
Current Status and Issues of the Employment of Persons with Disabilities in Small- and Medium-sized Enterprises in Rural Areas of Japan: A Survey from Business Owners' Perspectives

[Kazuaki Maebara](#)^{*}, Kanae Yamaguchi, Kazuma Ikeda, Hiroki Takahashi

Posted Date: 21 April 2025

doi: 10.20944/preprints202504.1689.v1

Keywords: employment of persons with disabilities; small- and medium-enterprises; vocational rehabilitation; local enterprises; Japan



Preprints.org is a free multidisciplinary platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This open access article is published under a Creative Commons CC BY 4.0 license, which permit the free download, distribution, and reuse, provided that the author and preprint are cited in any reuse.

Article

Current Status and Issues of the Employment of Persons with Disabilities in Small- and Medium-Sized Enterprises in Rural Areas of Japan: A Survey from Business Owners' Perspectives

Kazuaki Maebara ^{1,*}, Kanae Yamaguchi ², Kazuma Ikeda ³ and Hiroki Takahashi ⁴

¹ Akita University

² Akita University; kyama@ed.akita-u.ac.jp

³ Special Support School Attached to the Akita University; ikewa.211@gmail.com

⁴ Special Support School Attached to the Akita University; takahashi-hiroki@sh.akita-u.ac.jp

* Correspondence: maebara-kazuaki@ed.akita-u.ac.jp

Abstract: This study examines the employment of people with disabilities in small- and medium-sized enterprises (SMEs) in rural Japan. An online survey of 40 SME owners was conducted to assess their understanding, experiences, and challenges in employing people with disabilities. Results indicate that many SMEs lack awareness of employment systems, but those with prior contact experience demonstrate greater understanding. Key challenges include difficulties in job creation, workplace acceptance, and inadequate environments. To address these issues, it is essential to enhance information on job creation, share successful cases, and establish mentoring systems for knowledge exchange between SMEs. These findings provide insights for policy development and practical strategies to promote the employment of people with disabilities in SMEs.

Keywords: employment of persons with disabilities; small- and medium-enterprises; vocational rehabilitation; local enterprises; Japan

1. Introduction

Working is extremely significant for persons with disabilities, who often encounter barriers [1]. Prior research has reported that, for such persons, working not only leads to the pursuit of a personalized lifestyle [2], but also contributes to identity formation and career development [3,4], as well as allowing them to recover from social relationships [5]. Additionally, supporting work challenges and allowing persons with disabilities to experience success can positively promote their self-efficacy and self-concept [6]. The work of persons with disabilities contributes to the maintenance of life and the development of a person's identity, which is necessary for life after social participation [7]. Those who help persons with disabilities work need to be strongly aware of the significance of their social participation.

In supporting the social participation of persons with disabilities, which is of great significance, the promotion of their employment in a competitive environment has become one of the most important labor policies not only in Japan but also worldwide. Japan has adopted the quota system to allocate persons with disabilities, which is imposed on enterprises, based on the "Act on Employment Promotion etc. of Persons with Disabilities" in Japan. Based on the quota system, the legally mandated employment rate for persons with disabilities as of April 2024 was obligated to be 2.5% for enterprises and 2.8% for national and local governments. Simply, enterprises with 40 or more employees must employ at least one person with disabilities. As the legally mandated rate for them was stipulated to rise, the employment rate will be 2.7% for enterprises and 3.0% for national and local governments in July 2026 [8]. Notably, the law stipulates not only employment quotas but also

the payment system, in which money is collected from enterprises with 100 or more employees that do not meet the legally mandated employment rate, to promote their employment. The paid money is used as subsidies for enterprises that have achieved the legally mandated employment rate. Additionally, vocational rehabilitation institutions have been established to provide employment support services for persons with disabilities, known as regional vocational centers for persons with disabilities or employment and living support centers for persons with disabilities.

The actual employment rate, which reflects the actual employment status of persons with disabilities in Japanese enterprises, has been increasing annually. According to the statistical report by the MHLW [9], the actual employment rate of persons with disabilities increased by 0.08% from the previous year to 2.41% in June 2024. The actual employment rate remained at a record high in 2024. Thus, the employment rate is getting much closer to the legally mandated figure stipulated by the law. This increase appears to be the result of a growing understanding of persons with disabilities in Japan. In reality, however, the percentage of enterprises that have achieved the legally mandated employment rate imposed on enterprises is 46.0%, meaning that 50% has not yet been achieved. This suggests that an increase in their employment in some enterprises may have affected the statistics of the rising employment rate. Further improvement in the quality of efforts toward the social participation of persons with disabilities will be necessary.

