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# Social networks analysis in people with disabilities in the Mexican industry Análisis de redes sociales en las personas con discapacidad en la industria mexicana

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#### **Abstract:**

The objective of this research was to analyse the social networks forged between individuals who work in middle and upper management in Mexican companies and their relationship with people with disabilities through the application of a Social Network Analysis (SNA) which was carried out in two phases, in the first, an instrument was applied as a survey to a pre-established population that included the General Scale of Attitudes Towards People with Disabilities (EGAHPD). In the second stage, an analysis of social networks applied to a sample that met the characteristics defined for this purpose was developed, 55 nodes and 1,590 edges were found, with 12 subjects having the greatest interaction in the network, a wide degree of closeness, which deduces that the nucleus of individuals and organizations on whom the economic development of people with disabilities depends on is very centralized.

#### Keywords:

Disability, Industry, Networks, Attitudes, Inclusion

#### Resumen:

El objetivo de esta investigación fue analizar las redes sociales forjadas entre individuos que trabajan en mandos medios y superiores en empresas mexicanas y su relación con personas con discapacidad mediante la aplicación de un Análisis de Redes Sociales (ARS) el cual fue realizado en dos fases, en la primera, se aplicó un instrumento a manera de encuesta a una población preestablecida que incluyó la Escala General de Actitudes Hacia las Personas con Discapacidad (EGAHPD). En la segunda etapa, se elaboró un ARS aplicado a una muestra que cumplió con las características definidas para tal efecto, se encontraron 55 nodos y 1,590 aristas, siendo 12 sujetos los que tuvieron la mayor interacción en la red, se observó un amplio grado de cercanía, lo que deduce que está muy centralizado el núcleo de sujetos y organizaciones de quien depende el desarrollo económico de las personas con discapacidad.

## Palabras Clave:

Discapacidad, Industria, Redes, Actitudes, Inclusión

#### Introduction

Talking about disability at this time represents a much more common topic than was thought a few years ago, behind were derogatory terms such as "handicapped" and "invalids" which were used to refer to people with some lack of ability that were confined to a marked difference in societies, currently, people with disabilities put in the

social context a part of the population that, although for a long time was relegated, has always been present. [1] People with disabilities, despite being relegated, on many occasions, have the desire and the impetus to belong and be taken into account, which is why it is necessary to carry out research focused on this type of issues, due to it, it was decided to carry out a study whose general objective is focused on analyzing the social networks forged between individuals who, due to the nature of their

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professional activities, had the need to live with people with disabilities on a daily basis and to know if this type of subjects have social relationships with each other through the application of a Social Network Analysis (SNA), for this purpose, two phases were proposed, the first of which served to define the characteristics that the subjects who would participate in the study should have and, in turn, obtain an intentional sample with homogeneous characteristics, to do this, the subjects were contacted virtually and a questionnaire was sent to them to be answered from virtuality and anonymity in order to obtain answers closer to reality without putting the informants in evidence, it should be clarified that all the participants they received this information and agreed to participate. For the second stage, the ARS methodology was used to know if the subjects included in the obtained sample maintained some type of social relationship with each other and, if so if this type of relationship could give rise to new relationships with others, participants by the very nature of their activities. [2]

The study is divided into four sections, the first corresponds to a conceptualization of disability and what it means to be a person with a disability in the social context, the second includes the materials and methods used for the study, the third is focused on the analysis of the results and, finally, the conclusions obtained from it.

#### Disability in the social context

Historically there have been different meanings to name those people who can not carry out the activities that the rest of the population normally carry out, concepts such as disabled, different capacities, special capacities, and others in disuse such as handicapped have spread., invalid, handicapped or deficient. For the Down Syndrome Association of the Argentine Republic (DSAAR), the way we express ourselves defines and spreads ways of seeing the world and understanding people. This has consequences for respecting the rights of these people, which is why it is vitally important to express ourselves correctly and say people with disabilities. [3]

Disability is a complex phenomenon that reflects a close and borderline relationship between the characteristics of the human being and the characteristics of the environment in which he lives, in addition, it is a general term that encompasses deficiencies, activity limitations, and restrictions of participation. Impairments are problems that affect a bodily structure or function; activity limitations are difficulties in performing actions or tasks and participation restrictions are problems in participating in life situations.

