Play Fair, Pay Fair: A systemic model of pay system-related factors contributing to gender-based pay differences

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Abstract

Equal pay is not just an important value in working life, but an obligation of several national and international laws and regulations. Nevertheless, women still earn on average about 17% less than men do in Finland. In this study, the gender pay gap is viewed from the organizational perspective. I have studied which factors affect the gender equality of the organizations’ pay systems and their implementation. Identified factors form a systemic model, which does not just highlight the factors and practices underlying the gender equal pay system, but also the relationships and dependencies between them. The research questions are: 1) Which factors (like actors, structures and mechanisms) have empirically been proven to affect the equality of the organizations’ pay systems, and 2) What kind of dependencies and interrelationships exist between the identified factors?

The data consists of previous studies on gender equality in organizations’ pay systems published in international peer-reviewed scientific journals. After exclusion criteria, 18 international peer-reviewed articles were included in the study. The data was analyzed by using the qualitative meta-analysis. The analysis contained four different stages: 1) creating a conceptual framework, 2) clustering the data, 3) synthesizing the results, and 4) creating the systemic model.

The results showed that different pay systems produced different gender pay differentials. Even the job evaluation, which has been considered one of the most important tool to promote pay equality, produces a gender pay gap. In addition, certain performance-based pay systems, such as piece and reward rates, tend to work against women. Women also receive less reward based on performance evaluation than men do, even if they perform equally. However, the relationships and dependencies found in the systemic modeling show that the reason is not so much in the pay systems themselves and not even in the implementation of the pay systems. On the contrary, it seems that pay systems, pay setting and other pay practices reproduce the traditional gender roles and the undervaluement of female work resulting in lower wages for women. The situation may be that many organizations unconsciously repeat the existing gender pay gap in their pay practices.

The results prove that in order to reduce the gender pay gap, organizations should strive to create a climate that promotes equality in all their actions. Furthermore, organizations should also develop transparent practices to support the implementation of the pay system, and ensure that decision makers are held accountable in making fair and equal decisions at the various stages of the pay determination.

Keywords pay equality, pay systems, systemic modelling, qualitative meta-analysis
Tiivistelmä


Tutkimuksen aineisto koostuu palkkajärjestelmien tasa-arvoisuutta tutkineista artikkeleista, jotka on julkaistu kansainvälissä vertaisarvioitavissa tieteellissä julkaisuissa. Ennalta määritettyjen kriteereiden perusteella tutkimukseen sisällytettiin 18 kansainvälistä vertaisarvioitua artikkelia, joissa käsiteltiin organisaation palkkajärjestelmiä ja sukupuolten välistä palkkaerosta eri näkökulmista. Aineisto analysoitiin käytännöllä kvalitatiivista meta- analyysistä. Analyysi sisälsi neljä eri vahetta: 1) käsitteellisen kehyksen luominen, 2) aineiston ryhmittely, 3) tulosten synteesi ja 4) systeemisen mallin luominen.


Tutkimuksen perusteella on tärkeää, että organisaatiot tulevat tietoisiksi tästä palkkajärjestelmien liittyvästä ”sisäänkäyntituesta” eriarvoisuudesta, ja pyrkivät edistämään tasa-arvoon kannustavia ilmapiirioita kaikessa toiminnassaan. Lisäksi organisaatioiden olisi luotava mahdollisimman läpinäkyviä toimintaperiaatteita palkkajärjestelmän soveltamiseen sekä varmistettava, että palkkajärjestelmän soveltamiseen osallistuvat tahot tekevät tasa-arvoisia päätöksiä.

Avainsanat: palkkatasa-arvo, palkkajärjestelmä, systeeminen mallinnus, kvalitatiivinen meta-analyysi
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Sundsvall, 8 June 2019
Virpi Liinalaakso
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1. Introduction

1.1 Background

This licentiate thesis focuses on the gender equality of the organizations’ pay systems. The aim is to find out which factors and mechanisms effect on the equality of the pay systems at the organizational level and why. This study views pay system as a process, which includes both the pay structure and its implementation methods (Mulvey, LeBlanc, Heneman & McInerney, 2002). Both can involve factors and practices that are not gender neutral, and may ultimately lead to unjustified differences in pay (Wright, 2011). This study is carried out from the perspective of systemic thinking (see e.g., Senge, 1997). My goal is to identify key factors of a systemic model, which would bring together previous research evidence from different sources. The model provides a cohesive framework, which highlights not just the factors and mechanisms behind the gender equality of the pay the pay system at the organizational level, but also their interrelationships and dependencies.

The subject is topical and significant also on the societal level. Objectives to promote gender equality in pay appear not just in the public debate, but also in the government programmes\(^1\) as well as in the framework agreement of the government and central labour market organizations\(^2\). The Finnish Government and the central labour market organizations have committed to promote equal pay and launched the Equal Pay Programme in 2006, which aimed at reducing the gender pay gap to 15 per cent by year 2015\(^3\). However, this was not achieved. The means taken to achieve the goal included, for example, improving the contract policy, decreasing the gender-based segregation of occupations, supporting women’s career development as well as developing the gender equality of organizations’ pay systems. Because of these measures, the average pay gap between men and women narrowed from twenty per cent to seventeen per cent, meaning that the target was not fully achieved during the programme. Since then, the Finnish Government and the central labour market organizations have agreed on a new pay equality target, according to which the

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\(^1\) Programmes of Prime Ministers Vanhanen’s, Kiviniemi’s, Katainen’s, Stubb’s and Sipilä’s Governments.

