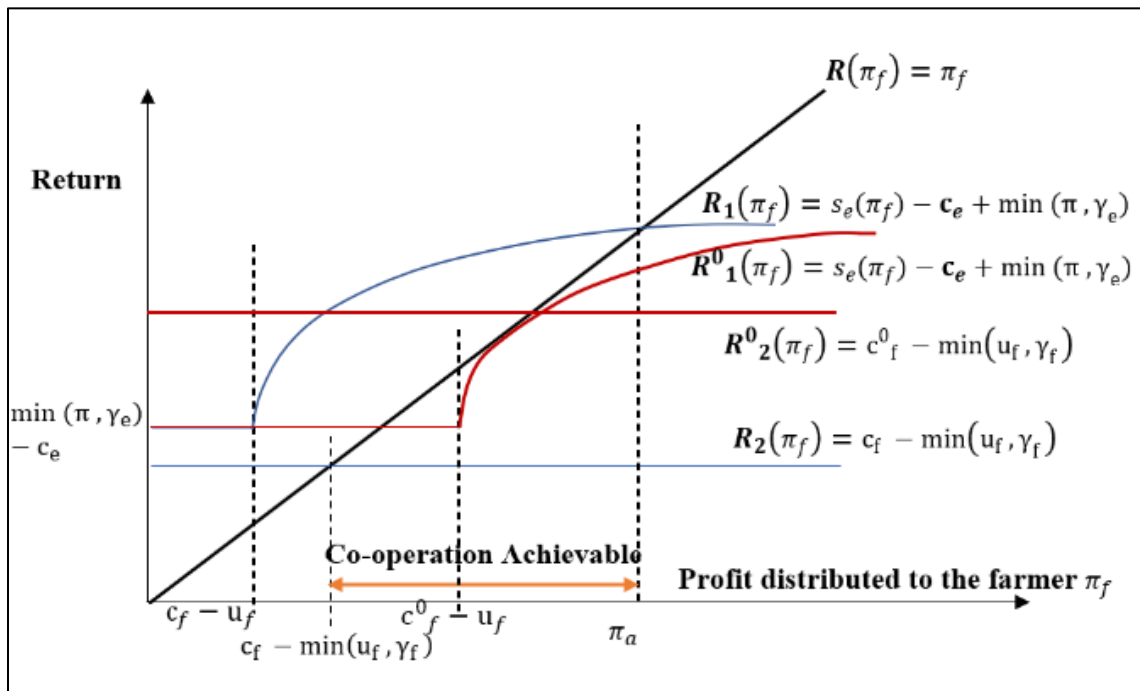


Figure 9.6 The effect of farmers' opportunity cost on co-operation space

Therefore, when the farmer has a higher opportunity cost and/or higher costs of production on the farm, the co-operation space is smaller. When farmer's opportunity cost joining the co-operative increases, it often means the farmer has better alternative opportunities outside of the co-operative and relies less on the elite. The farmer expects more from the elite to share more profit to attract the farmer joining the co-operative. When the costs are high producing designed

products for the co-operative. The farmer also expects more income from the co-operative to compensate the high cost of production. It is also more difficult for the elite to get prosocial return because the bar to benefit the farmer is set higher.

9.6.4 Social pressure on the farmer

Figure 9.7 shows how the social pressure on the farmer γ_f affects the co-operation space when $\gamma_f < u_f$. When $\gamma_f < u_f$, the γ_f rather than u_f impacts the co-operation space. When γ_f increases to γ_f^0 , the position of $R_2(\pi_f)$ moves lower to the position of $R_2^0(\pi_f)$. The co-operation space $c_f - \min(u_f, \gamma_f) \leq \pi_f \leq \pi_a$ widens to the left to $c_f - \min(u_f, \gamma_f^0) \leq \pi_f \leq \pi_a$.

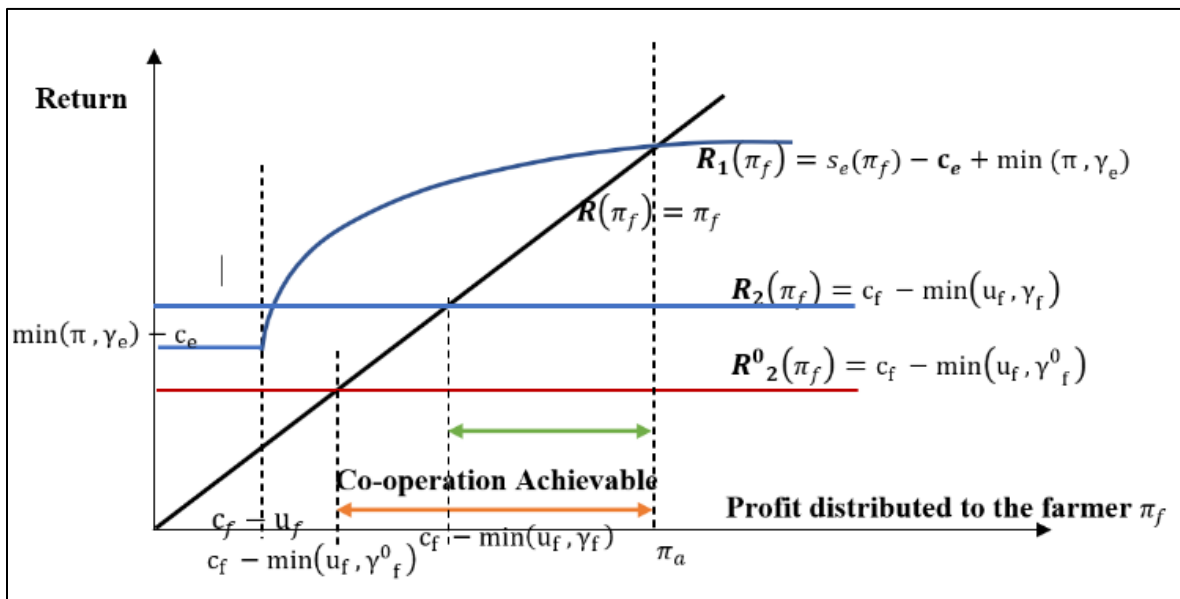


Figure 9.7 The effect of the social pressure (on the farmer) on co-operation space

In the above situation ($\gamma_f < u_f$), the increase of social pressure on the farmer means that the elite has a choice to share less profit with the farmer without losing the farmer in the co-operation. However, when γ_f is relatively large such that $\gamma_f > u_f$, social pressure on the farmer is not an effective constraint. In such a situation, for example, the elite does not need to worry

about the farmer’s opportunism as the farmer is facing sufficient social pressure; instead, the elite should focus on whether the co-operation can benefit the farmer.

9.6.5 A summary of variables’ effect on the likelihood of co-operation

The relationship between the variables and the co-operation space is summarized in Table 9.2. The co-operative’s profitability has a non-negative impact on the co-operation space. When the community has enough social pressure on the elite so that $\pi < \gamma_e$, the increase in profitability π expands the co-operation space. When the community does not have enough social pressure on the elite ($\pi \geq \gamma_e$), the profitability π is a secondary issue compared to the social pressure on the elite and will not influence the co-operation space.

Alternatively, when $\pi \geq \gamma_e$, social pressure on the elite γ_e has a positive effect on the co-operation space. When $\pi < \gamma_e$, the change of γ_e does not affect the co-operation space.

Similarly, social pressure on the farmer γ_f has a positive effect on the co-operation space when $\gamma_f < u_f$. When $\gamma_f \geq u_f$, γ_f does not affect the co-operation space.

Several other variables also affect the co-operation space. The elite’s transaction-specific cost, c_e , negatively impacts the co-operation space. The elite’s prosocial motivation positively impacts the co-operation space. The farmer’s production and opportunity cost, c_f , negatively impacts the co-operative space, meaning that co-operatives are more likely to be initiated when farmers lack better alternatives and when producing for the co-operative is less costly.

Table 9.2 The relationship between variables and co-operation space

Variables	Scenario / condition	The effect on co-operation space (“+” positive; “-” negative; “0” zero)
-----------	-------------------------	--

Co-operative's profitability π	$\pi \geq \gamma_e$	0
	$\pi < \gamma_e$	+
Elite's investment cost c_e		-
Social pressure for the elite γ_e	$\pi \geq \gamma_e$	+
	$\pi < \gamma_e$	0
Elite's prosocial motivation s_e (parameter A and t)		+
Farmer's opportunity cost c_f		-
Social pressure for the farmer γ_f	$\gamma_f \geq u_f$	0
	$\gamma_f < u_f$	+

In summary, the model suggests that co-operatives are more likely to be initiated (with actual operation) when social pressure is high, the co-operatives are more profitable, the elite's prosocial motivation is high, and the transaction-specific investment cost is low. These results are consistent with the findings of the field study. Co-operatives are observed to be initiated by resourceful and capable elites who are often prosocial, reputable, and trusted in rural communities. These elites, with advantageous access to resources compared to ordinary farmers, can generate profit to share with members. They may also utilize their position in the rural community (such as village cadres) and the government support to reduce the cost of transaction-specific investment to support co-operative development. Ordinary members, however, lack economic resources and opportunities and therefore see co-operatives as attractive. Meanwhile, elite core members and ordinary members are often connected in social relationships, which build trust through social pressure and social norms.

For stakeholders who are interested in initiating co-operatives, finding ways to signal to farmers the initiators' ability to make a profit and that the initiators are under social pressure (to honour the promise) is key to attracting farmers. They also need a mechanism to select farmers they trust. What is found in the field study is that stakeholders outside of rural communities build partnerships with selected rural elites or village committees to coordinate the co-operative initiation and operation.

9.7 The elite's optimal choice and the return level for the elite and the farmer

When co-operation space is available, the elite can establish and operate co-operative business with the farmer. As it is assumed in the model that the elite initiates and controls the co-operative, in this section I will discuss the optimal decisions for the elite, the factors that influence such decisions, and the elite's and farmer's return level when such decisions are made.

9.7.1 Objective function

Within the co-operation space, the elite needs to decide the optimal level of profit distribution to maximize their return. **The objective function is:**

$$\max_{\pi_f} NB_e = \pi - c_e + s_e(\pi_f, u_f, c_f, A) - \pi_f \quad (9.14)$$

Based on the discussion of co-operation space earlier, π_f is *subject to* $c_f - \min(u_f, \gamma_f) < \pi_f < s_e - c_e + \min(\pi, \gamma_e)$. This condition ensures that when the elite shares a profit π_f with the farmer, the co-operation can be achieved between the farmer and elite. In the below discussion, **assume $\pi > \gamma_e$ and $u_f > \gamma_f$** . Therefore, $R_1(\pi_f) = s_e(\pi_f) - c_e + \gamma_e$ and $R_2(\pi_f) = c_f - \gamma_f$. In this case, the incentive compatibility constraints, rather than individual rationality constraints are the effective constraints.

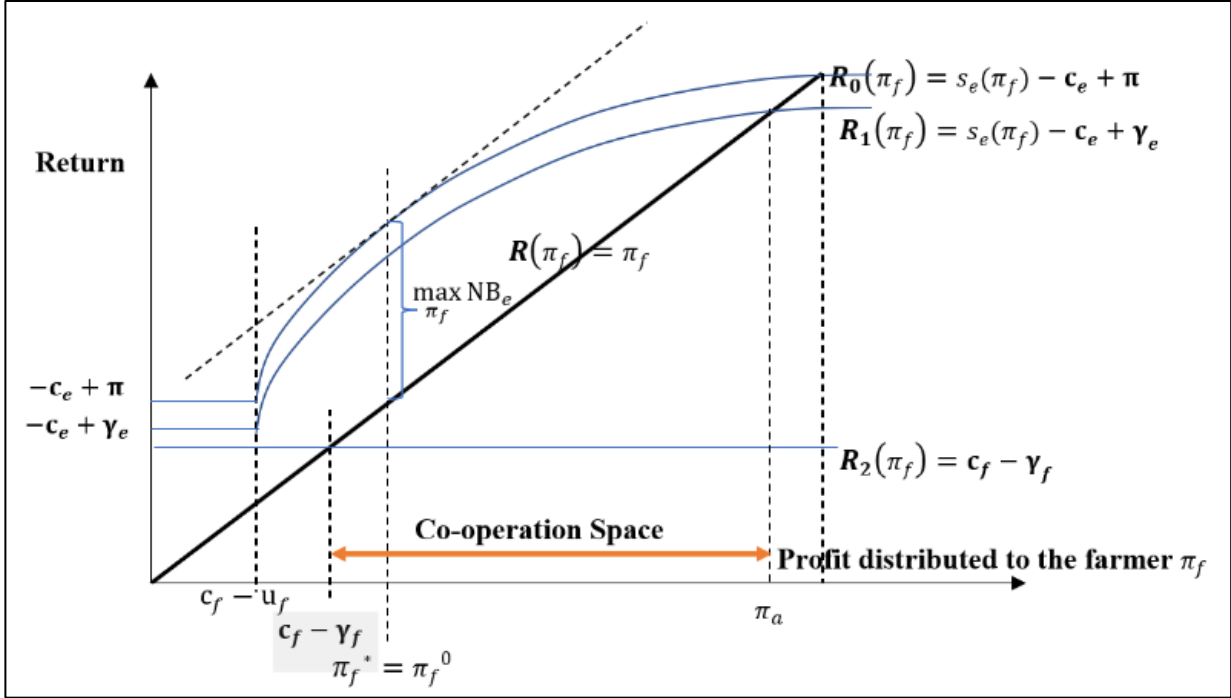


Figure 9.8 Interior solution

Because $NB_e(\pi_f) = s_e - c_e + \pi - \pi_f$, as shown in Figure 9.8, it equals the distance between $R_0(\pi_f) = s_e(\pi_f) - c_e + \pi$ and $R(\pi_f) = \pi_f$. The maximum of $NB_e(\pi_f)$ occurs when the distance between $R_0(\pi_f)$ and $R(\pi_f)$ is the largest. Therefore, the solution of $\max_{\pi_f} NB_e$ requires $R_0'(\pi_f) = 1$ (where 1 is the slope of $R(\pi_f) = \pi_f$).

However, π_f is subject to the constraints to achieve the co-operation (co-operation space: $c_f - \gamma_f \leq \pi_f \leq \pi_a$), and the solution to $R_0'(\pi_f) = 1$ may not fall into the co-operation space. Let's denote the interior solution as π_f^0 where $R_0'(\pi_f) = 1$. If π_f^0 is within the co-operation space, the interior solution π_f^0 exists. Otherwise, the objective function has a corner solution.

