

The Economic and Financial Viability of Sheltered Employment Centres: is the Level of Managerial Professionalization a Determining Factor for Profitability?

Abstract

The objective of this study was to investigate whether sheltered employment centres, which have a higher rate of manager professionalization, have better economic returns than those that have lower manager professionalization. A questionnaire was developed for managers. After collecting the answers, an index of professionalization was used to classify the sheltered employment centres with managers of high, medium and low levels of professionalism. This index was then correlated with the main financial ratios of the companies. The results show that companies with the highest level of manager professionalization, on average, have higher economic returns than companies with medium and low rates, although the difference is minimal. This study is an important contribution to the academic literature and it is the first to examine professionalization for this type of firm.

Key Words: *Sheltered employment centres; Professionalization; Competencies; Profitability*

1. Introduction

The professionalization of senior management has been a common research topic in recent decades. From a long-term perspective, the company describes that "*Managers have gradually improved their skills and have been better prepared for their work. These skills and competences were acquired through formal education, but also informally through periods of learning, study, work practices abroad and personal contacts*" (Fellman 2013, pp. 9). Thus, it could be said that managers' professionalization depends on their work experience, training courses and education.

When analysing the existing literature on professionalization, few studies on socially responsible companies are reported and this is also the case for sheltered employment centres, although the concept, importance and evolution of these firms are well defined (Camacho-Miñano and Pérez, 2012; Gelashvili et al., 2015). Sheltered employment centres are companies that contribute to the social and labour integration of people with disabilities because the staff of these companies consist of a majority of workers with disabilities. According to FEACEM (Federation of Spanish sheltered employment centres), 68,613 people with disabilities were hired in these centres during 2015. This illustrates the role of sheltered employment centres for society and especially for people with disabilities.

According to previous literature, the notion of "professional management" has been particularly used in family business research (Dyer, 1989; Debicki et al., 2009; Dekker et al., 2012; Pérez and Serrano, 2013) but is rarely discussed (Hall and Nordqvist, 2008; Fellman, 2013). Logically, some family enterprises are run by their founders or their families. However, those who have managed to transform small and medium enterprises (SMEs) into large companies and then into multinationals show a substantial difference in their structure (i.e., they have become professional). This indicates that they have adopted the practices and procedures of big companies and have even hired managers with extensive knowledge and experience who have no relationship with the family or the founders. Among the many advantages, professionalizing a company is a decisive step to manage potential conflicts between the values and goals of the family and the company itself (Leach, 1993). The reasons why a family who owns a business might want to professionalize their current management team include: to change the norms and values of business operations and to prepare for leadership succession and address a lack of management talent (Dyer, 1989). A study of non-profit organizations conducted by Valeau (2015) mentions that most researchers suggest that these organizations should become professional to be more efficient. Studies about family enterprises have shown that professionalization guarantees the best results in terms of growth for the company as well as the job stability of workers, quality of life, generation of new jobs, and permanence of the organization over time (Llanos et al., 2011; Rueda, 2011).

In addition, a parallelism between family businesses and sheltered employment centres could be made since the latter usually have their start from associations and foundations set up by family members of disabled people. For their viability they are not only required to have voluntarism but also professional management capacity. However, none of the recent studies about sheltered employment centres mentions professionalization as a possible basis for success.

With these ideas in mind, the aim of this study was to analyse the link between the level of managers' professionalization and profitability ratios in the special case of social firms such as sheltered employment centres. Consequently, the professionalization of sheltered employment centres could be an explanatory variable of their economic and financial viability. The main results normally show that sheltered employment centres are companies with a low rate of profitability; however, if they are run by professionals, their profitability is slightly higher than for those centres with a low and medium rate of professionalization and they also have more opportunities to survive in the market. This research is an important contribution to the literature on this subject because there are no studies about the level of professionalization of sheltered employment centres, which are companies that represent an important value for the economy of a country.

This article is structured into seven sections: The first section is the introduction. The second, third and fourth sections present the literature review related to this subject. Section five includes the hypotheses, sample research, methodology and the analysis of the survey. Finally, the last two sections include the analysis of the results and the conclusions, limitations and future research.

2. Employment and disability: the role of sheltered employment centres

Employability and social inclusion of disabled people has obtained more visibility in the recent years. Plans promoted by European Union have been key factors for this improvement (Dávila and Malo, 2015). The European Disability Strategy 2010-2020¹ sets goals for people with disabilities. Their main objectives include: the accessibility and participation in the labour market, the promotion of equal opportunities and the removal of barriers to participation in public life and education. The Spanish strategy regarding disability (2012-2020)² focuses on the total participation of disabled people in the social and economic life of the country.

In Spain, as in many European countries, there are different employment possibilities for people with disabilities such as a quota system in an ordinary company, supported employment, occupational centres and sheltered employment centres. The latter is the object of this research. Sheltered

¹<http://ec.europa.eu/social/main.jsp?catId=1137&langId=en>

²<https://www.mindbank.info/item/937>

employment centres are social companies that aim for social and labour integration of people with disabilities (Gelashvili et al., 2015), and at the same time, also help them to obtain work in an ordinary company (Law 13/1982 of 7 April). Moreover, another goal for sheltered employment centres is to be profitable companies, to survive over time, and achieve the social value for which they have been created. Due to their importance, sheltered employment centres receive public subsidies that help them to improve working conditions for disabled people (Camacho-Miñano and Pérez, 2012).

3. Reasons for professionalizing managers: a literature review regarding the professionalization of companies

Since the 1990s, the traditional approach in human resources has been abandoned for a more strategic approach. This change of approach is supported by contributions from the Theory of Resources and Capabilities, which handles the fundamental role of intangible assets, and therefore, of human capital in the process of value creation for companies (Gates and Langevin, 2010). In a society in which knowledge is incorporated into all production processes and in which competition is established at a global level, the capacity to create wealth depends more and more on the generation of intangible assets that are the key to competitiveness (Chell, 2013). The managers of a firm are one of these relevant intangibles.

The growth, decisions, coordination and control of businesses increase the need to professionalize companies. Some professional associations have a system to guarantee the level of competency of their individuals, which is called ‘professional development’. Professional development is defined as continuing learning and it is universally accepted and expected by professionals (Webster-Wright, 2009). The idea is to earn or maintain their professional credentials, e.g., training to obtain new knowledge or earning new competencies. In some professions, individuals participate in professional development systems to comply with professional regulatory requirements or because they have interest in lifelong learning due to moral obligations, to maintain and improve professional competencies, and to promote in their career. However, not all the professional development programs are effective and depend on the form of the activity, the collective participation and the duration of the program (Garet et al., 2001). There are different approaches to professional development. These programs could be formal or informal, group or individualized, compulsory or voluntary, and cover a broad range of activities such as case studies, coaching, consultation, lesson study, mentoring, technical assistance or even new professional exams. Some professions require initial professional development and also continuing professional development such as teachers or nurses.

From our point of view, the system of professional development cannot be used as a measure for the level of professionalization of sheltered employment centres for several different reasons. First, this system is not the same for all centres due to the variety of services they render or products they sell. Normally, professional development is focused on a specific sector. Second, professional development is not a measure of professionalization but a goal to achieve for professionals to keep or earn a good level of competence. Third, it is compulsory in some professions (but not all of them) and varies depending on many factors.

