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Investment of rice mills in Vietnam

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Document Version

Publisher's PDF, also known as Version of record

Publication date:

2003

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Le, K. N. (2003). *Investment of rice mills in Vietnam: the role of financial market imperfections and uncertainty*. [Thesis fully internal (DIV), University of Groningen]. s.n.

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PART FOUR

Conclusions, recommendations and further research

Chapter 10

Conclusions, recommendations and further research

10.1 Introduction

This chapter serves to draw conclusions about the factors that affect investment of private rice millers in the MRD according to the findings in the previous chapters of this dissertation (Section 10.2). These conclusions will be translated into recommendations that may contribute to boosting investment of private rice millers in the MRD (Section 10.3). Finally, Section 10.4 tries to propose some suggestions for further research.

10.2 Conclusions

10.2.1 Financial market imperfections and investment of private rice millers

The Vietnamese government has carried out a number of reforms concerning the financial system since the onset of *doi moi*. The reforms have to some extent led to a diversification of the financial system. Nevertheless, the financial system in Vietnam remains shallow, inefficient and dominated by a few state-owned commercial banks. These banks have provided a substantial portion of their credit to SOEs according to the directives of the government. At the same time, they appear to overlook private enterprises. Foreign banks that operate in Vietnam face costly acquisition of financial information about private enterprises, which discourages them from lending to this

sort of enterprises. Domestic joint-stock commercial banks are weak and seem to be less able to serve private enterprises. Therefore, in many cases private enterprises may easily find themselves seeking credits from informal lenders. Yet, informal lenders have inadequate capacity of financing firm investment because of resource constraints. As a result, Vietnamese private enterprises have limited access to credit and thus have to rely on internal funds. This problem appears to be applicable to private RMs in the MRD as well.

The limited access to credit of private RMs is likely to be the cause of the significant sensitivity of their investment to internal funds. We find that the sensitivity of investment to internal funds varies across RMs of different sizes: investment of large private RMs is not sensitive to internal funds while investment of small private RMs exhibits a significant sensitivity to internal funds. This may be because access to credit is probably less constrained for large RMs than for small RMs since large RMs have more acceptable collateral, and the lenders face lower information and transaction costs in lending to large RMs.

According to the literature, investment of old firms may be less sensitive to internal funds than that of young firms. This is because the former are likely to have better access to credit due to longer lender-borrower relationships. We do not find evidence that would support this argument; our empirical study appears to reveal that the investment of both old and young private RMs does not exhibit any sensitivity to internal funds. The amount of money that old and young RMs borrowed and the number of contacts they have with lenders revealed by our data set seems to suggest that old RMs in the MRD do not have better access to credit than young RMs. This may help to explain why the above argument does hold for our sample.

In sum, there is empirical evidence on investment financing constraints regarding private RMs in the MRD. The evidence provides an explanation for the fact that in the MRD rice milling is done by a large number of small private RMs using backward, inefficient machinery. If private RMs continue using such rice-milling machinery, the loss rendered by the milling process will remain to be huge.

10.2.2 Uncertainty and investment of private rice millers

Apart from financial market imperfections, there is another factor that may affect investment of private rice millers, that is, market uncertainty. In general, private rice millers are uncertain about the development of the markets in which they sell their output. The causes of the uncertainty are the fluctuations of rice markets and the lack of information that private rice millers encounter. Given the presence of irreversibility of investment, the uncertainty appears to have an adverse effect on investment of private rice millers. This is due to the possibility that if uncertainty is present, rice millers

may wait for more information because once an investment is made, it is difficult to be reversed.

We find that the investment-uncertainty relationship varies according to the degree of uncertainty. Investment of private rice millers who encounter a low degree of uncertainty is not found to be sensitive to uncertainty. This is likely because if the degree of uncertainty is low, the uncertainty does not really bother private rice millers. However, if the degree of uncertainty is high, the rice millers will take it into account because they want to avoid making costly irreversible investment decisions. This finding means that uncertainty may not always negatively affect investment of private rice millers, but if its magnitude reaches a certain level, it may impede the investment.

As identified in the literature, irreversibility is an important factor that affects the investment-uncertainty relationship. Private rice millers in the MRD may face a high degree of irreversibility due to the specific nature of their assets, the absence of a secondary market for used rice-milling machinery, and the co-movement of their sales. Our empirical study finds that irreversibility affects the uncertainty-investment relationship: the higher the degree of irreversibility, the stronger the adverse effect of uncertainty on investment of private rice millers. If a rice miller perceives that there is only a little chance for him/her to resell his/her used machinery and/or the resale price of the machinery is too low, which means that the irreversibility facing the rice miller is of a high degree, he/she may be more inclined to postpone investment.

We also find that investment of private rice millers who encounter a high degree of competition does not appear to be correlated with the uncertainty variable while investment of those who experienced low competition does. This is because it may not be feasible for the rice millers who face a higher degree of competition to delay investments since if they do so, their competitors will take the best of the investment opportunity, leaving them with few chances of success.

Our study also analyses the relation between firm size and the uncertainty-investment relationship. We find that the uncertainty has an adverse effect on investment of small private RMs, but this is not the case for large private RMs. Large private RMs may manage to avoid such an adverse effect of the uncertainty thanks to their direct connections with a wide range of clients established through business relationships, which are likely to help them to diversify and reduce risks. Small RMs may not have such relationships.

