MULTIPLE INCOME PATTERNS AND REFLEXIVITY: THE STRATEGY OF ELDERLY WOMEN FARMERS IN FOOD SECURITY

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ABSTRACT
The era of modernization marked by the emergence of technology has had its own impact on people's lives, such as the existence of technology in the agricultural sector with the emergence of agricultural machines. The agricultural machines that are present have made it easy for farmers, but for some people, especially for farm workers, it has provided its own risk. Including the existence of a planting machine in the village of Kedungharjo, it has given its own consequences for old female farm workers. The consequence they feel is the risk of reducing human labor in agriculture. Therefore, old female farm workers to overcome food insecurity, they try to do a strategy of dual income patterns with farm-income, off-farm income, and non-farm income. Then from the risks felt by old female farm workers, they reflect on the risks they experience, as a form of response to overcome the risks of agricultural technology. The method used in this research is descriptive qualitative. The purpose of this study was to determine the strategy of multiple livelihood patterns and reflexivity carried out by old female farm workers from the risks of agricultural technology.

KEYWORDS: Technological risk, livelihood strategies, and reflexivity.

1. INTRODUCTION
The existence of modernization which is marked by the presence of technology has changed aspects of people's lives. Changes that occur in the current modern era, have had an impact on various aspects of life (Giddens, 1991) as well as changes that occurred in the agricultural sector with the emergence of agricultural technology in the form of agricultural machines. The emergence of technology in the agricultural sector has had its own impact on farmers, such as providing convenience in doing agricultural work faster, and cheaper when compared to paying for labor. The ease of access to agriculture makes everyone lulled by the existence of technology, even though the emergence of
technology has its own consequences for society. According to Beck's (1999) view that as science advances,

The risk felt by the community for technological advances is also felt by female farm workers old village in Kedungharjo village. The existence of technology has had consequences for farm workers, especially since the existence of agricultural machinery technology in the form of planting machines that were given by the government. The consequence that they feel today, from the existence of technology is the reduction of labor for planting workers. As revealed by Beck that along with the development of science and technology, the consequence of late modernity is the increasing number of unemployment faced by humans, especially for those who do not have the skills and knowledge, when compared to people who have knowledge and expertise (Beck, 2015).

Agricultural technology in the form of agricultural machinery has been specifically designed for use by men, even though women also contribute to meeting food needs in the agricultural sector. In addition, the rice fields they own do not have a large area of land, because the agricultural land is usually already distributed or passed on to their children. So that old female farm workers to meet their food needs work as planting laborers in the fields. However, agricultural technology designed specifically for men puts women at risk of losing their jobs in the agricultural sector. As in the research of Kawarazzuka, et.al (2018), most of the technological tools in Asian countries have been designed for men, this is because men are considered to have more power than women, because the technology designed is too heavy for women if the use is a woman. Agriculture is the main sector for old female farm workers who live in Kedungharjo village as their livelihood. This is because their old age does not allow them to work in the industrial sector such as being factory workers.

The risk posed by the existence of agricultural technology gives old female farm workers having to add to other jobs, both in the agricultural sector and outside the agricultural sector. Old female farm workers become more reflective to be able to face the perceived consequences of agricultural technology. The existence of this advanced modernity makes subjects are encouraged to be more reflective in dealing with unexpected risks in the future (Beck, 1992). When they face the challenges of the modern era, they are required to continue working in the agricultural sector, even though their position has been threatened by the emergence of agricultural machinery technology. Therefore, they try to reflect on themselves or realize the risks that have threatened the old female farm workers,

The reflexivity carried out by old female farm workers is one way for them to survive in food security, amidst the risks that threaten them is to look for additional jobs not only in the agricultural sector, but also in the non-agricultural sector. This means that to meet food needs, old female farm workers must look for additional jobs so that food security in the family can survive. This was then used as a strategy for a double income pattern for old female farm workers in the village of Kedungharjo.
2. METHODS
The method used in this research is to use a qualitative approach, namely data generated by looking at research procedures, in the form of notes from someone or expressions from individuals as well as behavior from observations and leads to the conditions as a whole (holistic). Qualitative research according to Bogdan and Tylor (1975) is a research procedure that can produce descriptive data, namely verbally from people as well as written words and observed behavior. The reason for this study using qualitative methods is because the study examined the pattern of double living and reflexivity carried out by old female farm workers as a form of strategy carried out for family food security from the risks of agricultural technology.