The current status of employment of persons with disabilities in Japan indicates a noticeable disparity by company size. A statistical report by the MHLW [9] revealed that the employment rate in large enterprises with 1,000 or more employees was 2.64, with an achievement rate of 54.7%. Contrastingly, when the employment rate and the achievement rate of their employment were examined by company size, the employment and achievement rates were 2.48% and 44.3%, respectively, for enterprises with 500–1,000 employees (medium-sized enterprises); the corresponding figures were 2.29% and 41.1% for enterprises with 300–500 employees, 2.19% and 49.1% for enterprises with 100–300 employees, and 1.96% and 44.3% for enterprises with 40–100 employees (small-sized enterprises). These findings revealed that a large discrepancy exists in the employment and achievement rates between large- and small-sized enterprises. In Japan, SMEs account for 99.7% of all enterprises [10]. Considering the future promotion of social participation of persons with disabilities, promoting their employment is considered necessary in SMEs.

Reasons for the difficulty in employing persons with disabilities in SMEs include the following: SMEs are more susceptible to economic circumstances than large enterprises; the working environment at subcontractors is likely to be even more severe; the smaller the company, the fewer options for work location and work; and financial and personnel resources are less available for employee education and training [11]. Previous studies have reported that the following issues are responsible for employment stagnation in enterprises: low job diversity, which makes it difficult for persons with disabilities to find jobs suitable for their ability and appropriate [12–16]; lack of both barrier-free accessibility and reasonable accommodations [17,18]; lack of understanding of persons with disabilities; and insufficient establishment of support systems within the workplace [19–22].

In the context of the present situation in Japan, this study aimed to analyze the current status and issues of employment of persons with disabilities in Japanese SMEs from the business owners' perspectives, and to obtain political and practical suggestions for promoting their employment. This is because most previous studies have focused on employment of persons with disabilities in large enterprises, with few having reported the actual situation in SMEs [11,23,24]. In particular, sufficient data have not yet been accumulated on the actual situation of employment of persons with disabilities in SMEs in rural areas and factors that hinder their employment. By focusing on SMEs in rural areas, this study will contribute to identifying differences from urban areas and issues specific to rural areas. Several cases in which persons with disabilities are successfully employed in enterprises have been reported [25,26]. However, there are only a few reports regarding specific barriers faced by enterprises that do not employ persons with disabilities [16,27].

This study focused on the employment situation of persons with disabilities in SMEs across rural areas of Japan—a subject not previously explored. In rural areas, there are more diverse barriers than

in urban areas, in addition to restricted social participation of persons with disabilities. Specifically, there are many problems related to employment, including a strong prejudice against persons with disabilities, the existence of various issues related to welfare not only for persons with disabilities but also for the aging population, and the employment gap and lower salaries compared to the national level. In particular, for the employment of persons with disabilities, such rural areas lack sufficient public services, as represented by public-common institutions, in addition to lacking enough social resources to support their employment, and difficulty in obtaining information on best practices for their employment, which are crucial in promoting the understanding of persons with disabilities. Thus, rural areas face various issues that may hinder the promotion of employment of persons with disabilities, as well as sufficient personnel resources for supporting their employment [28]. Therefore, focusing on SMEs in rural areas could contribute to understanding the reasons and opportunities for employment of persons with disabilities [20,29] in enterprises. This could lead to obtaining data needed for future promotion of employment of persons with disabilities in Japan.

Although SMEs in rural areas have limited resources regarding the employment of persons with disabilities, they are vital in supporting the local economy in Japan. The purpose of this study was to identify unique issues for their employment in local SMEs and to propose local-specific employment promotion measures. The research questions for this study are as follows.

RQ1: What awareness do business owners of Japanese local SMEs have of the employment of persons with disabilities?

RQ2: What issues do they have in employing persons with disabilities?

2. Materials and Methods

2.1. Participants

We requested survey cooperation from business owners of member firms (380 firms in total) belonging to prefectural SME associations in rural areas of Japan. A follow-up was conducted by the organization's secretariat to encourage responses for a certain period of time after the request was made via email. Finally, valid responses were received from a total of 40 business owners. The survey sample included a diverse range of industries, including manufacturing, construction, and healthcare/welfare, reflecting regional characteristics. The sample size of this study was 40 SMEs, limiting its representativeness on a national scale. However, the data were significant as an initial indicator for employment trends among local SMEs, which may serve as a basis for future large-scale surveys.

Notably, the present rural areas are located in the northeast region of Japan, which is well-known as declining and aging, while the minimum wage for employees is among the lowest in Japan. SMEs included in this study are located in rural areas with these characteristics.

2.2. Procedure

The survey period spanned December 10, 2024 to January 31, 2025. The survey was conducted using an online platform, and business owners of member firms affiliated with the SMEs' organization were asked to complete the survey via email from the organization's office. Individual participants accessed and completed the online survey form through the survey request email.

2.3. Survey Items

Basic Attributes

The basic attributes were as follows: occupational classification (agriculture and forestry / fishing / mining, quarrying, gravel extraction / construction / manufacturing / electricity, gas, heat supply, water supply / information and communication / transportation, postal service / wholesale and retail / finance, insurance / real estate, goods rental / academic research, professional and technical services

/ accommodation, food services / lifestyle-related services, entertainment / education, learning support / medical care, welfare / multiple service business / service industry (not classified elsewhere) / public service / one to be selected from unclassifiable items) / number of employees / number of employed persons with disabilities. SMEs were required to respond to these attributes..

