SUMMARY

IRFAN NABHANI. Mobile Broadband for the Farmers: A Case Study of Cocoa Farmers in Southern East Java Indonesia. Supervised by ARIEF DARYANTO, MACHFUD and AMZUL RIFIN.

Recent development on Indonesia digital technology has transform culture and the way of people interact each other on both social and business activities. Extensive broadband coverage expansion and increasing trend on smartphone penetration give significant impact to the growth on internet user (dominated by mobile internet), social media users, and mobile applications include local based applications. Some researchs state that the development of digital economy contributes to economic development. Broadband development affects many other sectors such as banking, trading, tourism, transportation and agriculture. This study focuses on digital inclusion in agriculture. Although digitalization could contribute to the improvement in many cases, it doesn’t necessarily solve all the problems. There are some analog sides of the industry that require analog approaches. This study provides a comprehensive analysis on industry and assesses potential contribution of digital inclusion in improving the competitiveness of industry.

This study focuses on cocoa sector as one of Indonesia seed commodity and part of international market which was supported by 1.7 million hectares plantation and 1.7 million farmers. Global cocoa value chain inclusion does not necessary improve the farmers’ quality of life due to various problems faced by cocoa farmers. As mentioned above, this study analyses the industry environment and seeks the proper analog and digital approach to improve the competitiveness of Indonesia cocoa. As part of the analysis on digital contribution, this study also analyses the technology acceptance by cocoa farmers and the impact to their business performance.

First part of this study provide a high level overview about Indonesia cocoa includes its’ position in the global cocoa supply chain. This section provides quantitative analysis on the market structure (market share) and competitiveness (Revealed Comparative Advantage) of Indonesia cocoa, while the qualitative analysis analyses the competitiveness gap on Indonesia cocoa based on interview with cocoa experts using World Economic Forum (WEF) framework as the measurement tool. This section concludes that there is a decreasing trend on Indonesia position in the global cocoa market and this sector faces competitiveness gaps on business sophistication, innovation, and macroeconomic condition.

Next part of the study provides an analysis on potential benefit for cocoa farmers from global value chain inclusion by exploiting the dynamics in the governance of global value chain. Based on literature study and interview with the experts, internet is considered would able to help farmers to improve their quality of life by increasing the complexity of transaction along with the capability improvement on transaction codification and finally enabling the farmers to access a wider market include virtual market.

In order to analys the farmers’ acceptance on internet technology, this study employs Technology Acceptance Model (TAM), a model developed by Davis
(1989) to explain the people’s behavior on adopting new technology. The two main factors in this model are Perceived Ease of Use (PEoU) and Perceived Usefulness (PU) which will influence the Intention to Use (IU) of specific technology. These two main factors are influenced by some external variables. Based on previous researches, this study combines the variable of business environment represented by sub-variable of Five Forces Porter with the variable of individual environment represented by sub-variable of perceived cost, perceive security and convenience, and social environment. This part of the study proposes a conceptual framework on the impact of technology adoption to business performance through intermediary variables of creativity and innovativeness.

A field study was conducted in southern part of East Java with the consideration on the number of cocoa farmer, quality of broadband network, and prediction on smartphone penetration. Total respondents of this study are 193 cocoa farmers and this part of the study concludes that Perceived Ease of Use (PEoU) is significantly influenced by user's perception on cost and social influence, while the Perceived Usefulness (PU) is significantly influenced by cost perception, security and convenience perception, and business environment. The Intention to Use (IU) of a technology is significantly influenced by the Perceived Usefulness (PU). The actual usage on mobile broadband technology is dominated by search engine on real time global market price and knowledge on cultivation and processing. As the result on the analysis on the impact of technology adoption, this study concludes that the user perceives the indirect benefit of mobile broadband through intermediary variables of creativity and innovativeness.

This study concludes that Indonesia cocoa farmers have an opportunity to improve their quality of life by utilizing mobile broadband. Theoretically, this study contributes new understanding on technology acceptance model by combining individual and business environment factors with the impact of technology adoption to business performance through creativity and innovativeness. Managerial implication of this study states that key success factor on implementing this technology is the active involvement of business/farmer association to encourage the usefulness perception of this technology beside social approach to promote the perception on ease of use.

This study has some limitations apart from the usefulness empirical insight provided by this study. It employs a nonprobability sampling that limits the generalizations of the findings. Moreover, with the consideration that the respondents are farmers, all of the measurements are using perception scale to simplify the data collection process.

Key words: digitalization, mobile broadband, competitiveness, cocoa farmers, technology acceptance model, business performance.