9.7.2 Interior solution

$\max_{\pi_f} NB_e$ in the co-operation has an interior solution π_f^0 when $c_f - \gamma_f \leq \pi_f^0 \leq \pi_a$

$$\frac{\partial NB_e}{\partial \pi_f} = A * t * (\pi_f + u_f - c_f)^{t-1} - 1 = 0$$

$$A * t * (\pi_f^0 + u_f - c_f)^{t-1} - 1 = 0$$

$$(\pi_f^0 + u_f - c_f)^{t-1} = \frac{1}{A * t}$$

Because $\pi_f^0 > c_f - u_f$, $\pi_f^0 + u_f - c_f > 0$. We can have

$$\pi_f^0 + u_f - c_f = \left(\frac{1}{A * t}\right)^{\frac{1}{t-1}}$$

$$\pi_f^0 = (A * t)^{\frac{1}{1-t}} + c_f - u_f \quad (9.15)$$

For π_f^0 to be the interior solution, there must be $c_f - \gamma_f \leq \pi_f^0 \leq \pi_a$,

It is easy to see from Figure 9.8 that $\pi_f^0 \leq \pi_a$ always holds because π_a is the place where the concave function $R_1(\pi_f)$ intersect downwards with $R(\pi_f)$: $R_1'(\pi_a) < R_1'(\pi_f^0) = R_0'(\pi_f^0) = 1$, therefore, $\pi_f^0 < \pi_a$.

Therefore, the condition for the interior solution is $\pi_f^0 \geq c_f - \gamma_f$

$$(A * t)^{\frac{1}{1-t}} + c_f - u_f \geq c_f - \gamma_f$$

$$(A * t)^{\frac{1}{1-t}} \geq u_f - \gamma_f \quad (9.16)$$

In order to have an interior solution, the left-side hand of (9.16) should be larger than the right-hand side. That means the interior solution occurs when the elite's prosocial motivation (positive to A and t) is relatively large, and the social pressure on the farmer γ_f is relatively large (compared to u_f , which is the return the farmer benefits from the elite's transaction-specific investment).

Factors influencing the elite's optimal return

In the scenario where the interior solution exists, the elite distributes π_f^0 to the farmer to maximize the elite's return. The optimal net benefits for the elite:

$$NB_e(\pi_f^0) = \pi - c_e + A \left((A * t)^{\frac{1}{1-t}} - u_f + c_f + u_f - c_f \right)^t - ((A * t)^{\frac{1}{1-t}} - u_f + c_f)$$

$$NB_{elite}(\pi_f^0) = \pi - c_e + u_f - c_f + \frac{1-t}{t} * (A * t)^{\frac{1}{1-t}} \quad (9.17)$$

The elite's optimal return is positively related to the co-operative's profit π , negatively related to the elite's transaction-specific cost c_e , and negatively related to the farmer's production and opportunity cost c_f . That means the elite's return increases when the co-operative is more profitable and when the investment requirement is lower. Elite's return also increases when it is less costly for the farmer doing business with the co-operative while the farmer has fewer alternative opportunities elsewhere.

The elite's optimal return will also be high with a strong prosocial motivation (while it is easy to see from (9.17) that $NB_e(\pi_f^0)$ is positive to A , the relationship between $NB_e(\pi_f^0)$ and t is more complicated. See the Appendix B for the analysis). Therefore, elite may have a tendency to work with the farmer, which can contribute to the elite becoming more prosocial.

Factors influencing the benefit for the farmer

The elite's decision to maximize their return also influences the return for the farmer. First, the profit distributed to the farmer, again, is

$$\pi_f^0 = (A * t)^{\frac{1}{1-t}} - u_f + c_f \quad (9.18)$$

The net benefits for the farmer joining the co-operative:

$$NB_f = \pi_f^0 - c_f + u_f = (A * t)^{\frac{1}{1-t}} \quad (9.19)$$

NB_f is only decided by A and t . Indeed, NB_f is positive to A and t . The net benefit for the farmer joining the co-operative is solely determined by the elite's prosocial motivation. The farmer benefits more from the co-operative if the elite is more prosocial.

9.7.3 Corner solution

The elite's optimal choice is a corner solution if π_f^0 is not within the co-operation space $[c_f - \gamma_f, \pi_a]$. As shown in Figure 9.9, $\pi_f^0 < c_f - \gamma_f$, and the corner solution is $\pi_f^* = c_f - \gamma_f$. The elite

will share the minimum profit with the farmer that still enables the co-operation with the farmer.

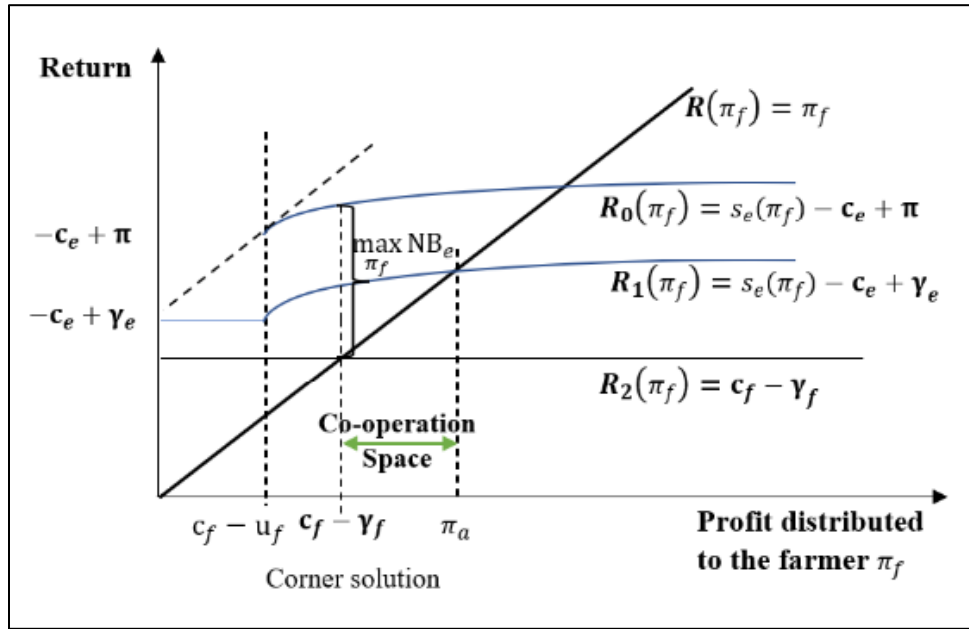


Figure 9.9 Optimal return for the elite in the scenario of corner solution

As $\pi_f^0 = (A * t)^{\frac{1}{1-t}}$, the existence of corner solution occurs when

$$(A * t)^{\frac{1}{1-t}} < u_f - \gamma_f \quad (9.20)$$

In contrast to the scenario of an interior solution, a corner solution occurs when the elite's prosocial motivation (positive to A and t) is relatively small, and the social pressure on the farmer γ_f is relatively small compared to u_f , which is the return the farmer benefits from the elite's transaction-specific investment.

Factors influencing the elite's optimal return

In the scenario where the corner solution exists, the elite distributes $c_f - \gamma_f$ to the farmer to maximize the elite's return. The optimal net benefits for the elite:

$$NB_e^* = \pi - c_e + A(c_f - \gamma_f + u_f - c_f)^t - (c_f - \gamma_f) = \pi - c_e + \gamma_f - c_f + A(u_f - \gamma_f)^t$$

The elite's optimal return is positively related to co-operative's profit, π , and their prosocial motivation (A and t), and negatively related to the elite's transaction-specific investment, c_e , and the cost for the farmer participating in the co-operation, c_f . The elite can be more motivated in a situation where the elite and farmer both find it more profitable and less costly to join the co-operation. The elite is also motivated to work with the farmer that they care about. All these are consistent with the scenario of interior solution.

The social pressure on the farmer, γ_f , positively impacts the elite's optimal return level ($as \frac{\partial NB_e^*}{\partial \gamma_f} = 1 - A * t (u_f - \gamma_f)^{t-1} > 0$ and see Appendix B for detailed calculation). In contrast to the scenario of interior solution (where γ_f must be relatively large to have the interior solution), the γ_f in the scenario of a corner solution is relatively small and therefore is an important factor for the elite: the elite prefers to work with the farmer that are under greater social pressure.

Factors influencing the benefit for the farmer

The elite's decision to maximize their return influences the return for the farmer. First, the profit distributed to the farmer is

$$\pi_f^* = c_f - \gamma_f \quad (9.21)$$

The net benefits for the farmer joining the co-operative:

$$NB_{farmer} = \pi_f^* + u_f - c_f = u_f - \gamma_f \quad (9.22)$$

The net benefit for the farmer is negative to the social pressure on the farmer γ_f . It appears to indicate that the farmer facing lower social pressure can drive the elite to provide the farmer with more benefits. The lack of social pressure may play a role as a threat to deal with a less prosocial elite (who is less motivated by prosocial reasons to voluntarily share more benefits with the farmer).

However, bear in mind that the co-operation space will shrink when the social pressure on the farmer decreases. The model also suggests that the elite prefers to work with farmers that are under greater amounts of social pressure. Therefore, the farmer under low social pressure may

not be invited by the elite to join the co-operation in the first place.

9.7.4 Benefits to the farmer

Combining the analysis in the scenarios of the interior solution and corner solution, how much will a farmer benefit from co-operating with the elite?

For a farmer under certain level of social pressure (γ_f stays unchanged), the net benefit for the farmer may change when they work with elites having different levels of prosocial motivation. Let's start with the scenario where the farmer works with a elite having no prosocial motivation ($(A * t)^{\frac{1}{1-t}} = 0$), the net benefit for the farmer is $(u_f - \gamma_f)$ as there exists a corner solution ($(A * t)^{\frac{1}{1-t}} < (u_f - \gamma_f)$). When the elite's prosocial motivation increases, the net benefits for the farmer remain the same at $u_f - \gamma_f$ until $(A * t)^{\frac{1}{1-t}}$ increases to become larger than $u_f - \gamma_f$. When the elite's prosocial motivation becomes large enough to enable an interior solution ($(A * t)^{\frac{1}{1-t}} > (u_f - \gamma_f)$), the net benefits for the farmer will become $(A * t)^{\frac{1}{1-t}}$ and increases when the elite becomes more prosocial.

The social pressure on the farmer also influences their net benefit. For an elite that is equally prosocial towards farmers under different levels of social pressure ($(A * t)^{\frac{1}{1-t}}$ remains unchanged but γ_f changes), there may exist a corner solution to the co-operation with farmers under lower social pressure ($u_f - \gamma_f > (A * t)^{\frac{1}{1-t}}$); and an interior solution to the co-operation with farmers under higher social pressure ($u_f - \gamma_f < (A * t)^{\frac{1}{1-t}}$). How will the social pressure influence the benefit for the farmer? Let's start with a farmer under low social pressure γ_f so that $u_f - \gamma_f > (A * t)^{\frac{1}{1-t}}$. A corner solution exists and the net benefit for the farmer is $u_f - \gamma_f$. With the increase of social pressure γ_f , the net benefit for the farmer $u_f - \gamma_f$ decreases. With the increase of γ_f , when $u_f - \gamma_f$ reduces further below the threshold so that $u_f - \gamma_f < (A * t)^{\frac{1}{1-t}}$, the interior solution becomes available such that the net benefit for the farmer becomes $(A * t)^{\frac{1}{1-t}}$. Even though γ_f keeps reducing, the net benefit for the farmer will remain to be $(A * t)^{\frac{1}{1-t}}$. Therefore, $(A * t)^{\frac{1}{1-t}}$ is the minimum net benefit for the farmer. For farmers under high social pressure, the elite's prosocial motivation is key to the farmer's net benefit.

From both perspectives, the farmer may benefit from working with a highly prosocial elite. That may explain why the government wants to support prosocial elites, such as village committees, to establish co-operatives.

9.8 Discussion

The preceding section discusses the factors influencing the elite's optimal decision and the benefit for the elite and the farmer joining the co-operative. In a relationship where the elite is relatively more prosocial and the farmer is facing relatively more social pressure, $\max_{\pi_f} NB_e$ more likely has an interior solution. In a relationship where the elite is relatively less prosocial and the farmer is facing relatively less social pressure, $\max_{\pi_f} NB_e$ more likely has a corner solution.

In the Chinese rural context, the conditions of the interior solution may resemble the features of a closer relationship, in which people care a lot about each other and are expected to be reciprocal, while the conditions of the corner solution may resemble a less close relationship, in which such reciprocal motivation and expectation is lower. As the elite prefers to work with a farmer under higher social pressure and those who give the elite more prosocial gain, the elite have motivations to set up a co-operative involving the close farmers.

The benefit for the farmer joining a co-operative managed by a close elite is a bit more complicated. Although the elite's high prosocial motivation is beneficial for the farmer, the high social pressure on the farmer could prevent the farmer from bargaining a bigger portion of the co-operative's income. However, a farmer under less social pressure only have limited room to bargain for larger net benefits, with the maximum being $NB_f = u_f$ with $\gamma_f = 0$ (assuming the co-operation space still exists with $\gamma_f = 0$). There is no such limit for the farmer to increase their net benefit co-operating with highly prosocial elite. For farmers under high social pressure, the elite's prosocial motivation is key to the farmer's net benefit.

9.8.1 Heterogenous access to economic resources

The elite's return is positively related to co-operative's profit; and negatively related to the transaction-specific cost for the elite and the production and opportunity cost for the farmer. This indicates that the elite will be more motivated to establish the co-operative if the co-operative is

more profitable and requires fewer or less costly transaction-specific investments; and if it is less costly for the farmer to produce for the elite and give up alternative opportunities.

The model indications echo the findings from the field study that elites' and farmers' unequal access to economic resources and unequal capability to generate income fuels the initiation of the co-operatives, while a more competitive market may harm the viability of the co-operative. For example, Lucky Pig Co-operative (see 8.3) lost customers facing increasing market competition and the co-operative leader is focusing more on other opportunities.

9.8.2 Relational factors: prosocial motivation and social pressure

The elite's return is maximized with a strong prosocial motivation. It indicates that the elite tends to work with farmers they care about more. The model indications are consistent with the field study findings that most elites consider prosocial reasons when they initiated co-operatives.

The model also shows that the elite prefers to work with the farmer under greater levels of social pressure. Higher social pressure on the farmer also increases the co-operation space. These model findings are consistent with the field study findings that the co-operative initiators tend to include members from their social network, the initiators' or their local partners' friends, neighbours, relatives, and same-village fellows, to achieve trust. The model also shows that social pressure on the elite also increases the co-operation space, which is consistent with the field study finding that farmers prefer to do business with reputable trustworthy local people they are familiar with.

Chapter 10 Conclusions and discussion

This chapter summarizes and expands upon the previous chapters to discuss the Chinese co-operative model in Chinese rural settings. While previous research has highlighted the skewed distribution of ownership and control rights within Chinese co-operatives and the importance of social relations and resource heterogeneity in Chinese co-operative development (Lin & Huang, 2007; Zhao & He, 2012; Liang & Hendrikse, 2013; Liang et al., 2015; Chen, 2017; Huang & Xu, 2006; He & Zhang, 2015; Gao & Kong, 2015), this research contributes to the study of Chinese co-operative by integrating above elements into the patron-client framework.

The qualitative data from the field study and the formalized theoretical modelling together present a unique lens, the patron-client relationship perspective, to view Chinese co-operatives. Using the patron-client relationship perspective, the dissertation provides answers to the set of research questions asked in the Introduction Chapter.

