

Telecommuters' productivity and psychological effects: From the perspective of Japanese work culture

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Abstract

Interviewing local government officers in Japan, we investigated the productivity and negative psychological effects of telecommuting. Because individual work is not clearly defined in Japan, the productivity of collaborative work was diminished at home. Classifying the tasks to be accomplished at home and in the workplace is necessary to improve productivity. Notably, employees expressed career anxiety and guilt about working at home. Japanese bottom-up decision-making processes increased employees' sense of anxiety regarding their career due to the lack of available information in the workplace and the inability to develop skills.

Keywords: telework, productivity, career anxiety, Japanese work culture

The COVID-19 pandemic brought telework to the attention of people around the world. The number of telecommuters in Japan also increased dramatically. According to Ministry of Land, Infrastructure, Transport and Tourism (MLIT, 2021), the percentage of companies with telework policies increased from 9.6% to 38.8% from FY2020 to FY2021, and the percentage of teleworkers among employed workers rose from 14.8% to 23.0%. Prior to the pandemic, the main reason for homeworking was to balance work and family, but now even those who did not wish to are forced to do so. As a result, the disadvantages of telecommuting have become more conspicuous than its advantages, and as the number of

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coronavirus cases has declined, the proportion of employees working from home in Japan is gradually decreasing. Nevertheless, it is essential to identify methods for increasing employees' effectiveness when working from home.

It has been asserted that the effective operation of telework is particularly difficult in Japan, where it has long been assumed that employees should work face-to-face (e.g., Spinks, 1998). There have been minimal studies on telework compared to other countries, but during the COVID-19 pandemic, more and more research regarding telework has gradually been conducted (e.g., Enatsu et al., 2021). However, empirical studies during the pandemic include employees who did not have the choice but to telecommute, as many employees were required to work from home. This research was conducted prior to the pandemic and provides insight into examine normal times rather than emergencies. As such, this study uses the results of an interview survey performed before the pandemic.

This research specifically investigated homeworking, as the concept of telework includes satellite offices, wherein work is done outside the workplace or home, and mobile work, which external work is done, such as traveling by public transportation. We focused on telecommuting, which many organizations have taken advantage of during the pandemic, examining its effect on productivity because it is important to demonstrate that it is an effective alternative to advance its promotion. We focused on the psychological effects of the practice on homeworkers, as such psychological impact is unlikely to be recognized by colleagues. This study clarifies how Japanese work culture affects the circumstances of telecommuting. Highlighting the unique characteristics of the Japanese context will help us to understand how to arrange, manage, and promote homeworking in Japan.

Therefore, the following research questions are posed in this study.

- 1 What is the relationship between homeworking and productivity in Japan?
- 2 What are the psychological effects of homeworking in Japan?
- 3 What Japanese work culture characteristics relate to the consequences of homeworking?

Literature review

Felstead et al. (2003) argue that telecommuting differs from office work in that telecommuters are not physically in front of their superiors or colleagues. According to Robbins et al. (2005), virtual communication while telecommuting is more effective than face-to-face communication. The authors argue that the non-

verbal content of communication cannot be conveyed virtually while telecommuting as in face-to-face communication. This implies that when employees are working with homeworkers, more communication difficulties will arise than when employees are within easy speaking distance.

Although there were few Japanese empirical studies prior to the COVID-19 pandemic, some studies on homeworking have highlighted problematic factors related to homeworking. First, individual duties are not clearly defined in Japanese job descriptions (e.g., Spinks, 1998), as the boundaries of work are vague and people tend to work in teams, which makes it difficult to work from home (Hirano & Enatsu, 2018; Shozugawa & Spinks, 1999; Spinks, 1998). It is possible for employees to suddenly be assigned someone else's duties, which may cause a sense of unfairness for employees who are not in the workplace (Hosomi, 2017), as such reassignments should be done in the workplace, and can result in less productivity.

Skills are developed in Japanese workplace, making it difficult to telecommute (e.g., Spinks, 1998). Traditionally, a context of naturally occurring informal mentoring is widely practiced (Hosomi et al., 2020). Thus, skill development is more difficult when either employee is working from home.

Additionally, there is a difficulty with performance evaluation. In Japan, evaluations are based on motivation and other factors that are not easily expressed in numbers. Japanese employees are evaluated primarily on the basis of motivation or attitude toward work, as well as skills to perform the job that have been accumulated through work experience (Kambayashi et al., 2018). It is difficult to evaluate telecommuters unless the process of evaluation is revised to being based on performance (Hirano & Enatsu, 2018; Kambayashi et al., 2018). This study evaluates how these Japanese contexts affect the outcomes of homeworking.