The approach used in this study uses a descriptive qualitative approach, namely seeing the phenomenon as it is. So pen This research looks at the phenomenon of the existence of agricultural technology in the form of planting machines that have consequences for old female farm workers, with the risks they feel. Due to the perceived risk, it makes old female farm laborers to reflect on their own agricultural technology that has an impact on the food security of the family of planting workers. So they try to overcome this risk with a dual livelihood strategy that is carried out, so that they can meet their food needs amidst the threat of shifting their jobs as planting laborers. The location of this research was carried out in the village of Kedungharjo, Mantingan District, Ngawi Regency. This area has 404,7600 hectares of rice fields. With the area of rice fields owned by the Kedungharjo area, The majorart of people still work in the agricultural sector, either working as farmers or as farm laborers. However, the average age for working as a farmer is 56 to 65 years and over. The technique of determining the informants in this study was using a purposive method.

3. RESULTS AND DISCUSSION
A. Old Woman Farmer's Income
The income of the family of an old female farm worker in the village of Kedungharjo, the income received from the fields they own usually depends on the area of the rice fields owned by the workers. On average the rice fields owned by the old female workers are between 50 meters to 900 meters in area, with the yields obtained getting 15 sacks of rice or around Rp. 500,000 to Rp. 5000.000. These results do not include the purchase of fertilizer, paying for rice seeds, paying for planting, and irrigation. Most of the rice fields owned by old female workers have been distributed or passed on to their children. So that the area of rice fields owned is getting narrower. Therefore, old female farm workers, in order to get additional income and help the family economy,

The results obtained while working as planting laborers, they work in a day usually earn Rp. 50,000/ Day. In the past, the work they did for planting laborers was usually more than 1 month, but since the advent of technology, they only worked for 3 weeks with a maximum of Rp. 1,500,000. These results are usually obtained to increase the cost of daily needs because while waiting for the harvest, the money they get from their fields is not enough to meet their daily needs for 4 months. In addition to the work of farm laborers, as long as there is agricultural technology in the form of rice harvesting
machines at harvest, a lot of leftover rice falls, so that sometimes old female farm workers to increase their needs look for leftover rice in people's fields.

### B. The Double Income Pattern as a Food Security Strategy for Old Woman Farm Workers

The income from the old female farm laborers who cannot meet their daily needs makes the female farm workers have a strategy in meeting their food needs. The strategy used by old female farm workers is to use the form of a double income pattern. According to Ellis (2000), by using a sustainable livelihood pattern with various efforts made to meet the degree of economic, social and ecological needs, in a balanced and fair manner to achieve a degree of social welfare, it is carried out with the activities and utilities of the existing capital in the living system so that a more effective livelihood strategy is needed to overcome poverty.

Double livelihood strategy used by old female farm laborers is a form of their way of dealing with food insecurity for elderly farming families. Because agricultural products from the fields they have cannot meet their food needs, while waiting for the harvest they have to wait 4 months. While waiting 4 months before harvest time, they are looking for a strategy with a double income pattern, which is by working in the agricultural sector as well as in the non-agricultural sector. According to Ellis (2000), there are three classifications of sources of livelihood, namely in the form of farm income, off-farm income, and non-farm income. Of the three sectors, old female farm workers use a double income strategy according to Ellis' view.

Based on the research results the income pattern for the families of elderly female farm workers is also generated from their own rice fields. Rice fields owned by old female farm workers usually do not have a large area of land. Because most of the families of farm laborers are old women, their rice fields have been inherited or distributed to their children. The rice fields that are worked on are usually with an area of 50 meters to 900 meters. Income from rice fields is usually only Rp. 500,000-Rp. 500,000, according to one old female farm worker, the high yields are not worth the large expenditures to finance the fields they own, such as financing to buy seeds, fertilizers, water, and so on. So that the results from the rice fields are considered still lacking for daily needs.

The livelihood strategy used by the old female farm laborers is that women are a family of farmers to help the family's needs, they work as farm laborers, namely as planting laborers and laborers taking grass in the fields. The wages obtained from the planting workers usually get Rp. 50,000/day, while for the workers taking the grass they are also paid the same as the planting workers, which is Rp. 50,000/day i.e. working from 06.00-12.00 noon. The strategy of an old female farm worker by becoming a laborer in someone else's rice fields is a livelihood strategy with the off-farm income sector. As the view of Ellis (2000), namely income that is outside agriculture with income derived from labor wages, profit sharing and non-wage labor contracts and others,
The emergence of agricultural technology in the form of planting machines in the village of Kedungharjo, has led to the confinement of planting labor to old women. This makes old female farm workers look for additional income outside the agricultural sector. Old female farm laborers usually work additionally outside the agricultural sector, by working as a cook at wedding venues. The wages paid to them are usually Rp. 100,000/day. The work outside the agricultural sector that can be done for old female farm workers is only in the field of cooking, because their old age does not allow them to work in the industrial sector. So, they become paid cooking wages at weddings or family events. This sector is a form of non-farm income strategy.