Why are farmers, knowing they do not have decision rights in the co-operatives, willing to participate in these co-operatives and voluntarily support the core members? This study suggests that farmers join the co-operative controlled by the core members because the farmers, which have limited access to value chain resources, can benefit economically from participating in the co-operative business without committing much (or any) investment and risks. These farmer beneficiaries are usually willing to support the core members because farmer beneficiaries are expected to reciprocate to appreciate and respect the core members, as both are embedded in the local mutual-supportive relations and social norms. The core members' control within the co-operatives is also driven by their resources and capabilities, which are locally irreplaceable in the initiation and success of the co-operatives.

Why would core members who control the co-operatives be willing to share the benefits with ordinary members (Ma & Zhu, 2020), even though it seems unnecessary? The core members are willing to share the benefits with ordinary members because the core members often recruit co-operative members from their direct or indirect social networks. The mutual-supportive relations and social norms give elites prosocial motivation to benefit the ordinary members instead of being solely profit-seeking.

Why would the government support the co-operatives that are controlled by the core members? The reasons may be that the government understand that the rural China's social,

economic, and cultural contexts have shaped the elite-dominant structure of Chinese co-operatives. Enforcing the democratic rule in co-operatives with ignoring these contexts may be difficult and unrealistic. In addition, the government may have seen the positive contribution of the co-operative movement: the co-operatives have been widely and rapidly developed, vertically integrating value chain resources and reducing transaction costs, accepted by and benefiting rural communities, and contributing to the modernization of agriculture and local economy, despite their deviation from the co-operative structure the law advocates.

Overall, this study suggests the co-operative development path in China is a consequence of the resource heterogeneity between core members and other farmers, the importance of social norms and social relations in coordination and trust building, and the unequal roles and power status in rural relationships. The study found that many stakeholders' (including the government officials') understanding of the co-operatives (the nature, the purpose, and the governance) is different from the co-operatives in the West and the model defined by the Chinese co-operative Law. All stakeholders, including the farmers and local government officials, seem to tolerate this departure. The informal institutions in rural China seem to outweigh the formal institutions (such as the co-operative law) in shaping the co-operative model in rural China.

This section will also discuss the policy implications for Chinese co-operative development and the directions for future research.

10.1 Members' heterogeneity in accessing resources

The field studies reveal a unique co-operative development path in rural China compared with that in the rest of the world. The co-operatives studied in the field show several common features. The first feature is the significant heterogeneity between core members and ordinary members.

In the co-operative literature, member heterogeneity refers to differences among farmers and is believed to be a challenge for co-operatives. Member heterogeneity causes horizontal conflicts among members and therefore increases the cost of ownership for the co-operative to align interests and make decisions. However, the significant heterogeneity in Chinese rural co-operatives refers to the unequal access to value chain resources between the core members (the elites) and the ordinary members (ordinary farmers). Such economic heterogeneity creates an opportunity for elites and farmers to co-operate and integrate value chain resources vertically to

reduce the cost of market contracting. The field study found that co-operative initiators, such as village cadres, farming elites, and businesspeople, have access to inputs, markets, technological resources, and government support. They use these resources to discover and exploit economic opportunities through the initiation of co-operatives. Conversely, ordinary farmers lack attractive income alternatives. The elites' and other farmers' unequal access to resources gives parties economic motivation to co-operate. The elites initiate the co-operative business to “make a bigger pie to share” between themselves and the ordinary members.

As initiators' resources and capabilities play a key role in the co-operatives, they become core members that control the co-operatives. Ordinary members are observed to lack incentives, capacity, and real actions to invest in the co-operative and to participate in the decision-making. This is consistent with literature that reveals the membership heterogeneity and the dominance of a small group of core members in the Chinese co-operatives. Based on these findings, the theoretical model is structured, in which the elite establishes and controls the co-operative and the farmer joins the co-operative to share the benefit.

Consistent with the findings of the field studies, the theoretical model indicates that the elite and the farmer are more likely to establish a co-operative when the profit of the co-operative is larger, the investment requirement is lower, and the production cost and opportunity cost for the farmer joining the co-operative is lower. This may explain why the government allows, encourages, and supports the capable value chain stakeholders to play key roles in co-operative development. The government may have seen the co-operation of elites and farmers as an effective approach to developing rural economy and fighting against poverty.

10.2 Social relations and social norms

From my conversations with co-operative leaders and farmers in Tai'an city, it seems that co-operatives do not create a new social group, rather they are built on existing social relations. Moreover, the qualitative study found that social relations play an important role in co-operative development. All rural co-operative initiators I interviewed stated they developed co-operatives utilizing their social relations or social networks (which, in turn, even get strengthened by co-operative activities). Most non-rural initiators found rural partners and utilized these networks to develop co-operatives. There are several reasons why co-operative initiators work with members through their direct or indirect relationships. First, co-operative initiators have the prosocial

motivation to help the people in their network. Second, it is easier for co-operative initiators to coordinate and build trust with the people they know well. Third, ordinary members from the initiators' close networks are more likely to appreciate, respect, and support the initiators. This is important, especially when contracts are less effective, and the monitoring and enforcement is easier due to prior relationships and cultural norms.

The theoretical model takes into consideration the important role of social relations and norms, using parameters that measure the social pressure for reciprocation and parameters that measure the elite's prosocial motivation. The theoretical model indicates that social pressure improves the likelihood of co-operation between the elite and the farmer. The elite's prosocial motivation also improves the likelihood of co-operation and allows for more potential for the elite to share benefits with the farmer. The theoretical model also finds that the elite is motivated to co-operate with farmers that enable the elite to be prosocial and the ones that are facing more social pressure. These indications reflect the findings of the qualitative study that social relations, through the effect of prosocial motivation and social pressure, play important roles in establishing co-operatives and selecting members.

The model also indicates how much farmers can benefit from the co-operative. In a situation (scenario of interior solution) where the elite is relatively more prosocial and the farmer faces relatively high social pressure, the strength of prosocial motivation decides the net benefit (compared with the second-best alternative) the farmer can get from participating in the co-operative. For example, when the elite can just offer a market price (that matches the highest offer from competitors) to buy products from farmers, the elite's decision to offer a higher-than-market price is a strong indicator of prosocial motivation. Although co-operative initiators tend to demonstrate that they are prosocial in the initiation and operation of the co-operative, paying the farmers more than needed seems to be the only effective measurement of the prosocial motivation, which is indeed observed in most, if not all, co-operatives. Another indicator, based on the model, is that elite offers free services or benefits to the farmers even though such action is not necessary. The village's decision to pay medical insurance for the villagers by Riverside Tea Co-operative is an example, as this benefit is independent of the member's decision of selling tea to the village.

10.3 Chinese co-operative model from a patron-client perspective

The relationship within the rural co-operators captured in the field study is consistent with the definition and features of patron-client relationships, which include the ongoing, stable, dyadic, and mutually supportive relationships between the patron, who has access to certain key resources, and the client, who does not have access to such resources (Boissevain, 1969, p. 379). In addition, the field study finds that the power belongs to the core members instead of the ordinary members. This power relationship is well understood, accepted, and respected by interviewed stakeholders, including ordinary farmers and government officials. In many co-operatives, the core members have the power to select ordinary members. This is also consistent with the patron-client framework, in which the patron in a community has more power and provides the resources to their client as a favour or protection.

The implications of the theoretical model can also be interpreted from a patron-client relationship perspective. The model indicates that high profit and low investment cost for the elite establishing the co-operative and the low production and opportunity cost for the farmer participating in the co-operative increases the likelihood of co-operation between the elite and the farmer and strengthens the elites' motivation to initiate the co-operative. This reflects the "unequal access to resources" feature of the patron-client relationship and reveals its positive influence on promoting co-operation. The model also indicates the positive role of the elite's prosocial motivation and the social pressure in the co-operative. This reflects the mutual supportive feature of the patron-client relationship and its contribution to establishing co-operation.

10.4 The nature of Chinese rural co-operatives

The authenticity and benefits of co-operatives in rural China have been widely discussed. Chinese co-operatives are often questioned when compared to ICA co-operative principles. For example, Hu et al. (2017, p.1) categorize four types of non-genuine registered co-operatives types (shell co-operatives, de facto private agribusiness, decooperativized co-operatives, and failed co-operatives) and argued that "judging by either international or Chinese standards, the vast majority of these agricultural co-operatives are not authentic and fail to deliver expected benefits to smallholders." A large portion of the operating co-operatives in China are not treated

as genuine co-operatives as “these are founded and controlled by their private owners,” “have no genuine co-operation with members,” and do not “share profits with them.” Other research (see, e.g. Ma & Abdulai (2017)), however, states that Chinese co-operatives benefit farmers, although the benefits may be limited due to weak participation and control of small-holder farmers (see, e.g. Ito et al. (2012)).

Are Chinese co-operatives inauthentic co-operatives? Should they be considered inauthentic because their governance structure is different from the western co-operative model and because they do not mirror co-operative definitions and principles? This study suggests that such comparison may be misleading – Chinese co-operatives, even though called co-operatives, are a unique model of co-operation among stakeholders and are shaped by China’s unique social-economic-political environment. Chinese co-operatives and western co-operatives are two different forms of business, although both forms allow the output of many farmers to be accumulated, which in turn allows new markets to emerge, scale economies to be received, and benefits to flow to rural communities. The unique model of a Chinese co-operative does not make it somehow inferior to the western co-operative — it just simply means that many of the ideas that have been used to discuss co-operatives do not apply to the Chinese case.

The study found that many stakeholders’ (including the government officials’) understanding of the co-operatives (the nature, the purpose, and the governance) is different from the co-operatives in the West and the model defined by the Chinese co-operative Law. All stakeholders, including the farmers and local government officials, seem to tolerate this departure. The informal institutions in rural China seems to outweigh the formal institutions (such as the co-operative law) in shaping the co-operative model in rural China.

Despite the absence of democracy within Chinese co-operative, the field study and theoretical model indicate that the elite’s prosocial motivation, embedded in the reciprocal relationship, allows farmers to benefit from joining co-operatives. This study found that stakeholders acknowledge the benefits of the co-operatives in promoting the local economy, facilitating the adoption of agronomic skills and technology, reducing transaction costs along the supply chain, and generating economic benefits for the members. Although farmers often need the core members’ approval to join the co-operative, the participation is completely voluntary. Therefore, farmers’ economic participation in the co-operative may indicate that farmers can benefit from the co-operatives. However, it may be reasonable to question if a greater share of

the benefits should be distributed to farmers than currently exists.

Is it necessary for the government to increase enforcement of co-operative laws to promote democratic control and profit-sharing? This dissertation suggests that this measure could potentially clash with existing norms and informal institutions in rural China, which may dissuade elites from establishing co-operatives. The government may not want to discourage the co-operative initiation as co-operatives are important measures to modernize agriculture to benefit the rural communities. Another possibility is this measure being ineffective as the elites can figure out a way to “follow” the regulations. The elites set up privately owned company associated with the co-operative to capture most profit of processing and marketing, while the co-operative’s function is to solely organize farmers to supply farm produce. In that way, the elites maintain de facto control over the income of the co-operative. These observations may explain Xiong’s (2009) observation that enforcing the co-operative regulations does not seem to be a priority for regulators.

In the long run, however, the co-operative model is influenced by rural China’s social cultural and economic context. Elites’ dominance may be alleviated by increasing transparency within rural communities, more enforceable contracts, and increasing homogeneity of farmers in accessing resources.

Compared with the issue of undemocratic co-operatives in many developing countries (Birchall, 2011), the elite’s dominance in Chinese co-operatives is not mainly caused by the strong government control and manipulation, but rather is shaped by the features of China’s rural society. In fact, although the government provides strong support to the co-operatives, when it comes to management and governance issues, the government chooses to respect the local way to structure the co-operatives even though there is a departure from the co-operative law. However, it is debatable whether and how the government should make efforts to develop democratically controlled co-operatives.

10.5 The rationale behind the Chinese co-operative model

Why are Chinese co-operatives initiated and operated in an elite-dominated way? The elites’ control can be explained by Fulton’s (1995) approach using Barzel’s (1989) property rights theory about who should be the residual claimant in a business. Due to the indivisibility of assets, it is unlikely to specify and allocate attributes of assets to specific individuals of multiple

owners). The most efficient ownership is that assets be owned by the ones who could influence the variance of the outcome the most.

For elite members who own resources (capital, expertise, information, etc.) that are key to the agri-business, having a superior status in the co-operatives may be efficient (Ma & Zhu, 2020). First, the elite can have greater motivations to initiate co-operatives. Helmberger asked (1966, p. 1430), “How can an individual with an entrepreneurial flair be rewarded for his talents by the creation of a co-operative? If a co-operative is organized, he will share in the surplus or residual in proportion to his patronage, not talents by the creation of a co-operative?” This dissertation finds evidence that elites believe their control over the co-operative is important and their authority should be respected by the ordinary members. In fact, this is one of the member-selection standards mentioned in the interviews with some co-operative leaders.

Second, the dominance of the core members in the co-operatives gives them the full autonomy to make the strategic and operational directions in the co-operative development. In North America and Northern Europe, co-operatives are established by individual members who have common needs but individually have limited resources to achieve these goals. The initiation capital of a co-operative relies on raising capital from all member-initiators. The co-operative initiation process also involves collective efforts to discuss and agree on communities’ needs, solutions, business feasibility and planning, governance structure, bylaws, board election, etc. prior to the business operation of the co-operatives. In comparison, it seems to be an easier process to initiate co-operatives in rural China where core members contribute to the capital and make major decisions. The ease of initiation may be one of the reasons behind the rapid growth of co-operatives in rural China.

However, the co-operative theories also highlight that co-operatives’ democratic structure and culture are the sources of social capital and trust. Such social capital and trust enable co-operatives to be an ideal vehicle for members dealing with the imperfect markets caused by uncertainty, incomplete contracts, asset specificity, hold-up problems, information asymmetry, unequal market power, etc. It is reasonable to question whether a centralized power structure of Chinese co-operatives, similar to that of a private business, can still attract the marginalized member groups and generate trust and social capital to succeed like a Western co-operative business. There must be a mechanism, in which the trust and social capital of the group is not entirely dissipated by the concentrated power in the hands of the elites and the concentrated

power will not entirely demotivate the elites to share the benefits. Again, this study finds that the mutual-supportive social relations and social norms enforce reciprocation and coordination, separating Chinese co-operatives from regular investor-owned firms. Although the heterogeneity of membership in terms of resource endowment and capabilities cannot be easily rectified, the approach in which the core members include ordinary members through social relations can increase the member homogeneity in terms of perceptions and cultural beliefs, which may increase social capital and reduce the transaction costs within the co-operatives.

The advantages of Chinese co-operatives appear to be similar to those of western cooperatives in that the co-operative can reduce transaction costs in the market caused by information asymmetry, asset-specificity, and unequal market power. However, the Chinese co-operative model seems to reduce transaction costs through close relationships and trust with the core members, not by adjusting residual rights or changing the allocation of control rights. The co-operatives contribute to integrating value chain resources and helping the farmers (within the core members' network or communities) to access technology, agronomic services, farming inputs, markets, and various opportunities to generate income. Therefore, the current co-operative model dominated by core members may be an effective path to facilitate co-operation and develop the rural economy in the Chinese rural context despite the dissimilarities with western co-operatives.