Once the concept has been defined, it is also necessary to identify that disability is not only of a motor nature but also a very varied classification, which in turn is grouped into sensory and communication disabilities, this group includes disabilities to see, hand ear and speak. The group is made up of five subgroups: disabilities to see, disabilities to hear, disabilities to speak (dumbness), disabilities of communication and understanding of language, and insufficiently specified group sensory and communication disabilities. [4]

The second group is called motor disabilities and includes people who have disabilities to walk, manipulate objects, and coordinate o movements to perform activities of daily living. This group is made up of three subgroups: disabilities of the lower extremities, trunk, neck, and head, disabilities of the upper extremities, and insufficiently specified group motor disabilities. Group number three is called mental disabilities and groups people who have disabilities to learn and behave, both in activities of daily living and in their relationships with other people. The group is made up of three subgroups: intellectual disabilities (mental retardation), behavioral other mental disabilities, insufficiently specified mental disabilities groups.

In the 1970s, it was still very common to refer to any type of physical or psychosocial disorder as a problem and, therefore, this type of person was not considered to carry out activities because it was thought that they would not be able to carry it out due to your condition, the labor market towards which we are directing our efforts is one of higher productivity and better income, but it is also one of equality and full respect for the rights of workers. We will continue promoting a labor policy that promotes inclusion and non-discrimination, protecting the rights of vulnerable groups. [5]

The first approach to the relationship between disability and its relationship with work activity appears on the European continent, particularly in France, and is attributed to Lenoir, Secretary of State for Social Action during the government of President Charles de Gaulle, who writes a report on the exclusion of people from productive activities, said report reads: "One tenth of the French population (physically and mentally handicapped, people with suicidal tendencies, disabled elderly, child victims of abuse, drug addicts, delinquents, single-parent families, members of households with multiple problems, marginal and asocial people, and other social misfits) could be considered excluded". [6]

The studies carried out by Buvinic and Monteiro highlight the importance of hiring personnel with disabilities in productive organizations. [7,8]

However, there are limited studies that focus on analyzing the impact of social networks made up of individuals who have contact with people with disabilities in economic and professional activities, much less the interference they make at each level of said networks, so it was decided to start collecting information for this purpose, resulting in this document. [9]

According to the 2011 world report on disability issued by the WHO and the World Bank, they point out that "more than a billion people have some type of disability, of which almost two hundred million experience considerable difficulties in their functioning, "in future years, the Disability will be a matter of even greater concern since its prevalence is increasing since the population is aging. The vision that drives us is that of a world in which we can all live a life of health, comfort, and dignity". [10]

In Mexico, 7, 889, 030 have some type of disability, this represents 6.6% of a total that, like the rest, has the same right to carry out productive activities with the same advantages and comforts as those people who do not have disabilities; however, the reality is different because there is neither the infrastructure nor the necessary knowledge for this purpose. [4]

#### Materials and methods

To analyze the influence that social networks have on the behavior of the participants, in the present study, the decision was made to divide it into two phases, in the first an instrument was applied virtually to an intentional sample of 150 subjects who could meet the research requirements, this information allowed knowing some characteristics of the participants to be able to carry out a stratification and reduce the sample to only those who met the requested characteristics, the second phase of the study was focused on performing an SNA, the Results of both stages and discussion are presented below.

# First stage: General Scale of Attitudes towards people with Disabilities

Due to the current health contingency facing the country and the world, different options were explored that could be useful in this study and, in turn, would serve to collect the general data of the participants, in addition to providing a tool that would allow applying the survey used to determine their feasibility to participate in the study, a survey was developed on the Google Forms computer platform which was sent digitally, through the use of email and the use of the cell phone with the WhatsApp tool to that could be answered specifically by the people who met the characteristics that were previously determined by the authors, highlighting the fact that said participants should be considered as subjects with activities in public or private organizations that are occupying positions where decisions can be made in question of hiring, training, moving and/or the promotion of human capital within the institutions, in addition to the fact that preferably the

respondents had at present or at some point of their participation in the organization with some type of employment relationship that implies the collaboration of people with some type of disability In addition, it was determined that the minimum age of the subjects reached at the time of their participation was greater than 20 years of age.