Method

We chose local government officers in Japan as interviewees for this study. The first author conducted the survey at a certain department in one local government in Japan. The interviews were conducted three times, in June 2017, September 2017, and March 2018 and were recorded and transcribed with interviewees' permission. Local government officials were chosen as research subjects. Local public officers must take the initiative to lead the trend of improved work-life balance that is now arising in private Japanese companies (Takeishi, 2007). Prior to the COVID-19 pandemic, homeworking was not prevalent in Japan; thus,

with public interest as a more consideration public organization were fit for this study.

Table 1 presents the characteristics of the interviewees of this study. Eight officers were interviewed, and the average duration of each interview was 30.5 minutes. Among the interviewees were three subordinates who worked from home and five supervisors with subordinates who worked from home. The frequency of supervisors' or subordinates' homeworking was either once or twice a week. Officers working in the same department were surveyed. The main tasks were conducting, processing, and analyzing data and typing. The percentage of officers with parental or other familial responsibility was higher, with a greater number of women taking maternity or family-related leave than in other sections.

The condition of homeworking policies in the organization was limited to employees who needed to care for their children and elder care. Only officers who register in advance qualify to use the homeworking system. The maximum number of times the system can be used is four times a week, and in principle, it could be taken in full-day or half-day units. Employees who had pre-registered must report on the day they wish to work from home, but they can still use the homeworking system on the same day. In this organization, during interview, only supervisors and subordinates were connected by electronic tools at that time.

Table 1 *Interviewees in this study*

| | Does he/she has subordinates? | Frequency of homeworking per week | male/female |
|----|-------------------------------|-----------------------------------|-------------|
| B1 | yes | 2 days | male |
| B2 | yes | 1 day | female |
| B3 | yes | 1 day | male |
| S1 | no | 2 days | female |
| S2 | no | 2 days | male |
| S3 | no | 1 day | female |
| S4 | no | 1 day | female |
| S5 | yes | 1 day | female |

B = Bosses; S = Subordinates

Results

Productivity

Communication tools

Essentially, in the workplace, employees must engage with direct supervisors as well as colleagues in the same department; however, at the time of the interviews, communication tools were only available for correspondence with the supervisor, hindering horizontal communication compared to vertical communication.

When communicating, employees would check with their supervisors in situations in which they would normally ask their colleagues (S1). Unlike their supervisors, most of the respondents said that when they wanted to talk to their colleagues, they used email or mobile phones because they were not connected by video tools. However, although the supervisor and subordinate were connected by camera, they did not need video to communicate with each other, and indicated that email and chat were sufficient.

A phone call is enough, I can do it without seeing home-based workers with a camera. (B1)

Basically, we have to type. If I directly talked with her, I could just say, “How’s that?” or “This is fine,” but I have to type it into an email or scan it. (S4)

Tasks for home

Some tasks were easier to accomplish in the office. For example, such tasks include those that should not cause information leakage, or comparing documents against each other in situations when printing is not possible. In addition, mentoring other colleagues was difficult, especially new employees.

In this organization, channels of communication were limited to those between superiors and subordinates, which made collaboration between colleagues difficult. These factors made it easier to handle work that was independent of others when working from home. In fact, several respondents indicated that, depending on their work, homeworking was more convenient when conducting independent work. For example, some users said that their jobs, such as typing, could be easily divided.

In Japanese workplaces, the division of work is not clearly defined (e.g., Imano & Sato, 2020; Kambayashi, 2018). For this reason, respondents mentioned that in

their normal work, they had to listen to their bosses, even if they were just discussing the work of others. This implies that employees were interrupted, even when bosses were talking about work that had nothing to do with them.

In a Japanese workplace, when the division of work is clear, working from home can be more productive than working in the office, as it is easier to get work done when performing tasks that are clearly separate or less interdependent with others.

(When I am not in the workplace,) no work suddenly interrupts me... (S1)

(In the workplace,) when my boss starts talking to my colleagues, I am forced to pause in my tasks. (S2)

(When I am working from home,) I only have to do my own work. There are no urgent matters coming in (like in the workplace). (S3)

Thus, some tasks are more productive when accomplished at home and other jobs are the opposite. For this reason, respondents indicated that they tried to divide or modify work to heighten their productivity. In other words, productive employees successfully separate work that can only be processed in the workplace from work that is done at home. This successful combination leads to improved performance.

