Employers' Attitudes Toward Hiring Individuals with Visual Impairments

ABSTRACT

Purpose: This study examines: (a) the attitudes of 196 private sector employers toward hiring individuals with visual impairments, and (b) the impact of the employers' individual characteristics (age, gender, and educational level), attitudes toward visual impairment, social contact with them, and the form of business entity on their attitudes toward hiring such individuals.

Materials and Methods: The research tool used is a questionnaire of 15 closed-type questions.

Results: The results of this research verify that the examined variables are significant individual predictors of the employers' attitudes that are expressed in 7 out of 15 questions.

Conclusions: The majority of the participants provided negative or neutral answers for most of the questions and exhibited the same attitudes with regard to the employment of individuals with visual impairments. Only two variables from the examined ones— 'frequency of social contact' and 'attitudes toward visual impairment'—appear to affect the employers' intentions to hire people with visual impairments.

Keywords: Visual impairments, blindness, employers' attitudes, employment, individual characteristics

Introduction

The integration of people with disabilities into the labor market is a necessary step for their transition from dependent to independent living, which pays benefits, both for individuals as units of society through a radical improvement in their quality of life, and for their colleagues and employers [1–2].

Employers are still reluctant about the actual employment of persons with disabilities [3], even when they express generally positive views toward their employment [4–5]. Stigma and stereotypical beliefs appear to affect the employers' attitudes toward individuals with disabilities, particularly when considering their capabilities and regarding the tasks they can accomplish [6–7]. For instance, employers are more reluctant to assign filling tasks in comparison to customer service tasks for employees with visual impairments [6]. A view also supported is that employers tend to consider people with disabilities more appropriate for less difficult and complex tasks [8].

Negative employer attitudes are one of the most common barriers to the employment of people with visual impairments [6,9,10]. Attitudes are defined as psychological constructions, expressed through favorable or unfavorable assessments, toward specific entities [11]. Cases of discrimination against people with visual impairments, by their employers, mainly concern the employers' negative attitudes toward the possibility of hiring them [12–15], their dismissal and denial of legitimate adaptation of their labor space [16], as well as of assistive technological provision, which is of vital importance for employees with visual impairments for everyday work [13,17].

The employers' reluctance stems from a variety of fears and concerns, the majority of which are due to misinformation about what entails hiring people with

visual impairments or people with other disabilities [14], or due to their lack of knowledge about disabilities and the skills and competencies possesed by these people. [18]. Particularly, employers fear that a disability will affect the employees' productivity [2,3,5,19,20] and that the employment of individuals with disabilities will harm their company financially [21–22]. Additional fears regarding individuals with visual impairments concern, the cost of the required workplace adjustments and safety issues for them in their workplace [14].

Despite the aforementioned, employers today are more willing, than before in demonstrating positive attitudes toward employees with disabilities, as they consider this more socially acceptable [5], and engaging in measures for the facilitation of their occupational integration [1]. Employers themselves indicate that the provision of adjustment measures, for employees with visual impairments, improves the working environment, the employees' morale, their satisfaction in the workplace, and ultimately the quality of their work and their overall performance; while increasing the productivity of the company [1]. Of equal importance is the fact that consumers, of all ages and educational levels, are increasingly observing the way companies function and seem to prefer trading with the ones that demonstrate a social responsibility and a consciousness [23].

Much research has been conducted on the impact of the individual characteristics of people with disabilities, on their employment status, and on the employers' attitudes toward them. For instance, younger age is supported as a significant individual predictor for competitive employment and providing higher employment rates for people with disabilities [24–25], such as visual impairment [26]. Additionally, a higher educational level is demonstrated as an important factor in the

employment of people with disabilities [25,27,28] and specifically of individuals with visual impairments [29–31].

On the contrary, there are gaps in the research regarding the impact of the employers' individual characteristics on their attitudes toward individuals with disabilities and particularly toward individuals with visual impairments. Hernandez et al. [5], in their review, characterize the trends supporting the relationship between the employers' educational level/company size and their attitudes as 'diminishing', probably because of the more active role of the media in the positive representation of people with disabilities, the informative campaigns that take place, and the frequent social contact among employers and people with disabilities. Additionally, Vornholt et al. [18], in their review, characterize the findings of studies, regarding the impact of people's individual characteristics (age, gender, educational level) on their attitudes toward employees with disabilities as 'mixed', mostly indicating that older males, with lower educational levels, have a more negative attitude than younger females with higher educational levels, who show a more positive attitude. Despite the contradictory findings, Chi and Qu [32], in their review, concluded that the employers' individual characteristics, such as gender, age, and education, have no statistically significant correlation to their attitudes toward persons with disabilities.