In order to streamline and reduce the time it would take for the participants to be able to answer the questions necessary for the study and collect their general data, it was decided that the instrument would be divided into three areas within the computer tool used. The first of them was used to collect the general data of the respondent, such as gender, age range, the state of the republic where they reside and work, as well as information that allowed determining their occupation, the line of activity carried out and if there was professional contact with people with some type of disability, if the participant's answers in this first third of the questionnaire gave them the possibility of being taken into account in the study, the same platform gave access to the second part, in otherwise, a message of thanks was issued for their time and participation in the study, otherwise, if the participant complied with the n the indicated requirement, the second area was accessed, which was intended to find out the type of contact that the participant had with the person or, in his case, the people with disabilities, for this three sub-areas were used, firstly to identify the reason for which there was such contact, secondly, the frequency of contact, and thirdly, the type of disability that the participant's collaborators mostly had. In the third stage, an adaptation of the General Scale of Attitudes Towards People with Disabilities (EGAHPD) proposed by Arias González was included, for which the study carried out by Rodríguez-Medina where the said instrument is applied, which is a multidimensional scale that, in addition. [11,12]

According Domínguez has reliability studies with a Cronbach's alpha of .92 and validity, one general and others specific for physical, sensory, and mental deficiencies; In this scale, the participants are invited to give their opinion about their agreement or disagreement with each of the sentences that are presented positively or negatively, for each answer the participant was able to respond through a six-level scale whose possible answers were: 1. I strongly agree, 2. I somewhat agree, 3. I partially agree, 4. I partially disagree, I somewhat disagree, and 6. strongly disagree. [13]

The EGAHPD has 34 items that form a scale that allowed homogenizing of the information obtained by the participants, these items were grouped into three subscales: social and personal relationships with people with disabilities, normalized life, and intervention programs. Table 1 shows each of the subscales together

with the items that make it up in addition to their description.

Table 1. EGAHPD subscales

Name	Items that	Description
Name	comprise it	Description
Social and	7, 9, 10, 13, 16,	This subscale
personal	18, 19, 21, 24,	has to do with
relationships	25, 28, 31, 32.	the feelings,
with people with		behavioral
disabilities		intentions, and
		thoughts of the
		participants
		when, due to the
		nature of their
		work, they need
		to establish a
		personal or
		social
		interaction with
		a person with a
		disability.
Normalized life	1, 2, 3, 8, 11, 14,	In this case,
	15, 20, 22, 23,	reference is
	27, 29, 30.	made to the
		participant's
		opinion on the
		rights of people
		with disabilities
		to lead a normal
		life, equal
		opportunities,
		and the ability to
		function in different areas
		different areas of life.
Intervention	5, 6, 26, 33, 34.	It is intended to
programs		know the
		actions that the
		participants are
		willing to carry
		out to favor the
		integration and
		full inclusion of
		people with
		disabilities, as
		well as
		judgments
		about the
		economic
		profitability that
		these actions
		represent both
		individually and
		in the

community of	
the	
organizations.	

Source: Own elaboration based on Rodríguez-Medina et al. (2018).

The description of the 34 items proposed by Arias González is presented below that were grouped into the three factors proposed by Rodríguez-Medina, it should be clarified that it was sought that these items did not have a logical relationship when presented to the participants, so they do not have a logical sequence in terms of ascending numbering that they should present; however, their grouping is consistent with the nature of the factors.

The factor I: Social and personal relationships

i07 In social situations, I would prefer not to meet people with disabilities.

i09 In general, I feel uncomfortable in the company of a person with a disability.

i10 If I went on a date with a person with a disability, I would worry about what people would think.

i13 If I had a close family member with a disability, I would avoid discussing it with other people.

i16 I think it would be easy for me to relate to a person with a disability.

i18 If I had to talk to a person with a disability, I would worry that I would not know how to behave.

i19 I could date a person with a disability just as easily as anyone else.

i21 I would like my son to interact with children with disabilities.

i24 I would avoid accompanying a person with a disability to eat at a restaurant where they knew me.

i25 The behavior of people with disabilities is irritating.

i28 I wouldn't mind having a person with a disability as a friend.

i31 Meeting a person with a disability causes me tension and discomfort.

i32 If I had to work with a person with a disability, I would limit myself to maintaining a superficial relationship with them.