One employee said that mentoring newcomers fits the workplace, but work such as inputting or analyses was more productive at home.

On Monday, Wednesday, and Friday, I work in the office, and focus on mentoring new employees. On Tuesday and Thursday, I work at home, and do my own work. (S2)

Thus, distinctly preparing specific tasks for home is key to increasing the productivity of homeworking. In contrast, if an employee decided to work from home due to the sudden illness of a child, it could be difficult to do so because there was no time to prepare work for home. So, the allotment of an appropriate combination of tasks for home and office is needed.

When I have to take time off suddenly, it's hard for me to prepare for accumulating tasks that fit for working from home. (S4)

It was noted that the preparing work to fit telecommuting can also lead to skills

development.

I don't think anyone has ever thought, "I can do this task from home." I think that people who want to work at home think about the content of their work. (S4)

Some employees may be able to modify the way they work or change the way they look at things to allow for more work to be accomplished at home. In this way, job crafting (Wrzesniewski & Dutton, 2001) may be related to increasing productivity for homeworkers.

Monitoring

From the supervisors' perspective, they did not monitor subordinates who work at home. They said that they were monitoring them as they would if they were actually in the office. Refraining from such monitoring is a sign of trust in subordinates who work from home.

I can grasp the number of minutes homeworkers are away from the computer, but if I keep watching that screen and monitoring, I can't do my work. (B2)

I don't do anything to check if they are sitting properly. I think I could if I wanted to, though. I feel like it would be too much work, so I have to believe *seizensetsu* (humans are born good). (B1)

To foster a relationship of mutual trust between subordinates and supervisors, it was necessary to establish more freedom to subordinates at home. This is because it makes it easier for subordinates to do their jobs and also because supervisors cannot monitor their subordinates.

We don't tell them to do this and do that, but rather we let them decide what to do next throughout the year on their own. (B2)

Mental health management

We described work that doesn't fit for working at home. For supervisors, mental health management for subordinates who work at home was difficult. This may be due to the fact that although it depends on the individual, Japanese people do not often speak directly about personal difficulties.

It's hard to tell if a person's color is good if they do not work at the office. (B3)

Only by looking at their facial expression, we can't tell whether someone is having a hard time, the physical condition, or the way they are talking on the phone at work. Some people don't like to tell everything, so you have to watch the physical condition of their subordinates, and any problems they have at work. (S4)

In this way, homeworking made it difficult for supervisors to manage their subordinates' mental health. So, it is important to inquire regarding how employees feel.

Negative psychological effects

Japanese-style bottom-up decision-making process

Next, we explained the psychological effects of telecommuting on homeworkers. In this organization, the direction of communication was limited to supervisors and subordinates, reducing the information available to homeworkers. As a result, it was difficult for homeworkers to obtain feedback on their work, which they would naturally obtain in the office.

In Japan, decisions are made through a bottom-up decision-making process that is called *Kessai*. In this system, a lower-ranking person prepares a draft, which is reviewed and sometimes revised by higher-ranking employees, and finally approved by the person who has the authority to make the decision. One interviewee indicated that when they work at home, the decision-making process becomes invisible, which makes them feel uneasy.

Normally (in the office), we are asked several times in the *Kessai* process, like "Is this the decision that you gave before?" That's why I feel uneasy (when I work at home). (S3)

If I were here (in the office), I could listen and learn if my decisions were being disputed or discussed. But if I were at home, I wouldn't be able to listen at all. (S3)

It was important to understand the prioritization of work. If employees understand what their manager is interested in, they are able to handle the attending tasks smoothly. Such necessary information cannot be obtained when working at home. This lack of opportunities to obtain information that is not available at

home leads to career-related anxiety.

Isolation

The interviews also indicated that some telecommuters felt isolated. To alleviate feelings of isolation, some employees tried to privately communicate with colleagues in the workplace.

If I go home and can't talk, I feel like I miss people and want to talk. (S2)
I talk a lot when I come to my office. When I'm at home, I get stressed out if I talk to my kids all the time. (S2)

Thus, being able to communicate about work as well as private lives in the workplace has an important effect on alleviating homeworkers' feelings of isolation. In particular, for employees who work more from home, how to manage telecommuting almost every day and how to handle communication in the workplace are considered to be serious issues.