10.6 Challenges for Chinese co-operatives and the potential to embrace the model in the West

The Chinese co-operative model may have longer-term problems due to scale and scope efficiencies. For example, although there are a few cases showing that co-operatives can grow to be regional industry leaders, most co-operatives tend to be small. This study indicates four potential reasons behind this phenomenon. First, core members would like to control their co-operative solely and not consider sharing the control with others in a potential united co-operative. Second, when the farmer members accumulate more economic and human resources, their opportunity cost of participating in the current co-operative increases, and they may seek to initiate their own co-operatives (or discontinue their participation in their current co-operative). Third, with prosocial motivation a key motivation to initiate the co-operative, core members, with limited resources, prefer to include only farmers they most care about, which limits co-

operatives' coverage. And fourth, as the core members use personal relationships (and social pressure) to monitor and coordinate in the co-operatives, they may lack the capacity to manage a large co-operative with members beyond their network.

In addition to the concerns over the co-operative's long-term viability, another concern is that it can be difficult for marginal groups that do not belong to any capable elites' close networks to benefit from the co-operatives. Moreover, if the elites lack prosocial motivation (altruism or mutualism), the co-operatives will provide limited social and economic benefits to the ordinary members.

Although this dissertation acknowledges the uniqueness of the Chinese co-operative model and the rationale behind it, it does not mean that the co-operative model in the West is not an ideal model for China. In fact, the co-operative model in the West creates social and economic values (local social capital, solidarity, equity, equality, and long-term ownership and business viability) with group participation, democratic member-control, and economic participation in the initiation and operation of co-operatives. The Chinese FSC law also defines co-operatives similarly to the Western co-operative model, although the law allows major contributors to enjoy limited additional votes and residual claim rights (see Appendix D, especially Articles 15 and 37).

Although this dissertation discusses resource heterogeneity as one major hurdle, there may be a lot of smart ambitious farmers who could potentially pool their resources together and self-organize to initiate co-operative in which they can have more (and equal) voice and capture more benefits than joining a co-operative dominated by the elites. After all, the purpose of a co-operative is to achieve common objectives that cannot be achieved with individual's limited resources. The notable challenge, however, is farmers' knowledge of co-operative model in the West (and a similar model framed in the Chinese FSC law) and the acceptance of joint financial contribution, participation, and democratic governance. The interviews capture the perception "if two men ride a horse, one must ride behind" in decision-making. The interviews also capture both elites' and farmers' tendency to have full control over their assets or investments in order to reduce the risk of losing them (partially due to the negative memory of the Collectivism before 1980s, see Section 3.5). However, people's mindsets and ideology of co-operation can be gradually changed with the promotion and education of the co-operative model.

10.7 Implications for future research

Future research could build upon the view that Chinese rural co-operatives are shaped by social relationships and norms. First, as China is a large and diverse country, future studies could explore whether and how co-operative development is influenced by diverse social relationships, norms, and informal institutions in different parts of China. It is also worth exploring the role of social, religious, and cultural factors in co-operative development in other developing countries.

Second, quantitative studies could explore the statistical relationship between selected attributes of informal institutions, relationships, and trust, and the attributes of co-operative development such as co-operative size, member commitment, governance, and performance. For example, social network analysis provides a methodology to measure a social network through the attributes of closeness, network density, centrality, and betweenness. Other studies could examine if the trust and commitment of ordinary members are influenced by the nature of the initiator (village committee, rural elite, etc.).

Third, the theoretical modelling of the co-operation between the elite and farmer, which is static in this dissertation, can be further updated to various dynamic games, such as a signaling game. The dynamic games could model the patterns of co-operation given each party's different possibilities of opportunism, which may evolve overtime due to interactions. In addition, there may be alternative ways to model factors of social relations and social norms. For example, this dissertation models the elite's prosocial gains as a function of what they contribute to the farmer's gains. Another way is to model prosocial behavior as what the elite believes they ought to do, a behavior that reflects their "identity" in the communities (see Akerlof and Kranton (2005) for the modelling of "identity").

Fourth, as was discussed, the current social, economic, and cultural context makes it hard for Chinese co-operatives to resemble the western co-operative model. Future work could explore whether Chinese co-operatives will evolve to be more like western co-operatives in the future. This dissertation outlined two areas of the Chinese rural context to watch. Will the role and effectiveness of formal institutions (e.g., law and contracts) advance so that the role of social relationships in providing trust can diminish? Will the heterogeneity between core members and ordinary members decrease to weaken the ordinary members' reliance on core members?

These two questions lead to more relevant topics to explore the evolution of the Chinese rural context and its ongoing impact on co-operative development. One example is researching the

effect of Chinese urbanization and industrialization on co-operative development. These economic trends draw the rural workforce into cities, driving specialization and heterogeneity in rural communities, and creating opportunities for full-time farming experts. Another potential direction involves the evolution of Chinese co-operative law and its enforcement to see whether the co-operative law, as a formal institution, can counteract the effect of informal institutions in building democratically controlled co-operatives.

It may also be interesting to examine whether market competition can drive core members of the co-operatives to break the boundary of their social network to jointly form larger-scale co-operatives. In addition, can ordinary farmers, once gaining experience from participating in the co-operative business, show a greater interest in investing in co-operatives and participating in the decision-making? Can such interests, if any, be accepted or welcomed by the core members of the co-operatives?

Fourth, the lifecycle of Chinese co-operatives needs to be explored given the importance of social relationships in co-operative development and governance, providing an interesting comparison with the lifecycle of western co-operatives (Cook, 2018). For example, when it comes to transition within the co-operative, it is a question of whether the co-operative will come to an end when the core members retire, as the co-operatives are built on the basis of their relationship with ordinary members. Or will new core members, such as previous core members' children, relatives, and close friends, inherit the resource and capability to manage the co-operative and the relationship with ordinary members?

In summary, it would be interesting and beneficial to explore the strategies to improve the long-term competitiveness and viability of the co-operatives. It is also worth researching how Chinese co-operative model can improve the coverage of co-operatives and increase the benefits to ordinary members.

REFERENCES

- Akerlof, G. A. (1978). The market for “lemons”: Quality uncertainty and the market mechanism. In *Uncertainty in economics* (pp. 235-251). Academic Press.
- Akerlof, G. A., & Kranton, R. E. (2005). American Economic Association Identity and the Economics of Organizations. *Source: The Journal of Economic Perspectives*, 19(1), 9–32. Retrieved from <http://www.jstor.org/stable/4134990>
- Allen, D. W., & Lueck, D. (1998). The nature of the farm. *The Journal of Law and Economics*, 41(2), 343-386.
- Arrow, K. J. (2003). Uncertainty and the welfare economics of medical care (American economic review, 1963). In *Uncertain Times* (pp. 1-34). Duke University Press.
- Bai, J. (1993). The first consumer cooperative in China. 1. *Rural Management*, 7. (Chinese)
- Barney, J. B., & Hansen, M. H. (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal*, 15(S1), 175–190.
- Barzel, Y. (1982). Measurement cost and the organization of markets. *The Journal of Law and Economics*, 25(1), 27–48.
- Barzel, Y. (1989). *Economic Analysis of Property Rights* Cambridge University Press.
- Batson, C. D. (1987). Prosocial motivation: Is it ever truly altruistic?. In *Advances in experimental social psychology* (Vol. 20, pp. 65-122). Academic Press.
- Baumol, W. J., & Willig, R. D. (1981). Fixed costs, sunk costs, entry barriers, and sustainability of monopoly. *The Quarterly Journal of Economics*, 96(3), 405-431.
- Ben-Ner, A. (1984). On the stability of the cooperative type of organization. *Journal of Comparative Economics*, 8(3), 247–260.
- Ben-Ner, A. (1985). *Producer cooperatives: why do they exist in capitalist economies*. CIRIEC.
- Bernardi, A., & Miani, M. (2014). The long march of Chinese co-operatives: towards market economy, participation and sustainable development. *Asia Pacific Business Review*, 20(3), 330–355. <https://doi.org/10.1017/CBO9781107415324.004>
- Bijman, J., & Hendrikse, E. G. (2003). Co-operatives in chains: institutional restructuring in the Dutch fruit and vegetable industry. *Journal on Chain and network science*, 3(2), 95-107.
- Bijman, J., & Hu, D. (2011). The rise of new farmer cooperatives in China; Evidence from Hubei Province. *Journal of Rural Cooperation*, 39(2), 99–113.
- Birchall, J. (2011). The Peculiar History of ‘Member-owned’ Businesses in Developing Countries. *People-Centred Businesses: Co-operatives, Mutuals and the Idea of Membership*, 179-204.
- Boissevain, J. (1969). Patrons as brokers. *Sociologische Gids*, 16(6), 379–386.
- Bonus, H. (1986). The cooperative association as a business enterprise: a study in the economics of transactions. *Journal of Institutional and Theoretical Economics (JITE)/Zeitschrift Für Die Gesamte Staatswissenschaft*, 310–339.
- Chaddad, F. R., & Cook, M. L. (2002). *An ownership rights typology of cooperative models* (No. 1717-

2016-140125).

- Chen, Y. (2017). Are large-scale cooperatives the primary form of cooperative development?. *Journal of Nanjing Agricultural University: Social Science Edition*, 17(2), 30-41. (Chinese)
- Cook, M. L. (1995). The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach. *American Journal of Agricultural Economics*, 77(5), 1153–1159. <https://doi.org/10.2307/1243338>
- Cook, M. L. (2018). A life cycle explanation of cooperative longevity. *Sustainability*, 10(5), 1586.
- Cook, M. L., & Chaddad, F. R. (2004). Redesigning cooperative boundaries: The emergence of new models. *American Journal of Agricultural Economics*, 86(5), 1249-1253.
- Cope, D. G. (2014). Methods and meanings: Credibility and trustworthiness of qualitative research. In *Oncology nursing forum* (Vol. 41, pp. 89–91).
- Dovidio, J. (2001). Adulthood: Prosocial Behavior and Empathy. NJ Smelser, P. B. Baltes (Ed.) *International Encyclopedia of the Social & Behavioral Sciences* içinde,(159-162).
- Deng, H., Huang, J., Xu, Z., & Rozelle, S. (2010). Policy support and emerging farmer professional cooperatives in rural China. *China economic review*, 21(4), 495-507.
- Denzin, N. K., & Lincoln, Y. S. (2008). Introduction: The discipline and practice of qualitative research.
- Du, Y. (2002). The history and present situation of farmers' cooperative organizations in China. *Economic Research Reference*, (25), 13-19. (Chinese)
- Eisenstadt, S. N., & Roniger, L. (1980). Patron-Client Relations as a Model of Structuring Social Exchange THE STUDY OF PATRON-CLIENT RELATIONS. *Society and History*, 22(1), 42–77. Retrieved from <http://www.jstor.org/stable/178746>
- Emelianoff, I. V. (1948). *Economic theory of cooperation: Economic structure of cooperative organizations* (No. 1567-2016-133427).
- Fairbairn, B. (2003). *Three strategic concepts for the guidance of co-operatives: Linkage, transparency, and cognition* (No. 1754-2016-141533).
- Flick, U. (2014). Challenges for qualitative inquiry as a global endeavor: Introduction to the special issue. *Qualitative Inquiry*, 20(9), 1059-1063.
- Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian & New Zealand Journal of Psychiatry*, 36(6), 717–732.
- Fulton, M. (1995). The Future of Canadian Agricultural Cooperatives: A Property Rights Approach. *American Journal of Agricultural Economics*, 77(5), 1144–1152. Retrieved from <http://www.jstor.org/stable/1243337>
- Fulton, M., Pohler, D., & Fairbairn, B. (2015). The political economy of good co-operative governance. In *ICA Research International Conference "Future of the cooperative model: creativity, innovation and research"* (pp. 27-30).
- Gao, Q., & Kong, X. (2015). A study on the relationship between dependency logic and interaction between farmers' professional cooperatives and village communities. *Agricultural Economics and Management*, (5), 7-14. (Chinese)
- Grant, A. M., & Sumanth, J. J. (2009). Mission possible? The performance of prosocially motivated employees depends on manager trustworthiness. *Journal of Applied Psychology*, 94(4), 927.

- Graziano, L. (1976). A conceptual framework for the study of clientelistic behavior. *European Journal of Political Research*, 4(2), 149-174.
- Grimm, P. (2010). Social desirability bias. *Wiley international encyclopedia of marketing*.
- Han, Z., Wang, K., Jia, L., Gao, R., & Cao, J. (2008). The Century-old Nostalgia of Chinese Intellectuals: Xue Xianzhou, Master of China's Cooperative Movement. *China Cooperative Economics*, (9), 7-10. (Chinese)
- Hansmann, H. (1999). Cooperative firms in theory and practice. *LTA*, 48(4), 387–403.
- He, L., & Zhuang, K. (2015). Research on the Organizational Culture of Farmers' Cooperatives. *Ideological Front*, 41(1), 9. (Chinese)
- He, X. (2011). Rural strata after the abolition of agricultural taxes and their analysis. *Social Sciences*, (3), 70-79. (Chinese)
- Helmberger, P., & Hoos, S. (1962). Cooperative enterprise and organization theory. *Journal of farm economics*, 44(2), 275-290.
- Helmberger, Peter. (1966). Future roles for agricultural cooperatives. *Journal of Farm Economics*, 48(5), 1427–1435.
- Hendrikse, G. W. J., & Veerman, C. P. (2001). Marketing cooperatives and financial structure: a transaction costs economics analysis. *Agricultural Economics*, 26(3), 205–216.
- Hicken, A. (2011). Clientelism. *Annual Review of Political Science*, 14, 289–310.
- Hu, Z., Zhang, Q. F., & Donaldson, J. A. (2017). Farmers' cooperatives in China: A typology of fraud and failure. *The China Journal*, 78(1), 1-24.
- Hu, Z., Huang, J., & Luo, J. (2013). Analysis on the governance of farmers' professional cooperatives based on principal-agent relationship. *Journal of Guangxi University: Philosophy and Social Sciences Edition*, 35(3), 93-99. (Chinese)
- Huang, Z., & Xu, X. (2006). Cooperative Governance Based on Capacity and Relationship: An Explanation of the Governance Structure of Farmers' Professional Cooperatives in Zhejiang Province. *Zhejiang Social Sciences*, (1), 60-66. (Chinese)
- Huang, S. (2007). Research on the organizational behavior of farmers' professional cooperatives in the transition period. *Journal of Zhejiang University*, 10, 63-65. (Chinese)
- ICA (1995). *International Cooperative Alliance Statement of the co-operative identity*. <https://www.ica.coop/en/cooperatives/cooperative-identity>
- Ito, J., Bao, Z., & Su, Q. (2012). Distributional effects of agricultural cooperatives in China: Exclusion of smallholders and potential gains on participation. *Food Policy*, 37(6), 700–709.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- Jia, X., Huang, J., & Xu, Z. (2012). Marketing of farmer professional cooperatives in the wave of transformed agrofood market in China. *China economic review*, 23(3), 665-674.
- Klein, P. G. (1998). New institutional economics. *Available at SSRN 115811*.
- LeVay, C. (1983). Agricultural co-operative theory: A review. *Journal of agricultural economics*, 34(1), 1-44.