Researchers also focus on the relationship between the employer's social contact with people with disabilities and their attitudes. Employers with previous experience in working with people with disabilities do not seem to confirm the above-mentioned fears and concerns [3] and appear to hold a more positive view toward them, in case of a previously satisfactory working experience [32]. In general, employers' positive contacts with employees with disabilities is followed by a positive attitude toward them [5]. On the contrary, Nota et al. [8] report that

employers' previous contact with employees with disabilities does not appear to have an effect of either kind on their attitudes. However, according to Nota et al. [8], this result can be attributed to the size of the participating companies in the study, particularly the mid-sized and not the small-sized ones, a factor that does not leave much room for employers' direct contact and a closer examination of their employees with disabilities.

Given these considerations, the purposes of the present study are: (a) to examine the attitudes of the private sector employers toward hiring individuals with visual impairments, and (b) to explore the impact of individual characteristics (age, gender, educational level), attitudes toward visual impairment, social contact with individuals with visual impairments, and the form of business entity (A.E-company limited by shares, E.P.E-limited liability company, O.E-general partnership, E.E-limited partnership, joint ventures, and single traders), on the attitudes of the employers toward hiring these individuals.

Methods

Participants

The sample consisted of 196 employers and human resources (HR) managers in Thessaloniki (the second largest city of Greece, with a population of around 800,000 citizens), aged 21–65 years (M = 38.44, SD = 10.01), who were responsible for hiring employees in their companies. There were 107 (54.6%) males and 89 (45.4%) females. None of the employers had visual impairment themselves nor anyone in their immediate family.

Initially, the questionnaire was distributed to 300 employers, randomly selected, asking them to answer the associated questions. From this group, 260 employers agreed to participate in the study and to complete the questionnaire. At first

the employers were asked the question: “If you were about to hire a person with a visual impairment, in which specialty (position) in your company could this person work.” From the 260 respondents, 64 stated that they did not have a job suitable for a person with visual impairment and were eventually excluded from the sample, as it was clear that none of these 64 employers believed that there was a suitable job in their companies for persons with visual impairments.

Most participants, 152 (77.6%), held or managed partnerships (O.E-general partnership, E.E-limited partnership) and single traders, while 44 (22.4%) of the participants held shares or managed companies (A.E-company limited by shares, E.P.E-limited liability company) and joint ventures. Regarding the level of education, 80 (40.8%) of the participants were primary school, high school (Gymnasium), and lyceum graduates, and 116 (59.2%) of them had a higher level of education. Regarding the frequency of social contact with individuals with visual impairments, most of the participants *(N* = 120, 61.2%) had no contact, or did one to two times per year, or per semester, while 76 (38.8%) of the participants had social contact almost every day, or one to two times per week or per month.

Procedures - Instruments

Due to the lack of a validated, internationally established questionnaire appropriate for measuring attitudes about hiring individuals with visual impairments [33], a questionnaire constructed by the researchers, consisting of 15 closed-type questions, was used in the study. McDonnall’s [33] measurement instrument of employers’ attitudes, toward persons with visual impairment as employees, wasn’t chosen for the present research as it includes a five out of 11-item productivity scale that focuses on employers’ evaluation of persons with visual impairments; whereas, the present research focuses only on the employers’ expectations and intentions in

employing individuals with visual impairment. The constructed questionnaire was distributed to the participants, and they were given a two-week timeframe for its completion.

In addition, the participants provided answers to eight questions regarding their gender, age, educational level, frequency of social contact with individuals with visual impairments, their attitudes toward visual impairment (three questions), and the form of business entity (A.E-company limited by shares, E.P.E-limited liability company, O.E-general partnership, E.E-limited partnership, joint ventures, and single traders). The three questions that concerned participants' attitudes toward visual impairment were the following: (1) Do you consider blindness to be one of the worst disabilities that one might have? (Possible answers: 1 = yes, 2 = maybe, 3 = no); (2) Would you ever become friends with a blind person? (Possible answers: 1 = no, 2 = maybe, 3 = yes); and (3) How easy is it for people with visual impairments to participate in the public life? (Possible answers: 1 = difficult or very difficult, 2 = moderately difficult, 3 = easy or very easy). The average of the score in the above-three questions showed, as a result, the value of the variable 'participants' attitudes toward visual impairment. The score on each question separately was equal to 1 if the participant's choice was the first of the possible answers, equal to 2 if the choice was the second possible answer, and equal to 3 if the choice was the third. So, a small overall score indicates negative attitudes as opposed to a high score indicating positive attitudes.