# Factor II: Normalized life

i01 People with disabilities can be as self-satisfied as anyone.

i02 People with disabilities should have the same employment opportunities as everyone else.

i03 People with disabilities are less productive in their workplace than people without disabilities.

i08 In general, people with disabilities are considered as valuable as anyone else.

i11 People with disabilities can adapt to independent living.

i14 People with disabilities should be able to have fun with other people.

i15 People with disabilities can enjoy sport as much as anyone else.

i20 People with disabilities can achieve a high level of self-determination.

i22 Workers with disabilities should be paid the same wages as non-disabled workers.

i23 People with disabilities have the same rights as everyone else.

i27 Children with disabilities should attend the same schools as other children.

i29 People with disabilities can have as balanced a personality as people without disabilities.

i30 People with disabilities are as friendly as anyone else.

#### Factor III: Intervention programs

i05 Something should be done to achieve greater integration of people with disabilities, for example by facilitating their access to public places.

i06 People with severe disabilities should be confined in suitable places.

i26 Rehabilitation programs for people with disabilities are excessively expensive.

i33 More money should be spent on removing the physical barriers that continue to make life difficult for people with disabilities

i34 the problem of prejudice towards people with disabilities has been exaggerated by political and educational leaders.

# Second stage: Social Network Analysis (SNA)

Social networks seen as the set of interactions that people must satisfy their innate need to be social entities have been a pole of development in studies that allow identifying links between those people who are determinant in certain groups. [14]

Because of this, the SNA has acquired great relevance. According to Freeman, from 1960 to 1975, 20 articles about networks were listed in sociological abstracts from f990 to 2005. [15]

In the last ten years, this figure has risen to more than six thousand. There has also been an increase in the number of topics of great importance in which the SNA has been applied. [16]

The ARS takes great relevance in current studies in very varied areas and not only in the purely social area since they are those such as physics, epidemiology, and biology where there has been a greater development looking for patterns that allow us to understand the behavior of

individuals, who are the ones that have the greatest weight in decision-making and how they can be influenced to make the community carry out the tasks that are indicated to it. The first studies that focused on an analysis of social networks date back to Garrocho, who researched some sectors traditionally marginalized by the community and support and survival networks during the seventies in Mexico. [17]

For his part, Gil Mendieta and Schmidt use an ARS to understand the evolution of the Mexican political class and the impact that this has had on the country's political system together with the networks that this implies. [18] SNA has as its central point knowing the relationships that the actors have with other people and the influence that these can generate: "The central idea of the relational vision is that the analysis is not built so much through social categories or attributes, but through ties or links between actors, even if they are not directly related and united as to constitute manifest groups". [19]

The basic elements that make up these networks are two that together form figures: the nodes or actors described as: "the discrete individual, corporate or collective social units whose links allow us to understand their relationship patterns, as well as the structure of the network to the one they belong to" [ 20]

Most social network research focuses on studying collections of actors of the same type that they have characteristics and attributes that make them stand out from the community and that can explain the behavior of those around them; the bonds or bonds that represent how they come together if the actors have attributes, "the importance of the bond lies in the fact that it creates a bond between a pair of actors. Although the type and range of timeshares are very wide have three important characteristics: 1) serve as a means of diverse flows between actors; 2) serve as a link between collections of actors, and 3) functionals and concrete indicators of relationship patterns in which the actors are immersed".

In turn, the links that are established between them can also have them, so it is possible to distinguish between the strength and intensity of the links, their frequency, among others, in addition to the directionality of the link, which can be directed or not directed depending on the type of relationship and influence that the actors have.

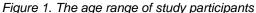
With the sample obtained and through telephone interviews, each one of them was contacted and questions were asked that allowed knowing with which other subjects they have contact professionally, for this a list of the pope and companies where they work was used, which was sent by digital means to make it easier to respond. In order not to influence the results, the interviews were conducted in an unstructured manner so that the interviewee could freely refer to his contacts.