Understanding of the Obligation to Employ Persons with Disabilities

Respondents were asked to indicate, on a five-point scale (1=not familiar, 2=not well familiar, 3=neutral, 4=somewhat familiar, and 5=familiar), their understanding of the system which obliges them to employ persons with disabilities in the "Act on Employment Promotion, etc. of Persons with Disabilities," which is the law governing employment of persons with disabilities in Japan.

Contact Experience with Persons with Disabilities

Respondents were asked to indicate whether or not they have any involvement with persons with disabilities ("0=no" and "1=yes").

Degree of Awareness of Issues of the Employment of Persons with Disabilities

Issues to be addressed in the employment of persons with disabilities include "finding jobs suitable for persons with disabilities," "allocating persons with disabilities to jobs suitable for their ability," "promoting the understanding of persons with disabilities among colleagues in the workplace," "communicating with colleagues in the workplace," "improving the workplace environment for employment," "understanding of the ability of persons with disabilities at the time of employment," "considerations for workplace retention after hiring," "skill development and career advancement of persons with disabilities," and "employment management after hiring persons with disabilities. Respondents were asked to answer, on a 5-point scale (1=no issue, 2=not much issue, 3=undecided, 4=somewhat issue, and 5=issue), for the aforementioned nine items.

2.4. Data Analysis

Basic aggregation was performed for the basic attributes. To understand the obligation to employ persons with disabilities, an unpaired t-test was conducted between the groups with and without employment, and the differences in means were calculated. Similarly, an unpaired t-test was conducted between the groups with and without contact experiences with persons with disabilities to obtain the differences in means.

A one-factor within-subjects analysis of variance (ANOVA) was undertaken to compare differences in means among the nine items for the awareness degree of employment of persons with disabilities. Additionally, an unpaired t-test was carried out to obtain differences in means between the groups with and without employment of persons with disabilities and between the groups with and without contact experiences with persons with disabilities. Finally, the two groups were divided into two subgroups—one with 1-2 points for the understanding of the obligation to employ persons with disabilities (the low-understanding group) and another with 3-5 points (the high-understanding group). Finally, an unpaired t-test was conducted to compare the low- and high-understanding groups to obtain differences in the means for the awareness degree. The significance level was set at 0.05 or less.

2.5. Ethical Considerations

In conducting the survey, the protection of personal information was explained on the top page of the survey form, and consent was obtained by responding to the survey. In addition, approval was obtained from the Ethics Review Committee for Research Involving Human Subjects at the Tegata District of Akita University (No. 6-50, November 6, 2024).

3. Results

3.1. Basic Attributes

Table 1 shows the basic attributes of 40 SMEs which responded to the survey.

Table 1. Basic Attributes of Enterprises.

<i>Industry type</i>	<i>N</i>	<i>%</i>
Manufacturing	10	25
Construction	7	17.5
Medical care, welfare	6	15
Wholesale and retail	4	10
Service industry (not classified elsewhere)	4	10
Agriculture and forestry	2	5
Lifestyle-related services and entertainment	2	5
Academic research, professional and technical services	2	5
Electricity, gas, heat supply, and water supply	1	2.5
Telecommunications	1	2.5
Education and learning support industry	1	2.5
Total	40	100
	<i>average</i>	<i>SD</i>
Number of employees	36.4 persons	37.3
<i>Number of Employees</i>	<i>Number of enterprises</i>	<i>%</i>
1-39	23	57.5
40-99	11	27.5
≥100 people	3	7.5
Unknown	3	7.5
Total	40	100.0
	<i>average</i>	<i>SD</i>
Number of persons with disabilities employed	0.5 persons	1
<i>Number of persons with disabilities employed</i>	<i>Number of enterprises</i>	<i>%</i>
No employment	23	69.7
Employment available	10	30.3
1.0 persons	4	12.1
1.5 persons	1	3.0
2.0 persons	2	6.1
2.5 persons	1	3.0
3.0 persons	1	3.0
3.5 persons	0	0.0
4.0 persons	1	3.0

In Japan, it is a legal requirement that short-time employment of less than 20 hours per week be counted as 0.5

SD: Standard deviation

The industry sector with the highest number of responses was "manufacturing," followed by "construction," "medical care and welfare," "wholesale and retail trade," and the "service industry." The average number of employees was 36.4, most of whom belonged to small enterprises with fewer than 40 employees. Half of the enterprises employed zero persons with disabilities or only one person with disabilities.

A crosstabulation of the number of employed persons with disabilities for the number of employees was also conducted. In the "1-39 employees" category, which currently has no obligation to employ persons with disabilities, 17 enterprises stated that they have no employment, corresponding to 51.5% of the responding enterprises. Among enterprises with employment

obligation, six enterprises with 40–99 employees stated that they have no employment, while three stated that they have employed persons with disabilities. As regards enterprises with 100 or more employees, none have employed persons with disabilities, while three have employed them.