The 15 questions regarded the participants' attitudes toward the possibility of hiring people with visual impairments and the impact of these potential employments on the customers and on other employees of their company. The questionnaire also included questions on the intention of the participants to be informed about relative

matters, and to take action to achieve the labor integration of individuals with visual impairments. Nine out of 15 questions consisted of three answers (a positive answer, a neutral answer, and a negative answer), and the other six questions consisted of two answers (a positive and a negative). The 15 questions are presented in Table 1.

The questionnaire structure, used in the present study, is based on the questionnaires used in previous studies [34-35]. Specifically, the questionnaire used in the present study is based on that of Golub [35], which was implemented in a sample of eight employers in a survey conducted regarding the factors that contribute to the professional success of people with visual impairments. That questionnaire included inter alia questions regarding the number of people with visual impairments employed in the business, the reaction of the administration and of the remaining employees regarding the recruitment, and the provision of the employees with visual impairments of labor ability development.

Additionally, the questionnaire structure used in the present study is also based on the questionnaire of Gilbride et al. [34], which was implemented for a sample of 123 employers in a survey regarding the attitudes of employers in the face of hiring people with impairments. This questionnaire included questions about the number of people with disabilities employed in the business and about the type of disability, the knowledge of the employers about labor market issues for people with disabilities, the measures they took for a smoother labor adjustment of these individuals, and the incentives, combined with the equipment/services provided by the state, for that purpose. It also included a question on how difficult, on a scale from 1 (impossible) to 5 (no problem), the employers believed it would be to hire people with a specific type of disability.

The research took place at the participants' enterprises. Before the participants answered the questionnaire, the researchers gave them the instruction to answer the questionnaire, bearing in mind, that the questions relate to people with blindness (visual acuity worse than 1/20).

Data Analysis

The purpose was to determine the impact of age, gender (male vs. female), educational level (primary school, high school, and lyceum vs. higher education), frequency of social contact with individuals with visual impairments (social contact almost every day or one to two times per week or month vs. no contact or one to two times per year or per semester), attitudes toward visual impairment, and the form of the business entity (O.E-general partnership, E.E-limited partnership, or single traders vs. A.E-company limited by shares, E.P.E-limited liability company, or joint ventures), on the participants' attitudes toward hiring individuals with visual impairments. To achieve the above mentioned eight multinomial logistic regression, analyses were performed (one for each question consisting of three answers, except question Q5) and seven binary logistic regression analyses were performed (one for each question consisting of two answers, including question Q5), using the above variables as possible predictors of the participants' attitudes.

Power analysis for a logistic regression was conducted using the guidelines established in Lipsey & Wilson [36] and G*Power 3.1.7 [37], to determine a sufficient sample size using an alpha of *.05*, a power of *.80*, a medium effect size (*odd ratio* = 1.72) and a two-tailed test. Based on the assumptions made, the desired sample size is 177.

Results

The percent of positive, negative, and neutral participants' answers for each question concerning attitudes was calculated. The results are presented in Table 1.

<Please insert Table 1 about here>

Eight multinomial logistic regression analyses (concerning the questions Q1, Q3, Q4, Q6, Q7, Q8, Q9, and Q15) and seven binary logistic regression analyses (concerning the questions Q2, Q5, Q10, Q11, Q12, Q13, and Q14) were performed. The significant individual predictors were revealed for the questions Q1, Q2, Q5, Q6, Q7, Q8, and Q15.

Concerning question Q1, the test of the full model against a constant-only model was statistically significant (*chi square* = 25.062, p = .015, df = 12). Nagelkerke R^2 of .14 indicated a medium to high relationship between the prediction and the grouping. The Wald statistic demonstrated that the "attitudes" predictor variable made a significant contribution (p = .007) to the prediction regarding a "No" answer in reference to a "Yes" answer. Exp(B) value (.278) indicated that when the "attitudes" variable is raised by one unit (more positive attitudes), the probability that the participants will provide a positive rather than a negative answer is three and a half times higher (see Table 2). Moreover, the Wald statistic demonstrated that the "frequency of social contact with individuals with visual impairments" predictor variable made a significant contribution (p = .020) to the prediction regarding the "I cannot answer the question with absolute certainty" answer in reference to a "Yes" answer. Exp(B) value (2.327) indicated that, when the "frequency of social contact with individuals with visual impairments" variable is reduced by one unit (from social contact almost every day or one to two times per week or per month to no contact or one to two times per year or per semester), the probability that the participants will provide a positive instead of a neutral answer is 2.3 times lower (Table 3).