\(^2\) Framework Agreement (2011-2013) by the central labour market organizations of Finland to ensure competitiveness and employment. The latest negotiations to reach a new framework agreement (the so-called Competitiveness agreement) between Prime Minister Sipilä’s government and the labour market organizations lasted over a year and failed four times before it was finally signed in June 2016.

\(^3\) For more information on Equal Pay Programme, see the web pages: https://stm.fi/en/gender-equality/equal-pay.
average pay gap between men and women should be narrowed down to at least 12 per cent by the year 2025 (Ministry of Social Affairs and Health, Press Release 64/2015). According to the statistics for 2017, the gender pay gap is still around 16.7% per cent, but the trend seems to be correct.

Equality between men and women is one of the most fundamental human values and a number of international agreements and conventions regulates it. When it comes to pay and remuneration, it goes back to 1951 when the principle of equal pay became a part of the United Nation’s international human rights law by ILO Equal Remuneration Convention. Pay equality is also one of the European Union’s founding values as the principle of equal pay for equal work was named as a key principle when the European Economic Community was founded in 1957. At the national level, the principle of equal pay is covered with the Act on Equality between Men and Women (232/2005). The act does not just prohibit all discrimination on the grounds of gender in relation to pay, but also obligates all employers to promote equality and non-discrimination purposefully and systematically.

Regardless of any legislation on the subject, unequal pay remains an unfortunate reality both worldwide and here in Finland. On average, women in the OECD countries earn around 13.8% less than their male counterparts do (OECD, 2017), while the same figure in EU is 16.2% (European Comission, 2018). The gender pay gap varies across Europe, being lowest in Romania (5.2%), Italy (5.3%), Luxembourg (5.5%), Belgium (6.1%), Slovenia (7.8%) and Croatia (8.7%), and widest in Estonia (25.3%), Czech Republic (21.8%), Germany (21.5%), United Kingdom (21.0%) and Austria (20.1%) (ibid.). In Finland, the gender pay gap is an average around 17% depending on the source (Official Statistics of Finland, 2018; European Comission, 2018). It is very usual that the percentages on gender pay differentials may vary slightly depending on the source and the method of calculation.

The numbers may seem confusing because in a few countries that may not be traditionally considered equal, the gender pay gap is small. Thus, it is good to remember that the gender pay gap is a complex phenomenon. In order to interpret the percentages of the pay gap, also other indicators of women’s working patterns must be taken into account. For example, in countries where women do not participate in the labour force (e.g. Italy), there are no "markets" for the gender pay gap. On the other hand, in countries with a high level of segregation, such as Finland, also the gender pay gap is generally high. (Boll & Lagemann, 2018.)

My own interest in the gender equal pay has its origins in research and development projects as a part of the before mentioned tripartite Equal Pay Programme, in which I have worked as a Project Manager and Researcher. Within the projects, I had an excellent opportunity to explore various organizations and their pay systems. I saw that the organizations were very heterogeneous, and the equal pay challenges they faced were complex. In many

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5 According to the Statistic Finland the pay gap is 16.7% (situation at 12/2018) and according to the Eurostat the percentage is 17.4 (situation at 3/2018).
organizations, gender segregation between tasks was very strong, and this had a significant impact on the gender-based pay differences. Furthermore, it was often the case that different personnel groups within an organization have different collective agreements and different pay systems, which placed the groups in an unequal position from the very beginning. I also found that it was difficult for the organizations to detect gender inequalities in their own operations. In most cases, this was because the organizations did not have enough knowledge about equal pay nor the expertise to build a pay system that promotes equal pay. For example, “Gender Equality into Pay Systems – the Effectiveness of Job, Competence and Performance Evaluation in Finland” project revealed that organizations often simply understood equal pay to be same pay for the same job, and for that reason, gender differences in jobs that are different but equally demanding were left unnoticed. Another surprising finding was the fact that job evaluation was often assumed equal as itself, and therefore the actual demands of the jobs were not evaluated analytically at all. (Ikävalko, Karpinnen, Kohvakka, Koskinen, Nylander & Wallin, 2011.)

1.2 Purpose and research questions

Scholars from all around the world have been particularly interested in the gender pay gap. For example, economists and sociologists have studied the structural causes and economic consequences of the gender pay gap, while psychologists and gender researchers have drawn attention to the social construction of gender roles. Each discipline brings its own point of view to the endeavour of explaining gender-based inequalities in the workplace. Although the researchers have made considerable efforts to clarify the mechanisms that shape the gender pay gap, remarkably few studies have been done on such employer practices - like pay systems - that might produce discrimination and thus lead to gender pay differentials in organizations (see e.g., Baron, 1984; Bielby & Baron, 1986; Reskin, 1993).

