FACTORS INFLUENCING THE DEVELOPMENT OF FARMERS' ABILITIES DURING AND AFTER UNDERTAKING RECURRENT TRAINING PROGRAMMES IN JAPAN

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Currently, the agricultural industry in Japan has an ageing farmer population, mostly having traditional ideas, skills and knowledge regarding their farm business. To ensure that these farmers adapt to more advanced technology and a more competitive environment, their abilities should be further developed. However, what specific abilities need to be developed in modern Japanese farmers and how to develop them is not clear. Moreover, the existing training structures provide educational services primarily for students who plan to engage in farming soon but not for current farmers who want to gain deeper and wider knowledge that is useful for their business development. Thus, recurrent education for experienced farmers is underdeveloped and a pressing challenge. Therefore, we have organised a pilot training programme, based in Iwate University, for delivering recurrent education to farmers in Tohoku (the northeast region of Japan) since 2007. This programme comprises four modules: administration, production, marketing and business planning. The present study investigates factors, related to both knowledge and experiences, which influence the improvement in farmers' abilities. In particular, we examine what kind of knowledge gained from the training programme and activities experienced on their farms after completing it are important for enhancing farmers' abilities. To this end, we used multivariable analysis of data collected through surveys answered by farmers who have completed all programme modules from 2007 to 2011. Between December 2011 and April 2012, questionnaires were delivered to 114 participants, generating 63 valid responses.

The survey data analysis proves that the respondents can improve their abilities, especially those of being adaptive to the changing business environment (e.g. information-gathering skills) and of becoming entrepreneurs (e.g. risk-accepting behaviour), during or after the training programme. Our analysis also proves that (1) respondents' experiences are more significant for improving their abilities than knowledge is; (2) new experiences after the training are more significant than their past experiences, which are measured by the numbers of years of farming; and (3) experiences related to marketing are largely significant rather than those related to administration and production on their farm.

Our analysis suggests a theoretical framework demonstrating an association between improving abilities and the influencing factors of knowledge and experiences; it also explains how the training programme should be reviewed to be more effective and practical for developing farmers' abilities. Furthermore, we refer to a wider usability of our pilot training programme, and, more generally, discuss about the agricultural innovation policy and training programmes for farmers in Japan.