Díaz and Mayett (2011) analysed different studies regarding the professionalization of family businesses. They related numerous advantages provided by professionalization for companies and for owners, e.g., the improvement of the company performance due to the organizational efficiency, the life quality of the entrepreneur, and advances in the important issues of the company. However, these advantages are not the only ones to explain the professionalization of the family business. According to Dekker et al. (2012), the professionalization within family firms is a multidimensional concept that includes different factors such as financial and human resources, control systems, decentralization of authority and top-level activities together with non-family involvement in the governance system. However, previous studies show that there is a great heterogeneity in terms of the professionalization of managers, which is very professional in large companies and has very low profiles in SMEs (Pérez and Serrano, 2013; Celentani et al., 2010). Additionally, Chung and Yuen (2003) showed that professional development is a weak point for the second-generation of owners (managers) in SMEs.

As mentioned above, sheltered employment centres belong to so-called social enterprises. Previous studies highlight that the main obstacles for social entrepreneurs in the creation of enterprises are a lack of financial resources (this is common to all entrepreneurial initiatives) followed by the lack of business training and experience, high risk, and finally excessive tax burdens and a lack of information (Navarro et al., 2011). In fact, these authors made a SWOT matrix for social and solidarity enterprises (Navarro et al., 2011, p.162), and a low level of professionalism in management appears as a weakness. This fact concerns us, especially because on many occasions, sheltered employment centres have their origins in the associations or foundations of parents. It is possible that once the company is underway, the executive team does not have a professional profile that allows it to achieve the best results or even to be able to face the processes of growth. Therefore, the analysis of the degree of professionalization of the management team in sheltered employment centres is very relevant since it appears as one of the main obstacles not only to create but also to achieve viability or superior results. Considering the need for professionalization of companies, especially today with the fast changing environment, this study detects the degree of professionalization of the managers of sheltered employment centres

through a questionnaire and verifies if there is a correlation between this variable and their economic results.

4. Measures of the professionalization of managers

4.1. Concept and utility of the model of managerial competencies

The professionalization of managers normally relates to a manager’s training in terms of knowledge and experience. However, this perspective is wider and includes the use of competency models to analyse the type of manager that organizations need to support their competitiveness (Boyatzis, 1982). There are different definitions of the concept of "competence". One of the forerunners in the analysis of managerial competencies was Boyatzis (1982), who defined it as an underlying characteristic of a person that includes motivation, traits or qualities, skills, aspects of the social role, and knowledge. For Bartram (2005, pp. 1187), competence is a set of behaviours that are instrumental in achieving the desired results. Díaz-Fernández et al. (2014, pp. 207) refer to it as "a combination of knowledge, skills, and behaviours that help achieve greater performance".

In all of these definitions, the concept of competence is linked to the success of the organization and highlights that it is a multidimensional concept since it refers not only to an attribute but also to a combination of knowledge, skills, attitudes, and values. This multidimensional nature of competencies explains the difficulty of this study. However, many authors (Table 1) encourage deepening the study of managerial competencies and argue for its utility to support decision-making processes in the different policies of human resources related to this important group of workers. In this case, we indicate the need for a better understanding of the manager’s profile so that, as pointed out by Guillen and Saris (2013), this knowledge will facilitate the design of the policies of selection, training and career development of the manager. At the same time, the certification of these competencies has been revealed as a possible variable explaining the performance of the manager and the effectiveness of the organization.

Table 1. Usefulness of the analysis of managerial competences

Utility	Authors
Selection of managers	Boyatzis (1982) Cheng at al. (2005) Stevenson and Starkweather (2010) Tonidandel et al (2012)

	Bosch et al (2013) Guillen and Saris (2013) Packard (2014)
Training and development of managers	Boyatzis (1982) Cheng at al. (2005) Rubin and Dierdorff (2009) Bosch et al. (2013) Guillen and Saris (2013) Packard (2014)
Effectiveness of managers	Boyatzis (1982) Scullen et al (2003) Khandawalla (2004) Bartram (2005) Cheng at al. (2005) Stevenson and Starkweather (2010) Tonidandel et al. (2012) Guillen and Saris (2013)
Maintain competitive advantage and generate profits.	Boyatzis (1982) Díaz-Fernández et al (2014)

Source: own elaboration

4.2. Different models of managerial competencies

As we can see in Table 2, studies about managerial competencies have different classifications of desirable skills for a managerial profile.

Table 2: Profile of the managerial competences

Authors	Classification
Boyatzis (1982)	It identifies 12 competencies associated with managerial efficiency and 7 threshold competencies. Group in clusters: <ol style="list-style-type: none"> 1. The goal and action management cluster 2. The leadership manager cluster 3. The Human resource management cluster 4. The directing subordinates cluster 5. The focus on others cluster

	All of these add to those of specialized knowledge that refer to principles, theories, specific models to each job and that will be identified in their assessment of performance.
García-Lombardía et al (2001)	<p>It groups 18 competences in 3 dimensions:</p> <ol style="list-style-type: none"> 1. Strategic (Reflects the strategic talent of the manager): Business vision, interfunctional orientation, resource management, customer orientation, networking and negotiation. 2. Intrategic (developing effective relationships with workers): Communication, people management, delegation, coaching, teamwork and leadership. 3. Personnel (internal processes of the person in decision making and learning): proactivity, problem solving, self-governance, personal management, integrity and personal development.
Scullen et al (2003)	<p>It identifies 4 dimensions focused on managerial efficiency:</p> <ul style="list-style-type: none"> - Technical dimension (related to the function performed by the manager: accounting, production, finance ...). - Administrative dimension (planning, setting objectives, delegating, controlling, coordinating). - Human dimension (motivate, maintain personal relationships, communicate, represent team). - Civic education dimension (interpersonal, in the organization, in the post).
Khandawalla (2004)	<p>It identifies 45 in 6 groups:</p> <ul style="list-style-type: none"> - Contextual Sensitivity - Management of initiatives - Innovative - Solve problems - Execution of tasks - Interpersonal and leadership competences.
	<p>The theory of Great Eight</p> <ol style="list-style-type: none"> 1. Leading and deciding 2. Supporting and cooperating 3. Interacting and presenting

Bartram (2005)	<ol style="list-style-type: none"> 4. Analysing and interpreting 5. Creating and conceptualizing 6. Organizing and executing 7. Adapting and coping 8. Enterprising and performing
Cheng et al (2005)	<p>It identifies 12 items to measuring managers' performance:</p> <ol style="list-style-type: none"> 1. Orientation to results 2. Initiative 3. Information seeking 4. Oriented to customer needs 5. Impact and influence 6. Management capacity or character 7. Team work and Cooperation 8. Team Leadership 9. Analytical thinking 10. Conceptual thinking 11. Self-control 12. Flexibility
Spencer et al (2008)	<p>It identifies 5 competences that are most required by companies:</p> <ul style="list-style-type: none"> - Innovation. - Adaptation. - Customer orientation. - Results orientation. - Technical expertise.
Rubin and Dierdorff (2009)	<p>It analyses 6 managerial behavioural competences:</p> <ol style="list-style-type: none"> 1. Conduct decision-making processes: collect information, judge the quality of things, services and people. 2. Manage Human Capital: train and develop others; Resolve conflicts and negotiate with others; Create and develop teams. 3. To develop strategy and innovation: to think creatively; develop objectives and strategies; provide advice to others. 4. Manage the environment: communicate with people outside the company; Establish and maintain international

	<p>relationships.</p> <ol style="list-style-type: none"> 5. Administration and control: evaluate information to determine compliance of standards; Record information. 6. Manage logistics and technology: check equipment, structures and material; Control machines and processes; Interface with computers.
Bosch and Cardona (2010)	<p>It groups 12 competences in 3 dimensions:</p> <ol style="list-style-type: none"> 1. External (Business vision, resource management, negotiation and networking) 2. Interpersonal (Communication, delegation, integrity and kindness) 3. Personal (Initiative, humility, discipline and inspiration)
Guillén and Saris (2013)	<p>It groups 15 competences in 3 dimensions:</p> <ol style="list-style-type: none"> 1. Achievement competences: includes competences mainly related to fulfil /perform to objectives, to reach standards of excellence (orientation to achievement, initiative, persistence / optimism and catalyst for change). 2. Affiliation competences: includes competences primarily related to creating, maintaining and using social relationships with others at work (service orientation, adaptability, teamwork, collaboration and transparency). 3. Power competences: includes competencies mainly related to having impact on others (influence, leadership, developing others, conflict management).
Packard (2014)	<p>It evaluates competency studies for managers of human service organizations (HSO) and it proposes, among others, the NSWM (Network for Social Work Management) classification.</p> <p>It identifies 21 competences in 4 group:</p> <ul style="list-style-type: none"> - Leadership (11 competences); - Resource management (4 competences). - Strategic management (5 competences). - Collaboration with the community (1 competences).