This study helps to fill this significant gap in the literature on organizations and inequality by investigating the role of organizations’ pay systems in shaping gender inequalities in pay. My aim is to find out which factors, mechanisms and circumstances effect on the gender equality of the organizations’ pay systems and why. The research questions are formulated as follows:

1. Which factors (like actors, structures and mechanisms) have empirically been proven to affect the equality of the organizations’ pay systems?

2. What kind of dependencies and interrelationships exists between the identified factors?

As the result of my study, there will be a systemic model of actors, structures and practices that are known to influence the gender equality of pay systems at the organizational level.
This thesis has a clear scientific interest, because research on the gender equality of the organizations’ pay system is not just scarce but also the results of these studies are fragmented and scattered. Individual studies and projects have been accomplished from different points of view depending on the key issues prevalent at that time as well as researchers’ or research groups’ – and perhaps in some cases sponsors’ – own interests. This has led to a situation where we still do not have a clear overall picture of the pay system related factors that may lead to gender-based pay differentials, and to which organizations themselves can influence in order to promote their own pay equality. Based on the approach of systems thinking, it is possible to gather previous research findings together and create tools that help organizations to promote gender equal pay.

This study has also a great practical value because organizations need tools and methods for promoting equal pay within the pay system they use. Increasing organizations’ expertise in this area is also necessary because in the future issues concerning pay are going to be more and more agreed upon locally (Action plan for the implementation of the key project and reforms defined in the Strategic Government Programme, 2016). Equal pay is a basic condition for a fair, good quality and productive working life, and there will be fewer opportunities for the interest groups of the labour force to promote equality in the future. The promotion of equal pay must, therefore, be taken to the same level as the wage formation: to the workplaces. For this reason, there is a real need for a research that focuses on seeking concrete ways to promote gender equality in the Finnish workplaces.

1.3 Structure of the thesis

This thesis consists of five chapters. This introductory chapter provides an overview of the thesis as well as its main objectives and legitimacy. Drawing on the literature and previous research, chapter 2 presents the theoretical framework of the thesis. The next chapter (chapter 3) discusses research design, whilst the subsequent chapter (chapter 4) presents the findings of the thesis. The final chapter (chapter 5) shows the contribution of the study and discusses thesis’ implications and limitations, and ultimately presents the action plan for my doctoral thesis.
2. Theoretical background

This chapter presents the theoretical background as well as the key concepts of the thesis. I start with the key concepts by defining the most essential elements of this thesis: pay (2.1.), pay system (2.2.), gender equality (2.3.) and equal pay (2.4.). Then, I go more deeply to the actual theoretical background, and describe gender pay gap and its current situation in the labour markets as well as reflect on what factors are believed to contribute the gender pay gap (2.5.). Finally, in the last paragraph I draw the theoretical background together, and clarify how all the factors presented are related to my study (2.6.).

2.1 Pay

Rubery (1997) defines pay\(^6\) as the price for allocating labour within a labour market, as a prime source of social status and standards of living, as well as a negotiated outcome of the contested employment relationship. This contestation takes place at both the macro-institutional level through wage and price setting arrangements, and at the organizational levels, where pay systems and practices form one factor in the wage - effort bargain. Therefore, pay is examined from the economic, sociological, institutional and organizational perspectives. (Rubery, 1997.)

Finnish legislation defines pay to be a remuneration that is to be paid to an employee in return for performing work for an employer under the employer’s direction and supervision (Employment Contracts Act, 55/2001). Pay includes all forms of financial compensation that an employee receives in return for his or her work contribution. Pay may be either monetary or non-monetary. Monetary pay is received directly in the form of cash (e.g., wages, merit increases, incentives), and non-monetary pay is received indirectly through benefits and services (e.g., pensions, health insurance, paid time-off). There are countless of ways to distribute pay, and most employees receive their pay in more than one way, for example, in the form of a regular monthly pay and a company mobile phone as a fringe benefit. (Milkovich & Newman, 1996; Hakonen, Hakonen, Hulkko & Ylikorkala, 2005.)

\(^6\) Other terms used in the same context as pay are compensation, remuneration, wage and salary.
2.2 Pay system

As we learned in the previous subchapter, one way to define pay is to view it as a negotiated outcome of the wage - effort bargain. At the organizational level, this negotiated outcome is implemented through pay systems (Rubery, 1997). Pay system\(^7\) is an entity, which consists of the basis of the used pay methods as well as the pay policies, which guide the implementation of the pay system. Furthermore, the pay system also includes all the defining processes and practices, such as how to design the system, how to evaluate and later improve it, as well as how to implement and use the system (Milikovich & Newman, 1996; Mulvey, LeBlanc, Heneman & McInerney, 2002; Hakonen et al., 2005).

The basis of pay describes, according to its name, the grounds for the determination of pay. The underlying idea is that employees’ work contribution can be measured and valued as inputs, whereby the pay depends on how much time and what kind of knowledge and skills the employee gives to his or her employer. Work contribution can also be measured and valued according to how well and efficiently employees use and utilize their knowledge and skills. Furthermore, also the results or outcomes of the work can be used when measuring and valuing the work contribution. Pay is therefore based on: 1) the inputs that employees place in their work, 2) the manner in which employees make use of their inputs, and 3) the achievements and the results of the employees (Karppinen, Huhtanen, Juvonen, Jämsén, Lahti, Maaniemi & Tarumo, 2005).