Anxiety regarding career

Isolation from the workplace has the disadvantage of homeworkers' inability to take part in the communication in which they are directly involved, and the communication that colleagues have with one another. The inability to communicate with other employees can have a negative impact on one's career (e.g., Maruyama & Tietze, 2012). One homeworker commented that the lack of knowledge that could be learned through being in other workplaces in Japan had a negative impact on personal skill and career development.

If I were at the office, I would know what the section chief is interested in and what the problems are in the section, but if I were at home, I wouldn't know. (S3)

For example, if it's a person who goes to work every day and I'm at home and I don't know what's going on, I'm obviously going to lose. You don't know what's going on at work. When you're at home, you can't read the atmosphere. (S3)

Anxiety about evaluation

Some respondents were also concerned about how they would be evaluated since their work was done through a computer. In the workplace, they would

understand if they were not monitored or are away from the office for a short while, but when they worked at home, they were apprehensive about how they would be evaluated.

If you are at work, you know when I go to make tea. I can see that people around me are making tea, but if I'm not on the computer, I don't respond. If I get an email and don't return it, I don't want people to wonder where I am. (S4)

Also, in the organization, the system was designed to inform the supervisor if a person was not on their computer for 10 minutes. In this case, employees were flustered.

I feel like I'm under a lot of pressure, when I'm reading materials, and the 10-minute limit is approaching. I am worried whether people think I'm suspicious. (S4)

(In the office). you know you're not playing just because you're unseated. They don't tell me at work when they're off to pour some tea. (S2)

Homeworkers lacked the means to present a positive attitude and are required to produce results. Still, in many companies in Japan, employees are often evaluated based on their work attitude, but it is difficult for telecommuters to demonstrate a positive attitude, which makes them feel uneasy. Due to the anxiety of such evaluations, some employees actively tried to communicate that they were doing their jobs well.

I try to report the work that I know will come. Because it's hard to keep wondering what's going on when you're working from home, isn't it? Isn't it hard to keep wondering what's going on? (S3)

Feelings of guilt

Some of the homeworkers felt that their workload was reduced compared to those who did not use the homeworking policies. For this reason, they felt a sense of guilt. It was emphasized that employees who used the system were worried about what other employees around them thought of them, which can diminish the positive effects that should be obtained (Hosomi, 2017). Specifically, employees in the department must respond to phone calls in the office, but they

are not expected to respond to calls when they are at home, so they perceived that they were privileged compared to others and felt bad about working at home.

There were many phone calls, so it would be better to have one person there so that other people would not be burdened. (S1)

I felt very sorry, and I couldn't pick up the phone. (...) It was a day when I could do my own work if the two of us took turns, but now that I'm home, my colleagues have to answer the phone all the time, and I feel sorry for that. (S2)

Since not all employees were eligible to work from home, some perceived that since they were eligible to telecommute, they had to take it seriously.

I'm sure there are other people who want to (work from home). I don't want people to think I'm slacking off, so I want to make sure I'm doing everything right. (S5)

This mechanism of working diligently based on feelings of guilt is explained by equity theory (Adams, 1963). According to equity theory, employees divide the outcomes that they have obtained from their work by the input that they have put into their work, and calculate the ratio. If the ratio is higher or lower than other employees', they perceive it as unfair and try to alter their psychology and behavior. In this case, homeworkers in this organization felt that they had less input, but outcomes did not change. They perceived the ratio of job outcomes divided by their inputs as relatively lower than that of other employees; therefore, they were expected to work hard to increase their own outcome input.

Discussion

Conclusion

Telecommuting has received so much attention since the advent of the COVID-19 pandemic, when people who did not want to use the homeworking system were forced to use it. Our interviews regarding the arrangement and processes of homeworking in Japanese local government took place in 2017–2018. We consider this research to be valid for the return to post-pandemic times, rather than during the pandemic. In this study, we interviewed a survey of home-

workers and their supervisors, focusing on productivity and psychological negative effects in the workplace.

As for productivity, communication tools are influential. In the organization surveyed, employees who worked from home were connected only to their bosses via media, making it difficult to collaborate with colleagues. Regarding the suitability of telecommuting work, unsuitable jobs may involve documents that cannot be taken out of the office, and it is difficult for telecommuters to provide supervision and guidance from home. In addition, to work effectively from home, it is necessary to determine what kind of work is best suited for home and separate it for homework. It is suggested that this course of action will help employees improve their performance and enhance their job crafting.