<Please insert Table 2 about here>

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Regarding question Q2, the test of the full model against a constant-only model was statistically significant (*chi square* = 14.538, *p* = .024, df = 6). Nagelkerke's R^2 of .129 indicated a medium relationship between the prediction and the grouping. The Wald statistic demonstrated that the "frequency of social contact with individuals with visual impairments" predictor variable made a significant contribution (*p* = .027) to the prediction regarding a "full-time work" answer in reference to a "part-time work" answer. Exp(B) value (2.388) indicated that, when the "frequency of social contact with individuals with visual impairments" variable is raised by one unit, the probability that the participants will answer "full-time work" instead of "part-time work" is 2.5 times higher (Table 4).

<Please insert Table 4 about here >

From the participants who answered "No" to Q5, there was no one who answered "A.E-company limited by shares, E.P.E-limited liability company, or joint ventures" with regard to the form of business entity. So, to include in the analysis the variable "form of business entity" as a possible predictor, the negative and neutral answers were added, and a common answer was created, the 'negative/ neutral' answer. Subsequently, a binary logistic regression analysis was performed to examine the impact of independent variables on the two answers: (a) the positive answer and (b) the negative/neutral answer. The test of the full model against a constant-only model was statistically significant (*chi square* = 14.677, *p* = .023, df = 6). Nagelkerke's R^2 of .099 indicated a low to medium relationship between the prediction and the grouping. The Wald statistic demonstrated that the "attitudes" predictor variable made a significant contribution (*p* = .001) to the prediction

regarding a "Yes" answer in reference to a "No/ Neutral" answer. Exp(B) value (3.565) indicated that, when the "attitudes" variable is raised by one unit, the probability that the participants will provide a positive instead of a negative/neutral answer is 3.5 times higher (Table 5).

< Please insert Table 5 about here >

Regarding Q6 question, the test of the full model against a constant-only model was statistically significant (*chi square* = 21.655, p = .042, df = 12). Nagelkerke's R^2 of .125 indicated a medium relationship between prediction and grouping. The Wald statistic demonstrated that the "educational level" predictor variable made a significant contribution (p = .004) to the prediction regarding a "No" answer in reference to a "Yes" answer. Exp(B) value (2.984) indicated that when the "educational level" variable is reduced by one unit (from higher education to primary school, high school, or lyceum) the probability that the participants will provide a positive instead of a negative answer is three times lower (Table 6).

< Please insert Table 6 about here >

Concerning Q7 question, the test of the full model against a constant-only model was statistically significant (*chi square* = 21.198, p = .048, df = 12). Nagelkerke's R^2 of .121 indicated a medium relationship between the prediction and the grouping. The Wald statistic demonstrated that the "age" predictor variable made a significant contribution (p = .025) to the prediction regarding an "I cannot answer the question with absolute certainty" answer in reference to a "Yes" answer. Exp(B) value (1.040) indicated that, when the "age" is raised, the probability that the participants will provide a positive rather than a neutral answer is reduced (Table 7). Moreover, the Wald statistic demonstrated that the "gender" predictor variable made a significant contribution (p = .045) to the prediction regarding an "I cannot answer the

question with absolute certainty" answer in reference to a "Yes" answer. Exp(B) value (1.962) indicated that the probability of males providing a positive instead of a neutral answer is one-half times lower in comparison to females (Table 7).

< Please insert Table 7 about here >

Concerning Q8 question, the test of the full model against a constant-only model was statistically significant (*chi square* = 21.641, p = .042, df = 12). Nagelkerke's R^2 of .125 indicated a medium relationship between the prediction and the grouping. The Wald statistic demonstrated that the "frequency of social contact with individuals with visual impairments" predictor variable made a significant contribution (p = .050) to the prediction regarding a "Negative" answer in reference to a "Positive" answer. Exp(B) value (3.317) indicated that, when the "frequency of social contact with individuals with visual impairments" predictor variable is reduced by one unit, the probability that the participants will provide a positive rather than a negative answer is 3.3 times lower (Table 8). Moreover, the Wald statistic demonstrated that the "gender" predictor variable made a significant contribution (p = .013) to the prediction regarding a "Neutral" answer in reference to a "Positive" answer. Exp(B) value (.431) indicated that the probability of females providing a positive instead of a neutral answer is one-half times lower in comparison to males (Table 9).

