



The gender wage gap and the overcrowding theory

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Overview

“The gender wage gap and the overcrowding theory” is a study based on the obstacles of the female gender when they try to get a job, besides to promote and obtain senior positions. In order to understand the situation as well as the effect and context of the wage gap, we have analyzed different theories and documents.

We have emphasized in concepts like overcrowding and wage gap as the most important criteria, last concept is the women’s discrimination cause by their gender condition.

This analysis explains the rejection and discrimination in wages as the differences in remuneration without being impartial factors. What is more, that criteria cannot be demonstrated or justified. The rejection of compensation is not allowed by law, but is often not complied with.

In conclusion, this document makes a contribution and a general view of the different ways of remuneration between genders at the labour market and their respective differences.

Keywords: wage gap, rejection, gender, segregation, overcrowding, discrimination, average wage, income, remuneration, labour sector, linear regression.

The gender wage gap and the overcrowding theory

1. Introduction

In the wake of the Second World War, the situation of women in the labour market changed due to the increase of production in different companies. Men had trend by the military industry while women occupied the jobs that the male gender had not already covered during the war.

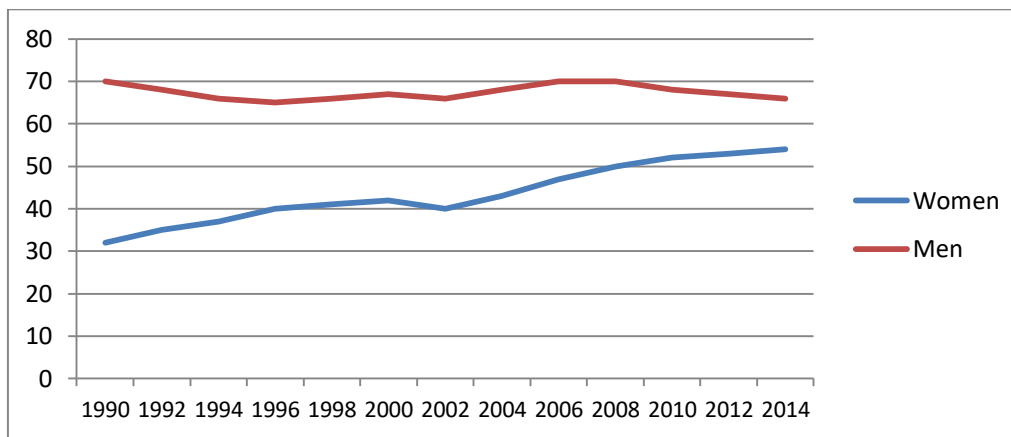
The factors that caused the increase of employed women were both economic and patriots. Some acquired capabilities on entering at the job were cooperating with the common good, new skills or be an important support of society.

The number of women who works at that time was growing exponentially over the years. At the end of the war, men returned to their respective homes and job, and a conclusion was obtained, that was the number of women in employment would diminish and they would return to their traditional works as housewives and the care of children.

Nevertheless, it was not exactly what happened because much of these women began to enter the job's world and earn income for their households in a stable way. The countries with the most advanced industries realized this and wanted to benefit from economic development, thus creating the welfare state.

Several differences were found in the Spanish situation. At the end of the Civil War, a powerful social and economic crisis in the country had appeared. Reaching the 70s, women started to integrate into the labour market, especially in the amenities sector, and the rate of women increased and average among 20% to 34%.

Graphic 1.1. Rate implementation in Spain of women and men from the 90s

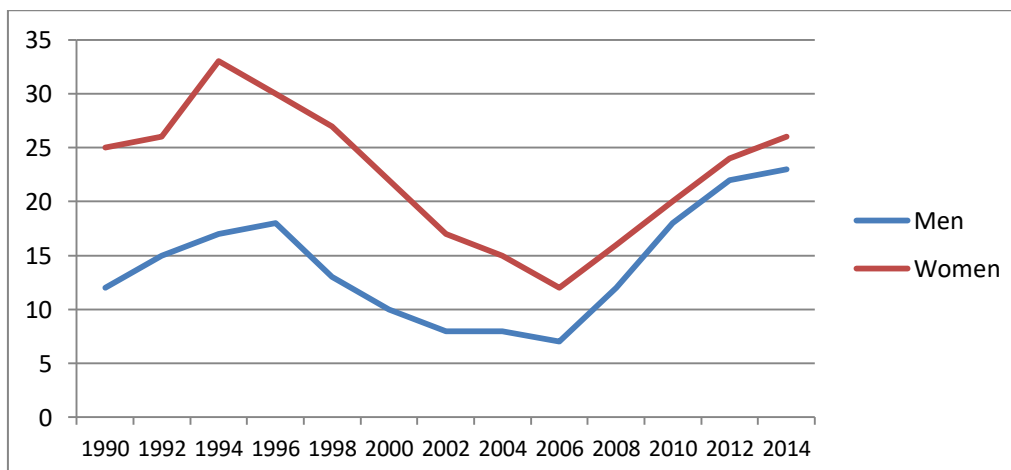


Source: González Escalonilla et al (2016)

As we can see from the Graphic 1.1. *Rate implementation in Spain of women and men from the 90s*, the difference between the rates of involvement among genders is thoroughly remarkable. By and large, the men's ratio is always greater than the women's, mind you, female gender's balance is increasing over time.

The unemployment rate has been modified as time goes by, but always being higher for women than for men. With the 90's, the unemployment rate was important, but it was slightly later when the expanding economic process began in Spain.

Graphic 1.2. Rate of unemployment of women and men from the 90s in Spain



Source: González Escalonilla et al (2016)

While women have been entering bit by bit towards the labour market, the differences amidst both genders still exist these days.

According to data from the OECD, the Graphic 1.2. *Rate of unemployment of women and men from the 90s in Spain*, shows that the gap salary in Spain has decreased between the years 2004-2012 to stand at 9%.

Organization for cooperation and economic development (OECD) is an international and independent organism which is made up of 35 countries that pursues a common objective which is to coordinate their respective economic and social policies. It is important to mention this department due to the salaries average related to the wage gap of the OECD, it is higher than the Spanish one. Besides, our country shows considerable distinctions in this field related to the United Kingdom, Canada, Germany or the United States.

As a consequence of these evidences, many theories about the discrimination suffered by women in the workplace were developed.

We know discrimination as the action of offering an immoral deal to a particular person without deserve it, and it is due to specific reason such as race, gender, education, religion, and the list goes on.

And it is the wage contrast which marks the degree of discrimination in many work places.

2. Objectives and justification

The main drawback of the study remains on understanding the wage gap meaning, which is a concept widely used these days, also without taking into account the set of factors that surround it.

By and large the making of this study is the widespread concern of society, both in Spain and in Europe, about the discrepancies in remuneration for men and women in the twenty-first century. It is an up to date matter without a proper solution found yet.

According to ILO (International Labour Organization) the wage gap in the world was roughly 23% and these was just four years ago. What is marked before means that women earned an average of 77% of what men perceived. On the other side of the coin, Europe's disparity is smaller since the wage gap was nearly 16%.

The Table 2.1. *Average men and women wage* was obtained by descriptive analysis of gender variable with SPSS software, while the salary has been obtained by dividing the manager's gross salary and the weeks of the month and hours worked. The result of the standard gender deviation is 0.392 which indicates the degree of variation expected in relation to the arithmetic mean, which is the level of data dispersion.

Table 2.1. Average men and women wage

	Observations	Wage/hour	Standard deviation (Gender)
Men	585	11,94	0,392
Women	137	10,53	

Source: own elaboration

The average amidst the male and the female gender wage gap is a phenomenon treated by national and international literature. The objective of this study is the analysis of the differences among the income of the different gender's members and the decomposition of the wage gap.

It is also important to highlight the study of the last difference on wages between different roles and responsibilities through the study of different variables.

The research of the wage gap between both genders also consists in the breakdown of gap in order to prove that the difference becomes real, besides it can be eliminated.

This work chases the following targets with the following order:

First of all, we are about to analyze and study the theories of discrimination focusing on the overcrowding model, it means, we will try to understand why wage differences appear and we will see that using different points of view and their subsequent effect.

The next step will be to determine and quantify the imbalance related to remuneration, thus we will look at the wage gap and its causes, its consequences and how different countries fight against it. By this way, we understand the current problems which are faced by some women at the workplace every day.