- Lin, J. Y., & Yang, D. T. (1998). On the causes of China's agricultural crisis and the great leap famine. *China Economic Review*, 9(2), 125-140.
- Li, J., & Zheng, Y. (2008). Rural elites, social capital and rural cooperative economic organizations. *Social Science Research*, (2), 82-85. (Chinese)
- Li, W., & Yang, D. T. (2005). The great leap forward: Anatomy of a central planning disaster. *Journal of Political Economy*, 113(4), 840-877.
- Li, Y. (2008). Confucianism in Shandong Confucianism The "Restoration" of the Countryside of Neo-Confucianism. 13. *Age Of Education (Pioneer National History)*, 13. (Chinese)
- Li, Z., Gao, Q., & Cao, C. (2008). Liang Shuming, a giant of rural construction and rural cooperation movement. *China Cooperative Economics*, (5), 46-49. (Chinese)
- Liang, Q. (2015). Based on the literature of domestic and foreign cooperatives from 2012 to 2014. *Issues of Agricultural Economics*, 11, 97-107. (Chinese)
- Liang, Q., & Hendrikse, G. (2013). Core and common members in the genesis of farmer cooperatives in China. *Managerial and Decision Economics*, 34(3-5), 244-257.
- Liang, Q., Hendrikse, G., Huang, Z., & Xu, X. (2015). Governance structure of Chinese farmer cooperatives: evidence from Zhejiang province. *Agribusiness*, 31(2), 198-214.
- Lin, J., & Huang, S. (2007). Membership heterogeneity and ownership analysis of farmers' professional cooperatives. *Issues of Agricultural Economics*, 10, 12-17. (Chinese)
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. sage.
- Lindenberg, S. (2001). Intrinsic motivation in a new light. *Kyklos*, 54(2-3), 317-342.
- Lindenberg, S., & Steg, L. (2007). Normative, gain and hedonic goal frames guiding environmental behavior. *Journal of Social Issues*, 63(1), 117.
- Ma, M., & Zhu, H. (2020). Efficiency of decisions under membership heterogeneity and government regulations: Insights from farmer cooperatives in China. *Economic Development and Cultural Change*, 68(3), 1009-1040.
- Ma, W., & Abdulai, A. (2017). The economic impacts of agricultural cooperatives on smallholder farmers in rural China. *Agribusiness*, 33(4), 537-551. <https://doi.org/10.1002/agr.21522>
- Ma, Y., & Meng, C. (2008). The Dual Entrustment-Agency Relationship of Farmers' Professional Cooperatives in China: A Discussion on Existing Problems and Improvement Ideas. *Issues of Agricultural Economics*, (5), 55-60. (Chinese)
- Mattingly, D. C. (2016). Elite capture: How decentralization and informal institutions weaken property rights in China. *World Politics*, 68(3), 383-412.
- McConnell, C. R., Brue, S. L., & Flynn, S. M. (2011). *Principles of economics*. McGraw-Hill.
- Merriam, S. B. (2002). Introduction to qualitative research. *Qualitative research in practice: Examples for discussion and analysis*, 1(1), 1-17.
- Meyer, T. M. (1994). *Understanding cooperatives: Cooperative business principles*. US Department of Agriculture, Rural Development Administration, Cooperative Services.
- Moriarty, J. (2011). Qualitative methods overview.

- Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European journal of social psychology*, 15(3), 263-280.
- Nilsson, J. (2001). Organisational principles for co-operative firms. *Scandinavian Journal of Management*, 17(3), 329–356. [https://doi.org/10.1016/S0956-5221\(01\)00010-0](https://doi.org/10.1016/S0956-5221(01)00010-0)
- Ochieng, P. A. (2009). An analysis of the strengths and limitation of qualitative and quantitative research paradigms. *Problems of Education in the 21st Century*, 13, 13.
- Osterloh, M., & Frey, B. S. (2012). Motivation Governance. <https://doi.org/10.2139/ssrn.2347549>
- Peng, Y. (2004). Kinship networks and entrepreneurs in China's transitional economy. *American Journal of Sociology*, 109(5), 1045-1074.
- Peshkin, A. (1988). In search of subjectivity—one's own. *Educational researcher*, 17(7), 17-21.
- Phillips, R. (1953). Economic nature of the cooperative association. *Journal of Farm Economics*, 35(1), 74–87.
- Platteau, J. P. (1995). A framework for the analysis of evolving patron-client ties in agrarian economies. *World Development*, 23(5), 767-786.
- Platteau, J. P. (2004). Monitoring elite capture in community-driven development. *Development and Change*, 35(2), 223–246.
- Rahman, M. S. (2020). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review.
- Raimondo, M. A. (2000, September). The measurement of trust in marketing studies: a review of models and methodologies. In *16th IMP-conference, Bath, UK* (p. 5).
- Reynolds, B. J. (2014). *Comparing cooperative principles of the US Department of Agriculture and the International Cooperative Alliance* (No. 279796).
- Shakouri, N., & Nazari, O. (2014). Qualitative research: Incredulity toward metanarrativeness. *Journal of Education and Human Development*, 3(2), 671–680.
- Simmons, R., & Birchall, J. (2008). The role of co-operatives in poverty reduction: Network perspectives. *The Journal of Socio-Economics*, 37(6), 2131-2140.
- Skinner, G. W. (1951). Peasant organization in rural China. *The ANNALS of the American Academy of Political and Social Science*, 277(1), 89–100.
- Song, Y., Qi, G., Zhang, Y., & Vernooy, R. (2014). Farmer cooperatives in China: Diverse pathways to sustainable rural development. *International Journal of Agricultural Sustainability*, 12(2), 95-108.
- Staatz, J. M. (1987). Recent developments in the theory of agricultural cooperation. *Journal of Agricultural Cooperation*, 2(1141-2016-92559), 74-95.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*. Sage publications.
- Sun, S. (2008). Experience and Enlightenment: Reflections on the Rural Cooperative Movement in the Republic of China Period. *Journal of Social Sciences, Hunan Normal University*, (3), 130-133. (Chinese)
- Tadelis, S., & Williamson, O. E. (2012). Transaction cost economics. *The handbook of organizational economics*, 159.

- Torgerson, R. E., Reynolds, B. J., & Gray, T. W. (1998). Evolution of cooperative thought, theory, and purpose. *Journal of Cooperatives*, 13(1142-2016-92691), 1-20.
- Trescott, P. B. (1993). John Bernard Tayler and the development of cooperatives in China, 1917–1945. *Annals of Public and Cooperative Economics*, 64(2), 209-226.
- Valentinov, V. (2007). Why are cooperatives important in agriculture? An organizational economics perspective. *Journal of Institutional Economics*, 3(1), 55-69.
- Wang, G. (2008). *Tamed village “democracy”: elections, governance and clientelism in a contemporary Chinese village*. University of Glasgow.
- Wang, J. (2010). Cooperative Governance: A Literature Review. *Rural China Observation*, (2), 71-77. (Chinese)
- Wittek, R., & Bekkers, R. H. F. P. (2015). The sociology of prosocial behavior and altruism. In *International Encyclopedia of Social and Behavioral Sciences* (pp. 579-583). Elsevier.
- Xi, L. (2006). Civilian educator Yan Yangchu. *Modern Education Series*, (1), 17-18. (Chinese)
- Xiang, X. (2006). The Tragedy of Deng Zihui's Administration of the Ministry of Agriculture and Industry. *Yanhuang Chunqiu*, (10), 1-10. (Chinese)
- Xin, P., & Zhao, Q. (2003). A strategy of the Rural Cooperative Movement in Jiangsu in the 1920s and 1930s. *Jiangsu Social Sciences*, (1), 165-171. (Chinese)
- Xiong, W. (2009). Cooperatives: Unintended Consequences as an Institutionalization Process. *Sociological Research*, 5, 83-109. (Chinese)
- Xu, M. (2014). *Chinese Farmers Cooperative Organization Research* (Doctoral dissertation, Aichi University). (Chinese)
- Xu, X. (2012). Identification of the development of farmers' professional cooperatives: A discussion based on domestic literature. *China Rural Watch*, 5(4). (Chinese)
- Xu, X., & Wu, B. (2014). The Development of Chinese Co-operatives in Rural Areas. *Co-operative Innovations in China and the West*, 163-178.
- Xue, Y. (2003). A Brief Discussion on the Cooperative Undertaking between the Huayang Righteous Relief Association and the Republic of China. *Geomatics and Geomatics of Wuhan University*, 56(6), 665-672. (Chinese)
- Yan, H., & Chen, H. (2015). The Rural Cooperative Movement and the Third Way: Controversy and Reflection. *Open Era*, 2. (Chinese)
- Yao, Z. (2008). Rural Cooperative Movement and The Implantation of Agricultural Technology: A Case Study of Jiangsu Province during the Republic of China Period (1927-1937). *Chinese Agricultural History*, (4), 28-34. (Chinese)
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). sage.
- Yu, C., Ye, B., & Ma, S. (2020). Creating for others: linking prosocial motivation and social entrepreneurship intentions. *Management Decision*.
- Zhao, J. (2010). *The political economy of farmer co-operative development in China* (Doctoral dissertation).
- Zhao, L., & Develtere, P. (2010). New co-operatives in China: why they break away from orthodox co-

- operatives? *Social Enterprise Journal*, 6(1), 35–48. <https://doi.org/10.1108/17508611011043048>
- Zhao, L., & Yuan, P. (2014). Rural Cooperative in China: Diversity and Dynamics. *Chinese Economy*, 47(4), 32-62.
- Zhao, X., & Fu, S. (2015). Pluralistic subjects, shelter relationship and cooperative system change: A case study of the practice of farmers' professional cooperatives in Fucheng County. *Rural China Observation*, 2, 2-12. (Chinese)
- Zhao, X., & He, H. (2012). Mechanism analysis of the impact of rural social class differentiation on the development of farmers' professional cooperatives. *Issues of Agricultural Economics*, (12), 38-43. (Chinese)
- Zhao, X., & Wang, Y. (2013). Class Differentiation, Factional Competition and the Development of Village Cooperatives: A Survey Based on the Development Practice of New Farmers' Cooperatives in Pioneer Village, Henan Province. *Rural China Observation*, (3), 72-79. (Chinese)
- Zhao, Q., & Liu, Q. (2007). Performance and shortcomings: An analysis of the impact of cooperative movement on China's agricultural production. *Oriental Forum*, (2). (Chinese)
- Zhu, Q., & Wang, N. (2008). On the basis and conditions for the emergence of farmers' professional cooperatives. *Journal of South China Agricultural University: Social Science Edition*, 7(3), 16-19. (Chinese)
- Zhu, Y. (1991). Peasant Association before the Xinhai Revolution. *Historical Research*, 5, 21. (Chinese)

APPENDIX A. SUMMARY OF THE CO-OPERATIVES STUDIED

Table A.1 Co-operative industry and initiators

Co-operative	Industry	Initiator type	Economic role of the initiators						
			employer	land tenants	broker	processor	inputs provider	producer	landlord
<i>Rivergate</i>	Tea	village committee			√	√		√	
<i>Brightspring</i>	Tea	rural elites			√	√		√	
<i>Dairyplace</i>	Dairy	rural elites						√	
<i>Brilliant I</i>	Duck	businesspeople			√	√	√		
<i>Brilliant II</i>	Grain	businesspeople	√	√		√			
<i>Brilliant III</i>	Fruit	businesspeople	√	√					
<i>Lucky</i>	Pig	businesspeople			√		√		
<i>Riverfront</i>	Fruit	village committee						√	
<i>Sunshine</i>	Tea	businesspeople and rural elites			√	√		√	
<i>Qi</i>	Tourism	village committee			√				

<i>South mountain</i>	Walnut	village committee						√
<i>Thunder Mountain</i>	Walnut	rural elites			√			√
<i>New special I</i>	Vegetable	businesspeople and village committee	√	√		√	√	
<i>New special II</i>	Grain	businesspeople	√	√		√		
<i>New special III</i>	Machinery	businesspeople				√		
<i>Rainyuan</i>	Vegetable	rural elites	√	√				√
<i>Boss village</i>	Vegetable	village committee						√
<i>Westzhou village</i>	E-commerce	village committee	√			√		
<i>All happy</i>	Nursery	rural elites				√		√
<i>Skybright</i>	Nursery	rural elites				√		√
<i>Carnival</i>	Nursery	village committee and rural elites				√		√
<i>Everlasting</i>	Pheasant	businesspeople				√		√
<i>Bright</i>	Chicken	rural elites						√
<i>Build wealth I</i>	Sweet potato	rural elites	√	√	√		√	√
<i>Build wealth II</i>	Sweet potato	Businesspeople and rural elites				√		√

<i>Gold Mountain</i>	Herb	businesspeople	√	√	√	√
<i>Ruilin</i>	Fruit	village committee		√		
<i>Golden Ox</i>	Walnut	village committee				√
<i>Harvest I</i>	Walnut	village committee				√
<i>Harvest II</i>	Land (investing)	village committee				√
<i>Peace Village</i>	Vegetable	village committee				√
<i>Mountain Water</i>	Fish	village committee	√			√
<i>Mountain Peak</i>	Tea	rural elites	√	√	√	√
<i>Village cloud</i>	Fertilizer	businesspeople		√	√	

Table A.2 Stakeholders' role and member origin

co-operative	industry	Village committee or cadres		Agribusinesses or businesspeople		Rural elites		Ordinary members			Government		
		initiator	partner	initiator	partner	initiator	partner	neighbour & friends	same village	Wider range	project investment	financial award	policy support
Rivergate	Tea	√			√ ²⁶		√		√		√	√	√
Brightspring	Tea				√	√						√	√
Dairyplace	Dairy				√	√							
Brilliant	Duck			√	√					√		√	√
Brilliant	Grain			√						√			
Brilliant	Fruit			√						√			
Lucky	Pig			√						√		√	
Riverfront	Fruit	√								√			
Sunshine	Tea			√		√	√	√				√	√
Qi	Tourism	√			√					√		√	
South mountain	Walnut	√					√			√		√	
Thunder Mountain	Walnut					√		√				√	
New special	Vegetable		√	√						√		√	√
New special	grain			√						√			

²⁶ The co-operative partnered and relied on a company to market the products when the co-operative was initiated. However, the partnership ended due to conflicts and the increasing marketing capacity of the co-operative.

New special	Machinery		√				√	
Rainyuan	Vegetable			√		√ ²⁷		
Boss village	Vegetable	√		√			√	√
Westzho u village	E-commerce	√		√			√	√
All happy	Nursery			√		√		
Skybright	Nursery			√		√		
Carnival	Nursery	√		√		√	√	
Everlasting	Pheasant		√					√
Bright	Chicken			√				√
build wealth	Sweet potato			√	√		√	
build wealth	Sweet potato		√	√	√	√	√	
Gold Mountain	Herb		√			√	√	
Ruilin	Fruit	√					√	
Golden Ox	Walnut	√					√	√
Harvest	Walnut	√			√		√	
Harvest	Land (investing)	√			√		√	

²⁷ The initiator invited his neighbours to join the co-operative but these members left (or get removed from) the co-operative due to their “very different mindset” to initiator’s.

