

Strategy Of Change Of Human Resources Investment By Tobacco Farm Workers In Improving Productivity

Vynysha Maretha Enjellhyna Slamet Riyadi¹ Suswadi¹ Norbertus Citra Irawan¹

1. Agribusiness study program, Faculty of Agriculture, Tunas Pembangunan University, Surakarta
Corresponding Email: norbertuscitrairawan@lecture.utp.ac.id

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Abstract

The human resource investment focused in this study is on education and training to improve the competence and skills of farm workers. Human resource investment, especially in green education and green skills, is very important to improve the productivity of tobacco farm workers. This study aims to identify problems related to human resource (HR) investment in tobacco farm workers and formulate change strategies to improve their productivity. This study uses a mixed method, namely qualitative, quantitative, and descriptive. The results of the study showed that the results of direct observation in the field found several problems, namely: 1) Farm workers are not experts in the application of environmentally friendly technology 2) Farm workers are unable to use biopesticides 3) Farm workers are unable to choose varieties of plants that are resistant to pests 4) There is no change in the behavior of farm workers in implementing green technology. Based on these findings, this study proposes a change strategy that includes: 1) Using DBHCHT to access training environmentally friendly technology 2) Using DBHCHT to participate in biopesticide training 3) Using DBHCHT to improve experience in using varieties 4) DBHCHT is used to improve self-motivation. The implementation of this strategy is expected to improve the competence, skills, and productivity of tobacco farm workers

Keywords: *Change Strategy, Education, Human Resources Investment, Productivity, Skills, Tobacco Farm Workers*

Introduction

The agricultural sector, especially the tobacco industry, plays an important role in the Indonesian economy. Tobacco farm laborers are the backbone of the production of this high-value commodity (Hanum, 2024). However, the low quality of human resources is often the main obstacle in achieving optimal results (Prameswari and Purbadharmaja, 2024). Research shows that lack of training, knowledge, and access to modern technology results in low productivity and instability of farmer income (Jannah and Hasyyati, 2024). Therefore, investment in human resources is very important to increase the productivity and competitiveness of tobacco farm laborers (Agita, 2024). This study aims to identify problems related to human resource investment in tobacco farm laborers and formulate appropriate change strategies to overcome these problems.

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The focus of this study is on the aspects of education and skills, because both are the main foundations in increasing farmer capacity (Ritonga, 2024).

Method

This study This study uses a mixed method, namely qualitative, quantitative, and descriptive. The location of the study was determined purposively in Kagokan, Blimbing, and Krajan Villages in Gatak District, considering that this area is the area receiving the most DBHCHT. The research respondents were determined using the simple random sampling method, with a sample size of 30% of the total 130 tobacco farm laborers. Data were collected through surveys, questionnaires and interviews. The questionnaire was used to collect quantitative data on respondent characteristics, green competencies, green skills, and green productivity. Interviews were conducted to dig deeper into information about HR investment problems and the change strategies implemented.

Result And Discussion

Analysis of tobacco farm workers' perceptions of green productivity work ethic factors that affect productivity is an important step to optimize tobacco farm workers' human resource investment in increasing productivity. Understanding the problems found from factors that affect work ethic allows for the implementation of appropriate strategies.

Table 1. Analysis of Green Productivity Work Ethic Factors

No.	Factor	Work ethic	Gaps Analysis			Ranking
			Expectations	Reality	Gaps	
1	Green Productivity	Farm workers become experts in the application of environmentally friendly technologies	2.31	2.19	-0.13	2
2		Farm workers are able to use biopesticides to increase production productivity	2.47	2.03	-0.44	5
3		Farm workers are able to select pest-resistant plant varieties	2.25	2.09	-0.16	3
4		Farm workers are able to reduce costs due to plant disease attacks	2.28	2.38	0.09	1
5		There has been a change in the behavior of farm workers in implementing green technology.	2.34	2.16	-0.19	4

Source: Processed Primary Data (2025)

Based on the results of Table 1, tobacco farm workers showed the ability to reduce costs due to plant disease attacks with a positive gap of 0.09, reflecting a good understanding of disease control and sustainable agricultural practices. These results are in line with Natasya's research (2024) which emphasized that farmers adopt various strategies to increase efficiency and productivity, which contribute to reducing the cost of plant disease attacks. Although farm workers are aware of the importance of biopesticides as an environmentally friendly alternative, they still experience difficulties in using them, with a negative gap of -0.13. Dadi's research (2021) emphasized that agricultural development does not only depend on productivity, but also on the active role of farmers in the sustainable development process. The ability of farm workers to choose pest-resistant plant varieties also needs to be improved, with a negative gap of -0.16. Research by Harahap et al. (2024) shows that agricultural education plays an important role in improving farmers' ability to choose the right varieties. In addition, changes in farm workers' behavior in implementing green technology still need to be encouraged, with a negative gap of -0.19, indicating that despite awareness, adoption of these practices is not optimal. Research by Tarmana and Ulfah (2021) emphasizes the need for more focused and practical training to improve farm workers' understanding and skills in using environmentally friendly technology and appropriate plant varieties.