Source: own elaboration

Some of these studies directly present a list of competencies as shown in Table 2. The number of proposed competencies ranges from broader approaches (45 competencies) to more focused (12 competencies). In other models, the competencies are grouped around dimensions related to the tasks to be performed by the workers who hold the maximum responsibility in the companies. We also find authors that use the nature of competencies as the classification criteria and differentiate those that are more focused on the business strategy from those that focus more on personal and interpersonal skills.

With regard to the methodology used for the identification of these competencies, most of these studies have applied the following: critical incident interviews, questionnaires addressed to managers and/or coaches or trainers, or 360-degree evaluations. The objective of these questionnaires is to identify the generic competencies for the managerial position, especially those that are necessary and lead to efficiency, which is independent of the organization or sector where these managers work (Cheng et al., 2005). In this way, these profiles can be generalized, but the efficiency of the manager will also be explained by how these competencies are combined with those of a technical nature, that is, the ones that are specific according to the contingency of each organization. In the Boyatzis (1982) model, it is assumed that the competencies are a necessary condition but are not sufficient for an appropriate managerial performance since there must be an adjustment between three elements: job requirements, requests of the organization and individual competencies. For this reason, they start with an integrated competency model since it is not possible to understand the competence of a manager by analysing a single or a single cluster without observing the rest. Finally, the study concludes that one third of the variance of the manager’s performance must be explained by generic competencies, another third for the specific competencies of the job and the organization, and the rest is due to environmental factors.

In fact, some studies have tried to identify which competences were most critical and the final conclusion is that although some competencies can be identified that have a greater effect on the performance, a hybrid approach must be adopted since they must be complementary (Cheng et al., 2005; Bosch et al., 2013). Tonidandel et al. (2012) were able to prioritize, but in their empirical study they demonstrated that the four dimensions were significantly important predictors of directive efficiency.

Table 3. Ranking of competences

Authors	Ranking of Competences
Cheng at al (2005)	This study identifies 12 different competencies. Of these, the ones that most affect the performance in the position are: Self-control and team leadership.

Tonidandel et al (2012)	1 Managerial skills. 2 Human skills. 3 Technical and civic behaviour skills
Bosch et al (2013)	This research recognizes differences in country valuation. In particular, it detects that the Asian countries put more emphasis on the interpersonal dimension of managerial competences.

Source: own elaboration

In our study, we certify the competencies of managers using the Bosch et al. (2013) model. The classification of managerial competencies presented by these authors has its origin in the García Lombardía et al. (2001) model, which verified the consistencies through a factorial analysis. This resulted in discarding some competencies of the original model and the merger of some of them (Bosch and Cardona, 2010). In Bosch et al. (2013), these authors use this classification again and prove that the model of managerial competencies with these three dimensions (external, interpersonal and personal) is stable in different countries. For these reasons, we consider that the profile proposed by these authors is sufficiently compared and consequently valid.

5. Hypothesis, sample and evaluation methodology of the survey

5.1. Presentation of the research question and hypothesis

Most sheltered employment centres' origins in Spain are associations and foundations (Graph 1) of the family members of disabled people. Therefore, to a certain extent, sheltered employment centres can be considered family businesses³. Through the literature review, Rueda (2011) indicates that only 33% of family enterprises survive to the second-generation process. As mentioned before and in other studies, such as Dyer (1989), Chittoor and Das (2007), Hall and Nordqvist (2008), Llanos et al. (2011), Dekker et al. (2012), and Pérez and Serrano (2013), professionalization is one of the important variables to explain this survival, growth, competitiveness and business success. Based on other studies, the process of professionalization is one of the most important in the life of the company, and if it is successfully made, the probabilities of survival and growth increase quickly. This is why we consider it important and necessary to analyse the situation of professionalization of the sheltered employment centres of Spain: to determine if they can manage to overcome the phase of generation change and also if they have a greater probability of surviving.

³<http://www.educaweb.com/noticia/2015/04/15/retos-centros-especiales-empleo-8796/>

When reviewing the existing literature about professionalization and sheltered employment centres, we found that there is no study that analyses the professionalization of these centres. The first step in this research will be the construction of an index, which will divide the sheltered employment centres and consider their level of professionalization. To achieve this objective, the following research question is proposed:

RQ: Could a professionalization index that classifies sheltered employment centres according to their level of professionalization be designed?

Consequently, we understand that the more professionalized the manager's profile is, the better the results of the company will be. Thus, the following research hypothesis arises:

H. Sheltered employment centres whose managers have a higher level of professionalization have a greater probability of surviving in the market than those that have a lower one.

Therefore, through this research, it is expected that the professionalization of sheltered employment centres can become one of the necessary factors for their survival and can also help to achieve the competitive position of the company in the market. Thus, we expect that the hypothesis (H) will not be rejected.

5.2. Sampling, analysis of the survey and methodology

The initial sampling for this research was all Spanish sheltered employment centres in 2013 (i.e., a total of 1.834), but only 530 centres were contacted due to access to their addresses. The survey was tested in the sheltered employment centres from the community of Madrid⁴, whereas in other autonomous communities the survey was sent by email.

The aim of this research is to discover the managers' degree of professionalization. On the one hand, the professionalization depends on the manager's education, professional experience and competencies (Bosch et al., 2013), that is, the personal manager's characteristics, which constitute a *direct* measure of professionalization. Therefore, these dimensions should be considered in the survey. On the other hand, the level of professionalization can be measured by means of the management tools or models adopted by the firm. The degree of implementation of management tools constitutes an *indirect* measure of professionalization.

⁴ In Spain, the Autonomous Communities are a level of the political and an administrative division. Spain has 17 Autonomous Communities with Ceuta and Melilla.

Considering all of these aspects, a questionnaire was designed to include all of these professionalization indicators. An analysis of the survey will allow us to obtain a “professionalization index” that will be compared with the probability of survival of sheltered employment centres to test the correlation between them.

The questionnaire is addressed to the managers of sheltered employment centres and contains:

- Questions about competencies: One of the most important studies regarding the classification of managerial competencies is the one made by the IESE Business School. This empirical study was conducted through a questionnaire to a sample of 148 managers (García-Lombardía al., 2001)⁵, and subsequently, it was validated in a study in which a sample of companies from different countries was used (Bosch and Cardona, 2010). The authors identified thirty competencies with their corresponding definition to ensure that a particular aspect of the behaviour for which they ask is valued. In later work, Bosch et al. (2013, p. 441) calculated Cronbach's alpha (used to estimate the reliability of a psychometric test) for each competency and sub-dimension, which presented high levels of reliability. Their conclusions were that the model is useful to select and evaluate managers.