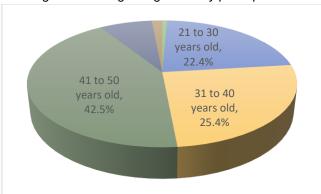
Once this information was obtained, a spreadsheet was used in the Microsoft Office Excel software, where a binary matrix of interactions was elaborated, to which the number one was assigned to those people that the subject referred to as interaction and a zero in the opposite case. Once the general matrix was completed, the specialized software Gephi version 0.9.2 was used to obtain a graph that would allow observing the behavior of the networks between the participants.

# **Analysis**

To carry out the first phase of the study, the questionnaires were sent to the initial sample of 150 subjects, of which responses were received from 134 people who in turn met the required characteristics and were described above, of whom 64.2% corresponded to the female gender while the male gender had participation of 35.8% of the total number of participants.

In Figure 1 the distribution of the ages of the participants is presented, being those who are between 41 and 50 years old who have greater participation in the study, this can be explained because the scale within the organization charts studied, in most of the participating institutions correspond to managerial positions or higher commands.

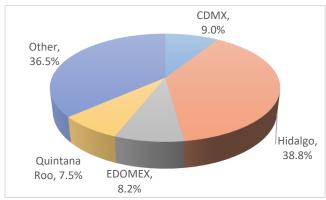




Source: Own elaboration based on data obtained from the study.

Regarding the place where the organizations are located, in Figure 2 most of the participants come from the State of Hidalgo, corresponding to 38.8% of the total, while Mexico City, the State of Mexico, and Quintana Roo are located with a percentage of between 7.5% and 9%, these being the ones that are most representative in the study.

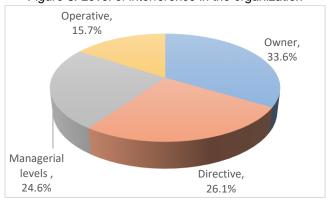
Figure 2. Location by state



Source: Own elaboration based on data obtained from the study.

One of the factors to determine the first sample corresponded to the level of interference that the participants have within the organization where it stands out that a third of the respondents (33.6%) are owners of their organizations, while 26.1% corresponds to participants with managerial levels and 24.6% are located as middle managers (Figure 3).

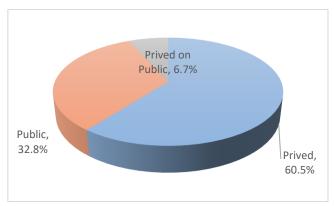
Figure 3. Level of interference in the organization



Source: Own elaboration based on data obtained from the study.

Regarding the sector of interference by the organizations, the private sector was considered, whose participation was 60.5% and the public sector with 32.8%, in addition, the respondents referred to participating in the private sector, but having interference in public sector activities with 6.7% (Figure 4).

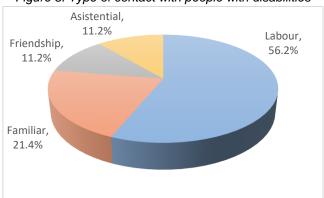
Figure 4. Participation sectors



Source: Own elaboration based on data obtained from the study.

Among the predefined factors to make up the sample that will serve as the basis for the second part of this study, is that the participants have contact with people with disabilities, of the total responses, obtained, 73.1% said they had contact while 26.9% said they did not have it, it is necessary to clarify that although the participants did not have contact with people with disabilities, they were previously made aware of the subject of the study, so all answered the third part of the instrument, which will allow it to be analyzed in later studies. As mentioned in the previous point, almost three-quarters of the participants maintain contact with people with disabilities, the second part of the instrument was enabled for them, and just over half of them (56.2%) maintain a labor-type relationship, this corresponds to 55 participants (Figure 5).

Figure 5. Type of contact with people with disabilities

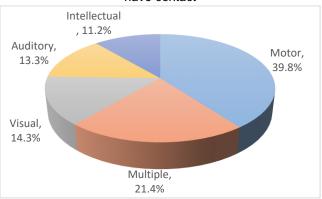


Source: Own elaboration based on data obtained from the study.