Finally, using data of the Spanish companies and the results obtained through the program SPSS, we will see in practice the above named. That data confirms the theories, the regression model and variables that shows the difference between genres, as well as the different conclusions in the Spanish situation.

All in all, one of the main targets of the present work is the study of the wage gap. Indeed, this is made using a novel point of view which is the view of the leaders and senior officials of the firms.

3. Methodology

This study works with the information provided by the IBEX 35 and other statistical reports on the subject and its main objective is to make the information that relates the level of income and the Spanish exclusion easier.

The sample studied is composed by different leaders and CEOs of the many companies comprising the IBEX 35, in addition to the Medium Caps which are defined as different quoted companies mid-cap that make up the four Spanish stock exchanges and traded through the system of electronic stock market interconnection (SIBE).

As we will see later, the sample is composed by 722 members and it has been chosen based on the directors of the different companies comprising the IBEX 35. Of these 722 members, 585 are men, up to 81% belong to the male gender, and scarcely 19% are women.

From the sample obtained, we have analyzed the rotation of assets, financial profitability, return on capital employed, the solvency ratio and total assets per employee, thus we have been able to learn what are the enterprises with greater financial benefits, and if the existence of a higher number of women executives in these companies has effect on its benefits.

Operations and calculations made throughout the study focuses largely on the hourly wage of workers of these companies in Spain. We can see the information named before in *table 2.1. Salary between men and women*, which has been obtained by dividing the gross pay that workers receive in the midst of weeks at the month and the hours that have been worked.

Likewise, for the choice of the sample which is the subject of analysis, several variables have been disclosed in such a way that we have only collected those data of salaried individuals, whose age is between 30 and 60 years, and whose working hours are roughly 40 hours a week. With what we have previously highlighted, we want to obtain a sample of study whose working population has completed their educational studies and also we could eliminate those employees with low positions.

The variables have been selected in connection with the rise of wage differentials between women and men. The variables are characteristic of the workers, and as we have defined above, for the selection of the sample that we are going to analyze, the variables included for the study are directly related to people working as senior officials in these companies, it means that the rest of employees are excluded from the sample in order to avoid possible errors in the analysis.

Related variables to the worker:

- Variables related to the human capital of the leaders, as it is education. This type of variable is introduced with the aim of studying the skills of employees, obtained skills with its experience, education or practice. Regarding the connection with the level of study, we differ in whether it has acquired college studies and if these studies have an economic nature or not.

- Variables related to the own characteristics of the manager, in this case, the gender. This type of variable is studied so as to differentiate members of the company by gender, thus to be able to look at the wage gap between male and female. We also distinguish different members by the age range in which they are found, it means, the sample shall be divided according to whether the manager is in the range of 30 to 40 years, 40 to 50 years, 50 and 60 years old or over 60 years.

With the aim of studying the gender wage gaps, we have used regression by ordinary least squares (OLS).

The regression that measures the relationship of variability of X and Y follows the next structure:

- N: refers to the size of the sample, in this case it is 722 elements.
- Y: income, it is the dependent variable.
- X: are independent variables, which are gender, age and economic university studies. Although as we shall see later, whereas the age has no significance, the gender is the constant variable.

For the respective analysis, this investigation has used SPSS Statistics of IBM parser, which is a software for statistical analysis that has the main features needed to develop an analytical process from the beginning to the ending. Moreover, in order to be easy

to use, it includes a wide range of processes and methods to simplify the income increase, improve competitiveness, manage research and make better decisions.

On the sample that we have obtained, several inferential methods have been developed throughout the whole study to help us to achieve the established goals. These inferential methods have their reason on a descriptive analysis of the sample and comparison of averages and linear regressions tests frequency tables.

With regard to the total number of factors, we can find character dichotomous variables, since they give us information of the individual connected with the own formation.

The use of linear regression methods allows us to distinguish the benefits equation, which means that it gives us an appraisal of the obtained profits by enterprises on the basis of gender, age and studies of the workers who are managers.

4. Discrimination theories

4.1. Analysis and concept

There are several theories that analyze the discrimination concept applied to the scope of work.

They are all theoretical studies that seek to define why women have lower average wages in comparison with men.

According to González Escalonilla (2016) the most important theories are based on the tastes, the theory based on perfect information, new perspectives of gender theory and the overcrowding theory.

Thereupon, we will see some support theories and we will focus on the simplest one, the overcrowding theory that is very suitable in the economic literature and thanks to it, the differences in wage as a main cause of gender segregation in the workplace can be analyzed in a most simple way.

Thereon, we are about to clarify some of the theories which address the real rejection in the world of work:

a. Theory based on tastes

According to Guataqui et al. (2000), the employers or their workers have prejudices that get rid of any possibility for that people so as to work with members characterized in a different way than they are, more specifically women. For this reason, managers tend to hire men.

Gary Becker (1957) proposes a prototype of racial discrimination which Kenneth Arrow improved years after, in the year 1973 accurately. The main idea of the text is that discrimination is perceived as a preference for which the discriminatory person is ready to pay, thus, it means the voluntary refusal of tools and income in order to satisfying prejudices. This model is suitable for two groups in particular which are women and black people.

In this analysis we will focus on women and the efficiency loss in production caused by the discrimination and rejection.

There are three approaches to the theory based on tastes, rejection or discrimination by the employer, the discrimination brought about workers and the discrimination and denial by consumers.

The first of the three approaches, remarks that different entrepreneurs and managers have prejudices in relation to the various collective minority employees with different personal characteristics and features, for instance race or gender.

Businessman admits a reward between the yields and the number of employees who can be men and women. It is also understood that the entrepreneur does not increase yields but a utility function (π, H, M) where π are the performances, H is the total of employed males and M the total of employed females.

On the other side of the coin, the salary is given in the short term so the output is $f(M+H)$. Yields are collected in the following function:

$$\pi = f(M+H) - W_h(H) - W_m(M)$$

Where W_m and W_h are the salaries given to the individuals that make each group up.

Regarding the rejected group which is made up of women, a considerable issue is that they are only hired if they agree to receive a lower remuneration, this is because the hiring process leads to a cost of psychic character explained by the known discrimination coefficient (d_M), either non-economic costs generated by the recruitment

of women. This non-economic cost resulting from the hiring of women is caused by social discrimination.

When the exchangeability of labour in the production is admitted, it will be necessary that the remunerations of men will be superior to the female gender in order to achieve stability.

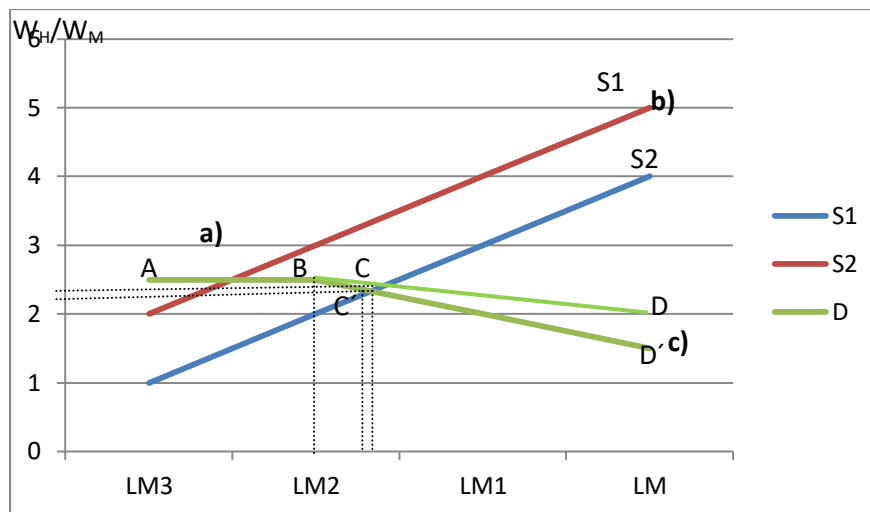
The following features demonstrate above:

$$W_H = W_M + d_m$$

$$W_H - W_M = d_m$$

Where the men would receive equal remuneration to $W_M + d_m$, which is greater than that women perceive W_M . Thus the disparity in wages is reflected through the discrimination coefficient d_m .