3.2. Understanding of the Obligation to Employ Persons with Disabilities

An unpaired t-test was conducted to examine differences in the understanding of legal obligation to employ persons with disabilities between the groups with and without employment. The mean scores of the understanding were 4.3 (SD, 0.82) and 3.1 (SD, 1.48) in the groups with and without employment, respectively. The results of the t-test showed $t(38)=-3.34, p<.01$, indicating that the group with employment had a significantly higher level of understanding of the obligation to employ persons with disabilities.

3.3. Contact Experiences with Persons with Disabilities

Regarding contact experiences with persons with disabilities, 17 of the 40 SMEs had their experiences (42.5%). An unpaired t-test was conducted to examine the differences in the understanding level of the obligation to employ persons with disabilities between the groups with and without contact experiences.

The mean scores of the group with and without contact experiences were 4.1 (SD, 1.11) and 3.2 (SD, 1.47), respectively. The result of the t-test showed $t(38)=-2.32, p<.05$, indicating that enterprises with contact experiences had a significantly higher level of understanding of their obligation to employ persons with disabilities. The results of the t-test showed $t(38) = -2.32, p<.05$.

3.4. Degree of Awareness of Issues for Employment of Persons with Disabilities

Table 2 shows the degree to which enterprises were aware of issues related to the employment of persons with disabilities. Scores of 3.7 or higher were obtained for all nine items, indicating that the responding enterprises were highly aware of the issues they face in these items.

Table 2. Degree of awareness of issues for employment of persons with disabilities.

	<i>Item</i>	<i>mean value</i>	<i>SD</i>
1	Finding jobs suitable for persons with disabilities.	4.2	1.14
2	Allocating persons with disabilities to jobs suitable for their ability	4.2	1.10
3	Promoting the understanding of persons with disabilities among colleagues in the workplace	3.7	1.33
4	Communication with colleagues in the workplace	3.7	1.21
5	Improving the workplace environment for employment	4.3	0.96
6	Ascertaining the ability of persons with disabilities at the time of employment	4.1	0.99
7	Considerations for workplace retention after hiring	4.1	1.01
8	Skill development and career advancement for persons with disabilities	3.9	1.08
9	Post-employment management of persons with disabilities	3.7	1.24

SD: Standard deviation

A one-factor within-subjects ANOVA was conducted to compare the mean scores in awareness degree for nine items. The results showed a main effect of awareness degree with $F(8,296)=3.35, p<.01$. Multiple comparisons using the Bonferroni method revealed significant differences between "item 4: Communication with colleagues in the workplace" and "item 5: Improving the work environment for

employment" ($p < .05$), as well as between "item 7: Considerations for post-employment retention" and "item 9: Post-employment management of persons with disabilities" ($p < .05$).

Unpaired t-tests were conducted to compare the awareness degree for issue items between the groups with and without employment of persons with disabilities and the groups with and without contact experiences with persons with disabilities. No significant differences were identified for any of the nine items.

First, we classified the enterprises into two groups: a low-understanding group with 1–2 points for the obligation to employ persons with disabilities, and a high-understanding group with 3–5 points. Subsequently, an unpaired t-test was conducted to examine the differences in awareness degree for issue items between the low- and high-understanding groups (Table 3).

Table 3. Differences in awareness degree for issue items between the low- and high-understanding groups for the employment system.

	<i>Item</i>	<i>Understanding level</i>	<i>Mean value</i>	<i>SD</i>	<i>t-value</i>	<i>p-value</i>
1	Finding jobs suitable for persons with disabilities.	Low	4.6	0.90	1.34	n.s.
		High	4.1	1.18		
2	Allocating persons with disabilities into jobs suitable for their ability	Low	4.9	0.29	3.83	**
		High	4.0	1.19		
3	Promoting the understanding of persons with disabilities among colleagues in the workplace	Low	4.4	0.67	3.21	**
		High	3.4	1.42		
4	Communication with colleagues in the workplace	Low	4.1	1.04	1.38	n.s.
		High	3.5	1.26		
5	Improving the work environment for employment	Low	4.5	0.90	1.11	n.s.
		High	4.1	1.05		
6	Ascertaining the ability of persons with disabilities at the time of employment	Low	4.0	1.10	-0.51	n.s.
		High	4.2	0.94		
7	Considerations for workplace retention after hiring	Low	4.3	0.75	0.52	n.s.
		High	4.1	1.09		
8	Skill development and career advancement for persons with disabilities	Low	3.9	1.08	-0.13	n.s.
		High	4.0	1.07		
9	Post-employment management of persons with disabilities	Low	3.6	1.31	-0.31	n.s.
		High	3.7	1.21		

SD: Standard deviation
n.s.: no significance, ** $p < .01$

Finally, the awareness degree for issue items was significantly higher in enterprises classified as having a low-understanding level ($t(38)=3.83, p<.01$) for "item 2: Allocating persons with disabilities in jobs suitable for their ability," and in enterprises classified as having a low-understanding level ($t(38)=3.21, p<.01$) for "item 3: Promoting the understanding of persons with disabilities among colleagues in the workplace."