< Please insert Table 8 about here >

< Please insert Table 9 about here >

Concerning Q15 question, the test of the full model against a constant-only model was statistically significant (*chi square* = 26.030, p = .011, df = 12). Nagelkerke's R^2 of .158 indicated a medium to high relationship between the prediction and the grouping. The Wald statistic demonstrated that the "age" predictor

variable made a significant contribution (p = .041) to the prediction regarding a "No" answer in reference to a "Yes" answer. Exp(B) value (1.065) indicated that, when "age" is raised, the probability that the participants will provide a positive, rather than a negative answer, is reduced (Table 10). Moreover, the Wald statistic demonstrated that the "educational level" predictor variable made a significant contribution (p = .004) to the prediction regarding an "I cannot answer the question with absolute certainty" answer in reference to a "Yes" answer. Exp(B) value (2.097) indicated that, when the "educational level" variable is reduced by one unit, the probability that the participants will provide a positive instead of a neutral answer is two times lower (Table 11).

<Please insert Table 10 about here>

<Please insert Table 11 about here>

Discussion

The present study examines the attitudes of the private sector employers toward hiring individuals with visual impairments, and explores the impact of individual characteristics (age, gender, and educational level), social contact with individuals with visual impairments, attitudes toward visual impairment, and the form of the business entity, on the attitudes of employers, toward hiring individuals with visual impairments. Emphasis is given to employers, as it is considered that a change in their attitudes is one of the most important steps that can help in the improvement of the labor market situation for people with disabilities [38-39].

Some basic conclusions can be drawn from the answers of the 196 participants. First, the majority of participants provided negative or neutral answers for most of the questions and showed their initial negative/neutral attitudes regarding the employment of individuals with visual impairments. In particular, a majority of

the participants showed a negative/neutral attitude toward hiring people with visual impairments, especially for full-time rather than part-time work, even after a relatively informative program. Concerns were also expressed by them regarding the anticipated reactions of their customers and of their employees to the possibility of employing individuals with visual impairments. The cause of these negative/neutral attitudes is likely to be the lack of information of the employers, such as when the employers do not know whether hiring employees with an impairment will benefit or harm them financially, they become wary of the possibility of hiring them [12,13,15,21]. To the lack of information can also be attributed the employers' fears regarding the work performance of people with visual impairments [2,5,20], which are expressed through the reservations that most of them had for offering even voluntary work to them and for offering them the provisions to have the same advancement possibilities as the other employees. In general, the employers' ignorance on subjects related to employees with disabilities is one of the major barriers to their employment [40]. Therefore, the necessity to provide them with accurate information emerges in regard to the employment of persons with disabilities, for the reduction of their fears, concerns, and misconceptions [4]. As indicated, information can lead to the revision of the employers' existing attitudes toward employment issues of people with disabilities 41].

Moreover, conclusions can be drawn from the expressed positive intention of the majority of the participants to hire individuals with visual impairments, in case of a state subsidy or tax exemptions, and to participate in a funded state program for the creation of appropriate infrastructures for people with visual impairments. State incentives, especially the financial ones, seem to play an important role in the formation of the employers' attitudes, as they appear to act as motivators for the

employment of people with disabilities by reducing their fears of economic loss [40]. It is no coincidence that, in most European countries, the legislative framework provides employers a variety of incentives with regard to the vocational integration of people with disabilities [42]. However, the question, whether the state incentives for the employers actually covers the problems that arise from the lack of accurate information, could be the subject of future research.

Second, positive conclusions may be drawn from the expressed intention of the majority of the participants in taking some action to support the labor integration of people with visual impairments, and from the large number of the participants who provided a positive answer to the question regarding their intention to offer equal advancement opportunities to such employees. It is possible that employers do want to be socially responsible and fair toward potential or existing employees with visual impairments, perform the needful to support them, or offer them equal opportunities. However, it may also suggest that when the question includes, for instance 'some actions' and not a whole action, such as 'the employment', employers have fewer fears and reservations and are more positively oriented.