Figure 4.1.1. Model based on tastes



Source: own elaboration from González Escalonilla (2016)

Figure 4.1.1. *Model based on tastes*, symbolizes a model of supply and demand of women in the labour market. The ratio between wages of men and women (W_M/W_H) is set in the order out and the total number of working women is given on the horizontal axis (L_m). The graph shows the relationship of harmony of wages despite the three requirements of market:

- a) First requirement is produced as a result of the small size of the supply of women in relation to the total number of entrepreneurs who do not have

prejudices, where the factor of discrimination and rejection is 0 ($d_M = 0$). It is suitable to the section that goes from A to B in the portrayed figure.

- b) The second condition occurs when the predilections amidst women and men are stable and, a variation in the supply of women, more specifically from the function S1 up to S2, generates that entrepreneurs who have prejudices offer a contract to more women and the rate of wage of women could be fewer with concerning to that of men, that happens to be 1 to W_M/W_H .
- c) The latter requirement appears when the supply of women is constant and is generated an increase of prejudice by employers. This causes a displacement of demand curve. In addition, also decreases the ratio of salary of women with respect to men. In Figure 4.1.1. *Model based on tastes*, corresponds to the fall of D to D'.

Consequently, as the rate of discrimination is higher, the total number of women who work and who are going to be hired by the entrepreneur is also lower.

↑ $d_M = \downarrow$ Worker women

This theory of taste for discrimination is strong with the differences among women and men in the working world. The extent of inequalities in remuneration depends on the magnitude as well as the number of women who are looking for work. If the size of not discriminated employees was important or there were few women in the hunt of work, then there would be a possibility of that disparity is not generated in wages between women and men.

One of the effects that are understood from this theory is that, as to the monetary benefits appear, these depend on the rate of discrimination, and so the organizations that reject or discriminate against workers are getting quite lower benefits that those that do not. For this reason, the situation may not be sustainable over a long period of time if there is input from companies. Discrimination and rejection can only remain in labour areas where competitiveness is conspicuous by its absence.

On the whole, if the rejection based on the tastes of the employer changes between works, also we can relate it to the occupational segregation thought. It means, whether the women just like men are perfect replacement elements, the work will be segregated

in its entirety, and then women will be employed in organizations where the employers do not have or maybe have fewer prejudices.

All the same, it is important to analyse the discrimination on the basis of tastes by the workers of the company. There are men who have discriminatory tendency towards women. The way they behave will be focused to produce women non-pecuniary costs equivalent to the ratio of discrimination known as d_e . This is the bonus that is offered by encouraging to work with women, discriminatory men will ask for higher wages in order to be compensated for work with women ($W_m + d_e$). The entrepreneur will manage different teams so there's not contact among the various consolidated groups.

This way the need to pay a bonus to men by working with women is therefore excluded. All in all, if the male gender respond as well, it would not be necessary to establish differences and we would not have wage inequalities between both genders, although it would be segregation.

The endurance of the rejection or discrimination based on the tastes of the employees can be a major cause of occupational segregation apart from the disparities in remuneration. Nonetheless, the discrimination of employees influence the efficiency as well as productivity of the Organization and these, it brings the decrease about the relative productivity of women in employment with regard to men.

The third and final appraisal refers to discrimination based on the tastes of consumers and it is about some of them tending to have discriminating tastes toward the female gender and their behaviors as well as if there were non-pecuniary character costs attached to obtaining goods or services produced by women, which are equal to its ratio of discrimination, d_e .

In summary, the conclusion is based on the thought that all of the cost of the product or service was $p+d_c$, (d_c is the discrimination coefficient) if the good is delivered by a woman. However, in the case that the good was provided by a man, the cost would be p . On the whole, the women who would sell fewer goods and services, should charge less price, $(p-d_c)$ and in the meantime, their productivity would be lower.

b. Theory based on imperfect information

Phelps in 1972 and Aigner and Cain in 1977, were the promoters of the overall idea of this theory. This idea tries to clarify that the average characteristics of the different groups are taken as a reference to the individual characteristics of the employees. The

usable information is not enough, is rather limited, and that is why organizations make use of subjective information such as race, age or gender, with the aim of obtaining data about them as well as to make the decision process of those who have the duty of hiring people more simple, although it does not prevent discrimination.

On the other side of the coin, although employers analyze with detail the participants, the contracting parties do not meet at 100 percent the way in which potential workers do their work in the organization nor the time that they will last in the Company.

Though, data related to a collective average are relatively complete, hence the company shall pay a higher amount in order to obtain it. Entrepreneurs have a predilection for hiring on the basis of the group average. Therefore, they accept the risk.

Edmund S. Phelps explained in 1972 statistical discrimination by this way: entrepreneurs make their decisions based on some index of ability, Y , which is used in order to reckon the level of skill, q . The hypothesis developed by Phelps born from a single test created thanks to Y , and it is given by the function:

$$Y = q + u$$

In this function u is the mistake term distributed normally, regardless of q , also with an equivalent average to α and constant variance.

Employers perceive the test Y , since the supply of information about the unnoticed variable q is high. No matter how, the most important factor is the awaited value from q , given Y .

$$\hat{q} = E(q/y) = (1-\gamma)\alpha + \gamma y$$

Where γ is the precision of the test and takes values between 0 and 1, if it takes a 0 value the precision of the cut is void, but if it takes value 1 the reliability of the test or signal is the greatest.

Edmund Phelps (1972) broke up the previous theory of the expected value of q in a concept which has to do with the effect of the Group $(1-\gamma)\alpha$ and a factor of individual character (γy). What is more, he considered suitable to take into account the expected value of q function as a condition of the linear population regression:

$$q = (1-\gamma)\alpha + \gamma y + u'$$

In this expression, u' is still the error term.

Later, Edmund Phelps distinguishes two groups of employees (the first one is made up of race black and white workers and the second one is composed by workers of masculine and feminine gender), with likely differentiated averages, α^H y α^M , and not the same variances of q and u . The employer accepts that has to pay a certain amount to the employee, q^H which is founded on the available information for each group and member:

$$q^H = (1-\gamma^H)\alpha^H + \gamma^H Y^H$$

$$q^M = (1-\gamma^M)\alpha^M + \gamma^M Y^M$$

If the variances of both q and u are different, then the slope will be dissimilar for the two groups.

Recruitment needs the entrepreneur to make a subjective assessment of the proficiencies of each employee. Because of that, Phelps, Cain and Aigner, accepted that the valuation of the term q , with a given y , will be equivalent to the expectation of q . This theory is equal to the process of maximizing earnings by employees and the maximization of yields by businessmen.

Phelps model take a dependence on middle skills for granted, also the differences in the skill and the diversities of measurement error for the two groups, both men and women. Phelps's 1972 model is founded on three assumptions:

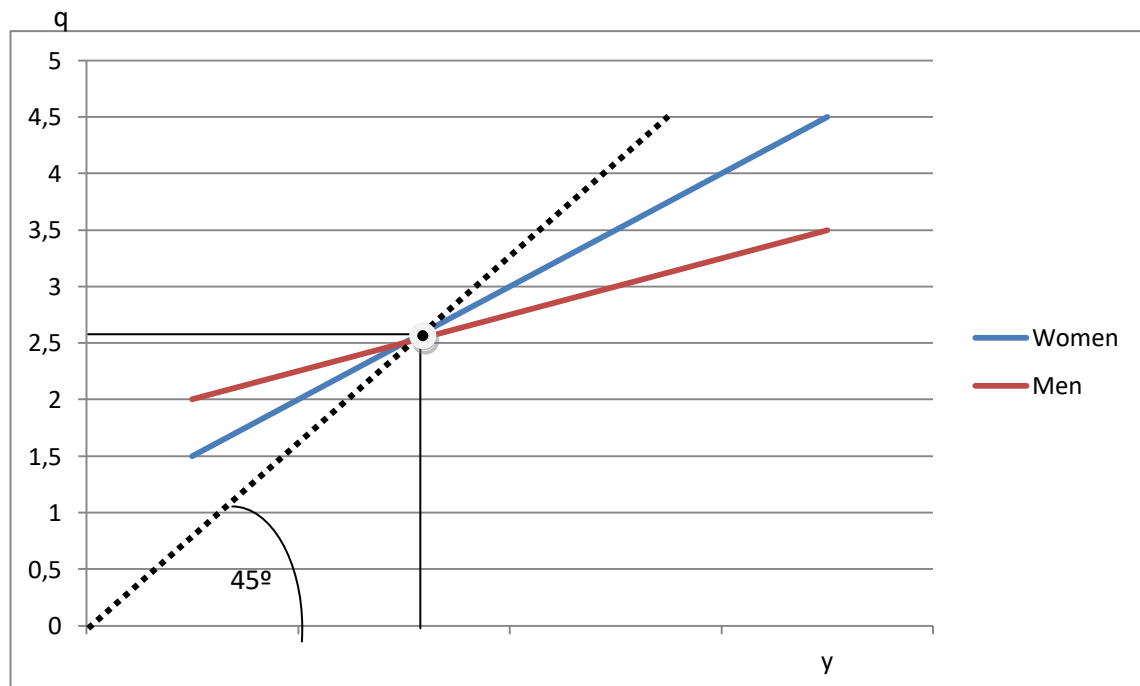
- a) u^H y u^M have equivalent variances, it means equal.
- b) Variance of $q^H < q^M$.
- c) Supposedly, the average capacity of women is lower than that of men.