In Finland, the pay is usually based on the job and personal components. Job component is determined by the demands of the job, and the personal component by the competence and performance of the employee (e.g., Kannustavaan palkkakse, 1996; Liinalaakso, Moisio & Tiibonen, 2016). Both pay components are based on evaluation, and the term “evaluation-based pay system” is widely in use in Finland. These evaluation-based pay systems are often believed to promote equal pay, and they are part of both international and national equal pay policies (e.g., ILO, 1951; Ministry of Social Affairs and Health, 2007).

2.3 Gender equality

Gender equality means that everyone is entitled to receive equal treatment and not to be discriminated based on their gender (ILO, 1958). In practice, the objective of gender equality allows people to require equal treatment throughout a society, a workplace, or any other policy-designated sphere. Gender equality is achieved when women and men have the same rights and opportunities in all sectors of the society, including economic participation and decision-making, and when different behaviours of women and men, as well as different aspirations and needs, are considered equally valuable. (Oelz, Olney & Tomei, 2013).

\(^7\) In addition, the terms wage system and compensation system are used in the same context.
Inherent to the principle of equality between men and women, or gender equality, is the concept that all human beings, regardless of sex, are free to develop their personal abilities, pursue their professional careers and make choices without the limitations set by stereotypes, rigid gender roles and prejudices. Gender equity is used in some jurisdictions to refer to fair treatment of women and men, according to their respective needs. This may include equal treatment, or treatment that is different but considered equivalent in terms of rights, benefits, obligations and opportunities.” (UN, 2014, 35.)

From an organization point of view, the equal treatment of women and men is regulated by the Act on Equality between Women and Men (915/2016). It states that every employer must promote equality between women and men within working life in a purposeful and systematic manner. To be exact, the law determines the following:

“In order to promote gender equality in working life, the employer must, with due regard to the resources available and any other relevant factors,

1. act in such a way that job vacancies attract applications from both women and men;
2. promote the equitable recruitment of women and men in the various jobs and create for them equal opportunities for career advancement;
3. promote equality between women and men in the terms of employment, especially in pay;
4. develop working conditions to ensure they are suitable for both women and men;
5. facilitate the reconciliation of working life and family life for women and men by paying attention especially to working arrangements; and

2.4 Equal pay

Equal pay means that men and women working for the same employer and performing equal work must receive equal rewards. This applies to all payments and benefits, including basic pay, non-salary payments, bonuses and allowances. (ILO, 1951.)

The right to equal pay is based on several international agreements and conventions. For the first time, it was acknowledged in the opening lines of the ILO Constitution, which equates equal pay as a primary element of social justice. However, the first international document on this issue was The Equal Remuneration Convention No. 100 (1951), when the principle of equal pay became a part of the United Nation’s international human rights law (Oelz, Olney & Tomei, 2013). Furthermore, pay equality is also one of the European Union’s founding values, and the principle of equal pay for equal work was named as a key principle when the European Economic Community was founded in 1957. Currently, the principle of equal pay is enshrined in Article 157 of the Treaty on the Functioning of the European Union (TFEU). At the national level, the principle of equal pay is covered with the Act on Equality between Men

It is worth mentioning – especially since this seems to be often unclear – that the notion of equal pay does not apply only for men and women who do the same or a substantially similar job, but also when they do work that is completely different but still of equal value (Löfström, 1999).

This brings us to two commonly used phrases, that is to say, equal pay for equal work and equal pay for work of equal value. Both of these principles are designed for achieving pay equality. On several occasions, these terms are used interchangeably. This may be misleading, because the phrase “equal work” is often understood to mean only two identical or substantially similar jobs. In order to clarify that the phrase does not refer only to identical or similar jobs, it was later clarified as equal pay for work of equal value. However, generally both of the terms refer to the situation where the same or similar jobs are paid equally as well as jobs that are not the same, but are of equal value, are paid equally (Löfström, 1999; Oelz et al., 2013).

Because the term equal value is so important in the context of this thesis, it is necessary to look at it more closely.

2.4.1 Equal work and work of equal value

Concept of equal work addresses situations in which men and women do the same work. However, the concept does not apply only to exactly the same jobs, like two nurses or two machine operators on the same line; instead, it is enough that the jobs are substantially similar (see e.g., Acker, 1990). The concept is also called “like work”. According to British Equality and Human Rights Commission (2018), this means jobs that involve similar tasks, which require similar skills, and any differences in the work are not of practical importance. According to the Canadian Pay Equity Commission (2018), jobs are substantially the same when they involve about the same levels of skill, effort, responsibility and working conditions.