The strategy of the dual income pattern carried out by the old female planting workers is a way for them to increase their income so that their food needs can be maintained. The existence of technology with the existence of a planting season, poses a risk to planting workers, so that they are not looking for additional income outside the agricultural sector. The strategy used by the old female planting workers in addition to earning income is in the form of farm income, off-farm income, and non-farm income strategies. This is done by old female farm workers so that food security in the household can be maintained while waiting for the harvest from the fields they have.

C. Reflexivity of Food Security Strategies
The existence of modernization which is marked by the emergence of technology has given its own consequences for some people. The existence of technology that is considered capable of overcoming the problems of people's lives, but without realizing it has given the community a risk. Similar to the existence of agricultural technology in the village of Kedungharjo, Mantingan, Ngawi, agricultural technology from government assistance has had its own impact on the people of Kedungharjo. Since agricultural technology existed, the work of farmers has been made easier with agricultural machines. For example, with a planting machine, farmers do not have to pay the wages of planting workers and buy rice seeds, besides the price for renting a planting machine is cheaper than paying the wages of planting workers. The wages for renting a planting machine are Rp. 800,000-Rp. 900,000 per land area of 3,500/meter, this price includes paying for rice seeds and planting machine operators. Meanwhile, the wages for planting workers are Rp. 500,000 per land area of 3,500/meter, but the wages do not include buying rice seeds and buying food for planting workers.

Presence of technology Agriculture in the form of planting machines has provided convenience for farmers. But its existence has also given its own consequences to the old female planting workers. Planting machines that are specifically designed for men, make women unable to operate these planting machines. So that it poses a threat to female planting workers, especially for old age planting workers, they will be at risk of reducing labor in the agricultural sector. This makes them to move quickly to reflect on the risks they face. Reflexivity according to Beck's (2003) view that advanced modernity raises a distinctive concept of the existence of reflexivity,
Old woman farmworker reflecting themselves from the existence of agricultural technology, they have realized that their position as planting laborers will be displaced by agricultural technology. This is what makes old female farm workers make efforts to overcome the risks faced by agricultural technology. The knowledge possessed by the old female planting workers in the village of Kedungharjo is also limited regarding how to plant and how to plant it, in addition, they also do not get knowledge from the office related to agricultural issues. In the work of planting in the fields, old female farm workers still use the traditional method and their knowledge of how to plant is also done manually. Therefore, the emergence of technology makes them respond quickly to be able to overcome the reduction of income in the family. So that the anticipation made by old female farm workers is a form of a condition that responds to the risks they face with the existence of agricultural technology in the form of planting machines.

The conditions felt by the old female farm workers, they do not just do reflexivity in this era of modernity. They must also make efforts to overcome the risks faced for the sustainability of food security in the families of farm workers. According to Beck (1992) risk management also involves reflexivity both institutionally and individually. The risks faced by old female farm workers cause them to work independently to be able to overcome the risks they face, just as they try to add jobs outside of agriculture. This is because if you only expect income from the fields, it is still not enough to meet daily needs. So that their reflexivity responds to the conditions they feel and makes efforts to survive in food security.

4. CONCLUSIONS
The modernity that occurs is marked by the existence of technology which makes its own consequences for some people. For example, with agricultural technology in Kedungharjo village, the existence of a planting machine reduces job opportunities for old female farm workers. In fact, the agricultural sector is the main livelihood for the people of Kedungharjo, especially for old female farm workers. Their old age does not allow them to work in the industrial sector, so farm labor is one of the jobs that can help the family's economy, because the rice fields they own are not large, because they have been distributed or passed on to their children. The income received from the wages of planting laborers is currently decreasing because their position is defeated by planting machines. So that efforts to overcome food insecurity they seek a double income pattern strategy by working outside the agricultural sector or non-farm income. In addition, old female farm workers also reflect on the existence of agricultural technology, this is an effort to respond quickly to the situation of the risks they experience. So, from the reflexivity carried out by old female farm workers, they can make efforts to overcome food insecurity, by making efforts to make a strategy of double living patterns as a form of food security. this is an effort to respond quickly to the situation of the risks they experience. So, from the reflexivity carried out by old female farm workers, they can make efforts to overcome food insecurity, by making efforts to make a strategy of double living patterns as a form of food security.
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