Moreover, the results identified that five out of the six variables examined in the present study are significant individual predictors of employers' attitudes. Particularly, age appears to be a significant predictor of the employers' intention to participate in a funded program for the provision of appropriate infrastructures for the concerned individuals, and of their intention to attend an informative seminar regarding labor integration: The older one is, lesser is the possibility of their participating in such events. In general, it is supported [43] that younger people show more positive attitudes toward people with disabilities, as they are more likely to support their rights and social integration. That is probably why, in the present study,

older age is connected to more unwillingness on behalf of the employers to take actions in support of the labor integration of individuals with visual impairments. It is also possible that older age is connected to more obligations and less available time, contributing to the employers' unwillingness to spend time and effort on seminars and programs. In the present study, employers' age does not seem to affect their attitudes toward hiring people with visual impairments, despite the aforementioned effect of that variable. This finding is consistent with the findings of previous studies [32,44], according to which, there are no significant differences among employers of different ages on their attitudes toward persons with disabilities and their employability.

Furthermore, gender appears to be a significant individual predictor of the employers' intention to attend these informative seminars, and of the anticipated reactions of their customers to the employment of individuals with visual impairments. More specifically, females appear to have double the probability for attending an informative seminar regarding the labor integration and for anticipating positive rather than negative/neutral reactions of their customers to the employment of individuals with visual impairments, compared to males. In the present study, however, the variable 'gender' does not appear to affect the employers' attitudes toward hiring people with visual impairments. These findings agree with previous studies [32,43-45], according to which, employers' genders have little to no effect on their attitudes toward the employment of people with disabilities.

In addition, the educational level is a significant individual predictor of employers' intention to offer employees with visual impairments the same opportunities for labor development as the rest and to participate in a funded program for the provision of appropriate infrastructures. It is possible that employers with higher educational levels have received more information during their educational

stages, are more aware of the rights and needs of persons with disabilities, and more willing to contribute to their labor integration; especially when there is no additional financial burden for them. However, this variable does not appear to be a significant predictor of employers' intentions to hire individuals with visual impairments. This finding supports previous studies [32,44], according to which, employers' educational levels do not affect their attitudes toward the employability of individuals with disabilities and are in contrast to the findings of Levy, Jessop, Rimmerman, Francis, and Levy [46]. According to that study, employers with higher levels of education are positively inclined toward the employability of individuals with disabilities.

Only two variables from the examined ones appear to affect employers' attitudes toward hiring people with visual impairments. One variable is the frequency of social contact. Specifically, employers with frequent social contact are significantly more likely to intend to hire an individual with a visual impairment, offering full-time rather than a part-time employment, and to anticipate positive reactions of their customers to that employment, in comparison to employers with less frequent contact. This is probably because social contact can provide employers the chance to learn more about visual impairments and to realize, through their experience, that their fears and concerns regarding the employment of such individuals are mostly unfounded. As is supported, frequency of contacts and exposure to individuals with disabilities are correlated to more positive attitudes toward them [47]. Direct contact, rather continual contact, with individuals with disabilities is the main path for positive change, in the attitudes toward these people [48]. Social contact between individuals, with and without disabilities, at the workplace can also have an impact on attitudes toward disabilities. It is supported [49] that employees that had coworkers with disabilities saw what life with a disability is like and could empathize. In previous studies [44,50-

51], it was also supported that employers who have worked with persons with disabilities show more positive attitudes toward hiring these persons. Additionally, the study of McDonnall [33] is noteworthy, according to which, whether an employer had an employee with visual impairments in the past is a factor that could explain 18% of the variance in employers' attitudes toward people with disabilities as employees.

The other variable, from the examined ones, that appear to affect employers' attitudes toward hiring people with visual impairments is their own attitudes toward visual impairment. Specifically, employers with a more positive attitude toward visual impairment, are significantly more likely to intend to hire an individual with visual impairment and to intend to hire such an individual because of state subsidy or tax exemptions. Burke et al. [4] argued that the employers' attitudes toward people with disabilities are generally positive. The noted employers' negative attitudes are related to their fears regarding matters of employment of people with disabilities and can be radically improved via information. So, in the present study, it may be that employers with a more positive attitude toward visual impairment are more informed, have fewer fears and concerns in regard to the employment of people with a visual impairment, and as a result, are more open minded and more positively oriented toward their actual employment.