Therefore, in our research, we used Bosch et al.'s (2013) model to test these competencies. Twelve competencies were tested using the valuation of 21 items on a 5-point Likert scale, which was grouped in three dimensions: external, interpersonal and personal dimensions.

- Questions about their academic training and complementary studies (especially in SMEs). We used questions about their degree and area of study and specifically about management training. This information was obtained by direct questioning.
- Questions about their professional experience. We asked about the number of years of management experience in sheltered employment centres and other types of companies through direct questioning.
- Questions about the management model. We included questions about which management tools have been implemented in their sheltered employment centres. The respondent was directed to mark those that had been implemented in their businesses.

Once the survey results were tabulated, the outcomes were statistically analysed and the obtained results were extracted. In addition, the assignment of a score to each question allowed us to develop a professionalization index. Moreover, the survey is not anonymous so that we know the professionalization of managers from the different sheltered employment centres, and consequently,

⁵ The questionnaire about competences was sent to 1,147 firms and 148 responses were obtained, which represent a 13% response rate. According to Cochran's formula (Bartlett et al., 2001), the respondent sample should be 131 ($148 / (1 + 148 / 1147)$), which corroborates its statistical validity.

the survey's results and professionalization index could be related with the main financial variables of each company.

Finally, a Z-score formula was calculated to contrast the hypothesis about the survival of the sheltered employment centres. The Z-score provides a probability of bankruptcy or the firm's failure (for more detail of this indicator, please see Altman et al., 2017) and this score has been related to their level of professionalization. Because our sample is for non-listed companies, the model has the following formulation:

$$Z' = 0.717X_1 + 0.847X_2 + 3.107X_3 + 0.420X_4 + 0.998X_5$$

Where Z' is the index of bankruptcy; $X_1 = (\text{Current Assets} - \text{Current Liabilities}) / \text{Total Assets}$; $X_2 = \text{Retained Earnings} / \text{Total Assets}$; $X_3 = \text{Earnings before Interest and Taxes} / \text{Total Assets}$; $X_4 = \text{Book Value of Equity} / \text{Total Liabilities}$; and $X_5 = \text{Sales} / \text{Total Assets}$.

The results of the Z' 's score show that, in practice, companies can be classified into three different areas:

When $Z' > 2.9$ -“**Safe**” **Zone**; this indicates that the company has no risk of bankruptcy. In our model, we assigned value “0” to the probability of bankruptcy. When $1.23 < Z' < 2.9$ -“**Grey**” **Zone**; this means that the company could have problems surviving in the next period. We also assigned value “0” to all of the companies in this zone because we are interested in the survival of companies and their ability to carry out their social purpose. When $Z' < 1.23$ -“**Distress**” **Zone**; this means that there is a high probability that the company will go bankrupt. In our model, we assigned value “1” to all companies that are situated in this zone.

Moving forward, a regression was made to check if the professionalization of sheltered employment centres is one of the determining variables to predict survival or bankruptcy.

6. Results and Discussion

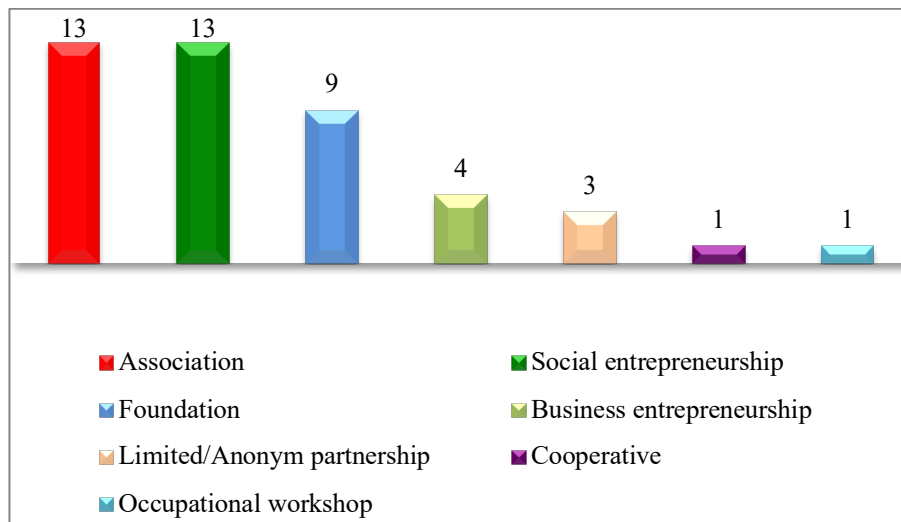
6.1. Descriptive analysis

In this section, the data extracted from the survey was analysed. After running the survey three times, the results included 51 managers from sheltered employment centres that responded to the survey, but six of them were not valid. Finally, a total of 45 answers were analysed, which represents 9% of the

total sample. To determine whether the sample of the study is appropriate, the Cochran's formula to determine the sample size was used (Bartlett et al., 2001). According to Cochran's formula⁶, the representative sample for this study would be 41.30, and the analysed sample is almost 4 points greater than the result of the equation. In fact, a study about the professionalization of NGO's also used a similar response rate (Bayalievva-Jailobaeva, 2014). Consequently, our findings and insights can be validated and we feel that the average degree of professionalization of managers can be determined. The general survey questions about the sheltered employment centres' age, size (number of employees) and organizational structure were included. The responses show that 30 sheltered employment centres were created before 2008, which was the year when the harsh economic crisis in Spain started. After this year, 15 sheltered employment centres were created. Although the economic crisis severely damaged the business of the country, these firms have been able to continue their evolution. The half-life for these companies is 12 years, which means that they are experienced companies in the market.

The analysis of the 45 centres shows that they employ a total of 2,870 workers. A total of 88% of their employees (i.e., 2,514 workers) present some kind of disability. Finally, the answers about the origin of the sheltered employment centres show that associations, foundations, and social entrepreneurship have been the basis for most of these companies (Graph 1).

Graph 1. The origin of sheltered employment centres



Source: Own elaboration

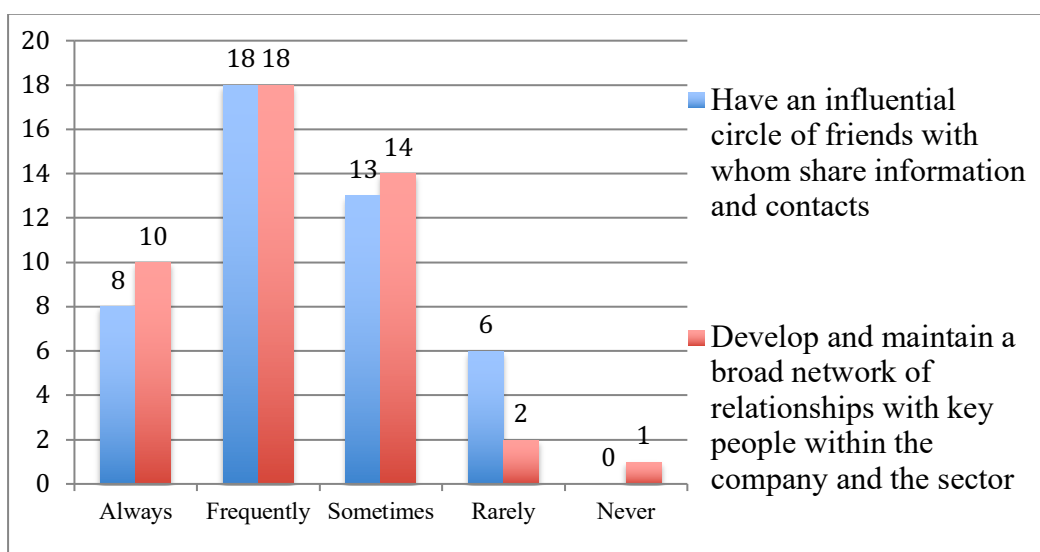
The main results of the survey will be analysed following the different question groups:

Questions about competencies

⁶ The equation that was applied to our data has the following form $45 / (1 + 45 / 502) = 41.30$

As mentioned before, competencies have been grouped in three dimensions: external, interpersonal and personal. Focusing on the questions about the external dimension, the answers show that 60% of the sheltered employment centres' managers frequently know the strengths of the company and competitors. However, more than 19 managers indicated that they always analyse the environment to exploit opportunities and identify threats that affect business. Likewise, they indicated that the opportunity cost of the used resources dominate current productivity and control deviations. Two more questions of external dimensions show that more than 25 managers frequently get concessions in negotiations and are able to gain the confidence of the participants quickly in the negotiation. Finishing with the external dimension, the managers were asked about their relationships (Graph 2).