Although for the present study the type of disability of the people with whom the participants have contact is not yet relevant, it was decided to include a question for them to know which one stood as out more important in terms of incidence. Nearly 40% of the people with whom one has some type of contact belong to the motor disability group, in second place, multiple disabilities appear, which groups two or more types of disability, the rest were pigeonholed

into visual, auditory, and intellectual respectively (Figure 6).

Figure 6. Type of disability of the people with whom you have contact



Source: Own elaboration based on data obtained from the study.

For purposes of practicality in the study, it was decided to close the final sample to the 55 participants who meet the factors mentioned at the beginning of this part of the study and that, in turn, the results of the third part of the instrument were analyzed as follows It is described.

To be able to carry out the SNA, certain factors were determined that, in addition to those previously stated, had to be fulfilled by a sample so that the results would allow knowing how the people involved have or do not have social contact between them and how this influences people with disabilities in the workplace.

The first of the factors corresponded to those people, for this part of the study called "subjects" who had interaction with people with disabilities and that said interaction was in the work environment, which means that the daily activities carried out in the organization were shared, Figure 5 shows that 73.1% of the participants in the first stage meet the requirement of having contact with people with disabilities, Figure 6 shows that, of this percentage, 56.2% of the respondents have work-related contact. therefore, it is taken that 55 subjects meet this first factor. Another of the factors that people had to meet to be considered in the sample to study social networks was that the scores obtained by the EGAHPD both in its global index and in that of each of its factors obtained a minimum of 50 % plus 1 percentage point in the mean of the results obtained on the scale.

Table 2 shows the results of the 55 subjects who met the first exclusion factor, it should be noted that each of them meets the necessary element to be considered in the second factor.

Table 2. Values obtained from the application of the EGAHPD

Factor	Тор	Score	Percentage
	score	obtained	of positivity
Global	6 600	4 602	69.8%
	points	points	
Social and	2 640	1 415	53.6%
personal	points	points	
relationships			
Normalized	2 860	2 379	83.2%
life	points	points	
Intervention	1 100	808	73.5%
programs	points	points	

Source: Own elaboration based on data obtained from the study.

To give greater weight to how the subjects address people with disabilities, what they think of them, and how they coexist day by day in society, the result was that 69.8% of the participants in the final sample see something positive to having a labor-type relationship with people with disabilities while the remaining 30.2% shows negativity in this regard.

As described in the first stage of the study, the social and personal relationships factor corresponds to social and personal relationships with people with disabilities and has to do with the feelings, behavior intentions, and thoughts of the subject when they must establish a personal or social interaction with a person with a disability. In general, this was the factor that presented the lowest percentage of positivity with 53.6%, exceeding the minimum required but being a factor that should be worked on in subsequent studies to fully understand its reasons.

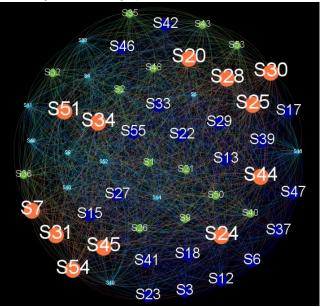
The second of the EGAHPD factors is normalized life and refers to the right to lead a life in the most normal way possible, equal opportunities, and the ability to function in different areas of life. The results of this second factor show that 83.2% of the participants show positivity in this regard, unlike 16.8% who perceive it as something negative.

The third factor on the scale is that related intervention programs and corresponds to actions to favor the integration and full inclusion of people with disabilities, as well as judgments about the economic profitability of these actions. The results obtained again show a high percentage of positivity towards the factor with 73.5%, this being the second highest on the total scale.

Once the initial database was filtered, the result was obtained that of the initial number of people who answered the instrument (134), 41%, corresponding to 55 subjects, meet all the characteristics required to be included in the sample that was analyzed in the second stage of the study.