4. Discussion

4.1. Awareness of Employment of Persons with Disabilities in SMEs

This study sought to determine awareness of employment of persons with disabilities among SMEs in rural areas of Japan. The number of SMEs surveyed was only 40, thereby posing an issue in generalizing the present findings. However, the actual employment of persons with disabilities in Japan is mostly limited to large enterprises, and SMEs are still lagging behind [30]. Therefore, it is necessary to accumulate as much information as possible on employment of persons with disabilities. Since the results of this study revealed one aspect of awareness of employment of persons with disabilities in SMEs in rural areas, the obtained data may be useful for future practices to promote employment of persons with disabilities.

In this study, 69.7% of the surveyed SMEs did not employ persons with disabilities. Such a figure may reflect that many SMEs do not employ persons with disabilities. However, even a few enterprises with 1–39 employees, which are not obligated by Japanese law to employ persons with disabilities, did employ persons with disabilities. Almost all of the other enterprises employed them in a proportion exceeding the legally mandated percentage. Previous studies have pointed out that Japanese enterprises have an employment mindset that takes into account their activity and contribution as human resources, in addition to legal compliance [31]. This is also true for SMEs [14]. In this study, the understanding level of the obligation system to employ persons with disabilities was significantly higher in the group with employment (4.3 points) than in the group without employment (3.1 points). It should be noted that the data are based on responses from a limited number of SMEs; however, the need to employ persons with disabilities seems to be becoming more widespread even among SMEs in rural areas.

4.2. Major Issues in Employing Persons with Disabilities in SMEs in Rural Areas

The survey results confirmed three major issues in the employment of persons with disabilities in SMEs across rural areas, two of which are discussed below.

First, SMEs have difficulties in job matching between the job provided by enterprises and the job accepted by persons with disabilities. As stated in previous studies, SMEs have less job diversity than large enterprises and have difficulty in finding jobs suitable for the ability and appropriateness of persons with disabilities [12–16]. The SMEs included in this study were aware of the following issues: "finding jobs suitable for persons with disabilities" and "allocating persons with disabilities to jobs suitable for their ability." This may be explained by the fact that SMEs tend to require their employees to perform multifunctional tasks, making it difficult for them to hire employees who specialize in a single job [32]. SMEs in rural areas often do not have a high division of labor, and one employee is often responsible for multiple tasks. This makes it difficult to carve out jobs that match the characteristics of people with disabilities—a factor which hinders appropriate job matching.

Low understanding of the system regarding the employment of persons with disabilities makes it particularly difficult to allocate persons with disabilities to jobs suitable for their ability. The following two measures are considered necessary for future SME support. First, disseminating support procedures for job creation is necessary. When considering the employment of persons with disabilities, support is generally provided to adapt the job or to create one job by consolidating various jobs for smooth work execution, since disability characteristics make it difficult to take on various jobs [33]. It is possible that many enterprises are not fully aware of such support. Second, the sharing of best practices is necessary among enterprises. Specifically, there is a need for business

owners to share information among themselves on how other enterprises are successful in employing persons with disabilities. The Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers (Japan's national vocational rehabilitation management agency) has already operated an online database called Reference Service for Disability Employment. Additionally, the organization also disseminates the information through various other materials [21]. However, it is difficult to say that this type of material reaches all enterprises. Particularly in rural areas, where there are few support organizations and it is difficult to obtain information on employment of persons with disabilities, it is important to share best practices on how to overcome the challenge of enterprises that hesitate to start employing persons with disabilities.

Currently, when examining and listening to the actual situation of employment of persons with disabilities in Japan, it is often reported that, while some enterprises are positively aware of employment of persons with disabilities, the others often have high demands for job performance of persons with disabilities without sufficient understanding of them [34,35]. In response to these issues, support has been developed to help enterprises understand persons with disabilities and provide support to these enterprises [36]. Such support needs to be further enhanced in rural areas. Recent years have witnessed occasional efforts by local governments in rural areas to let enterprises understand persons with disabilities from the viewpoint of reasonable accommodation. However, such efforts may not reach the human resources staff of enterprises, and concrete support is needed to tackle this.

The second issue is the need to provide opportunities to interact with persons with disabilities to understand their employment. The results of this study showed that the awareness degree for issue items "promoting the understanding of persons with disabilities among colleagues in the workplace" (mean point, 3.7) and "communicating with persons with disabilities" (mean point, 3.7) was lower than that for other items. Additionally, the understanding level for the employment of persons with disabilities was higher in the group with contact experiences with persons with disabilities than in the group without. This result may suggest that the measure against contact experiences with persons with disabilities is easy to tackle and may also function as a trigger to promote the employment of persons with disabilities. Previous studies have listed the following concerns in enterprises that do not employ persons with disabilities: "workplace adaptation of persons with disabilities," "convincing of able-bodied workers to work alongside persons with disabilities," and "work motivation and work attitude of persons with disabilities." The additional issue of the costs incurred by hiring persons with disabilities, especially in small-sized enterprises with fewer than 50 employees, is reported as a concern [16]. In response to this reality, it has been pointed out that few contact opportunities with persons with disabilities prevent enterprises from having a concrete image of employment of persons with disabilities [23], and contact experiences with persons with disabilities are important [37]. Additionally, employment of persons with disabilities also deepens understanding of them among the personnel in the workplace, thereby sustaining their employment, promoting mutual understanding between persons with disabilities and able-body workers, and increasing the quality of employment [18].