The definition of work of equal value is much wider than the above-mentioned equal work. This definition also includes jobs that are completely different but of equal value. The idea of the value of work is based on the assumption that every job has an inherent value that is independent of the market forces, and this value can be measured with reasonable accuracy (Arnault, Gordon, Joines & Phillips, 2001). In general, it is recommended to use a gender-neutral job evaluation scheme to determine the value or worth of the job (Acker, 1990). The evaluation must be based on the actual duties of the employees, not the job title or the job description agreed in the contract of employment, if these differ from the actual situation. The employee's personal characteristics or performance at work should not affect the evaluation of whether the jobs being compared are the same or of equal value (Ombudsman for Equality, 2018).
Both of these concepts are described clearly in national and EU laws, as well as in International Labour Organization’s (ILO) recommendations. However, there are only limited instructions on what measures should be used when evaluating the value of work. ILO (2008) recommends the following criteria: qualifications, responsibility, effort and working conditions. European Commission (2014) states that member states should clarify the meaning of work of equal value in their national legislation and use objective criteria when evaluating the value of work (EC, 2014a). In Finland, the criteria is not yet regulated, however the Ombudsman for Equality recommends using criteria such as skill, responsibility, stress and working conditions (Ombudsman for Equality, 2018).

### 2.5 Gender pay gap

#### 2.5.1 Definition

There are different ways of measuring the pay gap and different ways of expressing it. For example, the European Union defines the **gender pay gap** as the relative difference in the average gross earnings of women and men within the economy as a whole, while the United States defines it as the ratio of women’s to men’s median yearly earnings among full-time, year-round workers (European Commission, 2014b). Statistics Finland, for its part, uses the definition of **regular wages**, which includes the following:

- basic pay (also term base pay is used in the same meaning)
- supplements based on duties, professional skill, years of service etc.
- supplements based on location and conditions of workplace
- premium pay
- performance-based pay components for salaried employees, workers’ performance-based earnings
- taxation value for fringe benefits

Regular wages do not include one-off items, such as holiday and performance bonuses (Statistics Finland, 2018).

These different definitions may cause confusions in the interpretation and comparison of the numbers. In this thesis, mainly the European Union’s definition and figures are used. When appropriate based on the context, the Statistics Finland numbers are used. The gender pay gap is expressed as the percentage of men’s earnings. It includes wages or salaries paid directly to the employee before reducing income tax and social security contributions.

The gender pay gap is often divided into **unadjusted** and **adjusted** pay gaps. The unjusted pay gap does not take into account all of the factors that affect the gap’s existence, such as age, differences in amount of work experience, education, job sector, position or hours worked. According to several scholars

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8 The division is based on the so-called Oaxaca technique, which enables decomposition of gender pay gap in terms of human capital variables (Oaxaca, 1973).
and authoritatives, these factors resolve from about 60 % to 75 % of the pay gap, depending on the source. The rest of the pay gap, which is referred to as adjusted pay gap, refers to discriminatory factors, such as cultural and societal attitudes, government and employer policies, managerial behaviour etc. It covers about 25 % to 40 % of the pay gap (Oaxaca, 1973; Blau & Kahn, 2007; 2009; European Commission, 2014b).

### 2.5.2 Current situation

Although the overall gender pay gap has narrowed in most countries\(^9\) in the last decade\(^10\), the situation is still problematic. In March 2018, the average hourly earnings for women were 16.2 % lower than for men in the EU. The highest gender pay gap in the EU was in Estonia (25.3 %) and the lowest in Romania (5.2 %). In Finland, the same figure is an average of 17.4 % (Eurostat, 2018). A detailed diagram of the gender pay gap across Europe is shown in Figure 1.

![Figure 1. The unadjusted gender pay gap across EU (Eurostat, Gender pay gap statistics, 2018, available online\(^{11}\)).](image)

### 2.5.3 Factors behind gender pay gap

The persistence of gendered pay inequality raises the question to what sustains it. The gender pay gap has been intensively investigated for several decades, and previous research has made significant contributions in explaining the causes behind the overall gender pay gap.

As I previously wrote, Rubery (1997) viewed at pay from four different perspectives: the economical, the sociological, the institutional and the organizational perspectives. Furthermore, Rubery argues that each of these

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\(^9\) The situation has gotten better in most of the countries, however, in some countries (like Hungary and Portugal) the gender pay gap has actually been widening.

\(^{10}\) For example, based on the data from Statistics Finland, the gender pay gap has been narrowed by approximately 3 % between 2000 and 2013 (Official Statistics of Finland, 2014).

perspectives brings their own contribution to the gender pay gap. For example, gender pay differences can be expected to arise as follows:

- less productive attributes or lower returns to attributes lead to lower price for female labour (economical perspective)
- women have a lower social status and/or are presumed to have a lower income needs than the male breadwinners (sociological perspective)
- women’s segregation into less organized organizations and occupations, as well as their underrepresentation in high-paid jobs (institutional perspective)
- organizations’ job classification/evaluation systems as well as discretionary pay elements are gender biased (organizational perspective).

Table 1 summarizes Rubery's perspective on the gender pay gap, with an additional perspective - psychological. I decided to add the psychological point of view to Rubery's classification, as the impact of, for example, women's attitudes on gender pay differentials have recently attracted researchers to an increasing extent (see e.g., Fortin, 2008). Even though these individual attributes are traditionally linked to the economical human capital theory, the perspective is clearly more psychological than economical. Thus, I find it clearer to address the psychological factors separately. This classification also clarifies the changing trends in research on gender pay differentials throughout the past decades. In the 1970s and early 80s, the focus was mainly on the economic aspects. Since then, researchers also became interested in institutional and sociological perspectives. As the understanding of the phenomenon increased, also the importance of the individual's attitudes as well as the organizational level factors began to attract researchers.