Even though discrimination or rejection is depicted as the difference that arises when an employee comes to perceive the wage, although employee have equal aptitude, it is also known as the disparity in compensation which is not related to an assortment in ability. Edmund Phelps assents a difference in average skills.

The other two scenarios in the Phelps model, $\text{Var}(u^M) = \text{Var}(u^H)$ y $\text{Var}(q^M) > \text{Var}(q^H)$, claim that the slope (γ) is more pronounced for women in q than for men. This means that the examination or test is a more reliable forecast of q as we can see in the model

obtained by Aigner and Cain depicted in Figure 4.1.2. *Model of statistical discrimination: productivity forecast, q on the basis of race and the signal (y).*

Figure 4.1.2. *Model of statistical discrimination: productivity forecast, q on the basis of race and the signal (y).*



Source: Own elaboration from model of statistical discrimination of Aigner and Cain (1977).

Lastly, every entrepreneur looks for when hire employees with increased productivity in the workplace, all the same a problem that appears in this context is to accept a cost by the mistake of not employing members with higher productivity as a result of the existing uncertainty.

What is more, the discrimination or rejection against women is a situation that represents this theory or hypothesis created by Phelps. Frequently, according to Phelps woman is linked with the idea of low level of education, that is why, if we take into account a direct relationship between productivity and education, this influences at decisive opportunities that woman has in the field of work. Marriage is also an important value due to the fact that if a woman is married, it could affect the work since an entrepreneur may think that by staying pregnant in the short term she can reduce her working day.

In the one hand, in the model based on discrimination by tastes, employers were affected since they were treated as losers, and predilection for discrimination could not

last long. But on the other hand, in the theory of statistical discrimination, the rejection can follow over time since employers increase their yields cutting the costs down of hiring the most.

Lang (1986) proposed a model to study the feasible grounds that generate diversity on the accuracy of the information that employers collect in relation to the candidate gender. This theory was developed and evolved into a model in which the main idea is that individuals just work together if they speak same language and it considers that it is difficult to learn a new one. Therefore, the competitive market comes to minimum interaction through segregation, but if interaction is needed the cost will be borne by the minority.

c. New perspectives of gender differences

Both the socio-psychological and psychological agents, help to explain the inequalities in terms of gender in the workplace from a while ago. This analysis, defines certain agents with enough consideration including the predilection for the risk, social preferences and both negotiating behaviors or competitive behaviors.

- Risk Behavior

The risk predilections can become an agent with enough effect in the income as Bonin et al. (2007) conveyed.

There are several studies that show that less interested members in taking risk concentrate on business with more fixed wages. Thereby, a fewer average in wages is obtained in this tasks, and so as to match wage differences in labour areas with adverse agents to the risk.

Authors like Bonin, Croson and Gneezy, Eckel and Grossman debates about wage differences between genders in their respective articles. These articles bring into comparison both genders and value existing risk factors. Anyway, it is also important to note that both essays get a similar resolution and it is that the female gender is more adverse to risk than the male.

Disparities in terms of gender related to risk behaviors are in the majority of situations linked to gender disparities with regard to the excesses of confidence. A gender gap with reference to the extra security is used as a clarification to the diversities of gender in risk preferences. The masculine gender tends to have a level of security in their skills

which is higher than the women have, especially if we talk about classified tasks as these done by man. The outcome of what we mentioned above is the predilection of the male gender by the risk, a predilection which is higher over men than women.

Having a higher risk aversion makes women earn a lower wage than men. For this reason, the members behavior in connection to the risk factor are a description of the wage gender dissimilarity in the work scope.

- Focused behavior on the competition

On several situations, the majority of jobs with high profiles and higher incomes obtain environments with a very high level of competition where the winners get unevenly rewards.

These days, there are different statements concerning the fact of that female gender is little represented in this type of work. One of the many explanations comes to the conclusion that women's performance is worse to the male's one in environments with high competitive level.

The great part of jobs, which are looking for notable profiles and pay highway, are also accompanied by very competitive environments in which the winners are paid disproportionately. The idea that the female gender does not have great representation in this type of work is very studied currently. One of the arguments is that the female gender has less productivity than the male gender in areas with high competitiveness and that the majority of women, including the more suitable and more productive, choose to keep it distanced from this type of environments.

Vesterlund y Niederle (2007) explain that there are numerous reasons why the women run away from labor scenarios with greater competitiveness. They also clarify that both genders value their income in excess, but the male gender does it at a higher level. This disagreement in terms of overconfidence generates the endurance of gender gaps in the compensation choice. The resolution that the various authors reach is that women tend to have a lower appeal to the competition than men.

In this way, the female gender moves away from more competitive work and, as a result, labour places whose salary is higher despite possessing an aptitude that is appropriate for that job. Thus, we can find a clarification to the differences in remuneration between men and women.

- Social preference

Another psychological point of view about why women is not quite effective as male, when we talk about the scope of work, has been linked to the possibility of differences amid the two genders at the level of social preferences. In the already contrasted hypothesis, authors propose that women have a greater social awareness than men. Trends by the reorganization are the outbreak of why the female gender is less willing to fight for an increment in their remuneration.

It is important to take into account about politics in this section due to there are theories which establish that women often have an ideology that is closer to the left than men. These political aspects and aspirations have been modified with the time. Time ago female gender was characterized for being more traditional than male gender, what causes an economic character clarification and not psychologically , today women can opt for better redistribution policy, since is probably easier to get greater benefits from these policies.

- Focused on negotiation behavior

Samuel Bowles et al. (2005) concluded that the performance of the female gender in negotiation progresses meaningfully when they trade for another individual rather than for themselves. However, the profitability negotiation of the male gender whether businesses are for them as if they are for other individual remains constant.

The founders of this theory clarify that this means that the female gender can expect a stimulus with further violence if the negotiation is for themselves or also they may feel more forced as to worry by other individuals than the male gender.

At last, several authors study the gender gap through the ability to start a negotiation, it means that the sought aim is to obtain an analysis of the participants and their interest in acquiring a wage increase or not to get it. Otherwise, the gender gap is diminishing as the situation is qualified as an opportunity to demand more than a chance to negotiate. The creators of this theory are linking this disparity with the fact that women are intimidated by the language of negotiation rather than by the demand language.

Conclusively, this theory has several incongruities and one of them is useless when it tries to contrast the economic assumptions, what is more the members of different cultures do not have the same behaviors.

4.2. Overcrowding theory

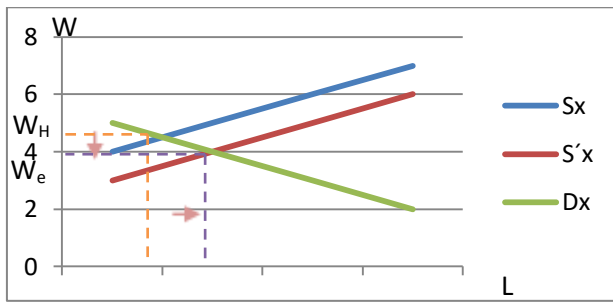
Eventually, we find the model called overcrowding which is the simplest, due to it observes as the different groups of women or members of different countries, are joined on a few specific activities thus conforming a collective that has a certain effect on wages. There are several hypotheses this theory rises, and then we will see some:

- The number of male employees is equal to the number of individuals of the female gender if we take into account the total number that makes the active population up.
- There are three occupations or different business scenarios. They are defined as X, Y and Z.
- The three tasks have identical demand curves as well as showing the amount of the product to be a rivaled market.
- There is homogeneity amidst men and women as regards the characteristics of the work. In such a way, men and women are identical in the three scenarios (X, Y and Z) job production.
- The labour separation generates Z stage to be the most suitable job for women while the first two scenarios are qualified works for the male gender. Therefore, rejection occurs for women in labor scenarios X and Y.