In sum, the uncertainty with respect to future sales is found to have an adverse effect on investment of private rice millers in the MRD given the presence of irreversibility. Yet, the uncertainty has a negative effect on investment of private rice millers only if it reaches a certain degree and is ineffective if otherwise. We also find that the higher the irreversibility, the stronger the negative effect of uncertainty on investment. As expected, stronger competition appears to lessen the severity of the adverse effect of the uncertainty on investment of private rice millers. Finally, invest-

ment of small private RMs is found to be negatively affected by the uncertainty while that of large private RMs is not.

To close this section, it should be emphasized that the above-mentioned findings and conclusions are only indicative because of the weaknesses of the data set (*e.g.*, containing some estimates instead of exact figures) and the limitations of the empirical methodology that we have applied (such as exogenous splitting of the data set and the use of sales instead of the change of sales). Despite this, we were still able to provide intuitive explanations for all the findings. Therefore, we are convinced that the findings guarantee some worthwhile recommendations, as will be mentioned below.

10.3 Recommendations

10.3.1 *Improving access of private rice millers to credit*

As revealed, private rice millers mainly use internal funds to finance investment because their access to credit is limited. This type of investment behaviour is likely to be one of the causes of the inadequacy of investment in the rice-milling industry. Thus, one measure that can help to boost firm investment in this industry in order to get rid of the existing backward, inefficient machinery is to improve access of private rice millers to external finance, especially to bank credit. This recommendation regards three points:

- correcting the long-lasting weak incentives of the commercial banks, especially the state-owned ones, in terms of lending to private enterprises;
- improving property rights so that immovable property (such as land and buildings) can be more easily put up as collateral. In addition, since private rice millers may not own any or enough land or buildings to offer as collateral for loans, laws on movable property-based financing should be developed in order to help to get more credit available for private enterprises; and
- enhancing financial transparency from the side of private rice millers so as to alleviate the acute problem of information asymmetry between private rice millers and commercial banks. This can be done by requiring private rice millers have book-keeping and to disclose information about their businesses.

If access to external finance is eased for private rice millers, this may contribute to increasing their investments, which may in turn lead to a growth of the rice-milling sector.

10.3.2 Reducing uncertainty and irreversibility

Since the uncertainty appears to have a significant adverse effect on investment of private rice millers, abating uncertainty is important for them. There may be some ways to do this, as will be suggested in the following.

One way to abate uncertainty for private rice millers is to assist them in finding partners. In this respect, a recent effort of the government in establishing the so-called “paddy and rice wholesaling marketplace” in the MRD is promising. This marketplace will first serve as a place where paddy/rice sellers and buyers can meet to trade their output. Moreover, through this marketplace information is also exchanged among sellers and buyers, which may help them to come up with trade agreements.

One could also think about a futures market for paddy and rice, which will facilitate private rice millers and other rice-marketing agents to know better about the future demand for and price of paddy/rice. Yet, it should be borne in mind that such a futures market can only be developed when the paddy/rice market is standardised.

Finally, it would be good if the Vinafood 1 and the Vinafood 2 can act as public information agencies searching for market information and providing it to rice-marketing agents.

We also find that irreversibility is an important factor that causes the adverse effect of uncertainty on investment of private rice millers. Therefore, irreversibility should be reduced as much as possible. The “paddy and rice wholesaling marketplace” mentioned in the previous paragraph may also be a good solution to decreasing irreversibility facing private rice millers because of its ability to support the exchange of machinery-related information among private rice millers. In addition to this, a well-functioning market for used machinery may be another solution. If this market is in place, it would be easier for private rice millers to find buyers if they want to resell used machinery. The existence of this market may help to increase investment thanks to its capability of reducing irreversibility for private rice millers.

10.4 Suggestions for further research

In this dissertation, we find that both financial market imperfections and uncertainty appear to affect investment of private rice millers. The finding generates a background for explaining why in Vietnam backward, inefficient technology has been used in a number of small RMs. Apart from financial market imperfections and uncertainty, there may be other aspects, such as taxes and regulation, that can also affect investment of private rice millers. These aspects can be interesting topics for further studies on the determinants of investment of private rice millers in Vietnam. Lower tax, for instance, would contribute to triggering investment of private rice millers because

they can use the tax reduction to reinvest, other things being equal. If the regulation concerning access to real estate, land-use right, licensing, *etc.* is improved to create a better regulatory environment, it would also promote investment of private rice millers.

We believe that the findings in the empirical part of this dissertation is likely to hold for other Vietnamese private enterprises because they operate in the same economic and financial environment as the private rice millers covered in this dissertation. However, as this dissertation and also other studies have pointed out, uncertainty and financing constraints facing a certain enterprise depends on its characteristics and the market condition in which it operates. Therefore, similar studies done using information from other types of firms, *e.g.*, private textile and garment enterprises, would be useful in terms of improving the understanding of private-sector investment in Vietnam.

Finally, in this dissertation the effects of financial market imperfections and uncertainty are examined separately using information from the same set of private rice millers. Both factors exhibit significant effects on investment of private rice millers. Therefore, it can be understandable that a rice miller may at the same time encounter both financial market imperfections and uncertainty. The coexistence of financial market imperfections and uncertainty provokes some questions to be answered. Do these factors affect investment of rice millers independently or jointly? Do these factors intensify or mitigate each other's effect on investment of rice millers? Studies focussing on these issues may lead to interesting and relevant results. There are some studies that have tried to combine these issues, *e.g.*, Lensink and Sterken (2002), Bo, Lensink, and Sterken (2003).