Table 2. Analysis of Work Ethic Problem Change Strategy in Increasing Productivity

No.	The problem	PCI Change Strategy		Gaps Analysis			Ranking
				Expectations	Reality	Gaps	
1.	Farm workers are not skilled in applying environmental friendly technology	S1	Using BHCHT to access training environmentally friendly technology	3.50	3.34	0.16	4
2.	Farm workers are unable to use biopesticides	S2	Using DBHCHT to attend biopesticide training	3.63	3.69	0.19	3
3.	Farm workers are unable to select pest-resistant plant varieties.	S3	Using DBHCHT to improve the experience in using varieties	3.63	3.41	0.22	2

4.	There is no change in the behavior of farm workers in implementing green technology	S4	DBHCHT is used to increase self-motivation	3.38	3.09	0.28	1
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Source: *Processed Primary Data (2025)*

The use of Tobacco Excise Revenue Sharing Funds (DBHCHT) has proven effective in increasing the motivation of farm workers to implement green technology, with a positive gap of 0.28. Social Learning Theory explains that farm workers can learn through observing and modeling the behavior of others. which according to (Warini, Hidayat and Ilmi, 2023) states that basically, social learning theory focuses on how people learn through the process of observing and modeling the behavior of others. By using DBHCHT as a tool to implement this strategy. This is in line with research (Fu'ad, 2024) showing that DBHCHT can contribute to attitudes of increasing self-motivation in dealing with crisis situations . In addition, DBHCHT is also used to improve the experience of farm workers in choosing pest-resistant varieties, with a positive gap of 0.22, which is in line with Prospect Theory. According to (Hartono, Purnomo and Andhini, 2020) states that prospect theory shows that people assess losses and gains differently, and thus individuals make decisions based on perceived benefits rather than perceived losses. DBHCHT is used to bridge farm laborers in implementing the strategies offered. This is in line with research (Nisa, 2023) showing that the development of new varieties with support from DBHCHT aims to increase agricultural yields and the quality of tobacco produced, as well as provide economic benefits for farmers.

DBHCHT also plays a role in training on the use of biopesticides, with a positive gap of 0.19, which is approached through Constructivism Theory which according to (Dewi and Fauziati, 2021) states that constructivism is centered on students as active learners, so that in its implementation the theory of constructivism is always equated with teaching methods that focus on students (student-centered instruction). By using DBHCHT for the realization of this strategy, it is hoped that farm workers can build skills and knowledge actively through direct and in-depth learning. This is in line with research (Sumita, 2020) showing that the DBHCHT program has succeeded in improving farmers' skills and knowledge about environmentally friendly agricultural practices . Finally, the use of DBHCHT to access environmentally friendly technology training shows a positive gap of 0.16, which is supported by Andragogy Theory, which according to (Kurniati *et al.* , 2022) states that in andragogy, adult involvement in the learning process is much greater, because from the beginning a diagnosis of needs must be made, goals formulated, and learning outcomes evaluated and implemented together. This strategy is realized using DBHCHT in its implementation. This is in line with research (Yuwanti, Mansur and Hariyadi, 2021) showing that DBHCHT is used to increase community capacity through environmentally friendly technology training and its impact on the local economy. Research shows that DBHCHT can increase community capacity through training and education, and help increase productivity.

Conclusion

Field observations found several problems faced by farm workers, including lack of expertise in applying environmentally friendly technology, inability to use biopesticides, difficulty in selecting pest-resistant plant varieties, and no behavioral changes in implementing green technology. To overcome these problems, several strategic solutions have been formulated. First, using the Tobacco Excise Revenue Sharing Fund (DBHCHT) to access environmentally friendly technology training. Second, utilizing DBHCHT to participate in biopesticide training. Third, using DBHCHT to increase experience in using pest-resistant varieties. Finally, DBHCHT can also be used to increase farm workers' self-motivation. By implementing these solutions, it is hoped that farm workers can improve their skills and knowledge, and contribute better to sustainable agricultural practices

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