

RINGKASAN

Konsumsi beras di Indonesia cenderung stabil namun diperkirakan meningkat seiring pertumbuhan penduduk dan perubahan pola konsumsi, sementara produksi padi memerlukan efisiensi agar mampu memenuhi kebutuhan yang terus bertambah. Salah satu upaya peningkatan efisiensi adalah melalui adopsi teknologi *combine harvester* yang terbukti mampu menghemat waktu, tenaga kerja, biaya panen, serta menekan kehilangan hasil dibandingkan metode tradisional. Meski demikian, tingkat adopsi teknologi ini di kalangan petani, khususnya di Kecamatan Lohbener Kabupaten Indramayu, masih bervariasi karena dipengaruhi oleh berbagai faktor seperti kondisi sosial ekonomi, persepsi terhadap manfaat, luas lahan, dan akses terhadap teknologi.

Penelitian ini bertujuan untuk menganalisis tingkat adopsi teknologi *combine harvester* pada petani padi di Kecamatan Lohbener Kabupaten Indramayu, menganalisis hubungan antara karakteristik inovasi yang meliputi keunggulan relatif, kesesuaian, kerumitan, dapat dicoba, dan dapat diamati dengan tingkat adopsi, serta menganalisis pengaruh karakteristik inovasi dan karakteristik petani seperti usia, pendidikan, pengalaman berusahatani, luas lahan garapan, pendapatan, dan akses informasi terhadap keputusan adopsi teknologi *combine harvester* di Kecamatan Lohbener Kabupaten Indramayu. Menggunakan aplikasi Excel dan IBM SPSS versi 25, analisis yang digunakan yaitu: deskriptif, korelasi, dan regresi linear berganda. Jumlah total responden dalam penelitian ini adalah 100 petani.

Tingkat adopsi teknologi *combine harvester* oleh petani di Kecamatan Lohbener berada pada kategori sedang. Hambatan non-teknis seperti kekhawatiran terhadap dampak lahan, keterikatan emosional pada tenaga kerja tradisional, dan minimnya literasi teknologi menjadi tantangan utama. Tingkat adopsi teknologi *combine harvester* di Kecamatan Lohbener dipengaruhi secara signifikan oleh lima variabel, di mana keunggulan relatif, kesesuaian inovasi, dapat dicoba, dan dapat diamati menunjukkan hubungan positif yang kuat. Persepsi kerumitan teknologi berkorelasi negatif, menunjukkan bahwa semakin sulit petani menganggap penggunaan dan perawatan alat ini, semakin rendah minat adopsinya. Karakteristik inovasi (keunggulan relatif, kesesuaian, kerumitan, dapat dicoba, dan dapat diamati) serta karakteristik petani (pendidikan, luas lahan, pendapatan, dan akses informasi) secara bersama-sama berpengaruh signifikan terhadap keputusan adopsi *combine harvester* di Kecamatan Lohbener. Sebagian besar variabel independen berpengaruh parsial, kecuali usia dan pengalaman berusahatani. Persamaan regresi yang dihasilkan memprediksi bahwa peningkatan faktor-faktor seperti keunggulan relatif, kesesuaian, dan pendapatan akan mendorong adopsi, sedangkan kerumitan teknologi menghambatnya. Implikasinya, strategi diseminasi teknologi perlu fokus pada demonstrasi manfaat, kemudahan penggunaan, dan aksesibilitas finansial, dengan pendekatan diferensiasi untuk petani berlahan sempit atau berpendidikan rendah.

Kata Kunci: padi; *combine harvester*; deskriptif; korelasi; regresi linear berganda.

SUMMARY

Rice consumption in Indonesia tends to be stable but is expected to increase along with population growth and changes in consumption patterns, while rice production requires efficiency to meet the increasing needs. One effort to increase efficiency is through the adoption of combine harvester technology which has been proven to save time, labor, harvest costs, and reduce yield losses compared to traditional methods. However, the level of adoption of this technology among farmers, especially in Lohbener District, Indramayu Regency, still varies because it is influenced by various factors such as socio-economic conditions, perceptions of benefits, land area, and access to technology.

This study aims to analyze the level of adoption of combine harvester technology among rice farmers in Lohbener District, Indramayu Regency, to analyze the relationship between innovation characteristics including relative advantage, suitability, Tingkat kerumitan, Dapat dicoba, and Dapat diamati with the level of adoption, and to analyze the influence of innovation characteristics and farmer characteristics such as age, education, farming experience, land area, income, and access to information on the decision to adopt combine harvester technology in Lohbener District, Indramayu Regency. Using Excel and IBM SPSS version 25 applications, the analysis used is: descriptive, correlation, and multiple linear regression. The total number of respondents in this study was 100 farmers.

The level of adoption of combine harvester technology by farmers in Lohbener District is in the moderate category. Non-technical barriers such as concerns about land impacts, emotional attachment to traditional labor, and lack of technological literacy are the main challenges. The level of adoption of combine harvester technology in Lohbener District is significantly influenced by five variables, where relative advantage, innovation suitability, trialability, and observability show a strong positive relationship. Perception of technological complexity is negatively correlated, indicating that the more difficult farmers consider the use and maintenance of this tool, the lower their adoption interest. Innovation characteristics (relative advantage, suitability, complexity, trialability, and observability) and farmer characteristics (education, land area, income, and access to information) together have a significant effect on the decision to adopt combine harvesters in Lohbener District. Most independent variables have a partial effect, except for age and farming experience. The resulting regression equation predicts that increasing factors such as relative advantage, suitability, and income will encourage adoption, while technological complexity will inhibit it. The implication is that technology dissemination strategies need to focus on demonstrating benefits, ease of use, and financial accessibility, with a differentiated approach for small-scale or low-education farmers.

Keywords: *rice; combine harvester; descriptive; correlation; multiple linear regression.*