Graph 2. External Dimension results: questions about contacts

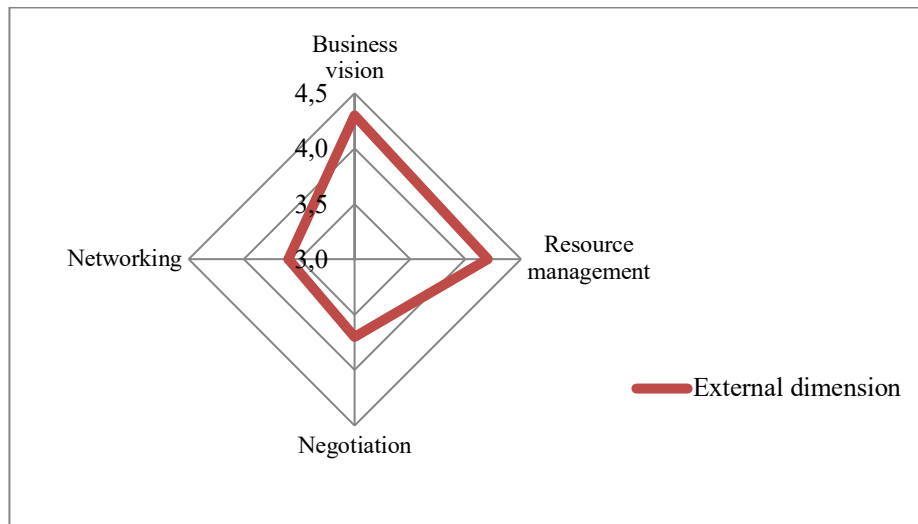


Source: Own elaboration

As we can see in Graph 2, most managers frequently have an influential circle of friends and develop and maintain relationships with key people in the company and in the sector.

To complete the external dimension of the managers, Graph 3 shows the difference between the four components (business vision, resource management, negotiation, and networking) that are part of the external dimension.

Graph 3. External dimension. Differences

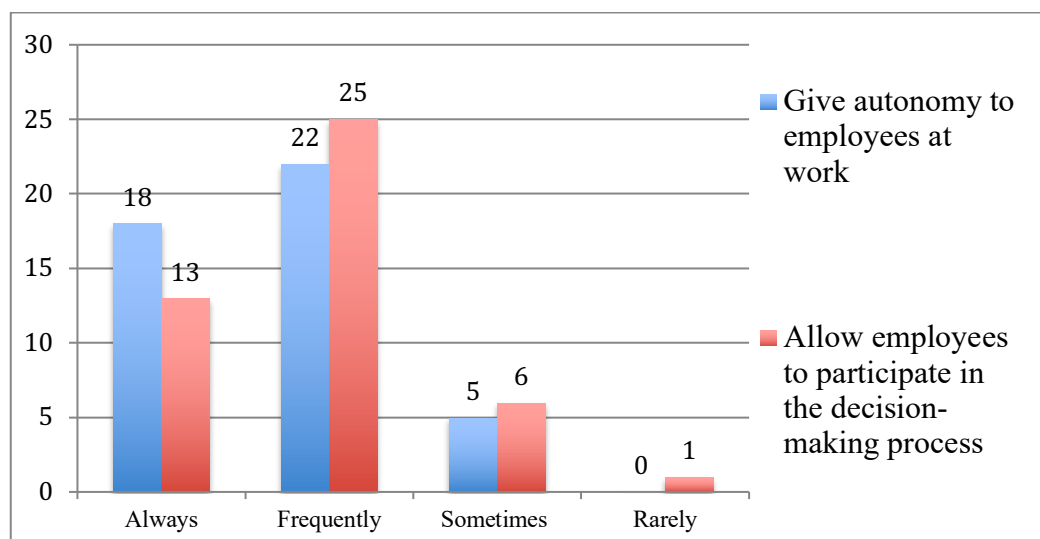


Source: Own elaboration

In general, when the managers of sheltered employment centres analyse their external dimension, they frequently evidence their strength related to business vision and resource management but not so much their abilities of negotiation and networking.

However, according to their interpersonal dimension, the result shows that 33 managers always negotiate with honesty, whereas the rest of the managers frequently do not negotiate with honesty. Most of them express their opinions in a convincing and organized manner. In relation to their workers, most managers frequently allow them to participate in the decision-making process and give them autonomy in their workplace (Graph 4).

Graph 4. Interpersonal dimension results

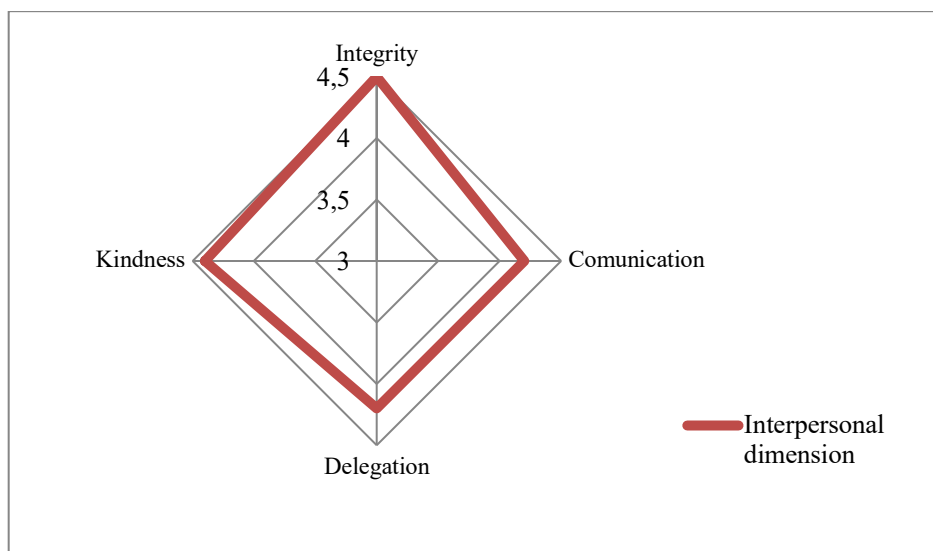


Source: Own elaboration

Other questions about the managers' interpersonal dimensions are related to the employees. The answers show that 60% of the sheltered employment centres' managers always seek the wellbeing of their employees and become involved in and are worried about their workers' problems.

Graph 5 provides a general overview of interpersonal dimensions where all interpersonal dimensions (integrity, communication, delegation and kindness) are compared.