With the information above, we can conclude that the rejection a woman receives on stage X and Y is not received by men in the Z stage, since unlike women, they do not suffer rejection and men can enjoy the possibility of dealing with the labor stage Z. Notwithstanding the possibility, they rejected this option since the salary they receive is fewer than the quantity they could receive in the other two scenarios.

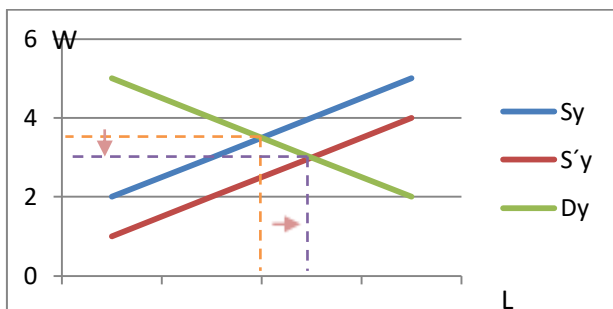
A separation decrease generates a movement of the female labour from the other two remaining Z scene since wages are higher. This Z task decrease produces the increase in the number of workers in X and Y and also produces lower wages in such a way that on the three stages of labor will get the same salary. Both the Figure 4.2.1. *Occupation X of Bergman model* as the 4.2.2. *Occupation Y of Bergman model* and the 4.2.3. *Occupation Z of Bergman model*, show the effect on the equation of occupation and salary of the female gender in different work scenarios that may occur.

Figure 4.2.1. Occupation X of Bergman model



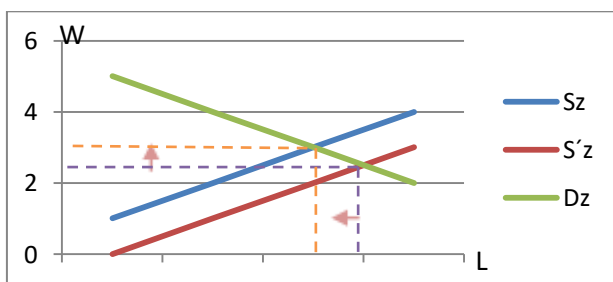
Source: own elaboration based Bergman (1974)

Figure 4.2.2. Occupation Y of Bergman model



Source: own elaboration based Bergman (1974)

Figure 4.2.3 Occupation Z of Bergman model



Source: own elaboration based Bergman (1974)

In this way, the overcrowding theory whose author is the economist Bergman, elucidates that regardless of separation, the result is the difference in perceived wages among women and men.

This happens if the demand for women is lower in relation to the supply of women who are available to do the job. Holding everything constant, the profits tend to be lower in tasks where the women are more than men in relation to those tasks where men are more than women.

According to Larrañaga (2000) female labour supply curve is less flexible, and that is why women think that wages are additional and are conscious to reduce the working life in order to make it compatible with family life.

Ultimately, this theory does not clarify the reason for the statement that many women are workers in traditionally female sectors.

One of the arguments is closed about talent or preferences of men and women by several types of existing employment, or because managers or partners of employment or even consumers themselves and customers tend to discriminate against women in certain work and in other tasks do not.

Summing-up, all the models we have studied so far, talk about occupational secession and its subsequent effect, discrimination. It is the overcrowding model which better analyses and explains the consequence of segregation, for instance it explains the disparities generation in wages between both genders from a simple point of view.

This not only depends on the outset of segregation, apart from the disparities when women and men comes to socialize, we also have personal predilections or discrimination in the workplace.

The wage gap is generated at the time that the labour demand in activities traditionally developed by women is minority in comparison with the offer, what causes salaries to decrease in such work. All the same, this model does not clarify the cause of that women tend to be more concentrated in a few activities than others.

5. Wage gap

5.1. Concept

Martinez Jasso et al. (2004) defines the wage gap as the remuneration inequality that cannot be explained by personal characteristics or by potential determinants of labor demand.

This difference is reckoned for the European Commission as the basis of the mean difference between gross incomes per hour for all workers.

The difference in salary between men and women appears as a percentage in relation to the acquired proceeds by the male population and represents the average disparities between gross yields per hour of gender male and female employees. These proceeds are the received wages before attempting to apply deductions on income related.

In the European Union, the information about the wage gap amid women and men is made on the basis of the wage structure survey. The wage gap is also formally known in the EU as not adjusted gender wage gap, due to it does not have the whole factors affecting the disparity, such as differences in education or the working time.

5.2. Differences in the IBEX35

The wages of the companies in the IBEX 35 are not identical; we can see it in Table 5.2.3. *Differences in the ratios of the companies of the IBEX 35*, which is found in the annex and shows different ratios.

The latest reports of the companies to the CNMV show that the difference in regards to wages between workers is significant, taking into account that the private organization enjoys complete freedom in order to decide the form and amount of compensation to their employees.

Today, companies have no duty to report the different ratios that exist between their employees with better salary and who is worse payed. Anyway we have the information about the highest compensations, which tend to correspond to its CEO, besides to know the average wage.

The crisis came, but the disparity in salary terms of the global of IBEX between the first manager and the average salary increased twice betwixt 2014 and 2015.

Global information explains that the number one in salary from the organization received 158.2 times more wage than the average of his organization in the last course.

Organizations such as Jazztel and Telefonica are the companies with more differences in between, with an average of more than 1,000 times of difference between the average wage and the Chief Executive. Nonetheless, the more equitable company is Bankia with 9.9, due to it is the company that puts more limits on pay for its CEO, since has been rescued by the State with public money.

Most of the IBEX organizations, optionally set sections of CSR (Corporate Social responsibility) in order to impose ethical and socially equitable criteria so as to guide companies to act.

Table 5.2.1. Wage differences in the companies of the IBEX 35 points out some of the examples of wage differentials of distinct levels of workers in five of the listed companies in Spain.

Table 5.2.1. Wage differences in the companies of the IBEX 35

FIRM	Highest-paid employee	Average salary	CEO	Senior Executive	Employee
Acciona	4.317.000	252.316		458.786	44.487
Amadeus	2.343.000	355.100		726.182	89.007
B. Sabadell	4.088.000	462.941		867.625	66.609
IAG	9.761.000	1.220.000		2.438.111	80.947
Inditex	12.170.000	1.267.182		1.724.762	23.107

Source: Own elaboration from *El país negocios* (2016)

Moreover, table 5.2.2. Top 10 salaries of the IBEX 35 shows by order the 10 managers with higher wage level in the companies that make the IBEX 35 up.

Table 5.2.2. Top 10 salaries of the IBEX 35

	FIRM	WAGE	PENSION	TOTAL
Ángel Cano	BBVA	1,29	19,25	20,55
Felipe Benjumea	Abengoa	15,87	0	15,87
Juan Béjar	FCC	14,69	0	14,69
Carlos Torres	BBVA	3,81	9,86	13,67
Pablo Isla	Inditex	12,17	0	12,17
Carlos de Palacio	Talgo	11,24	0	11,24
José María Oriol	Talgo	11,18	0	11,18
Ana Botín	B. Santander	7,50	2,3	9,8
Willie Walsh	IAG	9,71	0,06	9,76
José I. Sánchez	Iberdrola	9,51	0	9,51

Source: Own elaboration from *El país negocios* (2016)

5.3. Differences among employment sectors

If we look at the distribution of wages to industry-focused, the wage gap reaches a higher value. We will then study the variance in a general way according to the working environment:

Mining

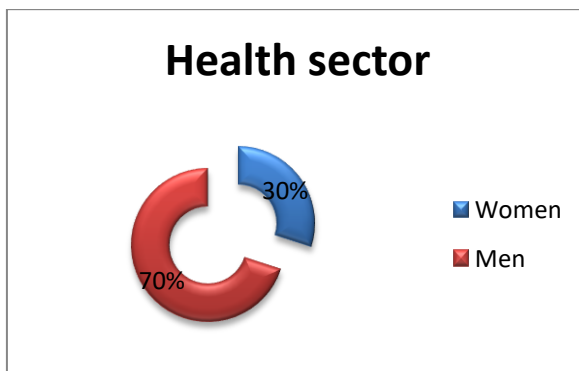
In this industry, men charge over 7% more than women. It is characterized by being an area traditionally dominated by men and various studies warn about increasing the age of workers in this sector, and as a result, the increase of the wage gap.