As for negative psychological outcomes, telecommuters also expressed feelings of anxiety, isolation, and guilt. Because of the limited direction of communication or the omission of communication, they identified a lack feedback regarding their work. For this reason, they perceived evaluating their output at home to be difficult. In addition, a lack information that they would have been able to grasp if they were at the office led to anxiety regarding their careers, and telecommuters expressed feelings of guilt toward their coworkers.

Subsequently, homeworkers attempted to mitigate these negative psychological effects. To cope with the feeling of guilt, they devoted themselves to accomplishing their work and actively reporting their performance to supervisors. The anxiety of receiving a relatively low personnel evaluation, or the guilt regarding doing less work than others, caused homeworkers to work more diligently and sometimes strongly appeal to others for recognition of their successful accomplishments.

This study also revealed the effects of the characteristics Japanese work culture. It has often been asserted that one of the characteristics of Japanese workplaces is the vague division of tasks. In the past, the management approach to Japanese employment was said to be a hindrance to homeworking (e.g., Hirano & Enatsu, 2019). Homework makes it difficult to work with colleagues or on jobs that are highly interdependent. In addition to this, conversations in the workplace that were unrelated directly to their own work are linked to on-the-job training, such as prioritization and gaining a deeper understanding of work content. Not being able to observe and take part in the Japanese process of bottom-up decision-making led to anxiety about their careers. Conversely, normally in the workplace, employees had to listen to conversations about work that had nothing to do with their own work. These findings imply that it is possible to find a more ideal

approach to telecommuting in Japan through additional research and practice.

Implications

The significance of this study is in verifying the existence of the influence of Japanese work culture on the communication of telecommuting, its negative effects, and potential methods to address them. First, it was determined that working from home may increase productivity. Comparing telecommuting with working in an office, in Japan, work is not clearly divided. When employees are in the workplace, they must cease working and listen, even when they are not in charge of the work. So, productivity increases in areas in which the work is clearly divided. Therefore, there is a possibility that categorizing work to be done in the office and work to be done at home can increase employees' job crafting (Wrzesniewski & Dutton, 2001), which might be the key to increase productivity in both the workplace and at home.

Conversely, tasks of supervising the subordinates were particularly difficult. Subordinates became reserved with their supervisors. For bosses, watching subordinates' facial expressions and body language was important for supervising. Also, some subordinates did not express themselves verbally, even when they feel challenged, and there are concerns that cannot be conveyed through information technology.

Some negative factors identified were peculiar to Japan. Employees obtain information related to their tasks through conversations that they participate in and overhear in the office, and being at work may affect their understanding of the priorities of their work. Therefore, when employees worked at home, they are unable to understand the priorities of their work, which may lead decreased in output and anxiety regarding their careers. In addition, for our interviewees, the task of answering calls was exempted when employees worked at home. This made them feel guilty for the employees working in the office. Telecommuters felt sorry for not answering the phone, which increases negative feelings, based on the mechanism of equity theory (Adams, 1963).

In addition, supervisors also expressed concerns that too much monitoring may be perceived as a lack of trust. In other words, for the smooth operation of telecommuting, it may be necessary to focus on the process of fostering a sense of trust rather than on monitoring methods. In Japan, the attitude toward work is often included in evaluations. It is possible for both telecommuting days and office days to be evaluated equally to increase this trust.

Limitations

This study had some limitations. First, it was conducted on employees within the same department in a local government; therefore, the results may differ in telecommuting cases in public companies. In addition, because the homeworking policies in the organization under study were limited to use for childcare and family caregiving, it is possible that employees' reactions may differ according to homeworking conditions. In particular, in this survey, those who used the system had a spouse and children; however, with the advent of the COVID-19 pandemic, it is expected that the conditions of telecommuting policies became less stringent, and single employees could also use the system. Future research should consider family circumstances. Also, this study was limited to employees in the same section, so only eight people were surveyed. Future research needs to be conducted with a larger sample, taking into account differences in work environments.

The direction of future research is to conduct surveys with other private companies and public organizations to investigate whether the Japanese work culture characteristics identified in this study are common. In addition, employees' perceptions of homeworking may differ from those of organizations that have established telecommuting policies. This investigation was done prior to the pandemic, when telecommuting was considered to be a special measure only applicable to some employees, similar to shortened working hours for childcare in Japan (Hosomi, 2017), but an increasing number of employees were homeworking. In future surveys, research must be conducted to examine the telecommuting experience during the pandemic disaster and its effects on employees' psychological state.

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