Graph 5. Interpersonal dimensions. Differences

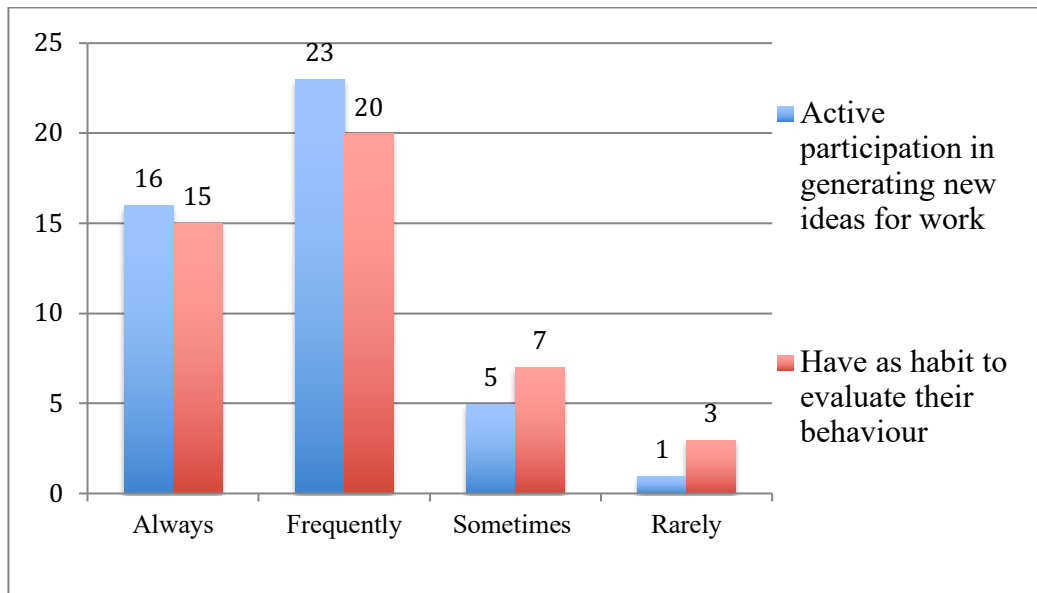


Source: Own elaboration

The results for the interpersonal dimension show that the managers of sheltered employment centres main strengths are honesty in negotiations, kindness, the interest of wellness and the close relationship with their workers. In other words, all of the components of external dimensions are almost equally important for their managers.

Finally, the last parts of the manager's competencies are the ones related to the personal dimension. Our results indicate that the majority of them are responsible and regularly participate in the improvement of their work. In addition, they present a high level of discipline and initiative (Graph 6).

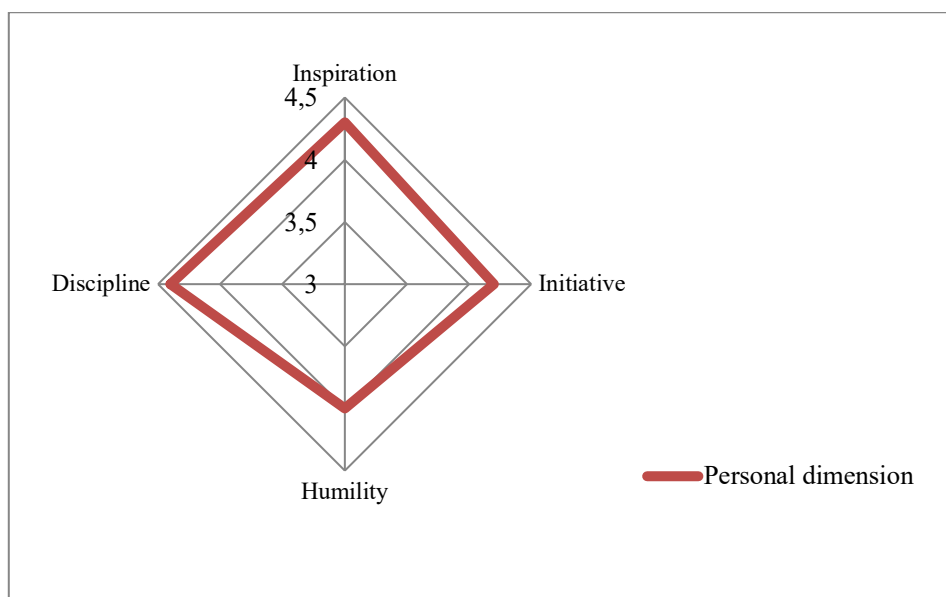
Graph 6. Personal dimension results



Source: Own elaboration

Graph 7 summarises the personal dimensions of the managers of sheltered employment centres and all personal dimensions (inspiration, initiative, humanity and discipline) are compared.

Graph 7. Personal dimensions. Differences



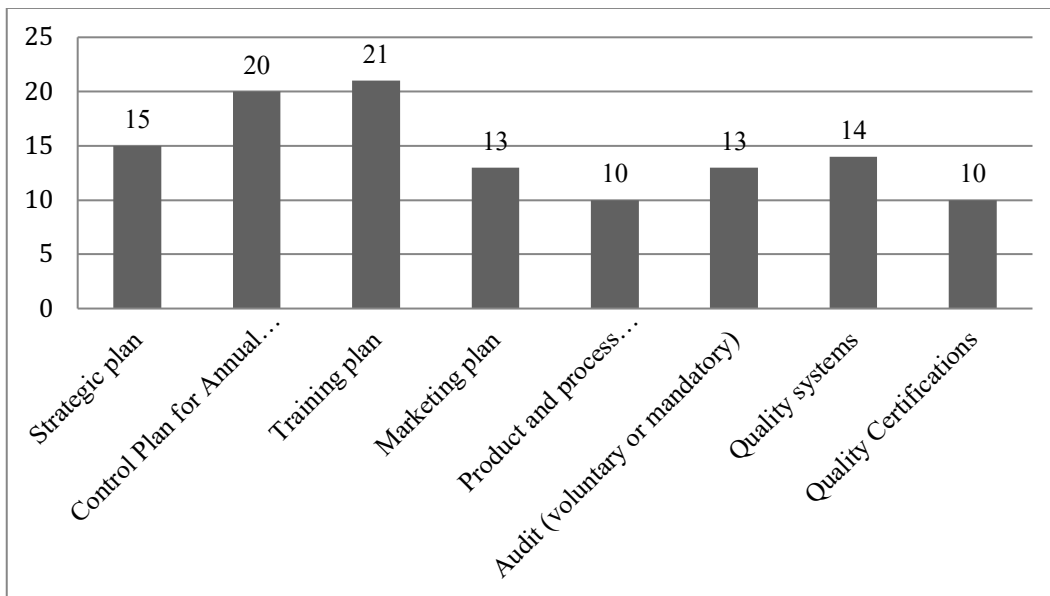
Source: Own elaboration

All of the components of personal dimension are well developed by the managers of sheltered employment centres. However, discipline is the main strength of these managers.

Questions about the management model

The survey also includes questions about management tools that were implemented in the sheltered employment centres. As we can see in Graph 8, a control plan for annual management and training plans is implemented in 20 and 21 sheltered employment centres, respectively. Only 15 managers consider a strategic plan and a marketing plan, and a quality system and audit is implemented by 13 firms.