Health

Only 30% of physicians who are dedicated to the field of anesthetist are women, it is a very well paid scope. Howbeit, the pediatrician is the worker who worse wage perceives in this sector and, by coincidence, it is the area with the largest number of women, about 70% roughly. Graphic 5.3.1. *Graphic about health sector in Spain* shows the percentage difference based on gender in this sector.

Over 7,2% is the amount of salary that men keep on earning above women in the health industry.

Graphic 5.3.1. Graphic about health sector in Spain



Source: own elaboration

Insurance

Most part of workers in the insurance sector are men, and it is one of the sectors with greater disparities in terms of wage remuneration. Concurring with health, men charge 7,2% more than women in this sector.

Media

Despite the great transformation of this sector in recent years, the wage gap remains steady in 6,6% roughly. It is the fifth industry with greater wage gap and one of the main causes of these differences is the amount of new professional who are appearing with specialized profiles such as the video games sector in which the majority of workers are men.

Transport

In this sector, the woman is part of a minority guild with scant presence. What is more, the presence of male gender is growing strikingly in this industry, for this reason the wage gap has increased significantly to reach 6,7%. It is characterized by being the fourth sector with greater difference in remuneration by gender.

Finance

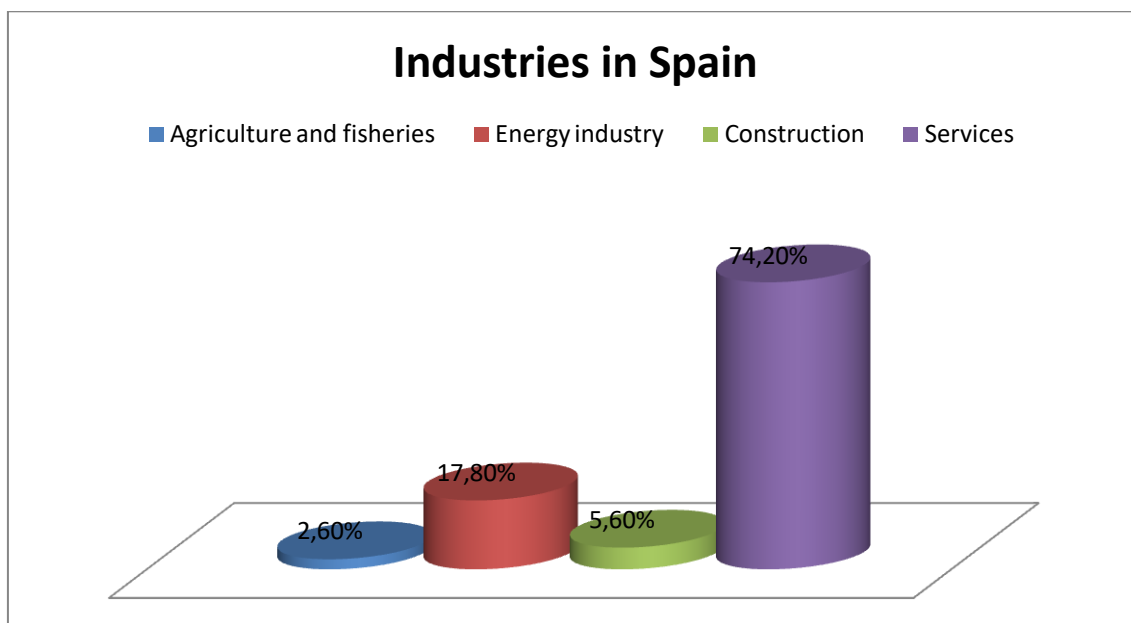
In the finances range, the diversity of wages between men and women is about 6,4% approximately. It is one of the industries where the situation is reversed each more time, and there is a greater number of women currently.

Entertainment and tourism

Salary divergences in this industry are 6,6% and several studies attributed the differences to the presence of male actors who increase assistance to certain films. Nevertheless, it is important to highlight that this industry is not overly masculine.

Graphic 5.3.2. *Graphic of the sectors in Spain* provides a graphical explanation of percentages of the structure production in the Spanish economy, which shows that the services sector has a quite superior importance to that of the rest of sectors. The industry with less weight in Spain is agriculture and fishing.

Graphic 5.3.2. Graphic of the sectors in Spain



Source: own elaboration from INE information (2017)

One of the outcomes is that while the gap decreases more and more, differences between many professions are important and we are still far from reversing the situation in many areas of labour and industries.

5.4. Combating the wage gap

The Governments of each country have the solution to the inequality problem and the rejection in his hand. The European Union is working but the ultimate solution must generate nationwide. What is more, National administrations have assented to an important range of decisions to end with the wage gap amidst women and men. We can see some strategic models for gender equity and equality of wages:

- **Estonia** approved measures to decrease the wage gap in the 2012 year, some of the decisions were:
 - Improve the existing gender equality law implementation.
 - Increase reconciling working, family and private life.
 - To encourage the adaptation of the gender perspective, focusing on the education sector.
 - Reduce the segregation of gender
 - Study practices and remuneration ways of the public sector enterprises and renew the situation if necessary.

- In **Finland**, a plan was created to reduce the gap salary which included actions so as to get rid of segregation, remuneration way and principles to help the professional career of women.
- **Portugal** creates the fourth Plan of equality, which includes the shortening of the wage gap as well as the implementation of equitable plans for companies.
- **Lithuania** creates equitable gender policies contained in the national programme for equal opportunities for women and men in between 2010 and 2014. These principles are aimed at improving the situation of women in the workplace. One of the main targets is to reduce the wage gap betwixt the two genders including measures to improve compensation in the sectors in which the female gender is predominant, such as education, the arts or culture.
- **Belgium** made public once a year a report entitled "the wage gap between men and women in Belgium", document that contains statistical data on the European indicators since 2007.

Plans to fight against the gap

There are measures seeking to reduce the wage gap between women and men and to help companies to measure the progress in the implementation of these measures that promote gender equity and salary. Some countries such as Sweden, Austria, Belgium, Portugal and France have implemented plans and measures to fight against this differences for years.

- **Sweden** created the discrimination act in 2009. This law forced managers and employees to seek equality and avoid wage disparities and gender conditions. What is more, it forced to foster new opportunities of equality in salary and it compelled businessmen to develop salary surveys every three years with the aim to find, fix, and avoid differences without reason in the wage and work situations. Once and for all, they must also create an equal pay action plan.
- **Austria** established the National Plan of action for gender equality in the labour market. This plan established the duty of publishing reports about equality in remuneration by organizations. It also needs to develop studies and reports on the income of their employees when they spend 2 years. These publications must include the whole number of workers as they belong to one

category or another. The goal being pursued is the increase of the proceeds transparency and take measures that will help to cut down on wage gap.

- **Belgium**, starting from the 2012 year, a Law was called into existence and it was also focused to diminish the wage gap. This law should be included in the audit which is carried out every year by organizations. One of the included measures is that the entities that have more than 50 employees should develop an analysis of comparison of the payment structure of their employees every two years. As of the realization of the analysis, if the results conclude that women earn less money than men, the Organization shall be obliged to carry out a plan of action. Furthermore, if there is discrimination or rejection, women can ask a mediator to clarify if the pay difference is actually real.

- In **Portugal** workers must gather information from the records of the Organization's employees annually for the Ministry of employment on aspects of their working conditions as for example wages. These records are delivered to the labour inspection authorities, committees of institutions or trade unions.

- In **France** there is a law of equal pay in between men and women which forces to negotiate collectively about gender equality and it also obliges institutions to develop reports on pursued policies and about the plans that have been created to end the wage difference between genders. The French administration has punished with sanctions to those companies of 50 or more employees that does not live with the obligations in relation to gender equality.