Peace Village	Vegetable	√				√	
Mountain Water	Fish	√				√	√
Mountain Peak	Tea			√		√	
Village Cloud	Fertilizer		√		√		√

APPENDIX B. THE IMPACT OF PARAMETERS ON THE ELITE'S OPTIMAL RETURN LEVEL

B.1 The impact of t on the elite's optimal level in the scenario of interior solution

Put the expression of π_f^0 into the elite's return function, we could get the elite's optimal return function:

$$NB_e^* = NB_e(\pi_f^0) = \pi - c_e + u_f - c_f + \frac{1-t}{t} * (A * t)^{\frac{1}{1-t}}$$

$$\frac{d NB_e^*}{dt} = \frac{1}{1-t} * A^{\frac{1}{1-t}} * t^{\frac{t}{1-t}} * \ln(At)$$

As $0 < t < 1$, we have $\frac{1}{1-t} > 0$, $A^{\frac{1}{1-t}} \geq 0$, and $t^{\frac{t}{1-t}} > 0$, $\frac{d NB_e^*}{dt}$ will be negative when $At < 1$, and positive when $At > 1$. When $A > 1$, calculation shows that when $t \rightarrow 0$, $\frac{1-t}{t} * (A * t)^{\frac{1}{1-t}} = A$ and when $t \rightarrow 1$, $\frac{1-t}{t} * (A * t)^{\frac{1}{1-t}} = +\infty$. However, when $A \leq 1$, $\frac{1-t}{t} * (A * t)^{\frac{1}{1-t}}$ will decrease as t increase to close to 1 (see Figure B.1, the left side of which shows the scenario when $A > 1$ while the right side shows the scenario when $A < 1$).

That means, for a small A (e.g. $A = 1$), $\frac{d NB_e^*}{dt}$ will be negative. And for a larger A , with the increase of t , NB_e^* will decrease first and then increase. The optimal NB_e^* will be either $\lim_{t \rightarrow 0} NB_e^*$ or $\lim_{t \rightarrow 1} NB_e^*$, depending on the size of A .

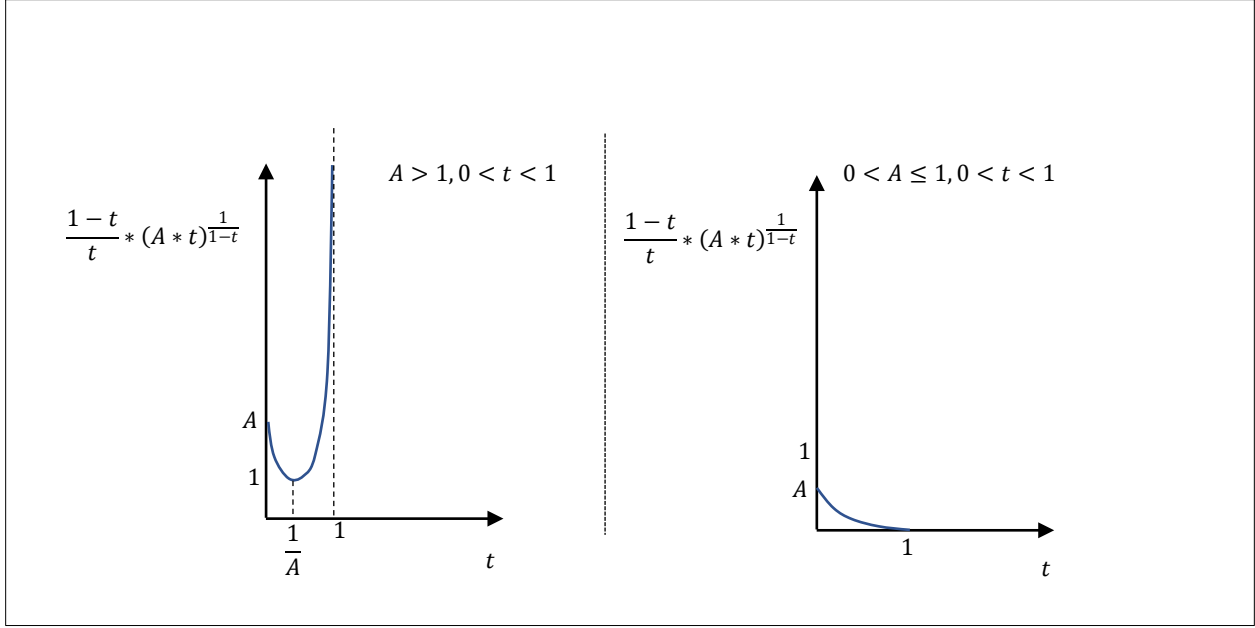


Figure B.1 The relationship of A and t and the influence in optimal return

It is assumed in this model that the prosocial parameters of the elite, A and t , are decided by a person's characteristics and external factors such as social relationships, culture, and norms. The level of NB_e^* can be close to $+\infty$ (when $A > 1$ and $t \rightarrow 1$). However, given the elite's personality is fixed (for a specific elite), the elite's way to change A and t (in order to maximize NB_e^* is to choose with whom to co-operate with and where to initiate the co-operative. Because NB_{elite}^* is positively related to A and because when A is relatively big, a relatively big t can dramatically increase the NB_e^* , it seems the elite can have the tendency to work with the farmer that can drive the elite more prosocial.

B.2 The impact of social pressure (on the farmer) on the elite's optimal level in the scenario of corner solution

In the scenario of corner solution,

$$\frac{\partial NB_e^*}{\partial \gamma_f} = 1 - A * t (u_f - \gamma_f)^{t-1}$$

Define $a = \frac{(A*t)^{\frac{1}{1-t}}}{(u_f - \gamma_f)}$ (as it is assumed that $u_f - \gamma_f > 0$. Besides, $u_f - \gamma_f >$

0 must hold for the corner solution to exist).

Because $0 < (A * t)^{\frac{1}{1-t}} < u_f - \gamma_f$, $0 \leq a < 1$.

Then,

$$(A * t)^{\frac{1}{1-t}} = a * (u_f - \gamma_f)$$

$$(A * t)(u_f - \gamma_f)^{t-1} = a^{1-t} * (u_f - \gamma_f)^{1-t}(u_f - \gamma_f)^{t-1} = a^{1-t} < 1$$

Therefore,

$$\frac{\partial NB_e^*}{\partial \gamma_f} = 1 - A * t (u_f - \gamma_f)^{t-1} = 1 - a^{1-t} > 0$$

NB_e^* is positively related to γ_f .

APPENDIX C. ELITE'S CHOICE OF PROVIDING FREE BENEFITS TO THE FARMER

The parameter u_f measures the benefit the farmer can receive from the elite other than sharing the profit generated from the direct business transaction with the elite. It is often given by the elite as a bonus or additional motivation for the farmer to join the co-operative. The elite can decide how much of this type of benefit they want to give to the farmer, and we assume c_e is a function of u_f ($c_e = c_e(u_f)$, and $\frac{\partial c_e}{\partial u_f} > 0$) as c_e (elite's in advance transaction specific investment) will increase if the elite wants to increase u_f .

1. When the optimal $\pi_f^* = \pi_f^0$ (interior solution) is chosen by the elite, for which the condition is $(A * t)^{\frac{1}{1-t}} \geq u_f - \gamma_f$.

$$NB_e^* = NB_{e\pi_f^*} = \pi - c_e + u_f - c_f + \frac{1-t}{t} * (A * t)^{\frac{1}{1-t}}$$

$$\frac{\partial NB_e^*}{\partial u_f} = 1 - \frac{\partial c_e}{\partial u_f}$$

The elite would reduce u_f to the minimum needed for the cooperation if $\frac{\partial c_e}{\partial u_f} > 1$, indifferent to the change of u_f if $\frac{\partial c_e}{\partial u_f} = 1$, and want to increase the u_f as long as $\frac{\partial c_e}{\partial u_f} < 1$. However, even if $\frac{\partial c_e}{\partial u_f} \leq 1$, there may be a limited motivation for the elite to increase u_f , due to the conditions for an interior solution to exist, which is $(A * t)^{\frac{1}{1-t}} \geq u_f - \gamma_f$, i.e. $u_f \leq (A * t)^{\frac{1}{1-t}} + \gamma_f$. The bigger γ_f and A , the higher ceiling $(A * t)^{\frac{1}{1-t}} + \gamma_f$ (in the situation of interior solution) of u_f the elite could reach to increase his return. When u_f increases to the level higher than $\gamma_f + (A * t)^{\frac{1}{1-t}}$, the optimal choice will move from an interior solution to a corner solution. Therefore, the full picture of elite's choice on u_f when $\frac{\partial c_e}{\partial u_f} < 1$ cannot be drawn before the discussion about the corner solution situation.

2. When the optimal $\pi_f^* = c_f - \gamma_f$ (corner solution) is chosen by the elite, for which the condition is $(A * t)^{\frac{1}{1-t}} < u_f - \gamma_f$ and $\gamma_f < u_f$

$$NB_e^* = NB_{e\pi_f^*}$$

$$= \pi - c_e + A(c_f - \gamma_f + u_f - c_f)^t - (c_f - \gamma_f) = \pi - c_e + \gamma_f - c_f + A(u_f - \gamma_f)^t$$

$$\frac{\partial \text{NB}_e^*}{\partial u_f} = -\frac{\partial c_e}{\partial u_f} + \frac{\partial \gamma_f}{\partial u_f} + A * t (u_f - \gamma_f)^{t-1} - A * t (u_f - \gamma_f)^{t-1} * \frac{\partial \gamma_f}{\partial u_f}$$

For the convenience of calculation, as we have the relationship $0 \leq (A * t)^{\frac{1}{1-t}} < u_f - \gamma_f$, we can make $(A * t)^{\frac{1}{1-t}} = a * (u_f - \gamma_f)$. We can get $0 \leq a < 1$. Then we can transform

$$(A * t)(u_f - \gamma_f)^{t-1} = a^{1-t} * (u_f - \gamma_f)^{1-t}(u_f - \gamma_f)^{t-1} = a^{1-t} < 1$$

$$\frac{\partial \text{NB}_e^*}{\partial u_f} = \frac{\partial \gamma_f}{\partial u_f} + a^{1-t} - a^{1-t} * \frac{\partial \gamma_f}{\partial u_f} - \frac{\partial c_e}{\partial u_f} = \left(1 - \frac{\partial \gamma_f}{\partial u_f}\right) * a^{1-t} - \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}\right)$$

Assume γ_f is non-negatively related to u_f : $0 \leq \frac{\partial \gamma_f}{\partial u_f} \leq 1$ (the more free support the farmer gets from the elite, the at least no less social pressure the farmer would face not to betray). And we have another assumption already: c_e is positively related to u_f : $\frac{\partial c_e}{\partial u_f} > 0$ (the more free support the farmer gets from the elite, the more in advance transaction specific cost for the elite).

Because $0 \leq \frac{\partial \gamma_f}{\partial u_f} \leq 1$, let's discussion the first scenario

2.1 **when** $\frac{\partial \gamma_f}{\partial u_f} = 1$

$$\frac{\partial \text{NB}_e^*}{\partial u_f} = 1 - \frac{\partial c_e}{\partial u_f}$$

2.1.1 If $\frac{\partial c_e}{\partial u_f} > 1$, $\frac{\partial \text{NB}_e^*}{\partial u_f} < 0$ and *the elite wants to minimize the* u_f

2.1.2 If $\frac{\partial c_e}{\partial u_f} < 1$, $\frac{\partial \text{NB}_e^*}{\partial u_f} > 0$, *the elite wants to maximize the* u_f until $\frac{\partial c_e}{\partial u_f} = 1$

and $\frac{\partial \text{NB}_e^*}{\partial u_f} = 0$ ($\frac{\partial c_e}{\partial u_f}$ cannot always be less than 1 due to elite's limited resources: $\frac{d^2 c_e}{du_f^2} \geq 0$)

2.2 **When** $\frac{\partial \gamma_f}{\partial u_f} \neq 1$, which is when $0 \leq \frac{\partial \gamma_f}{\partial u_f} < 1$

2.2.1 if $\frac{\partial c_e}{\partial u_f} \geq 1$, $\frac{\partial \text{NB}_e^*}{\partial u_f} < 0$ and therefore, the elite would like to keep u_f as small as possible.

The calculation is in below:

$$\text{If } \frac{\partial c_e}{\partial u_f} \geq 1, \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}\right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f}\right) \geq 1$$

$$\therefore 0 < a^{1-t} < 1$$

$$\begin{aligned}
&\therefore a^{1-t} < \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) \\
&\text{and } \therefore 0 \leq \frac{\partial \gamma_f}{\partial u_f} < 1 \\
&\therefore 1 - \frac{\partial \gamma_f}{\partial u_f} > 0 \\
&\therefore a^{1-t} \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) < \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) \\
&\therefore \frac{\partial \text{NB}_{elite}^*}{\partial u_f} = \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) * a^{1-t} - \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) < 0
\end{aligned}$$

Therefore, if $\frac{\partial c_e}{\partial u_f} \geq 1$ and $0 \leq \frac{\partial \gamma_f}{\partial u_f} < 1$, $\frac{\partial \text{NB}_e^*}{\partial u_f} < 0$ and the elite would like to keep u_f as small as possible.

2.2.2 If $\frac{\partial c_e}{\partial u_f} < 1$, we need to compare $\frac{\partial c_e}{\partial u_f}$ and $\frac{\partial \gamma_f}{\partial u_f}$ first.

2.2.2.1 If $\frac{\partial c_e}{\partial u_f} \leq \frac{\partial \gamma_f}{\partial u_f}$, the elite would like to increase u_f . The calculating process is as below

$$\begin{aligned}
&\therefore \frac{\partial c_e}{\partial u_f} \leq \frac{\partial \gamma_f}{\partial u_f} \\
&\therefore \frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \leq 0 \\
&\therefore 0 \leq \frac{\partial \gamma_f}{\partial u_f} < 1 \\
&\therefore 1 - \frac{\partial \gamma_f}{\partial u_f} > 0 \\
&\therefore \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) < 0 \\
&\therefore 0 < a^{1-t} < 1 \\
&\therefore a^{1-t} > \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) \\
&\text{and again } \therefore 1 - \frac{\partial \gamma_f}{\partial u_f} > 0 \\
&\therefore a^{1-t} \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) > \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) \\
&\therefore \frac{\partial \text{NB}_e^*}{\partial u_f} = \left(1 - \frac{\partial \gamma_f}{\partial u_f} \right) * a^{1-t} - \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f} \right) > 0
\end{aligned}$$

Therefore if $\frac{\partial c_e}{\partial u_f} \leq \frac{\partial \gamma_f}{\partial u_f} < 1$, $\frac{\partial NB_e^*}{\partial u_f} > 0$ and the elite would like to increase u_f until $\frac{\partial c_e}{\partial u_f} = 1$ and $\frac{\partial NB_e^*}{\partial u_f} = 0$ ($\frac{\partial c_e}{\partial u_f}$ cannot always be less than 1 due to elite's limited resources: $\frac{d^2 c_e}{du_f^2} \geq 0$)

2.2.2.2 The last situation would be if $1 > \frac{\partial c_e}{\partial u_f} > \frac{\partial \gamma_f}{\partial u_f}$.

In this condition, for $\frac{\partial NB_e^*}{\partial u_f}$ to be positive (negative), we need to have a^{1-t} bigger (smaller) than $\left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}\right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f}\right)$. It is not straightforward to compare a^{1-t} and $\left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}\right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f}\right)$ because both are between 0 and 1. However, it could be inferred that the elite's willingness to increase u_f is very limited because increasing u_f will reduce a (because $a = \frac{(A*t)^{\frac{1}{1-t}}}{(u_f - \gamma_f)}$, $\gamma_f < u_f$), and therefore a^{1-t} , the elite would only like to increase u_f before a^{1-t} is reduced to equal or below $\left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}\right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f}\right)$. Especially for the elite with low prosocial motivations for which a is very small, $a^{1-t} \leq \left(\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}\right) / \left(1 - \frac{\partial \gamma_f}{\partial u_f}\right)$ easily). In such case the elite may just want to have u_f at the minimum even if $\frac{\partial c_e}{\partial u_f} < 1$.