Graph 8. Management tools implanted in sheltered employment centres



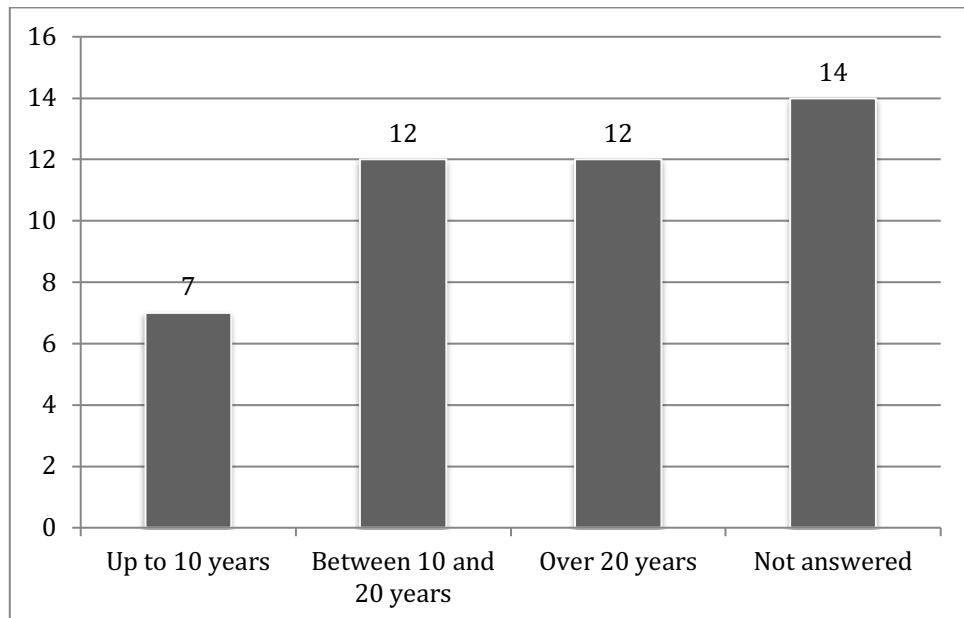
Source: Own elaboration

Regarding other tools, some sheltered employment centres have implemented OHSAS (health and safety management system at work), EFR (international initiative to balance family and work), and other tools. In the case of quality certifications, eight have ISO 9001 (certifications of management systems for environmental, safety or social responsibility), four sheltered employment centres have ISO 900 (continuous quality management) and environmental management system ISO 14001 is implemented by three sheltered employment centres.

Questions about personal experience

Considering the number of years of working experience, seven managers had less than ten years of experience, 12 managers had been working between 10-20 years and 12 managers had more than 20 years of experience (we refer to total working experience and not only the years working in sheltered employment centres).

Graph 9. Total work experience



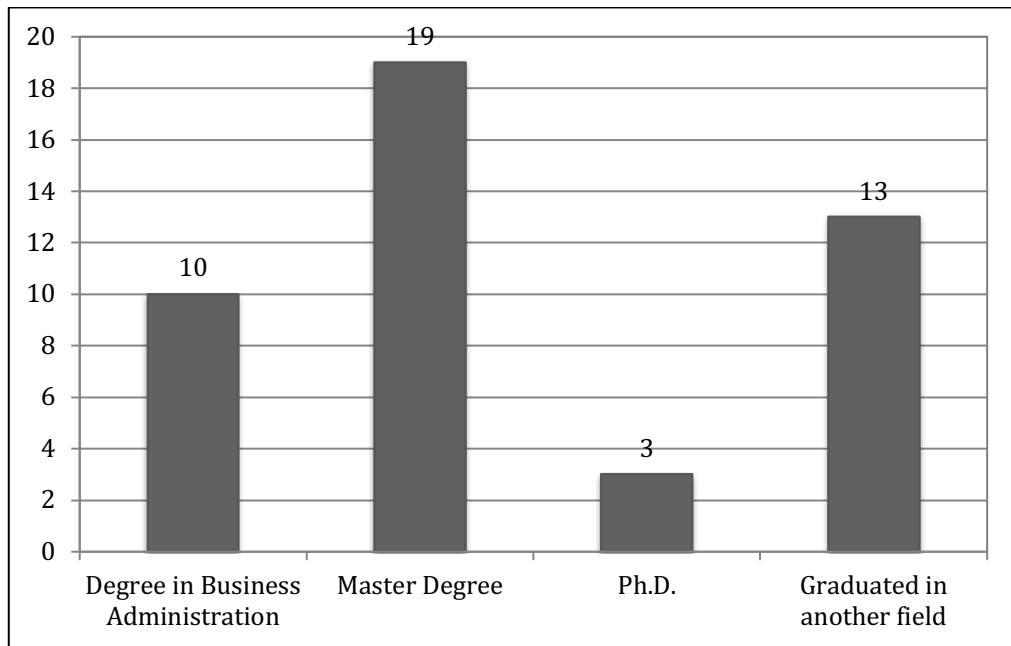
Source: Own elaboration

Regarding managing experience, 10 managers with unique experience are working at current sheltered employment centres. Meanwhile, the other managers have previous experience in other sheltered employment centres, SMEs, family enterprises or other areas of company management.

Questions about training and education

In the case of their education, three managers completed their study with a Ph.D., 19 of them achieved a Master's degree and 10 managers studied for a degree in Business Administration. This indicates that the rest of the managers, almost 78%, have a lack of business administration knowledge (Graph 10).

Graph 10. Training in Management



Source: Own elaboration

In addition, 18 managers received specific training in SME management, whereas 16 managers did not obtain any specific training in SMEs. The remaining managers received training in different fields including special training to manage sheltered employment centres, financial management, team management and other courses provided by the ONCE⁷ foundation.

6.2. Professionalization index

6.2.1. Measure of professionalization

In this section, the professionalization of sheltered employment centres will be analysed by the creation of a professionalization index that will be compared with certain financial data for each company. For the financial analyses, some main financial indicators were calculated, that is, a measure of profitability, another regarding solvency and an indebtedness ratio. The following formulas were used to calculate these financial indicators:

$$\text{ROA} = \text{Net Operating Profit} / \text{Total Assets}$$

$$\text{Solvency} = \text{Current Assets} / \text{Current Liabilities}$$

$$\text{Indebtedness} = \text{Total Liabilities} / \text{Total Assets}$$

⁷National Organization of Spanish blind people. <https://www.fundaciononce.es/>

These financial indicators are considered the most important ones to analyse the financial distress situation of any company (Tascón and Castaño, 2012; Korol, 2013).

All of the questions about competencies were measured by the responses of the Likert scale system. This indicates that all of the managers who answered the questions specified their level of agreement or disagreement on a symmetric agree-disagree 1-5 scale. The responses were evaluated as follows: 1 point for the answer “never”, 2 points for “rarely”, 3 points for “sometimes”, 4 points for “frequently” and 5 points for “always”.

The answers about management models were measured by the number of management tools implanted in sheltered employment centres. Therefore, for each management tool, a point was assigned. The manager’s experience was measured by the total working experience. The manager’s experiences were divided into ten parts using percentiles to avoid bias. The percentiles have often been used to divide variables into intervals (McKee, 2000). Once the percentiles have been calculated, numbers from one to ten were assigned to each part (1 for the 10th percentile and so on) so that lower codes are assigned to the first percentile and so on.

The answers about training and education were evaluated as follows: 3 points for managers who had a master-doctor degree, 2 points for a degree in business management and 1 point for vocational training in business management.

All of the points for each manager were added to create the professionalization index. In this way, we have a new variable that contains the point summation for each manager. This new variable contains *professionalization points*. For the distribution of the professionalization points, two percentiles (33 and 67) were calculated to divide the distribution into three parts. Each part will represent the low, medium and high level of professionalization (Table 4).

Table 4. Index of professionalization

<i>Professionalization Points</i>	<i>Level of Professionalization</i>
(0-111)	LOW
[111-118.67)	MEDIUM
[118.67- ∞)	HIGH

Source: Own elaboration

Through this process, it is now possible to show a correlation of these three groups with financial ratios.