It has been reported that contact experiences [38] and learning opportunities from familiar themes [39] are effective in promoting the understanding of persons with disabilities. In the context of their employment, contact experiences through work experience of persons with disabilities and information that persons with disabilities are working in enterprises familiar to local people may be useful. Making these efforts is considered important. Previous studies have also suggested that contact experiences with persons with disabilities promote positive attitudes toward their employment [37]—a notion supported by the results of this study. Thus, an increase in contact opportunities through workplace training and internships may increase the willingness to employ persons with disabilities in SMEs in rural areas.

Based on these issues, a possible policy required in rural areas is that enterprises which have successfully employed persons with disabilities can play a role as mentors for enterprises that want to hire persons with disabilities. For this purpose, a program is considered as a concrete example, in

which the information should be exchanged on a regular basis between enterprises that have employed persons with disabilities and those that are considering employing them. This may allow for transmission of enterprises' know-how for job creation and compensation of their contact experiences with persons with disabilities. In particular, community collaboration in rural areas could be useful in the inclusion of persons with disabilities and contribute to the promotion of their employment [40]. For such a strategy to be feasible in the future, it would be a shortcut to build from the bottom up based on the practice of community collaboration, rather than from the top down in terms of policy. Such a challenge can also be expected to encourage community inclusion.

4.3. Limitations of This Study

This study was conducted among 40 SNEs in a rural area of Japan. The obtained results need to be carefully interpreted in terms of reliability and validity. The enterprises targeted in this study included not only those that employ persons with disabilities, but also those that do not. In this sense, although the sample was small, the cooperation was not necessarily limited to enterprises that emphasize social responsibility for the issues related to persons with disabilities. Despite the small sample, the present survey provides an important insight into awareness among SMEs in rural areas of Japan, offering a useful perspective for future policy measures regarding the employment of persons with disabilities. However, some questions remain, such as the bias of the industry types and whether enterprises' awareness of the employment of persons with disabilities is truly representative. Future research should include a larger number of enterprises and detailed analysis should be conducted by industry type and enterprise size.

Although this study focused on business owners' perspectives, it is important to incorporate the perspectives of persons with disabilities themselves in the future to clarify the gap between the issues faced by both enterprises and workers. Furthermore, compared to Western countries, Japan's employment policies for persons with disabilities are more dependent on the autonomy of enterprises. Based on the findings of this work, it is necessary to conduct an international comparative study and aim to design more effective employment support policies for persons with disabilities. In the future, practical support measures should be developed based on more comprehensive data.

5. Conclusions

In this study, we investigated awareness of employment of persons with disabilities among SMEs in rural areas of Japan. Since these are only the results of a survey of SMEs in rural areas, we cannot assert that this is the awareness of the employment of persons with disabilities among Japanese enterprises. However, since rural areas are also a part of Japan, this study is highly significant in clarifying the actual situation in rural areas where social resources and enterprises are scarce. The results revealed the awareness held by SMEs that inhibits their promotion of employment of persons with disabilities. The awareness would be resolved by understanding various cases of enterprises' employment of persons with disabilities and by increasing their contact experiences with them. Future policies will be required to convey familiar cases of this type of employment of persons with disabilities and to increase contact experiences with them based on mentoring relationships among regional enterprises. For future research, it is necessary to increase the number of enterprises and determine whether the results of this study are affected by factors such as regional location and SMEs. It may also be necessary to compare the present results with those of studies conducted in Europe and the U.S. to determine cultural factors that may affect awareness of the employment of persons with disabilities. In addition to the present survey targeting enterprises, future research may be required to investigate the employed persons with disabilities and colleagues who directly support them, as well as increasing qualitative data, especially on the significance of employment of persons with disabilities. This would shed further light on persons with disabilities in terms of their interaction with the environment. These issues will be the subjects of future research.

Author Contributions: MK, KY, KI and HT conceived and designed the survey. MK performed the survey, analyzed and interpreted the data, and wrote the manuscript. MK performed the survey, analyzed and interpreted the data, and wrote the manuscript.

Funding: This study was supported by a Grant-in-Aid for Research Activity Start-up, "Research on How to Support the Social Transition in Children with Disabilities," from the Faculty of Education and Human Sciences, Akita University.

Institutional Review Board Statement: This study was approved by the Ethics Review Committee for Research Involving Human Subjects at the Tegata District of Akita University (No. 6-50, November 6, 2024).

Informed Consent Statement: In conducting the survey, the protection of personal information was explained on the top page of the survey form, and consent was obtained by responding to the survey.

Data Availability Statement: Data are contained within the article.

