

Stimulating Growth and Fostering Female Participation in Farm Business: The Role of Workplace Management

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1 Introduction

Workforce management is crucial for the resilient development of farm businesses given an increasing number of farms have native and international employees [Olson, Westra, 2022]. Hiring labor is simultaneously one of the biggest threats and opportunities in farm management [Kay et al., 2024]. For example, excessive turnover and conflicts between employees can cause higher indirect costs in the organization. In contrast, hiring labor can be beneficial for the growth of the farm business by improving labor efficiency and ensuring safe and comfortable working conditions. Therefore, farm managers should be striving to minimize the likelihood of problems between employees and develop efficient planning and communication strategies in their workplace.

Recently, Japan has been facing difficulties in gender relations. According to the Gender Gap Index of World Economic Forum, the country ranks 125th out of 146 countries in 2023, due to poor political empowerment and low economic participation and opportunity. In the Japanese farm sector, like in other industries, women's work has not been appropriately evaluated, so various efforts have been made to encourage women's participation [MAFF, 2020]. Female empowerment on farm employment has been a critical issue of the Japanese agricultural policy.

Nowadays, ultra-low fertility rates are common in most of the developed countries. Declining fertility has not only induced a decrease in the younger working age population in these countries, but it is also the major reason underlying a rapid population ageing. In Japan, the total fertility rate (TFR) has remained below the replacement level fertility (RLF) since 1974. The country's national TFR average is 1.3. As seen in Figure 1, there is a positive correlation between the female workforce participation rate and the TFR, such that countries with higher workforce participation rate also have higher birth rate. Social environments, including values, policies, and working practices, could affect both rates.

There has been a lot of debate regarding the Japanese population growth in both the scholarly literature and the public policy discourse. Moreover, empirical research has sought to identify to factors underpinning the low birth rate in Japan, as well as estimate the efficacy of public policies intended to boost the TFR (see, for example, the literature survey by Date, Shimizutani 2007). Yamaguchi (2005) provided policy implications that both availability of nurseries and flexible workplace systems can be direct measures to preserve the TFR. Specifically, as an example of flexible workplace systems for females, his study suggested that businesses should

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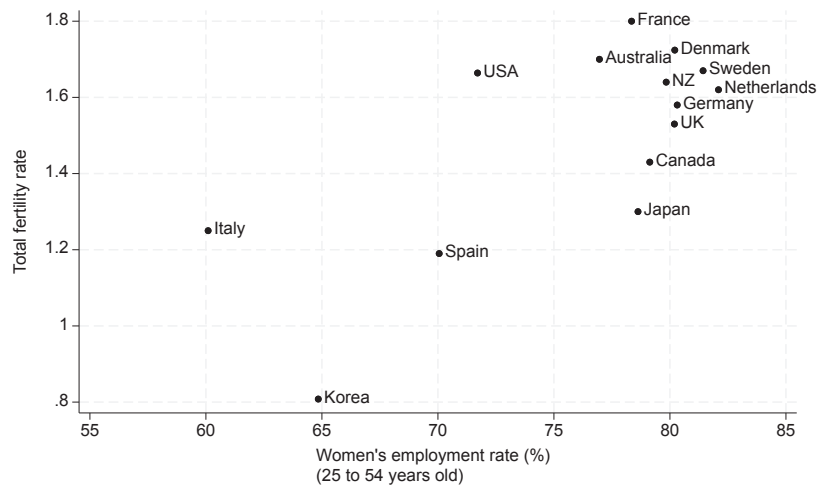


Fig 1. Relationship between women's employment/population rate and total fertility rate of selected developed countries in 2021
Source: OECD.Stat and OECD Family Database.

adopt flexible working hours program, encourage teleworking from home, and offer the opportunity of hiring back employees who left due to personal reasons, such as bearing and raising children.

Better workplace management can be a key to developing resilient farm businesses and, furthermore, to address the demographic issue in Japan. To demonstrate both female workforce participation and farm profitability, this paper examines one of the most innovative example of Japanese farm organizations. The paper is the result of a joint study developed by an academic and a farm manager who are commonly interested in human resource management.

2 Materials and Methods

This section outlines the case-study farm and its manager. *Mitchan-kobo* Co., Ltd. is a Japanese farm company producing and processing 'baby leaf', also known as 'mesclun greens' in English and 'mesclun' in French. The farm introduced 'baby leaf' as a new crop business in 2003. The farm has sixty-six greenhouses of approximately three hectares, generating annual gross income of 155 million Japanese Yen (1.04 million US\$) in 2022. This family farm was turned into a company limited to pursue modern farm business style in 2015. The farm company has a mission to enrich people's life, food culture, and local economy through its business.