Therefore, we could get the below proposition on elite's decision making of giving free support to the farmer.

The elite tends to give the farmer more in advance free supports under several conditions. The first condition is that the elite must have competitive advantage in providing this support, i.e. the marginal cost for the elite to provide this support is less than the marginal utility gain for the farmer. For example, the elite spend 1\$ equivalent effort to give one more unit technical advice to the farmer, for which the farmer is willing to pay 1.5\$ from the cheapest source elsewhere. However, this condition is not enough. The elite also needs to have a relatively large prosocial motivation or/and the farmer needs to be facing a relatively high social pressure so that the elite's in advance support and investment will not be easily taken advantage of by the farmer. The detailed explanation, driven from the previous calculation, is summarized as below.

○ U1: when $\frac{\partial c_e}{\partial u_f} > 1$; It is expensive to give free support to the farmer; the resources for such support is not the elite's competitive advantage.

• $NB_e^* \sim u_f(-)$; the elite always wants to keep the u_f minimum at \bar{u}_f

○ U2: when $\frac{\partial c_e}{\partial u_f} < 1$; It is not expensive to give free support to the farmer; the resources for such support is the elite's competitive advantage.

• U2.1 when there is the interior solution (for which prosocial motivation should be relatively high and social pressure should be relatively big compared with the level of free support)

$NB_e^* \sim u_f(+)$ the elite wants to maximize the u_f until $\frac{\partial c_e}{\partial u_f} = 1$ at \widehat{u}_f

• U2.2 when there is the corner solution (for which prosocial motivation should be relatively low and social pressure should be relatively small compared with the level of free support)

• U2.2.1 when $\frac{\partial c_e}{\partial u_f} \leq \frac{\partial \gamma_f}{\partial u_f} (< 1)$, or $\frac{\partial c_e}{\partial u_f} < \frac{\partial \gamma_f}{\partial u_f} (= 1)$ (farmer's utility gain contributes to a bigger marginal social pressure the farmer is facing than the marginal cost for the elite)

$NB_{elite}^* \sim u_f(+)$ the elite wants to maximize the u_f until $\frac{\partial c_e}{\partial u_f} = 1$ at \widehat{u}_f

• U2.2.2 when $1 > \frac{\partial c_e}{\partial u_f} > \frac{\partial \gamma_f}{\partial u_f}$

• U2.2.2.1 if $a^{1-t} > \frac{\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}}{1 - \frac{\partial \gamma_f}{\partial u_f}}$ prosocial motivation is relatively big

$NB_e^* \sim u_f(+)$ the elite wants to maximize the u_f until $\frac{\partial c_e}{\partial u_f} = 1$ at \widehat{u}_f

• U2.2.2.2 if $a^{1-t} < \frac{\frac{\partial c_e}{\partial u_f} - \frac{\partial \gamma_f}{\partial u_f}}{1 - \frac{\partial \gamma_f}{\partial u_f}}$ prosocial motivation is relatively small

$NB_e^* \sim u_f(-)$ the elite always wants to keep the u_f minimum at \bar{u}_f

Table C.1 Co-operation scenarios

Elite's feature	Farmer's feature	Mathematic relation	Elite's choice on free support
Scenario of interior solution:			
big prosocial motivation A (relative to \hat{u}_f) Competitive advantage in providing some resources creating u_f to the farmer	or/and big social pressure γ_f	$(A * t)^{\frac{1}{1-t}} \geq \hat{u}_f - \gamma_f$ $\frac{\partial c_e}{\partial u_f} < 1 (0 \leq u_f \leq \hat{u}_f)$	Offer free support \hat{u}_f which is useful for the farmer but cheap for the elite (Scenario I1)
big prosocial motivation A (relative to \tilde{u}_f) No competitive advantage in providing resources creating u_f to the farmer	or/and big social pressure γ_f	$(A * t)^{\frac{1}{1-t}} \geq \tilde{u}_f - \gamma_f$ \tilde{u}_f is the minimum required for cooperation (e.g. facilities and training). $\frac{\partial c_e}{\partial u_f} > 1$	Offer minimum required free support \tilde{u}_f (for some cases $\tilde{u}_f = 0$) (Scenario I2)
Scenario of corner solution:			
small or very small prosocial motivation A (relative to \hat{u}_f) Competitive advantage in providing some resources creating u_f to the farmer	Increase of free support leads to bigger marginal social pressure γ_f , than the marginal cost for the elite	$(A * t)^{\frac{1}{1-t}} < \hat{u}_f - \gamma_f$ $\frac{\partial c_e}{\partial u_f} \leq \frac{\partial \gamma_f}{\partial u_f} (< 1)$, or $\frac{\partial c_e}{\partial u_f} < \frac{\partial \gamma_f}{\partial u_f} (= 1)$ $(0 \leq u_f \leq \hat{u}_f)$	Offer free support \hat{u}_f which is useful for the farmer but cheap for the elite to offer; and could significantly increase the social pressure farmer faces to be loyal. (Scenario C1)
small or very small prosocial motivation A (relative to \tilde{u}_f) No competitive advantage in providing some resources creating u_f to the farmer	or/and big social pressure γ_f	$(A * t)^{\frac{1}{1-t}} < \tilde{u}_f - \gamma_f$ \tilde{u}_f is the minimum required for cooperation (e.g. facility and training). $\frac{\partial c_e}{\partial u_f} > 1$	Offer minimum required free support \tilde{u}_f (for many cases $\tilde{u}_f = 0$) (Scenario C2)

<p>small prosocial motivation A (relative to \hat{u}_f)</p> <p>Competitive advantage in providing some resources creating u_f to the farmer</p>	<p>or/and small social pressure γ_f</p> <p>Increase of free support leads to less marginal social pressure γ_f than the marginal cost for the elite</p>	$\left(\frac{\partial c_e - \partial \gamma_f}{\partial u_f} \right)^{\frac{1}{1-t}} * (\hat{u}_f - \gamma_f)$ $< (A * t)^{\frac{1}{1-t}} < \hat{u}_f - \gamma_f$ $1 > \frac{\partial c_e}{\partial u_f} > \frac{\partial \gamma_f}{\partial u_f} \quad (0 \leq u_f \leq \hat{u}_f)$	<p>Offer free support \hat{u}_f (which is very limited due to the constraints) which is useful for the farmer but cheap for the elite to offer; and could somewhat increase the social pressure farmer faces to be loyal. (Scenario C3)</p>
<p>very small prosocial motivation A (relative to \tilde{u}_f)</p> <p>Competitive advantage in providing some resources creating u_f to the farmer</p>	<p>or/and very small social pressure γ_f</p> <p>Increase of free support leads to less marginal social pressure γ_f than the marginal cost for the elite</p>	$(A * t)^{\frac{1}{1-t}} < \left(\frac{\partial c_e - \partial \gamma_f}{\partial u_f} \right)^{1/(1-t)} * (\tilde{u}_f - \gamma_f)$ $< \tilde{u}_f - \gamma_f$ $1 > \frac{\partial c_e}{\partial u_f} > \frac{\partial \gamma_f}{\partial u_f}$ <p>\tilde{u}_f is the minimum required for cooperation (e.g. facility and training).</p>	<p>Offer minimum required free support \tilde{u}_f (for many cases $\tilde{u}_f = 0$) (Scenario C4)</p>

APPENDIX D. THE CHINESE FSC LAW²⁸

Order of the President of the People's Republic of China No.57

The Law of the People's Republic of China on Specialized Farmers Cooperatives, adopted at the 24th Meeting of the Standing Committee of the Tenth National People's Congress of the People's Republic of China on October 31, 2006, is hereby promulgated and shall go into effect as of July 1, 2007.

Hu Jintao

President of the People's Republic of China

October 31, 2006

Law of the People's Republic of China on Specialized Farmers Cooperatives

(adopted at the 24th Meeting of the Standing Committee of the Tenth National People's Congress on October 31, 2006)

Contents

Chapter I General Provisions

Chapter II Establishment and Registration

Chapter III Membership

Chapter IV Organizational Structure

Chapter V Financial Management

Chapter VI Merger, Division, Dissolution and Liquidation

Chapter VII Supportive Policies

Chapter VIII Legal Responsibility

Chapter IX Supplementary Provisions

Chapter I

General Provisions

Article 1 This Law is enacted for the purpose of supporting and guiding the development of specialized farmers cooperatives, regulating their organization and behavior and protecting their

²⁸ The source of this appendix is http://www.china.org.cn/china/LegislationsForm2001-2010/2011-02/12/content_21908322.htm from the official translation from npc.gov.cn

lawful rights and interests and those of their members’, and promoting the development of agriculture and of the economy of rural areas.

Article 2 Specialized farmers cooperatives are mutual-help economic organizations joined voluntarily and managed in a democratic manner by the producers and operators of the same kind of farm products or by the providers or users of services for the same kind of agricultural production and operation.

Specialized farmers cooperatives mainly serve their members, offering such services as purchasing the means of agricultural production, marketing, processing, transporting and storing farm products, and providing technologies and information related to agricultural production and operation.

Article 3 Specialized farmers cooperatives shall observe the following principles:

- (1) Their members are mainly farmers;
- (2) They aim to serve their members, working for the common interests of all the members;
- (3) The members join the cooperatives voluntarily and are free to withdraw from them;
- (4) The members are equal in status and democratic management is practiced; and
- (5) Profits are to be distributed mainly in proportion on the volume (amount) of the transactions effected between the cooperatives and their members.

Article 4 Specialized farmers cooperatives shall be registered according to this Law to obtain the status of a legal person.

Specialized farmers cooperatives shall enjoy the rights to possess, use and dispose of their property which includes capital contributions by their members, common reserve funds, subsidies received directly from the government, donations and other legitimately acquired assets, and shall be liable for their debts with the aforementioned property.

Article 5 Members of specialized farmers cooperatives shall be accountable to their cooperatives within the limits of the capital contributions recorded in their accounts and of their shares of the common reserve funds.

Article 6 The State protects the lawful rights and interests of the specialized farmers cooperatives and their members, and no units or individuals may infringe upon such rights and interests.

Article 7 In production and operation, specialized farmers cooperatives shall obey the relevant laws and administrative regulations, observe social and business ethics, and act in good faith.

Article 8 The State promotes the development of specialized farmers cooperatives through such measures as government financing, preferential taxation, support in fund raising, science and technology as well as human resources, and guidance through industrial policies.

The State encourages and supports all social sectors to provide services to specialized farmers cooperatives.

Article 9 People's governments at or above the county level shall make arrangements for the administrative departments of agriculture and the relevant departments and organizations to provide guidance, support and services to the formation and development of specialized farmers cooperatives, in accordance with this Law and within the limits of their respective duties.

Chapter II Establishment and Registration

Article 10 For establishment of a specialized farmers cooperative, the following conditions shall be met:

- (1) having five or more members who meet the requirements as are prescribed in Articles 14 and 15 of this Law;
- (2) having a charter that meets the requirements as are prescribed by this Law;
- (3) having an organizational structure that meets the requirements as are prescribed by this Law;
- (4) having a name which is in conformity with the provisions of relevant laws and administrative regulations and a domicile as specified in the charter; and
- (5) having capital contributions made by members who meet the requirements as are specified in the charter.

Article 11 For establishment of a specialized farmers cooperative, an assembly shall be convened with the participation of all of the founders. Persons who voluntarily become members of the cooperative at the time of its establishment are founders.

The founders' assembly shall exercise the following functions and powers:

- (1) to adopt the charter of the cooperative, which is required to be adopted unanimously by all of the founders;
- (2) to elect the director-general, directors, the executive supervisor or members of the board of supervisors; and
- (3) to examine and discuss other major issues.

Article 12 In the charter of a specialized farmers cooperative shall clearly be specified the following matters:

- (1) its name and domicile;
- (2) scope of business;
- (3) membership qualifications, joining and withdrawing from the cooperative, as well as expelling a member;

- (4) rights and duties of members;
- (5) structure of the organization, measures for its formation, its functions and powers, term of office and the rules of procedure;
- (6) forms and amounts of capital contributions to be made by members;
- (7) financial management, distribution of profits and disposition of losses;
- (8) procedures for modification of the charter;
- (9) causes of dissolution and measures for liquidation;
- (10) the items for announcement and the manners of announcement; and
- (11) other matters that need to be specified.

Article 13 For establishment of a specialized farmers cooperative, the following documents shall be submitted to the administrative department for industry and commerce to apply for registration:

- (1) letter of application for registration;
- (2) minutes of the establishment assembly signed and sealed by all of the founders;
- (3) charter signed and sealed by all of the founders;
- (4) letters of appointment and identity certifications of the legal representative and of the directors;
- (5) list of capital contributions signed and sealed by the members who make such contributions;
- (6) certification for use of the domicile; and
- (7) other documents as prescribed by relevant laws and administrative regulations.

The registration authority shall complete the registration procedure within 20 days from the date it accepts the application for registration and shall issue a business license to the applicant that meets the conditions for registration.

Where a specialized farmers cooperative intends to alter the statutory items for registration, it shall submit an application for the purpose.

The measures for registration of specialized farmers cooperatives shall be formulated by the State Council. No charges may be collected for registration.

Chapter III

Membership

Article 14 Citizen who have the capacity for civil conduct and enterprises, public institutions and organizations that are engaged in production and operation which are directly related to the

business of a specialized farmers cooperative may become members of the cooperative, provided that they can make use of the services offered by the cooperative, recognizes and abides by the charter of the cooperative and complete the formalities for joining the cooperative as prescribed in the charter. However, a unit that exercises the function of administering public affairs shall not join such cooperative.

A specialized farmers cooperative shall have a membership roll and file it with the registration authority.

Article 15 Farmers shall account for at least 80 percent of the membership of a specialized farmers cooperative.

If the total number of members of a cooperative is 20 or less, there may be one enterprise, public institution or organization as its member; if the number exceeds 20, the number of enterprises, public institutions or organizations shall not exceed five percent of the total number.