Next, I will present the factors affecting gender pay differentials, as categorized and summarized in the table 1. The summary is not entirely profound, but it does, however, contain all the most important aspects, especially considering the perspective of this study.
Table 1. Most commonly cited reasons behind gender pay gap, categorized by its perspective (adapted from Rubery & Grimshaw, 2014, 3-6; modified to fit the perspective of this study).

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Real life implications effecting gender pay gap</th>
</tr>
</thead>
</table>
| Economical perspective | Women invest less in education (Polacheck, 1981; Becker, 1985)  
|                      | Women have less labour market experience (Mincer & Polacheck, 1974; Kilbourne, Farkas, Beron, Weir & England, 1994)  
|                      | Women suffer from human capital decay due to interruptions (Becker, 1985; Hochschild, 1975)  |
| Institutional perspective | Impact of laws, regulations and national movements on gender pay gap (Acker, 1990; Steinberg, 1990)  
|                      | Impact of trade unions and collective bargaining on gender pay gap (Blau & Kahn, 2000; Elvira & Saporta, 2001) |
| Sociological perspective | Traditional family roles: women are carers, men are breadwinners (Greenhaus & Beutell, 1985; Rothbard, 2001)  
|                      | Women's work and skills are undervalued (Jacobs & Steinberg, 1990; Kilbourne, England, Farkas, Beron & Weir, 1994; Bellas, 1994) |
| Organizational perspective | Women are disadvantaged in hiring and promoting (Anulampalam, Alison & Bryan, 2007; Albrecht, Björklund & Vroman, 2003; Bertrand & Hallock, 2001; Bjerk, 2008)  
|                      | Women do not have access to organizational power structures (Hultin & Szulkin, 1999) and have weaker social networks (Belliveau, 2005).  
|                      | Gender is embedded in pay systems and pay elements (Chauvin & Ash, 1994; Koskinen Sandberg, 2017) |
| Psychological perspective | Women are satisfied with a lower pay because they compare their pay with other women in similar occupations (Auspurg, Hinz & Sauer, 2017)  
|                      | Women believe they deserve less (Major, McFarlin & Gagnon, 1984)  
|                      | Women lose in regards of wages because of the differences in psychological traits (Manning & Swaffield, 2008; Reuben, Sapienza & Zingales, 2015) |

**Economical perspective**

Becker's study on gender differences in occupational structure in 1957 started the research on the economics of discrimination, and at first, the gender pay differentials was studied merely from economical perspective alone. Economists based their arguments on the so-called neoclassical human capital theory, according to which pay differentials are based on gender-specific factors in personal qualifications (Blau & Kahn, 2007). Of these gender-based differences, especially the following aspects are believed to be strongly related to gender-based pay differentials: women invest less in education, women have less labour market experience, and women suffer from human capital decay due to interruptions. The theory of human capital assumes that the willingness of individuals to invest in education and skills acquisition is based on the expected return on their investments. Because women have more career breaks (especially because of family responsibilities), they are less likely to benefit from their contributions, and are therefore not expected to invest in education. Moreover, companies are unlikely to hire women because they anticipate less return on their investments based on the before mentioned arguments. (Blau & Kahn, 2000.)

At that time, the assumption was that women made rational decisions to specialize in home production and childrearing on their own free will. Based on these decisions women reduce their investments in education and skill skills
acquisition, which in turn led to lower wages for women. Subsequently, women’s labour market status was also expected to be weakened not only because of the reduced length of work experience due to interruptions for childbirth and rearing, but also because it was assumed that human capital will rust or become obsolete unless it is utilized in paid work (Polachek, 1976; Becker 1985).

Later on, this perspective has been strongly criticized because it is based on the interpretation that women voluntarily make choices that are unfavourable for them in working life. Especially feminist writers have stressed that gender pay differentials cannot be explained without taking into account institutional barriers to opportunities and possible discriminatory practices of employers (Rubery & Grimshaw, 2014). Lips (2013) takes her criticism even further. She states that there is a fundamental flaw in the implementation of the traditional human capital model. That is an assumption that when comparing women’s and men’s contributions and compensation, it is possible to observe and measure them impartially. According to Lips (ibid.), it is not possible for men and women to participate in the working life under equal conditions, and to be judged fairly and without bias.

The criticism is well justified. According to beliefs of the human capital theory, the gender pay gap should narrow if women change their behaviour by investing more in the characteristics of human capital (Becker, 1985). However, this has not happened, even though women have overtaken men in education, are almost as experienced as men are, and have increased the continuity of their employment. Nowadays, education and work experience are believed to have less impact on gender pay differentials than before. Even economists have drawn their attention more towards issues such as unmeasured productivity differences, the lack of career orientation, and the lack of job choices for work-life balance (Rubery & Grimshaw, 2014).