6. Results

6.1. Explanation of results

To carry out this analysis, we have selected data from 35 companies of the IBEX and the medium caps of Spain, we can also see these companies in the Table 5.2.3. *Differences in the ratios of the companies of the IBEX 35* in annex 1. The outcomes of the different studied variables (gender, age and economic studies) using the SPSS statistical analysis program, are summarized in the following tables:

- **Descriptive statistics**

Table 6.1.1. Gender

	Frequency	Percentage	Valid percentage	Cumulative percentage
Women	137	18,5%	19%	19%
Men	585	79,1%	81%	100%
Total	722	97,6%	100%	
Average	0,81			
Deviation	0,392			

Source: Own elaboration

Table 6.1.2. Age

	Frequency	Percentage	Valid percentage	Cumulative percentage
30-40 years	171	23%	23,8%	23,8%
40-50 years	266	35,7%	36,8%	60,6%
50-60 years	137	18,4%	18,9%	79,5%
+60 years	148	19,8%	20,5%	100%
Total	722	96,9%	100%	
Average	2,36			
Deviation	1,057			

Source: Own elaboration

Table 6.1.2. Age displays the quantity of divided workers into intervals of between 30 to 60 years. The range with the largest number of executives is that between 40 and 50 years, which has 266 individuals.

Table 6.1.3. Age*Gender

	Women	Men	Total
30- 40 years	33	138	171
40-50 years	46	220	266
50-60 years	29	108	137
+60 years	29	119	148
Total	137	585	722

Source: Own elaboration

Table 6.1.4. Studies

	Frequency	Percentage	Valid percentage	Cumulative percentage
Economic Studies	509	66,6%	70,5%	70,5%
Other studies	213	27,9%	29,5%	100%
Total	722	94,5%	100%	
Average	1.3			
Deviation	0.456			

Source: Own elaboration

We can behold that are 509 managers with economic studies, while the remaining 213 have completed a university degree but without being directly related to the economy as indicates the Table 6.1.4. *Studies*.

Table 6.1.5. Studies *Gender

	Women	Men	Total
Economic Studies	84	425	509
Other studies	53	160	213
Total	137	585	722

Source: Own elaboration

Table 6.1.6. Report

	Gender	Studies	Age
Economic Studies	0,81	1,30	2,36
Other studies	722	722	722
Total	0,392	0,456	1,057

Source: Own elaboration

Table 6.1.6. *Report*, corresponds with a report of stockings in terms of the different variables of gender, age and studies retrieved using the analytical program SPSS.

6.2. Explanation of the regression model

First of all, it is important to remember that the used software for statistical analysis was SPSS.

In order to explain the study, we have used variables of quantitative and qualitative nature such as gender, age and economic university studies. The main conclusion we can deduce is that holding other factors steady we can see that women get a lower salary than men.

One of the chief causes of this is gender discrimination which we have been talking about in the present study, consequence that affects the endogenous variable which are yields. The qualitative variables are binary in many scenarios, it means a person is classified as male or female, may or not have studies, etc.

On the other side of the coin, the variables can arise from dichotomous form, in binary way also known as fictitious, or variables of zero-one.

The independent variable are the benefits, Y, as the dependent variables are the genus which is represented as G, the age with A variable and eventually the economic graduate education with the variable E.

Tabla 6.2.1. Coefficients of SPSS

Model	B	Standard error	Beta	t	Sig.
Constant	0,929	0,054		17,207	0,000
Age	0,04	0,014	-0,12	-0,321	0,749
Studies	0,084	0,032	-0,097	-2,617	0,009

Source: Own elaboration

The steady variable corresponds to the gender and, further, it is a significant variable due to the result at the significance test which is 0,00, that is less than 0,05. What is more, the studies variable is also significant due to the obtained level has been 0,009 and therefore it remains fewer than 0,05, however, not all the elements of the yields function are significant since the variable gets a level of 0,749, it means that it is higher than 0.05 and is not significant consequently, hence its effect will not have influence on the function of profits. Table 6.2.1. *Coefficients of SPSS* shows unlike obtained coefficients with the software analysis and all of the named above.

Other data:

R =0.098

R square = 0.010

R adjusted square = 0.007

Error in the estimation = 0.391

Accordingly, the benefits function is clearly stated in the following way:

$$Y = \alpha + \beta_1 * Educación + \beta_2 * Age$$

Likewise, substituting the obtained variables with statistical program the linear regression model is as follows:

$$Y = 0,929 + 0,04 * Educ + 0,84 * Age$$

Likewise, substituting the obtained variables with statistical program the linear regression model is as follows:

$$Y = 0,929 + 0,04 * Educ + 0,84 * Age$$

From the acquired results and according to various reports that explain different theories, we can conclude that the accepted hypothesis is that the existence of women in Board of Directors brings a greater benefit for the company in the majority of companies.

Furthermore, Peterson Institute for International Economics, concludes that companies which have 30% of directives makes about 15% more benefits. This study analyzes an approximate set of 21.980 companies.

However, incomes may vary depending on the company and its activity, but it is important to note that gender diversity is a significant and outstanding matter. With the previous data we have seen that of the 35 companies that exist in the IBEX, just one has a woman as a chief executive officer which is group DIA.

We have also seen that around 60% of the studied companies do not have women on their boards of Directors, more than half do not have executive and just 5% are led by a woman. With respect to the IBEX 35 only 2.9% of companies have no women on its Board of Directors, being 51% the percentage of companies that have one or two CEO

women and the percentage of companies that have three or more women on their boards of Directors is 46%.

On the other side of the coin, it is important to name that this study stands up for the view that there is no evidence that the profitability is greater when a woman is the chief executive officer of the company, but in the companies which have a greater number of women at the Board of Directors, the existing number of executives is also higher.

There are numerous initiatives, some named in point 5, which are carried out in countries like United States and try to promote diversity and gender equity. The project Women on Boards which is carried out in the United States, works to increase the percentage of women on the boards of the companies in the country. It tries to ensure that the entities count on at least 2% of women on their boards of Directors in the year 2020.

What is more, an initiative is also encouraged in United Kingdom and it is created by the group 30% Club which wants to achieve a target that will help to increase by 30% the female presence on the boards.

Table 6.2.2. Sample and annual gross salary

	Size of the sample		Annual gross salary: 24,444 euros/worker	
	Firms	Employees	Men	Women
2016	55	722	585	137

Source: Own elaboration

Table 6.2.2. *Sample and annual gross salary* points out annual gross salary of men and women which we have chosen as a sample for the year 2016.

The acquired conclusion is simple, although the wage gap affects significantly on the entities yields the companies with the largest number of women as CEOs get a greater benefit.

Conclusions of the Spanish analysis

According to various theories and hypothesis, wage differences between men and women have been unvarying since women started to be part of the active population, in most cases getting a lower salary. There are many studies that have shown that men get more salary than women, despite having similar characteristics.

McConnell et al. (2007) speaks about distinctions in average wages amidst women and men that are lower and one of the main reasons is that the women competence levels are superior.

Despite this, the wage gap is still remarkably betwixt male and female gender in Spain.

The European Commission defines wage gap as the difference between the earned wages by workers of both genders, which are reckoned on the basis of the average difference between the gross incomes per hour for all workers.

This research comes from the Spanish and European society concern, on the wages differences which are perceived by men and women in the 21st century. De Lucio et al. (2012), points that this wage gap has been historically preserved in time, without the market nor the authorities have been able to correct it. Therefore, it is a persistent fact which has not solution found yet.

The International Labour Organization in 2013 estimated that the global wage gap was 22.9%, it means that women earned on average a 77,1% of what men perceived.

In the European case, these differences were significantly reduced. A carried out study by the European Commission in 2014 using the data provided by the survey of wage structure (EES) prepared by Eurostat, coded the wage gap at the community level around 16,4%, representing seven percentage points less when compared with wage differences worldwide. In the analysis that has been done in the present work on a sample of 722 individuals and considering the wage per hour, was observed that the average remuneration per worked hour for women in Spain was 13,4% lower than that of men.

This indicates that certain progressions are taking place in the Spanish labour market so that over time remuneration of both genders end up matching.

We can say we have an up to date problem, which acquires special relevance when the preparation or training that exists in the different groups to enter the labour market is debated, by and large it is due to women get better academic results than men at school and University.

European Commission (2014) says that on average, in 2012, over an 83% of young women in the European Union were enrolled at least in secondary education whereas only 77,6% of men did so. What is more, women represent over a 60% of the graduated population in the EU.

According to LCA and so the collected data on different levels of Spanish education, shows that women who have a higher education, represents a greater percentage than men percentage with the same level of studies.

7. Conclusions

This study analyzes the existence of wage discrepancies and discrimination that support different members of companies in the workplace by and large, it is done through the explanation of the overcrowding model and the different theories about discrimination. What is more, we can find the statistical analysis of the most important Spanish companies in order to find the roots and explanation of this wage gap that causes women to receive a lower wage than that of men, despite having the same or better skills than they.