6.2.2. Determined results

The results show that there is no correlation between the size of the sheltered employment centres and their rate of professionalization. Table 5 shows the descriptive analyses of the financial ratios for a low, medium and high rate of professionalization. Regarding profitability (ROA), the sheltered employment centres with high rates of professionalization have a slightly higher ROA than companies with low and medium rates of professionalization but the difference is minimal. In general, the profitability of sheltered employment centres is low and their assets do not generate sufficient returns in terms of their own results of the main company activity. However, this is normal if we consider that the goal of these firms is to survive and contract disabled people and not necessarily to maximize profits.

The principal results for the indebtedness ratio show that sheltered employment centres with low rates of professionalization are heavily indebted (156.6%). The results imply that professional managers could better control their firms' indebtedness. High indebtedness compromises the future viability of these centres.

Table 5. Descriptive statistics

	Low prof.		Medium prof.		High prof.	
	Average	Std. Deviat	Average	Std. Deviat	Average	Std. Deviat
ROA (%)	4.8	9.2	4.2	16.7	5.5	14.0
IND (%)	156.6	446.9	75.6	41.1	42.7	29.9
Solvency	2.3	1.3	1.7	1.6	3.7	4.0
Total	16		14		15	

Source: Own elaboration

Finally, the analysis of the solvency ratio shows that sheltered employment centres, on average, are solvent companies, especially those with a high rate of professionalization. Unexpectedly, the solvency of sheltered employment centres with low rates of professionalization is higher than those firms with medium rates of professionalization.

To reinforce the link between a manager's professionalization and a firm's survival, the variance homogeneity Levine's test statistic was analysed using the three categories of the professionalization level and the Z-score index. As the p-value is lower than 0.05, the model does not assume equal variances between the analysed groups. Table 6 presents the F-value and the significance for the F-value. As we can see, there is a difference between the two, and the mean square is 0.544 for between

groups (explained variance) and 0.146 for within groups (error variance) and the significance level (0.032) is lower than 0.05. The groups are statistically and significantly different from one another and the level of professionalization is a significant variable for these companies. Consequently and according to the index, the hypothesis of this study is accepted, i.e., sheltered employment centres with a high level of professionalization have a greater probability to survive in the market.

Table 6. Analysis of Variance

ANOVA					
zscore*					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.088	2	0.544	3.739	0.032
Within Groups	6.112	42	0.146		
Total	7.2	44			

Source: Own elaboration

Considering these results, we can conclude that the survival of sheltered employment centres depends on the level of their managers' professionalization. Our results are in line with the previous literature for family enterprises (Díaz and Mayett, 2011; Llanos et al., 2011; Rueda, 2011). One important point of this research is the analysis of competencies for sheltered employment centres' managers since it refers to knowledge, skills, attitudes, values and other decisive attributes for managing companies. The results of the survey indicate strengths and weaknesses for the sheltered employment centre's managers. The main competencies, such as knowledge, skills or business vision, are essential for top level activities and are directly related to the professionalization of these types of companies. Dekker et al. (2012) showed five different factors for the professionalization of family businesses and one of these factors is top-level activeness. Therefore, we can say that sheltered employment centres, like family businesses, can become professional according to the competencies that are necessary for top-level activeness.

7. Conclusions, future research and limitations

Sheltered employment centres as social firms have main objectives that are twofold: to be profitable and at the same time to guarantee the labour and social integration of people with disabilities. For these types of companies, it is essential to ensure their survival and growth in the market. Undoubtedly, there is great potential of sheltered employment centres to increase the employability of this group of people and to be part of the social economy of our country.

Considering the social and economic importance of sheltered employment centres, the aim of this research was to test whether the professionalization of their managers is a conditioning factor for high economic returns. The main results show that sheltered employment centres are normally companies with low rates of profitability, but if they are run by professionals, their profitability is slightly higher than that for those with low and medium rates of professionalization. It is also important to highlight that these firms are solvent companies, especially when they are professionally run. The results of the surveyed companies show that high solvency ratios are obtained by sheltered employment centres with a high rate of professionalization. Sheltered employment centres with low professionalization rates in their management teams are heavily indebted. Consequently, the results show that lower debt is associated with a high level of professionalization. According to results of the Z'-score of Altman, the results show that the level of professionalization is one of the determining variables used to predict the survival or the bankruptcy of sheltered employment centres. As we have seen in the review of the literature, Dekker et al.'s (2012) paper constitutes a multidimensional framework to evaluate the professionalization for family businesses. Furthermore, although sheltered employment centres present some similarities with family businesses, their peculiarities require qualifying some dimensions to entirely apply this model. Therefore, our study also has an important contribution in the academic literature regarding the professionalization of these centres and for social firms in general, thus it is first to design a professionalization index, which gives academic visibility to these types of companies and shows the importance of their professionalization for survival in the market. In conclusion, a high professionalization level for team management of these centres can solve the existing problem regarding their profitability and can contribute to providing visibility to social entrepreneurship as a successful business.

This study has some main implications for stakeholders: first, sheltered employment centres must pay more attention to the professionalization of their management team because professionalization can lead to a better ability to meet the firm's goals and guarantee the firm's growth. Given the important role of these social firms for the employment of people with disabilities, training programs should be promoted by the government to ensure the professionalization of these companies. The development of sheltered employment centres' associations could promote a compulsory system of professional development points to guarantee their survival in the market. An increase in the training programs must also be a main objective for the surveyed sheltered employment centres because half of the centres of our sampling group are led by managers who have not received training in SME management. The results of the survey in which the executives have self-evaluated their competencies show that their main weaknesses are networking, negotiation, delegation, and initiative. Training programs in 'soft' skills and attitudes should be designed to strengthen these competencies not only

for managers but for workers as well. Disabled people are ‘both producers and consumers of a vast array of services’ (Barnes, 2000). Thus, managers of sheltered employment centres should think about their workers as more than part of their productive system. Moreover, managers of social firms should know that the establishment of strategic plans will be useful to identify new opportunities in the market. Additionally, another implication of our study is that government and universities should promote funding and knowledge regarding these firms because of the great impact and their social responsibility. Disabled workers would have less costs to health, care and social aspects if they feel like an active part of their society.

Related to future research on this topic, it would be interesting to compare the professionalization level achieved for managers between sheltered employment centres and other types of companies, like SMEs or family firms, or even other types of social firms, such as insertion enterprises, which show the main differences and similarities between them. Therefore, one of our future research will be to more deeply investigate this important topic to try to present the financial and management results together for all types of social firms in Spain. In future studies, we will try to increase the sample to run linear regressions to explore more results. In addition, it would also be necessary to complete the vision of strengths and points of improvement in managerial competencies that are derived from the self-evaluation, which would resort to the 360-degree evaluation process and gathering the opinion of the people who are in contact with the managers, especially their subordinates. We would like to implement an innovative research methodology such as the Q Methodology. With this tool we could quantify qualitative answers for managers. This would allow us to detect blind spots, i.e., deficiencies that managers present but for which they are not aware.

As in all studies, this paper is not short of limitations. Our main limitation was a lack of contact with all of the sheltered employment centres because the majority of them are small companies (in many cases, without a web page or information on the internet) and the report provided by the Public State Employment Service does not include company emails (in some cases, the phone number is missing as well). Additionally, the scarcity of responses may suggest that there is a lack of interest regarding the utility of professionalization by some sheltered employment centres’ managers because perhaps they do not have the necessary competencies to understand its importance in management. The professionalization index has been built using different studies and according to our methodology but with more data components, a factor analysis could be implemented and the index could be more precise. Consequently, another limitation of this study was the inability to use more statistical techniques or provide more robustness in the results. Finally, the lack of prior empirical research on the professionalization of sheltered employment centres did not permit a comparison of the developed

professionalization index with other approaches for the results. In fact, our study can be considered a first step in the study of professionalization in social firms due to their special features.

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