Institutional perspectives
When it was noticed that changes in women’s education and experience did not eliminate the pay gap, the scholars gradually discovered that the gender pay gap was not explained by differences in human capital but, instead, how this human capital was rewarded. With this observation, it was understood that country-specific factors, especially the institutional environment, were important in explaining the gender pay gap. Later, several studies have suggested that different institutional arrangements have delivered positive results, and that they are related to unexplained gender pay gaps in a systematic way (see e.g., Whitehouse, 1992; Christofides, Polycarpou & Vrachimis, 2013).

As I have already pointed out in the introductory chapter, a number of laws and regulations require that women and men are to be paid equal pay for equal work or work of equal value. Furthermore, several efforts have been made to promote gender equal pay with various national movements and projects, such as the comparable worth -movement in Oregon, USA12. In Finland, a similar

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12 For more information on this perhaps the most famous equal pay movement, see, for example, Acker, 1989.
effort has been made through the tripartite Equal Pay Programme launched in 2006. Researchers have, of course, been interested in how effective these laws and national movements have been in promoting gender pay equality. The reasons for their effectiveness - or in most cases ineffectiveness - have been sought, among other things, from the surrounding factors (i.e., the context) and even from the way the laws as well as national recommendations has been written (see e.g., Gregory, 1999; Conley & Page, 2018 and Zeigler, 2006). Several studies have shown that both the laws and national movements are very dependent on the context in which they are implemented. In most cases, the effectiveness of the legislation as well as national recommendations are considered to be related to whether the pay determination is centralized or decentralized (see e.g., Whitehouse, 1992; Conley & Page, 2018; Daly, Kawaguchi, Meng & Mumford, 2006).

For example, a study on the gender pay gap in Australia, Britain, Japan and US for the period 1969-1976, showed that countries with centralized pay fixing systems and strong unions, such as Australia, were able to increase the relative pay of all women quickly during the 1970s. While in other countries, such as the United States, it was more difficult to change the gender pay ratio, even though they used the institutional structures they possessed. (Gregory, 2006.) Despite of the strong indications that centralized bargaining have had a positive impact on the gender pay gap, the evidence is not completely solid. For example, Daly, Kawaguchi, Meng and Mumford (2006) found that the decentralization of the Australian and British pay determination systems has not disadvantaged women in these countries. Furthermore, both Booth, Francesconi and Frank (2003) as well as Arulampalam et al. (2007) have shown that unions are not particularly eager to represent the interests of women, especially those who are at the bottom of the wage distribution.

Some researchers have also argued that the ineffectiveness of equal pay legislation is because the burden of affixing of being discriminated in pay lies on the individual woman's shoulders. For example, Smith (2011) states that in Australia, women are required to demonstrate that their work are as demanding as men's in order to be entitled to claim equal pay. Smith found that this approach was not working because state jurisdictions succeeded in developing innovative responses and explanations that overturned women's claims on the undervaluation of their work. Zeigler (2006), on the other hand, argues that the legal and professional costs of filing a claim, bearing in mind that the potential rewards to successful litigants are very limited, creates a system whereby filing complaints is not an economically sensible decision.

Several national movements promoting gender pay equality, such as the before mentioned comparable worth movement, often require the use of gender-neutral job evaluation system to measure the worth of the job. Thus, many of the studies investigating the effectiveness of these movements focus on the functionality of the job evaluation system in use. One of the clearest findings related to these methods is the fact that the job evaluation methods are often accompanied by the undervaluation of women's work and skills (see e.g., Bellas, 1994; Jacobs & Steinberg, 1990). For example, Koskinen Sandberg (2017) refers
in her research to the concept of institutionalized undervaluation, meaning that the undervaluation of women's work is embedded in the formal pay determination structure. The undervaluation of women's work and skills is discussed in more detail in the subchapter of the sociological perspective, and the job evaluation systems are discussed in more detail in the subchapter of the organizational perspective.

**Sociological perspective**

From a sociological point of view, two aspects are particularly highlighted as producers of the gender pay gap. One of these is the undervaluation of women's work, which was already shortly bypassed in the previous subchapter. The second one is traditional gender roles, where women are seen as carers and men as breadwinners.

According to the gender role theory, gender roles and traditions affect women and men at a very early age. They affect, among other things, the choice of education and career. Therefore, women and men usually choose very different types of career paths, leading to gender pay differences. While it is difficult to measure the impact of these factors, most studies have shown that society and culture play an important role in shaping labour market decisions and outcomes. In most cases, choosing a traditional gender role is not a conscious decision for either gender. On the contrary, these choices are strongly influenced by social pressures and expectations. It is largely due to traditional gender roles that women still carry the greatest responsibility for the family. It has been argued that motherhood affects pay through (1) loss of experience, (2) lower levels of productivity, (3) trade-offs between wages and family-friendly employment, and (4) discrimination from employers (Budig & England, 2001).

From a gender pay gap perspective, it is significant to note that traditional gender roles lead to women's underrepresentation in the labour market and to work either part-time or less working hours. Furthermore, women often choose jobs that do not require so much professional investment and leave more time for the family responsibilities. Family responsibilities also undermine women's opportunities to progress in their jobs and receive higher pay. All these factors play a significant role in the formation of pay differentials (Manning & Petrongolo, 2008; Connolly & Gregory, 2008; Rubery & Grimshaw, 2014).