The one variable that does not seem to be a significant predictor for any of the questions in the questionnaire is the form of business entity. This finding is consistent with the findings of Rimmerman [44] and Chi and Qu [32], according to which, the form of business entity was not connected to employers' attitudes. However, the form of business entity could be related to the size of the companies, as usually partnerships (O.E-general partnership, E.E-limited partnership) and single traders are smaller in size in comparison to companies (A.E-company limited by shares, E.P.E-

limited liability company) and larger joint ventures. The results of the present study revealed that the size of the companies does not seem to influence employers' attitudes, although the large size of the companies could be related to more available job positions and economic resources. This finding is consistent with Chi and Qu's [32] as well as Callahan's studies [52], which found no significant correlation between company size and employers' attitudes. This finding does not support the findings of previous studies [19,44,46,53-55], according to which, those who hold or represent larger firms are more positively inclined toward the possibility of work engagement of individuals with impairments. This finding is also inconsistent with the findings of Ravaud, Madiot, and Ville [56], according to which, larger companies exert controversial policies that discriminate against people with disabilities and with the findings of Bruyère, Erickson, and VanLooy [57], according to which, smaller and larger companies have different approaches toward a majority of topics related to hiring and retaining people with disabilities, such as awareness of disability and workplace accommodations.

The findings of this study should be seen as a basic step toward future research in this area. The questionnaire may be a useful tool for further investigation of the attitudes toward employment integration of people with visual impairments or other disabilities. Future research could focus on exploring the needs of employers and the factors that affect employers' attitudes toward the labor integration of people with visual impairments, such as the gender, and the educational level of individuals with visual impairments.

The findings of this study exert implications on policy makers, employers, vocational rehabilitation professionals, and individuals with visual impairments. The employment of people with disabilities can be facilitated if vocational rehabilitation

professionals focus more on the employers' individual characteristics and on the characteristics of the companies that they represent that appear to have an impact on their attitudes. Attitudes do not remain static, and that's why they can be changed [6,47]. So targeted vocational guidance programs for individuals with visual impairments and relative informative seminars, interventions, and awareness of disability programs for employers can contribute to more favorable employer attitudes toward the vocational integration of people with disabilities. Additionally, employers could use the findings of this study as a tool for self-assessment to identify how open they truly are to people with disabilities. Vocational integration of people with disabilities remains the target. The findings of this study can help all parties understand better the employers and the labor market needs.

Limitations

A limitation of this study may be the selection of sample only from one city, for the results may not be representative of other regions. At the same time, however, Thessaloniki is the second largest city in Greece and a large pool for sample selection. A comparative study between enterprises in more geographical locations from Greece, especially in small cities and rural areas, is suggested for future consideration. A larger number of participants also would allow drawing safer conclusions.

Declaration of Interest

The authors have no conflicts of interest to declare.

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Table 1

Answers of 196 participants (NG = % negative answers, NE = % neutral answers, P = % positive answers)

	NG	**NE**	**P**
Q1 Intention to hire v.i. individuals	24.7	38.7	36.6
Q2 Intention to hire v.i. individuals for full-time rather than part-time work	74.8		25.2
Q3 Intention to offer voluntary work	12.0	42.7	45.3
Q4 Intention to hire v.i. individuals after the appropriate informative program	5.6	55.1	39.3
Q5 Intention to hire v.i. individuals in case of a state subsidy or tax exemptions	6.2	43.3	50.5
Q6 Intention to offer to v.i. employees the same opportunities to labor development with the rest of the employees	28.4	22.6	48.9
Q7 Intention to attend an informative seminar regarding the labor integration of v.i. individuals	14.8	37.2	48.0
Q8 Anticipated reaction of the customers to the possibility of the employment of v.i. individuals	13.4	47.9	38.7
Q9 Anticipated reaction of the employees to the possibility of the employment of v.i. individuals	8.5	64.9	26.6
Q10 Anticipated communication problems of v.i. individuals with the rest of the employees	81.0		19.0
Q11 Anticipated communication problems of v.i. individuals with the customers.	20.2		79.8

Q12 Anticipated communication problems of v.i. individuals with the administration /employer.	94.0		6.0
Q13 Intention to form specific jobs for people with visual impairments	63.5		36.5
Q14 Intention to do some actions to support their labor integration	30.5		69.5
Q15 Intention to participate in a funded program for the creation of appropriate infrastructures for v.i. individuals	7.3	34.0	58.6

Table 2

Logistic Regression Analysis for variables as predictors of Q1 question (No answer in reference to Yes answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.018	.021	.695	1	.405	.982
Attitudes	-1.279	.474	7.277	1	.007	.278
Gender	.601	.413	2.119	1	.146	1.824
Educational level	.445	.415	1.148	1	.284	1.560
Form of business entity	.149	.410	.131	1	.717	1.160
Frequency of social contact	.598	.510	1.374	1	.241	1.819