Kaori, the head of *Mitchan-kobo* Co., Ltd., has graduated from a local college in southern Japan and has worked at her family farm after nine years' experience of working at a travel agency. She believes that a manager of a company must work for keeping employee's life comfortable. This belief has come from her experience of working under poor labor conditions since the latter half of the 1990s, as well as from finding inspiration in the value of job retention by female company manager from Germany. *Kaori* then got ambitious to run her ideal business, making employees happy, based on her family farm. She returned to her home to succeed her father as farm manager in 2004.

The farm company employs twenty regular workers, including sixteen women and five non-Japanese, as well as five non-regular workers in 2023. The number of regular workers gradually increases, recruiting one or two new employees annually. The farm company has positively accepted non-Japanese workers, especially

Vietnamese females, whereas only a few Japanese apply work at the farm. However, young Japanese has recently become more interested in working at the farm company because of its favorable benefits, such as two days-off every week, and offering parental and maternity leave. The partner of a Vietnamese worker in the farm company has also moved to the farm because of the better benefits than in his previous workplace.

'Baby leaf' is a 30-days old mixed product of various leaf vegetables, including arugula, beet, and similar Japanese vegetables. 'Baby leaf' has domestic growing market and is used, in restaurants and delicatessens. In general, greenhouse vegetables such as 'baby leaf', provide fast capital turnover. Because of this, the farm has improved its capital turnover and harvests seven-times annually.

'Baby leaf' is also a crop suitable for female farm workers because it requires light and clean workload. Specifically, greenhouse jobs include tilling and ground making with power machineries, solar sterilization with mulch, sowing with handcart seeding machines, control of water and temperature, and harvesting. Factory processing jobs include removal of weeds and insects from the harvested leaves, mixing the various kinds of vegetables, scaling and packing in small plastic bags, and delivering. During these processes, 'baby leaf' has to be treated carefully as it could be easily damaged. 'Baby leaf' has high demand in summer, while it is difficult to manage suitable temperature and avoid high-temperature injury on the product. Thus, the employees must carefully harvest and sell the product when its quality is best, because even a one-day delay in harvesting can decrease its value significantly.

3 Results

This section explains the results of the farm's workplace strategy and management. *Kaori* has her own belief as a farm company manager: Workers must feel comfortable mentally and physically, enjoy their life on- and off-farm and, in consequence, increase their motivation to work, as long as they work in a pleasant working environment. Good communication and a trustful relationship between workers and their manager are crucial for the performance and motivation on their job. A manager should have the willingness to listen employees' suggestion and complains. Therefore, she believes a manager must address workplace management to realize such ideal working environment and relationship.

The farm company has made continuous efforts to improve working environment in the past two decades (Table 1), being able to accept the changing nature of its employees. The greatest issue for its sustainable management has been keeping the high-quality female employees. Originally, the farm employed seasoned female workers and provided flexible working plans for employees leaving for personal reasons. Since 2006, the farm has started to hire younger female workers, often with babies, expand its business. The farm therefore often struggled in providing effective working plans given many young workers had to leave their job to take care of their children. The farm simultaneously found it difficult to hire experienced workers as their replacement or swap the working times of the employees.

Table 1. Chronological efforts for improvement in farm working environment

Year	Specific efforts
2003	'Baby leaf' was introduced.
2004	Current head of the business (<i>Kaori</i>) succeeded her father as farm manager.
2010	A day-off was fixed on Sundays, as common with non-farming. National Employment Insurance scheme was offered to employees. Parental and maternity leave program was developed.
2011	Smaller Enterprise Retirement Allowance Mutual Aid (SERAMA) scheme was offered to regular employees.
2015	The family farm was turned into a company limited. Modern processing plant with barrier-free facility was built. Employee lounge was made public to their children.
2016	SERAMA scheme was extended to non-regular employees.
2019	Leave for nursing care program was developed. Healthcare service was offered to employees. Extra accident and life insurance policies were offered to employees. Two days-off every week was instituted.
2020	Employees were encouraged to enjoy fully annual paid-leave program.
2021	Single-gender shower room was installed on the farm.
2022	Wage rates has increased on average by 12% for the past three years. An in-house interpreter (Japanese-Vietnamese) was employed.
2023	Employees were obliged to use annual paid-leave program every two months.