Acknowledgments: The authors thank the participants who supported this study.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Trombly CA. Occupation: purposefulness and meaningfulness as therapeutic mechanisms. *Am J Occup Ther.* 1995;49(10):960–972. <https://doi.org/10.5014/ajot.49.10.960>
2. Haruna Y. Disability employment policy in Japan for employment for all: cross sectional challenges [in Japanese]. *J Soc Secur Res.* 2018;2(4):469–483. <https://www.ipss.go.jp/syoushika/bunken/data/pdf/sh18020403.pdf>
3. Fantinelli S, Di Fiore T, Marzuoli A, Galanti T. Self-perceived employability of workers with disability: a case study in an educational farm. *Front Psychol.* 2022;13:871616. <https://doi.org/10.3389/fpsyg.2022.871616>
4. Uno K, Maebara K. A case study of the career advancement motivation and behavior change with adolescent men in autism spectrum disorders: an investigation of 10 years of work and support received at crucial junctures in a career [in Japanese]. *Tot Rehabil Res.* 2022;10:52–66. https://doi.org/10.20744/trr.10.0_52
5. Abe M. Examining the role and significance of policy initiatives aimed at supporting people who face difficulties gaining employment: a social inclusive perspective [in Japanese]. *Oita Univ Econ Rev.* 2020;71(6):1–25. <https://our.repo.nii.ac.jp/record/2012337/files/keiron-71-6-01.pdf>
6. Strong S. Meaningful work in supportive environments: experiences with the recovery process. *Am J Occup Ther.* 1998;52(1):31–38. <https://doi.org/10.5014/ajot.52.1.31>
7. Dunn EC, Wewiorski NJ, Rogers ES. The meaning and importance of employment to people in recovery from serious mental illness: results of a qualitative study. *Psychiatr Rehabil J.* 2008;32(1):59–62. <https://doi.org/10.2975/32.1.2008.59.62>
8. Ministry of Health, Labour and Welfare. (2024). Outline of the employment rate system for persons with disabilities [in Japanese]. <https://www.mhlw.go.jp/content/000859466.pdf>
9. Ministry of Health, Labour and Welfare. (2024). Collected data on the employment status of persons with disabilities [in Japanese]. MHLW. 2024 Dec 20; [cites: 16 Apr 2025] Available from <https://www.mhlw.go.jp/content/11704000/001357856.pdf>
10. Small and Medium Enterprise Agency. (2021). Small and medium enterprise white paper for FY2021 [in Japanese]. https://www.chusho.meti.go.jp/pamflet/hakusyo/2021/PDF/shokibo/00sHakusyo_zentai.pdf
11. Emoto J. Analysis of the current employment status of disabled people in small companies and policy issues: based on data from the Osaka prefectural [in Japanese]. *Hum Sci J Fac Health Welf.* 2014;14(1):67–77. <https://pu-hiroshima.repo.nii.ac.jp/records/287>
12. Dinelli EJ, Crown D, Kudla A, et al. Facilitators and barriers to employment for people with adult-onset physical disabilities. *Work.* 2024;79(3):1433–1450. <https://doi.org/10.3233/WOR-240087>
13. Omar MK, Jamaluddin F, Yaakub M, et al. Examination of the relationship between people with disabilities (PWDs) and employment factors in Malaysia: employer's perspectives. In: Hamdan A, Harraf A, Buallay A, Arora P, Alsabatin H, eds. *From Industry 4.0 to Industry 5.0.* Vol. 470. Springer; 2023:769–786. https://doi.org/10.1007/978-3-031-28314-7_47