Even with the progressive integration of women in the workplace and its role in this environment, differences between both genders still appear currently, especially when it comes to giving wages back. This analysis studies the disparities amid women and men using data from different hypothesis with the main target of analyzing and understanding the effects of the wage gap in diverse parts of the salary compensation and various occupation groups. What is more, the information is gathered based on nature and the type of carried work out.

Indeed, the study is founded on the application of two methods, the first one is the explanation of the gap by the estimation of linear regressions, the second one is the study of one of the main discriminatory theories which is the overcrowding model, also to understand why these wage differences take place.

The acquired conclusions by regression for the different groups of occupation show that the proceeds based on several characteristics of the analysis differ by gender and are modified along the distribution.

A clear example is that the wage gap between women and men is accentuated when the responsibility and the charge entail a wages increase in a higher amount for men than women get.

On the other side of the coin, the conclusions that we get from the disintegration of the wage difference over yields and the related side to the features of the individual, are distinguished by the kind of work to which we make allusion.

More specifically, the wage gap in not by hand tasks and proficient activities is due to a refusal or discrimination in the remuneration which is better paid to the male gender than the female despite being qualified at the same level. But in the higher distribution side, the man efficiency is higher than the woman is, it causes a major disparity in wages.

Nonetheless, as in the not by hand and the little relevant activities as in the manuals and competent ones, the performance outcome decreases until it reaches negative values in the distribution process. That's why if women were paid like men, they would receive a higher salary than actually receive despite being qualified with equal performance. In these situations the woman has items in less favourable characteristics, especially in the highest segment of the distribution, in which men would receive a higher salary than women that is caused by their different productivities.

The wage gap elements are so different, for this reason, it would be interesting to do a study of various pay benefits between genders. It is also interesting to use different methods so as to generate more added decompositions over disparities in terms of salaries and to compare results.

Conclusively, while the wage gap is real and also notable in Spain as also in Europe, one of the pursued targets by EU is about decreasing it. This purpose began to develop thanks to the Treaty of Rome in 1957, which created policies and new rules that helped to search for gender equity.

This study observes from a different analysis of the senior officials, managers and leaders, the wage differences that take place in the different Spanish companies and other countries. There are many examples of executives who try to promote gender equity, but not all of them. An important fact is that the wage gap is caused in a 14% by the skills that the members of both genders show in Spain, but the remaining 86% is due to the different way to remunerate employees for gender.

That's why in a more equitable society the percentages and poverty index are diminished, besides the increased income for women, the generation of better workplace, the training of employees with motivation, the improvement of performance and the effectiveness of an organization, and the list goes on as, for instance, the positive collaboration with women in the workplace in order to recover and carry out economic situations of development. The obtained yields due to the reduction of the differences between men and women are founded on the reduction of the wage gap.

Thanks to the wage gap analysis and this work largely, we have seen that the difference is more important than what the society provides and that the problem has no solution in the short term, but all in all, this is a process in which all parties that make the different entities up and society in general have to be involved.

That's why both senior positions in companies and administrations should take further action to promote gender equality, and thus achieve a more equal society, since there are qualified women receiving lower wages than their fellow of the opposite gender just by the fact of being a woman.

In short, it is confirmed that there are still a great discrimination and rejection in the scope of work in Spain these days, which do not let women get its employment peak in equal circumstances than men.

8. Bibliography

- Aigner, D. J., & Cain, G. G. (1977). Statistical theories of discrimination in labor markets. *ILR Review*, 30(2), 175-187.
- Baquero, J., Guataquí, J., & Sarmiento, L. (2000). Un marco analítico de la discriminación laboral. Teorías, modalidades y estudios para Colombia. *Borradores de investigación. No. 8 (Junio de 2000)*.
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special preferences to education*. National bureau of economic research.
- Becker, G. S. (2010). *The economics of discrimination*. University of Chicago press.
- Bonin, H., Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2007). Cross-sectional earnings risk and occupational sorting: The role of risk attitudes. *Labour Economics*, 14(6), 926-937.
- CONAPRED. *Discriminación e igualdad*. 2003.
http://www.conapred.org.mx/index.php?contenido=pagina&id=38&id_opcion=15&op=15 (último acceso: 5 de Marzo de 2017)
- Escot Mangas, Lorenzo, José Andrés Fernández Cornejo, Álvaro Herráez González, Miguel Infestas Mederuelo, y Tania Martínez Dubla. Discriminación salarial de género en el mercado laboral español: un análisis comparativo por comunidades autónomas. Universidad Complutense de Madrid, Madrid: Fundación Dialnet, 2006, 321 - 368.
- Fernández, D. (2016). *Los jefes de los grupos del Ibex ganan 96 veces más que sus empleados*. El país economía.
- González, M. Escalonilla. (2016). *Brecha salarial entre hombres y mujeres: un análisis por cuantiles*. Universidad de Oviedo.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., ... & Henrich, N. S. (2005). "Economic man" in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavioral and brain sciences*, 28(06), 795-815.
- Lang, K. (1986). A language theory of discrimination. *The quarterly journal of economics*, 101(2), 363-382.
- Larrañaga Sarriegui, M. (2000). Análisis teóricos de la desigualdad. Area temática 3. Economía feminista.
- Martínez Jasso, I., & Acevedo Flores, G. J. (2004). La brecha salarial en México con enfoque de género: capital humano, discriminación y selección muestral. *Ciencia uanl*, 7(1).
- McConnell, C. R., Macpherson, S. L., McConnell, D. A. C., Brue, S., McPherson, D., McConnell, C. R. R. M., ... & Brue, S. L. (2007). *Economía laboral* (No. 331.101. 26). McGraw-Hill,.
- Niederle, M., & Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much?. *The Quarterly Journal of Economics*, 122(3), 1067-1101.

S. Blinder, Alan. «Wage discrimination: reduced form and structural estimates.»
The Journal of Human Resources VIII, 1973: 430-458.

Zabalza, A., & Tzannatos, T. (1988). *Las mujeres y la igualdad salarial: consecuencias de la legislación antidiscriminatoria sobre los salarios y el empleo de las mujeres en Gran Bretaña*. Ministerio de Trabajo y Seguridad Social.

9. Annex

Table 5.2.3. Differences in the companies ratios of the IBEX 35

FIRM	FIRST DIRECTIVE RATIO			
	2015	2014	VARIACIÓN	% S/2015
ABG	173,9	193,4	-19,5	-10,1%
ABE	249,8	115,8	134	115,6%
ANA	130,3	131,6	-1,3	-1%
ACS	194,2	148,9	45,3	30,4%
AMS	17,4	3,3	14,1	425,5%
POP	63	42,8	20,2	47,2%
SAN	78,4	77,6	0,8	1%
SAB	319,9	162,3	57,6	35,5%
BKIA	9,9	10,6	-0,7	-6,6%
BKT	17,2	15,6	1,6	10,3%
BBVA	173,3	128,3	45,1	35,1%
BMI	28,6	27,5	1,2	4,3%
CABK	264,4	43,5	220,5	506,9%
DÍA	83,8	87,4	-4,1	-4,6%
ENG	34,5	34,3	0,2	0,7%
ELE	77,5	76,4	1,1	1,4%
FCC	197,4	132,5	64,9	49,0%
FER	181,3	172,7	8,6	5%
GAM	37,5	19,1	18,4	96,5%
GAS	77,6	75,5	2,2	2,9%
GRF	30,5	30,8	-0,3	-0,9%
IAG	122,6	40,2	82,4	204,7%
IBE	153,7	132	21,7	16,6%
ITX	543,4	461,6	81,9	17,7%
IDR	100,3	131,9	-31,6	-24%
JAZZ	1267,6	90,7	1176,9	1297,9%
MAP	60,9	62,6	-1,7	-2,7%
TL5	24,7	23,4	1,3	5,6%
OHL	64,6	70,9	-6,3	-8,9%
REC	12,8	12,7	0,1	0,6%
REP	74,7	108,6	-33,9	-31,2%
SACYR	154,9	97,6		
TRE	21,8	27,8	-5,9	-21,3%
TEF	1049,1	175,8	873,3	496,7%
TOTAL IBEX 35	158,2	87,3	70,9	81,2%

Source: own elaboration from El Confidencial (2016)