Source: Data provided by *Mitchan-kobo Co., Ltd.*

The farm also provides employees with opportunities to enhance their work motivation. Every employee is allowed to participate in the annual financial meetings of the organization to discuss openly the short and medium-term operating policies. This makes employees aware of cost-consciousness and improves productivity, resulting in wage increase of 12% from 2020 to 2022. Employees can get extra responsibilities, along with the chance to make more decisions, as they grow in their abilities and experience. In fact, a female Vietnamese worker was promoted as a director in the processing division after a discussion and agreement between the manager and the employees.

The farm offers an educational program for non-Japanese employees, including in-house Japanese learning class, financial support for driving school fees, and annual excursions to popular domestic locations, to support them to invest quality time in Japan. Bridging cultural barriers can greatly increase the chance of success in business in the medium- and long-run.

In result, those efforts for workforce management have led to an increase in the business size and efficiency. The area of cultivated greenhouse has expanded approximately three times in the past two decades, whereas yield of the product has increased more than three times in the same period (Figure 2). The gross income of the company has also raised 1.5 times since the farm transformed into a company (Figure 3). As illustrated in Figure 4, the monthly work hours per capita has decreased by 16% from 2018 to 2022. The introduction of an automatic packer could save labor hours, but better labor productivity occurred because of better performance of its employees through effective workplace management on the farm. Consequently, the yield per hour worked has increased by 57% through 2018 to 2022, and the value of farm production per hour worked increased by 12% in the same period.

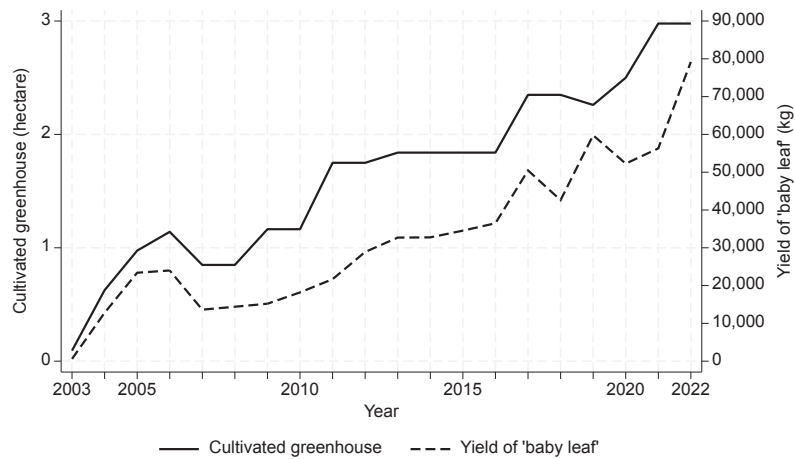


Fig 2. Chronological changes in cultivated greenhouse and yield in 'baby leaf' production
Source: Data provided by *Mitchan-kobo Co., Ltd*

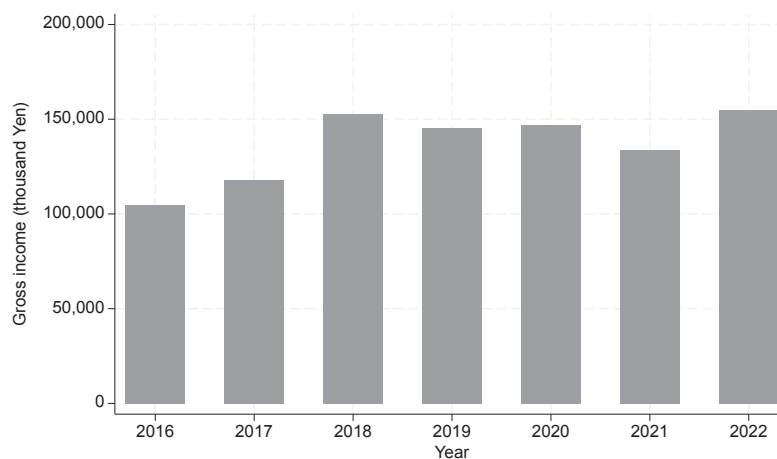


Fig 3. Chronological changes in gross income
Note: One-thousand Japanese Yen was approximately equivalent to \$US6.7.
Source: Data provided by *Mitchan-kobo Co., Ltd*

