The transformation of modern food retailers in Indonesia: opportunities and challenges for smallholder farmers

by

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Dedication

This thesis is dedicated to my family: my beloved husband, Raden Deden Djaenudin, who has provided neverending support all the way since the beginning of my studies and to my children, Radja Ahmad Nur Fikri and Dwi Fitri Maharani, who have been great sources of motivation and inspiration.

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Last but not least, I thank God for giving me everything and the opportunity to undertake higher education. I hope that the knowledge will be useful not only for my family and I but also for humanity in general.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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Abstract

Much of the literature examining the modern food retail sector in emerging economies analyzes the factors determining farmers' participation in supermarket channels, the economic impact of participation, the institutional arrangements of evolving supply chains, and the role of intermediaries in linking farmers to supermarkets. This thesis adds to this literature in four important ways. Firstly, few studies examine contractual arrangements between farmers and supermarket buyers in Indonesia. Secondly, studies around the world analyzing modern food channels have paid little attention to the subjective attitudes of farmers in marketing decisions, assuming all farmers would sell to supermarkets if they have the capacity. Thirdly, available studies have paid little attention to the importance of relationship quality between farmers and buyers. Finally, most studies use current assets in analyzing determinants of farmers' participation in supermarket channels resulting in endogeneity problems.

The specific objectives of the thesis are to analyze: (1) the differences and similarities between farmers selling to traditional and supermarket channels with respect to household, farm and marketing characteristics; (2) factors determining chili farmers' participation in supermarket channels and the impact of participation on household income; (3) the perception of chili farmers regarding the quality of relationships with their buyers in the traditional and supermarket channels; (4) the nature of contractual arrangements between chili farmers and their buyers, and the determinants of farmers' commitment in the two channels; and (5) the importance of buyer attributes and determinant factors that influence farmers when choosing preferred buyers.

The research demonstrates that households in the supermarket channel have higher levels of human capital, more capitalized on non-land assets, and are more

specialized in chili production than those in the traditional channels. They participate in the supermarket channels through middlemen, particularly farmer groups. The important determinants of supermarket participation are education, years of growing chilies, distance from house to asphalt road and storage capacity. Participation in supermarket channels is associated with an increase in per capita income.

This study incorporates three relationship quality variables in the analysis: trust, satisfaction and commitment. Similar to traditional channel farmers, supermarket farmers have low levels of trust in their main buyers. With respect to satisfaction and commitment, supermarket farmers have more positive perceptions than traditional channel farmers. Trust and satisfaction have a significant influence on farmers' commitment, while the actual price has no influence. Verbal agreements are the preferred contractual arrangements between farmers and buyers in the supermarket channel. The analysis of farmers' subjective attitudes towards buyer attributes indicates that the attributes of price premiums and receiving cash immediately are the most important when farmers in the two channels choose preferred buyers. The LC cluster analysis suggests heterogeneity among chili farmers in the two channels.

The results of this study have important implications on how to improve support to small farmers in Indonesia. The results confirm that integrating small farmers into supermarket channels should be promoted as a powerful strategy for helping farmers increase income. However, since many chili farmers still prefer to deal with buyers in the traditional channel, it is important to lower transaction costs in these markets. Traders need to maintain and improve the quality of relationships with chili farmers. The government should focus on public goods, including road, power and wholesale market infrastructure.

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List of acronyms

ACIAR	Australian Centre for International Agricultural Research
ANOVA	Analysis of Variance
BIC	Bayesian Information Criterion
BW	Best Worst
FDI	Foreign Direct Investment
FFVs	Fresh Fruit Vegetables
HGG	Head of Grower Group
HSD	Honesty Significant Difference
HVAPs	High Value Agricultural Products
ICASEPS	Indonesian Centre for Agriculture Socio-Economic and Policy Studies
IDR	Indonesia Rupiah (The official currency of Indonesia)
IFPRI	International Food Policy Research Institute
IMR	Inverse Mills Ratio
KMO	Kaiser-Meyer-Olkin of Measure of Sampling Adequacy (KMO-MSA)
LC	Latent Class
LL	Log-likelihood
OLS	Ordinary Least Squares
MANOVA	Multivariate Analysis of Variance
SIS	Standardized Interval Scale
SPSS	Statistical Package for Social Sciences
SQRT	Square Root
TCE	Transaction Cost Economics
TEM	Treatment Effects Model