After making the calculations of modularity centrality, the density of the network, and average degree, a directed type graph with 55 nodes and 1590 edges that converge with each other was identified, in addition, the calculations carried out determined the existence of four classes of modularity, that is, the subjects are grouped in the same number of classes, the average degree resulted in 28.9, that is, the number of people that each of the subjects in the model is related to on average, in the case of density, the result obtained was .535 with a diameter and radius of 2, in addition to an average distance of 1.48, which means that on average there is a relationship with half of the people for each of the subjects, which characterizes a united network. In this sense, subjects 7, 20, 24, 25, 28, 30, 31, 34, 44, 45, 51, and 54, who concentrate the greatest number of edges and interactions, stand out (Figure 7).

Figure 7. Initial graph of the interaction matrix



Source: Own elaboration using Gephi 0.9.2.

In the case of the variable that has to do with the gender of the subjects, the female, the number of nodes corresponds to 30, and 490 edges divided into modularity of three classes were identified, on the other hand, for the male, 25 nodes correspond and 343 edges, equally divided into three classes. The sample was also stratified by the variable "participation sector" and resulted in the subjects that have participated in private companies representing 32 nodes and there are 557 edges occupying three classes of modularity. The public organizations, on the other hand, represent 20 nodes and 203 edges divided into two classes of modularity, the third factor, corresponding to the subjects that have activity in public companies but whose base is private organizations, it was observed that only three nodes comply with this characteristic, forming six edges, which are grouped, according to their size in the graph, into only one class of observable modularity.

Being this the first approach to a study of the characteristics of which mention was made, it was determined in the first instance that if it is possible to carry out an analysis of the structure of attitude networks towards people with disabilities with a focus on the socioeconomic situation in Mexico because the subjects involved know and respect the social group of people with disabilities and, in addition, there is an inclusion in professional activities but at the same time there is the image of a person with less aptitude for work, the above coincides with the findings of García and Hernández, who found that the participants in their study tend to respect the rights of people with disabilities in matters of a personal and social nature, although they do not value the capabilities of people with disabilities.[22]

For the second part, twelve nodes were highlighted who, in addition to meeting the pre-established requirements to be taken into account in the sample, have the greatest influence on the network, being also the center of it, it is observed that the network shows a wide degree of closeness, with which it can be deduced that the nucleus of subjects and organizations on whom the economic development of people with disabilities depends is very centralized, this is consistent with the results found by Polo, Fernández, and Díaz; Verdugo an]d Arias and Verdugo Jenaro and Arias.[ 23, 24, 25

In this same sense, it can be highlighted that the influence exercised by individuals and social networks towards people with disabilities, within the economic activity, is not necessarily due to the people's own needs, but rather it is about laying networks and alliances to meet the needs of the organizations themselves and in turn make them grow with the right staff in the right positions, that is, disability or non-disability is a secondary factor for this item.

#### **Conclusions**

It is possible to apply an SNA focused on the people who have the responsibility of managing economic institutions in Mexico and these, in turn, can form cooperation networks among themselves. Most of the people who participated in the study have a positive opinion about people with disabilities, but there is still no culture of full inclusion in socioeconomic activity because it is perceived that people with disabilities are incorporated into the activity, not because of their knowledge or skills, but because of the organization's own need to hire personnel who, in turn, serve as a positive image abroad. In addition, there are significant differences between the data collected and they are very accentuated in the population with disabilities and those who do not have it, in addition to this, the frequency with which public institutions collect the data does not allow continuous observation of the behavior that is having the appearance of new people with disabilities and much less their possible incorporation into the labor market to be considered as economically active. In a second stage, it is recommended to apply the instruments of this document to the updated censuses and participation rates, in addition to including, in the EGAHPD format, a question that allows knowing if the person who is responding has some type of disability.

This research indicates that a change of thinking is already necessary on the part of society and those who have interference in the Mexican industry to stop seeing the population of people with disabilities as a vulnerable sector of society and rather it will be necessary to carry out actions that allow a total integration in the socioeconomic environment, allowing a development not only in the areas where its visibility brings economic and social benefits to the contracting parties, instead, it is better to treat everyone equally and that each one can do what he knows and demonstrate that physical or mental disability is not synonymous with a total lack of ability, it is rather a tool that, if properly focused, can demonstrate capabilities in other areas, it is just a matter of starting to act.

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