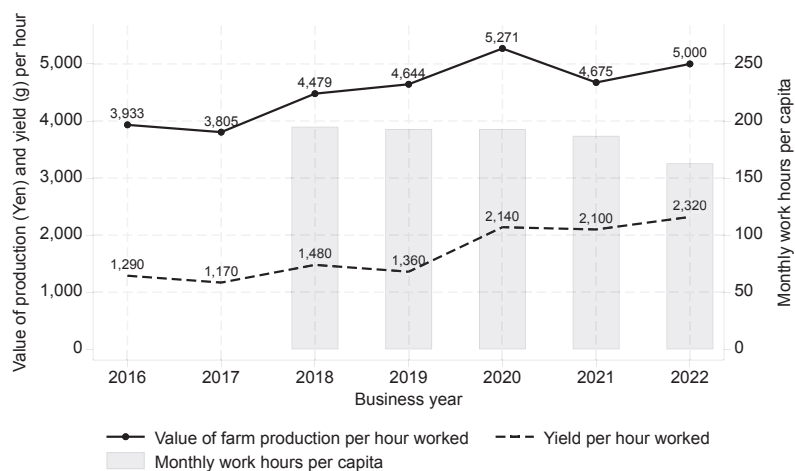


Fig 4. Chronological changes in labor efficiency since the farm was incorporated
Note: One-thousand Japanese Yen was approximately equivalent to \$US6.7.
Source: Data provided by *Mitchan-kobo Co., Ltd*

In essence, the case-study farm has limited turnover and raised labor productivities through its continuous efforts, whereas its female employees are given the flexibility to balance their work and personal life.

4 Discussion

Mitchan-kobo, the case farm in the study, can be regarded as an organization with innovative management in Japan. In 2023, the farm won the award for best practice of workplace management from the Japanese Minister of Agriculture, Forestry and Fisheries. Furthermore in 2024, the farm was graced with the Prime Minister Award for farm women's empowerment.

According to a recent survey of major Japanese agricultural companies with 1,412 respondents [JACA, 2022], 32% of them adopt flexible working hours system and 14% adopt short-time working for family care. As for leave programs, 59% of the respondents offer annual paid-leave program, while 28 % and 27% offer parental leave and maternity leave, respectively. The survey also shows that 44% of the respondents promoted better internal communication of business strategy and plan and 31% enhance employees' participation in important decision-making, to motivate them. The study also unveils poor diversity of workers in the Japanese farm sector, showing that 50%, 16% and 9% of the respondents regularly employed female, handicapped, and non-Japanese individuals, respectively. Thus, *Mitchan-kobo* demonstrates its cutting-edge management style with flexible and participatory working system favorable for employees' interests, comparing to the other Japanese advanced farms.

Furthermore, many companies are generally seeking better workplace management to attract high-quality female workers in Japan. Notably, *Itochu* Corporation, a Japanese mega trade firm, is a good example of archiving higher TFR from its employees through more effective workplace management [Nikkei Business, 2022]. As of 2005, the TFR of the *Itochu* Corporation's workers was 0.60, which was much lower than the average of Japan. They had a long-hours culture, often travelling overseas for their business. Mitigation of such tasks has been one of the challenges for employees, especially for the female ones. Since 2010, the corporation has upgraded its workplace management, including installation of an in-house nursery, introduction of early-bird shift and promotion of working from home. As a result, younger female employees have flexible options for their working arrangement to juggle work and home life. Interestingly, its TFR has increased with the changes in their work style to reach 1.97 in 2021, which was higher than the national average of 1.30 in Japan, while the labor productivity (i.e. net profit divided by the number of employees) of the corporation has increased as much as 5.2 times between 2010 and 2021.

The corporation shows that more flexible working system in a company can affect TFR, as Yamaguchi (2005) pointed out. Smaller companies might have difficulty in employing the *modus operandi* which the *Itochu* Corporation developed due to their disadvantaged resources for hospitable workplace management. However, *Mitchan-kobo* and the *Itochu* Corporation have been focusing on flexible working system. This suggests that better workplace management is an essential approach for private businesses of any size to improve and tackle the issue of depopulation. Managers in small businesses, like farms, could look to change their management because of closer considerations for their employees. Japanese farm managers and policy makers need to further examine the best practices in the working system from home and abroad to secure labors on farms.

5 Conclusion

The paper explored a Japanese horticultural farm developing innovative workplace management systems to verify the compatibility between female workforce participation and its profitability. In the case-study, making sure workers have safe and comfortable working conditions has improved the farm's labor efficiency. The hospitable workplace management for every worker can be also an effective way to counter a declining birth rate. Therefore, skill in human relations and personnel management of the farmers are valuable assets for the resilience of farm businesses and rural communities.

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