Article 16 A member of a specialized farmers cooperative shall enjoy the following rights:

- (1) to attend the membership assembly, have the rights to vote, to elect and to stand for election, and exercise democratic management of the cooperative according to the stipulations in the charter;
- (2) to make use of the services and production and operation facilities provided by the cooperative;
- (3) to share profits according to the stipulations in the charter or the resolution of the membership assembly;
- (4) to consult the charter, membership roll, minutes of the membership assembly or of the conference of members' representatives, resolutions of the board of directors and of the board of supervisors, and financial statements and account books; and
- (5) other rights as are stipulated in the charter.

Article 17 The system of "one person, one vote" shall be adopted for election and voting at the membership assembly of a specialized farmers cooperative, and each member shall have the right to one basic vote.

Members who make considerably large capital contributions or who effect considerably large amounts (volumes) of transactions with the cooperative may, according to the stipulations of the charter, enjoy the right to extra votes. The total number of extra votes of the cooperative shall not exceed 20 percent of the total number of the members' basic votes. Each time a membership assembly is convened, the members present at the assembly shall be informed of those members who enjoy the right to extra votes and the number of extra votes they each enjoy.

In the charter restrictions may be placed on the scope of the extra votes to be cast.

Article 18 A member of a specialized farmers cooperative shall be charged with the following duties:

- (1) to execute the resolutions of the membership assembly, the conference of members' representatives and the board of directors;
- (2) to make capital contributions to the cooperative as stipulated in the charter;
- (3) to effect transactions with the cooperative as stipulated in the charter;
- (4) to share losses as stipulated in the charter; and
- (5) other duties as stipulated in the charter.

Article 19 If a member of a specialized farmers cooperative intends to withdraw from the cooperative, he shall submit a request to the director-general or the board of directors three months prior to the end of the fiscal year; and if an enterprise, public institution or organization intend to withdraw from the cooperative as a member, it shall do so six months prior to the end of the fiscal year; if the charter stipulates otherwise, the stipulations there shall prevail. The membership qualifications of such member shall be terminated at the end of the fiscal year.

Article 20 A member shall continue performing the contract concluded with the specialized farmers cooperative before the termination of his membership, unless otherwise stipulated in the charter or otherwise agreed upon by him and the cooperative.

Article 21 At the termination of the membership, the cooperative shall, in the manners and within the time limit as are stipulated in the charter, return to the member the amount of the capital contributions recorded in his account and his shares of the common reserve funds; and it shall, according to the provisions in the second subparagraph of Article 37 of this Law, return to him the distributable profits earned by the cooperative prior to the termination of his membership qualifications.

The member whose membership qualifications are terminated shall, according to the stipulations in the charter, share the losses and debts incurred by the cooperative prior to the termination of his qualifications.

Chapter IV

Organizational Structure

Article 22 The membership assembly of a specialized farmers cooperative shall be composed of all of the members. It is the organ of power of the cooperative and shall exercise the following functions and powers:

- (1) to modify the charter;
- (2) to elect and remove the director-general, directors, the executive supervisor or members of the board of supervisors;
- (3) to decide on disposition of major assets, external investment, providing guarantee to entities and individuals outside the cooperative, and other major issues in respect of production and operation;

- (4) to grant approval of the annual business report, and the plans for distribution of profits and for disposition of losses;
- (5) to make a resolution on merger, division, dissolution or liquidation of the cooperative;
- (6) to decide on the number of managers for business operation and technicians to be employed and their qualifications and terms of office;
- (7) to hear reports on the change of membership delivered by the director-general or board of directors; and
- (8) other functions and powers specified in the charter.

Article 23 When a specialized farmers cooperative holds its membership assembly, the number of persons present shall be two-thirds or more of its membership.

The outcome of an election held or the resolution made at a membership assembly shall be deemed to be effective if it is adopted by more than half of the total votes of the members of the cooperative; for a resolution on modifying the charter or on merger, division or dissolution of the cooperative to be adopted, two-thirds or more of the total votes of the members of the cooperative is required. If the charter requires a greater number of votes on such matters, the stipulations there shall prevail.

Article 24 Membership assembly of a specialized farmers cooperative shall be held at least once every year, and convening of the assembly shall be stipulated in the charter. A special membership assembly shall be held within 20 day under one of the following circumstances:

- (1) It is proposed by 30 percent or more of the members;
- (2) It is proposed by the executive supervisor or the board of supervisors; or
- (3) Other circumstances as stipulated in the charter.

Article 25 Where the number of members of a specialized farmers cooperative exceeds 150, a conference of members' representatives may be organized according to the stipulations of the charter, which may, according to the stipulations of the charter, exercise part or all of the functions and powers of the membership assembly.

Article 26 In a specialized farmers cooperative there shall be a director-general, and a board of directors may be set up. The director-general shall be the legal representative of the cooperative.

In a specialized farmers cooperative there may be an executive supervisor or a board of supervisors. The director-general, director, manager, the book-keeper or accountant shall not concurrently hold the office of the supervisor.

The director-general, director, the executive supervisor or members of the board of supervisors shall be elected at the membership assembly from among the members of the cooperative, and they shall exercise their functions and powers according to the provisions prescribed in this Law and the charter and shall be accountable to the membership assembly.

The system of “one person, one vote” shall be applied to voting at the meetings of the board of directors and the board of supervisors.

Article 27 Decisions made on the matters discussed at the meetings of the membership assembly, the board of directors and the board of supervisors of a specialized farmers cooperative shall be recorded in the minutes, which shall be signed by the members of the assembly, directors and supervisors present at the meetings.

Article 28 The director-general or the board of directors of a specialized farmers cooperative may employ managers, book-keepers and accountants according to the decision made at the membership assembly, and the director-general or director may concurrently hold the office of a manager. A manager may, according to the stipulations of the charter or the decision of the board of directors, employ other staff members.

A manager shall be responsible for the specific production and operation as stipulated in the charter or as authorized by the director-general or the board of directors.

Article 29 The director-general, director or manager of a specialized farmers cooperative shall not do any of the following:

- (1) illegally taking into his own possession, misappropriating or illegally sharing the assets of the cooperative;
- (2) in violation of the stipulations of the charter or without permission of the membership assembly, loaning to another person the funds of the cooperative or providing guarantee to another person with the assets of the cooperative;
- (3) taking into his own possession the commissions charged for transactions effected between another person and the cooperative; or
- (4) engaging in other activities jeopardizing the economic benefits of the cooperative.

Any incomes derived by the director-general, director or manager in violation of the provisions in the preceding paragraph shall belong to the cooperative; if any losses are caused to the cooperative, he shall be liable for compensation.

Article 30 The director-general, director or manager of a specialized farmers cooperative shall not concurrently hold the office of the director-general, director, supervisor or manager in another specialized farmers cooperative that is engaged in the same nature of business as is the said cooperative.

Article 31 A person who handles official business concerning specialized farmers cooperatives shall not concurrently hold the office of the director-general, director, supervisor, manager, book-keeper or accountant in such a cooperative.

Chapter V

Financial Management

Article 32 The department of finance under the State Council shall establish a financial and accounting system for the specialized farmers cooperatives in accordance with relevant laws

and administrative regulations of the State. The specialized farmers cooperatives shall carry out their accounting according to the said financial and accounting system.

Article 33 The director-general or the board of directors of a specialized farmers cooperative shall, according to the stipulations in the charter, organize efforts to prepare the annual business report, plans for profit distribution and for disposition of losses, and financial statements, and shall, 15 days prior to the convening of the membership assembly, make them available in the office for the members to consult.

Article 34 Accounting for the transactions effected between a specialized farmers cooperative and its members shall be separated from the ones effected between the cooperative and the non-members that make use of the services provided by the cooperative.

Article 35 A specialized farmers cooperative may draw common reserve funds from the profits of the year in accordance with the stipulations in the charter or the decision made by the membership assembly. The common reserve funds shall be used for making up for losses, expanding production and operation or be converted into members' capital contributions.

The common reserve funds drawn every year shall be quantified as shares of each member according to the stipulations of the charter.

Article 36 A specialized farmers cooperative shall start an account for each member, in which shall mainly be recorded the following:

- (1) the amount of capital contributions of the member;
- (2) the quantified common reserve funds as shares of the member; and
- (3) the volume (amount) of transactions effected between the member and the cooperative.

Article 37 The profits of the year left after the losses are made up for and the common reserve funds are drawn shall be the distributable profits of a specialized farmers cooperative.

The distributable profits shall be returned or distributed to the members according to the following provisions, and the specific measures for distribution shall be decided according to the stipulations in the charter or the resolution of the membership assembly:

- (1) to return the profits in proportion to the volume (amount) of the transactions effected between the members and the cooperative, and the total amount returned shall not be less than 60 percent of the distributable profits; and
- (2) to distribute pro rata to the members of the cooperative the rest of the profits left after the return according to the provisions in the preceding subparagraph, on the basis of the capital contributions and shares of common reserve funds recorded in the members' accounts and the members' average quantified shares of the assets accumulated from subsidies directly given by the government and donations made by other persons to the cooperative.

Article 38 Where there is an executive supervisor or a board of supervisors in a specialized farmers cooperative, the executive supervisor or the board of supervisors shall be responsible

for the internal financial auditing of the cooperative and shall report the auditing results to the membership assembly.

The membership assembly may also entrust an auditing body with the financial auditing of the cooperative.

Chapter VI

Merger, Division, Dissolution and Liquidation

Article 39 Where a specialized farmers cooperative intends to merge with another cooperative, it shall inform its creditors of the matter within 10 days from the date the resolution is made to such an effect. The credits and debts of the merged parties shall be succeeded by the surviving or newly established entity after the merger.

Article 40 Where a specialized farmers cooperative intends to be divided, it shall have its assets divided accordingly, and shall inform its creditors of the matter within 10 days from the date the resolution on division is made. The entities after the division shall bear joint and several liability for the debts of the cooperative incurred prior to the division, except that the written agreement on payment of the debts it concluded with the creditors prior to the division stipulates otherwise.

Article 41 A specialized farmers cooperative shall be dissolved for one of the following reasons:

- (1) The causes for dissolution stipulated in the charter arise;
- (2) A resolution on dissolution is made by the membership assembly;
- (3) Dissolution is necessary because of merger or division; or
- (4) Its business license is revoked or its registration is cancelled according to law.

Where a cooperative is dissolved due to the reasons as specified in subparagraph (1), (2) or (4) of the preceding paragraph, a liquidation team composed of the members of the cooperative who are elected by the membership assembly shall be formed within 15 days from the date a cause for dissolution arises, in order to initiate liquidation for dissolution. If a liquidation team cannot be formed at the expiration of the time limit, members and creditors of the cooperative may apply to a people's court for designating members to form a team for liquidation, and the people's court shall accept such an application and in a timely manner, designate members to form a liquidation team. Article 42 A liquidation team shall, from the date it is formed, take over the specialized farmers cooperative, and it shall be responsible for disposing of the outstanding businesses which are related to the liquidation, straightening out the assets, credits and debts, distributing the assets left after the debts are repaid, participating in litigation, arbitration or other legal proceedings on behalf of the cooperative and, at the end of the liquidation, handle the formalities for canceling registration.

Article 43 A liquidation team shall, within 10 days from the date it is formed, notify the members and creditors of the specialized farmers cooperative of its formation and announce the matter in newspapers within 60 days. The creditors shall, within 30 days from the date they receive the notification, or for those who fail to receive such notification, within 45 days from the date the announcement is made, declare their claims to the liquidation team. If all the

members and creditors receive the notification within the prescribed time limit, the liquidation team shall be absolved from the obligation to make an announcement.

When declaring their claims, the creditors shall explain the matters concerned and provide the certifying documents. The liquidation team shall keep a record of the claims.

During the period of declaration of claims, the liquidation team shall not pay back any debts to the creditors.

Article 44 When a specialized farmers cooperative is dissolved due to the causes specified in the first paragraph in Article 41 of this Law, or when its application for bankruptcy is being processed by a people's court, it shall not handle any formalities for any member to withdraw from the cooperative. Article 45 The liquidation team shall be responsible for drawing up liquidation plans for paying off the salaries and social insurance premiums of the employees of the cooperative, the taxes in arrears and other debts and for distributing the remaining assets, and shall execute the plans after they are adopted by the membership assembly, or confirmed by the people's court upon the team's application.

If the liquidation team discovers that the assets of the specialized farmers cooperative is insufficient to pay off the debts, it shall apply for bankruptcy to a people's court according to law.

Article 46 When a specialized farmers cooperative is being liquidated for dissolution or bankruptcy, the subsidiaries it directly received from the government which form part of its property shall not be distributed to the members of the cooperative as distributable surplus property, and the measures for disposing of such assets shall be formulated by the State Council.

Article 47 Members of a liquidation team shall be devoted to their duty and perform their duty of liquidation according to law, and they shall be liable for compensation if they intentionally cause losses to the members or creditors of a specialized farmers cooperative or do so through gross negligence.

Article 48 The relevant provisions of the Enterprise Bankruptcy Law shall be applicable to the specialized farmers cooperatives that go bankrupt. However, after the bankruptcy assets are used for paying off the expenses for bankruptcy proceedings and the debts incurred for the common good of creditors, priority shall be given to settling the outstanding accounts resulted from transactions with the farmer members of the cooperatives effected prior to bankruptcy.

Chapter VII

Supportive Policies

Article 49 The State supports the construction projects for developing agriculture and the rural economy, and the relevant competent specialized farmers cooperatives may be entrusted with or assigned such tasks.

Article 50 The Central and local governments shall respectively allot funds to support the specialized farmers cooperatives in providing services in respect of information, training, quality standards for farm products and their authentication, construction of infrastructure for

agricultural production, marketing, technology dissemination, etc. Priority shall be given to the specialized farmers cooperatives in ethnic areas, outlying areas and poverty-stricken areas and to the ones engaging in the production of major farm products which are urgently needed by the State and the society.

Article 51 The policy-oriented financial institutions of the State shall adopt diversified means to provide funds through various channels in support of the specialized farmers cooperatives. The specific supportive policies shall be formulated by the State Council.

The State encourages the commercial financial institutions to provide financial services to the specialized farmers cooperatives by diversified means.

Article 52 The specialized farmers cooperatives shall enjoy preferential treatment in taxation prescribed by the State in respect of agricultural production, processing, circulation and services and other economic activities involving agriculture.

Other preferential taxation policies in support of the development of specialized farmers cooperatives shall be formulated by the State Council.

Chapter VIII

Legal Responsibility

Article 53 A person who illegally takes into his own possession, misappropriates, withholds, illegally shares or by other means infringes on the lawful property of a specialized farmers cooperative or its members, illegally intervenes with the production and operation of such cooperative or its members, apportions expenses or tasks to the cooperative or its members, or compels the cooperative or its members to accept paid services, thus causing financial losses to the cooperative, shall be investigated for legal responsibility according to law.

Article 54 Where a specialized farmers cooperative provides false materials for registration to the relevant registration authority or gets registered by other deceptive means, it shall be ordered by the registration authority to rectify; and if the circumstances are serious, its registration shall be canceled. Article 55 Where a specialized farmers cooperative makes false entries or conceals important facts in such materials as financial statements submitted in accordance with law to the relevant department in charge, it shall be investigated for legal responsibility according to law.

Chapter VX

Supplementary Provisions

Article 56 This Law shall go into effect as of July 1, 2007.