14. Odaka Y. Current situation of skill development of disabled young people in small and medium-sized enterprises [in Japanese]. *J Econ.* 2024;64(3-4):199–216. <https://chuo-u.repo.nii.ac.jp/records/2000868>
15. Odaka Y. Employer attitudes and practices towards employing people with disabilities: a case study of workplace inclusion in manufacturing SMEs [in Japanese]. *J Econ.* 2024;65(1):239–256. <https://chuo-u.repo.nii.ac.jp/records/2001777>
16. Kim M. Current status and issues of employment persons with disabilities in the corporate [in Japanese]. *Tot Rehabil Res.* 2016;3:28–45. https://doi.org/10.20744/trr.3.0_28
17. Grijseels M, Zuiderent-Jerak T, Regeer BJ. Technologies for inclusive employment: beyond the prosthetic fix–social transformation axis. *Disabil Soc.* 2023;38(9):1534–1557. <https://doi.org/10.1080/09687599.2021.1997720>
18. Seo T. Future initiatives for employment of persons with disabilities and working together in small and medium-sized enterprises [in Japanese]. *Occup Ment Health.* 2023;31(4):205–208. https://doi.org/10.57339/jjomh.31.4_205
19. Odaka Y. A study on management practices to organize a support cooperation on workplaces for workers with disabilities: based on interviews with managers of Japanese SMEs [in Japanese]. *Annu Inst Econ Res Chuo Univ.* 2024;56:91–110. <https://doi.org/10.24789/0002001919>
20. Kaneda R, Isawa S, Ikeda H. Research on the chances and factors leading to the employment promotion of persons with disabilities in small and medium-sized enterprises: based on interviews with small business owners [in Japanese]. *J Sch Educ.* 2023;36:131–141. <https://doi.org/10.15117/0002000124>
21. Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers. Workplace improvement casebook for the promotion of workplace retention of persons with disabilities in small- and medium-sized enterprises [in Japanese]. JEED: Chiba; 2024.
22. Hutchinson C, Manoharan A, Jones J. Perspectives on demand side barriers and facilitators to the employment of people with disability: qualitative interviews with hospitality employers. *Disabil Rehabil.* 2024:1–11. <https://doi.org/10.1080/09638288.2024.2439013>
23. National Institute of Vocational Rehabilitation. Research on measures to promote employment of persons with disabilities in small and medium enterprises [in Japanese]. Research Report No.114. JEED: Chiba; 2013.
24. Murfitt K, Crosbie J, Zammit J, Williams G. Employer engagement in disability employment: a missing link for small to medium organizations—a review of the literature. *J Vocat Rehabil.* 2018;48(3):417–431. <https://doi.org/10.3233/JVR-180949>
25. Kuramochi H. Research on companies functioning as nodes and strategically hiring employees with disabilities [in Japanese]. *Soc Des Rev.* 2019;10:34–44. https://doi.org/10.32240/socialdesign.10.0_34
26. Inose K. Establishing a work environment and work conditions for people with intellectual disabilities: from an analysis of successful cases in the monthly journal of the Japanese Institute of Labour [in Japanese]. *Mon J Jpn Inst Labour.* 2008;50(9):17 – 31. <https://www.jil.go.jp/institute/zassi/backnumber/2008/09/pdf/017-031.pdf>
27. Ishikawa M. Perspective on labor market for people with disabilities in Japan [in Japanese]. *Kon Econ Pap.* 2016;56(1–2):19–39. <https://konan-u.repo.nii.ac.jp/record/1684/files/K01579.pdf>
28. Emoto J, Tonda T, Kanaya N. Actual state of employment support for persons with disabilities as both workers and welfare service users in rural areas [in Japanese]. *Soc Policy Lab Stud.* 2024;16(3):99–110. https://doi.org/10.24533/spls.16.3_99
29. Onda NA. Historical analysis of the employment of people with disabilities in companies not covered by the employment rate system [in Japanese]. *Soc Policy Lab Stud.* 2022;13(3):102–105. https://doi.org/10.24533/spls.13.3_102
30. Nakayama K. The problem of promoting employment of handicapped in Japanese corporate culture [in Japanese]. *Rev Econ Bus Adm Sapporo Univ.* 2020;50:21–31. <https://sapporo-u.repo.nii.ac.jp/records/7713>
31. Takagi T. Companies' intentions and disabled persons' attitudes concerning employment: studies of effectiveness and problems of Japan's employment policies based on quantitative analyses from two surveys [in Japanese]. *Keiai Univ Staff Pap.* 2020;98:117–134. <https://keiai.repo.nii.ac.jp/records/3232>

32. Small and Medium Enterprise Agency. (2018). Small and medium enterprise white paper for FY2018 [in Japanese]. https://www.chusho.meti.go.jp/pamflet/hakusyo/H30/PDF/chusho/00Hakusyo_zentai.pdf
33. National Institute of Vocational Rehabilitation. Research on job creation support in employment for persons with mental disabilities and developmental disabilities [in Japanese]. Research Report Vol.133. JEED: Chiba; 2017.
34. Wakabayashi I. Effects of vocational needs realization and job satisfaction on intentions to quit jobs: findings from a survey of workers with disabilities [in Japanese]. *Jpn J Vocat Rehabil.* 2007;21(1):2–15. <https://doi.org/10.11328/jsvr1987.21.2>
35. Kawamura S. Issues and suggestions for practice on employment assistance to link individuals with developmental disorders with companies [in Japanese]. *Bull Grad Sch Educ Hiroshima Univ Part 1 Learn Curric Dev.* 2019;68:73–82. <https://doi.org/10.15027/48462>
36. Iwasa M. Current status of enterprise support [in Japanese]. *Jpn J Dev Disabil.* 2020;42(1):59–69. https://doi.org/10.60260/jasdd.42.1_59
37. National Institute of Vocational Rehabilitation. Study on attitudes of supervisors and colleagues of employees who need consideration due to disabilities [in Japanese]. Resource Series No.105. JEED: Chiba; 2021.
38. Fujii T. Promoting greater awareness and understanding among communities for persons with psychiatric disabilities in Osaka prefecture [in Japanese]. *J Soc Prob.* 2009;54(2):19–40. <https://doi.org/10.24729/00003194>
39. Takahashi S, Nakano Y, Mizuuchi T. Understanding disabilities for university students: practical study at the liberal arts education class [in Japanese]. *Toyama Dev Welf Annu Rep.* 2020;11:11–17. <https://doi.org/10.15099/00020473>
40. Smith P, Rhodes P, Pavlidis L, Alexander J, McVilly KR. Transitioning Australian disability enterprises to open employment community hubs using the Australian legislative framework. *J Vocat Rehabil.* 2019;50(3):263–271. <https://doi.org/10.3233/JVR-191006>

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.