Table 3

Logistic Regression Analysis for variables as predictors of Q1 question ("I cannot answer the question with absolute certainty" answer in reference to "Yes" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.020	.018	1.236	1	.266	1.020
Attitudes	-.370	.392	.888	1	.346	.691
Gender	.020	.353	.003	1	.955	1.020
Educational level	.184	.368	.251	1	.617	1.203
Form of business entity	-.050	.401	.015	1	.901	.951
Frequency of social contact	.844	.363	5.406	1	.020	2.327

Table 4

Logistic Regression Analysis for variables as predictors of Q2 question ("Yes" answer in reference to "No" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.024	.021	1.273	1	.259	.976
Attitudes	.743	.445	2.791	1	.095	2.102
Gender	-.679	.407	2.783	1	.095	.507
Educational level	-.151	.420	.129	1	.719	.860
Form of business entity	.728	.438	2.764	1	.096	2.072
Frequency of social contact	.871	.394	4.870	1	.027	2.388

Table 5

Logistic Regression Analysis for variables as predictors of Q5 question ("Yes" answer in reference to "No" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.008	.016	.273	1	.601	1.008
Attitudes	1.271	.362	12.319	1	.000	3.565
Gender	.072	.312	.054	1	.816	1.075
Educational level	.205	.316	.421	1	.516	1.228
Form of business entity	.064	.364	.031	1	.860	1.066
Frequency of social contact	-.159	.317	.252	1	.616	.853

Table 6

Logistic Regression Analysis for variables as predictors of Q6 question ("No" answer in reference to "Yes" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.022	.019	1.280	1	.258	.978
Attitudes	.766	.414	3.416	1	.065	2.151
Gender	-.129	.370	.122	1	.727	.879
Educational level	1.093	.382	8.172	1	.004	2.984
Form of business entity	-.082	.440	.035	1	.852	.921
Frequency of social contact	-.122	.385	.101	1	.750	.885

Table 7

Logistic Regression Analysis for variables as predictors of Q7 question ("I cannot answer the question with absolute certainty" answer in reference to "Yes" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.039	.017	5.056	1	.025	1.040
Attitudes	-.380	.377	1.015	1	.314	.684
Gender	.674	.336	4.016	1	.045	1.962
Educational level	.054	.340	.025	1	.875	1.055
Form of business entity	-.099	.388	.065	1	.798	.906
Frequency of social contacts	.192	.346	.307	1	.579	1.212

Table 8

Logistic Regression Analysis for variables as predictors of Q8 question ("Negative" answer in reference to "Positive" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.002	.026	.005	1	.943	1.002
Attitudes	-.403	.553	.529	1	.467	.668
Gender	-.846	.503	2.829	1	.093	.429
Educational level	-.055	.504	.012	1	.913	.947
Form of business entity	1.381	.794	3.028	1	.082	3.980
Frequency of social contacts	1.199	.613	3.826	1	.050	3.317

Table 9

Logistic Regression Analysis for variables as predictors of Q8 question ("Neutral" answer in reference to "Positive" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.024	.017	1.970	1	.160	1.024
Attitudes	-.141	.374	.143	1	.706	.868
Gender	-.843	.338	6.197	1	.013	.431
Educational level	.278	.339	.670	1	.413	1.320
Form of business entity	.212	.378	.315	1	.575	1.236
Frequency of social contacts	-.134	.335	.158	1	.691	.875

Table 10

Logistic Regression Analysis for variables as predictors of Q15 question (No answer in reference to Yes answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.063	.031	4.197	1	.041	1.065
Attitudes	-1.169	.743	2.477	1	.116	.311
Gender	-.401	.609	.433	1	.510	.670
Educational level	.117	.615	.036	1	.849	1.124
Form of business entity	1.438	1.109	1.683	1	.195	4.214
Frequency of social contacts	-.915	.629	2.112	1	.146	.401

Table 11

Logistic Regression Analysis for variables as predictors of Q15 question ("I cannot answer the question with absolute certainty" answer in reference to "Yes" answer)

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.024	.017	1.813	1	.178	1.024
Attitudes	-.624	.382	2.670	1	.102	.536
Gender	.601	.346	3.023	1	.082	1.825
Educational level	.740	.340	4.734	1	.030	2.097
Form of business entity	-.426	.386	1.222	1	.269	.653
Frequency of social contacts	.068	.355	.036	1	.848	1.070