In all EU Member States, the employment rate of women is lower than that of men. This is despite the fact that women are increasingly more qualified and even more educated than men are. In 2015, the EU employment rate for men (aged 20-64) was 75.9 % while it reached only 64.3 % for women (European Commission, 2016). In Finland, the employment rate for women is 74.4 % and 77.2 % for men (Eurostat, 2018).

Because traditions and gender roles are significant in shaping segregated labour market, it is also important to briefly address this issue. Segregation has an exceptionally significant impact on gender pay differentials. According to several studies on gender pay gap, more than 90 % of the gender pay gap in the United States is related to gender segregation (see e.g., Tomaskovic-Devey, 1993; Tomaskovic-Devey & Skaggs, 2002). Segregation refers to the situation where women and men often carry out different jobs and work in different
sctors. Perfect segregation occurs when an occupation employs only one gender, perfect integration, in turn, occurs when both genders holds the same proportion of positions in an occupation as it holds in whole the labour force (Weeden, Kim, Di Carlo & Grusky, 2007). Occupations that employ a high proportion of working women are often referred to as feminized. Several researchers have shown that the higher the proportion of women working in the occupation, the lower the average pay in that occupation (see e.g. Blau & Kahn, 2003). However, it is good to note that both genders suffer from segregation effect: both women and men who work in feminized occupations receive lower wages than those who work in non-feminized occupations (Grimshaw & Rubery, 2007).

Furthermore, previous studies have shown that segregation leads to undervaluation of women’s jobs (see e.g. Lofstrom, 1999). The undervaluation of women’s work is often explained by the fact that these jobs are seen to reflect “female” characteristics, rather than acquired skills and competences (Alksnis, Desmarais & Curtis, 2008). Grimshaw and Rubery (2007, ix) identified five “Vs” that are linked to undervaluation of women’s work and creating gender pay gap:

- **Visibility**: Women’s skills are not recognized by pay and grading systems and as a result, there is little room for career progression or promotion.
- **Valuation**: Even where women’s skills are recognized, they are not given a high value. Valuation still tends to be based on a “male skill model”.
- **Vocation**: The assumption that women’s skills are “natural female characteristics” rather than actual skills, underlies their low valuation.
- **Value added**: Men’s jobs tend to be in high value added processes, which lead them to be more highly rated, even where there is little difference between the skills involved.
- **Variance**: Women’s caring responsibilities underpins an idea that their work is in a separate sphere and part-time work is synonymous with unskilled work by both employers and women alike.

Organizational perspectives
Sometimes organizations do not pay the same wages to women and men, even though they do the same work or work of equal value. This may be the result of direct discrimination where women are simply treated less favourably than men are. Or, in most cases, it is probably a result of the organization’s normal policy or practice that is not intended to be discriminatory, but which leads to unequal treatment between women and men (Findlay, Findlay & Stewart, 2009; Baron & Bielby 1980; Baron 1984; Bielby & Baron 1986; Reskin 1993; Petersen & Saporta, 2004). For example, Rubery et al. (2005) have found that many factors related to the work environment - such as the characteristics of the workplace and the pay structure - are the main reason for the gender pay gap. Almost any act or behaviour in the organization can contain discriminatory elements: however, behind each action is an individual with his or her own attitudes and thoughts.
Next, I will present a few organizational aspects that have been highlighted in earlier studies as producers of gender pay differentials. First, several studies have shown that women and men are treated differently in hiring and promotion. These studies suggest that access to pay and promotion are important factors in producing the gender pay gap. This phenomenon, where women have limited access to well-paid positions within work organizations, is also called allocative discrimination (see e.g., Arulampalam, Booth & Bryan, 2007; Albrecht, Björklund & Vroman, 2003; Bertrand & Hallock, 2001; Bjerk, 2008). One example of the allocative segregation is the concept of the glass ceiling. This refers to the situation where women face barriers and obstacles that prevent them from moving into management positions (see e.g., Baxter & Wright, 2000). In addition, for example Zeng (2011) argues that women (and other minorities) face difficulties at different stages of their careers and thus "leak out" before reaching leadership positions. He calls this phenomenon as leaky pipelines. In addition to the above, Booth and others (2003) developed a sticky floor –model, which refers to the situation that women are just as likely as men to be promoted but find themselves stuck at the bottom of the wage scale for the new grade. Since then, several studies have investigated these phenomena and found that the gender wage gap trend to be wider at the top (glass ceiling) and/or at the bottom of the wage distribution (sticky floor) (see e.g. Christofides, Polycarpou & Vrachimis, 2013).

When looking at the causes of the gender pay gap, it is often referred women do not have access to organizational power structures. Hultin and Szulkin (1999) found that women who work in establishments with a relatively large number of male leaders have lower wages than women with similar qualifications and work requirements in organizations with more women in the power structure. However, a similar phenomenon has not been observed with men. (Hultin & Szulkin, 1999.) Furthermore, Bishu and Alkadry (2017) state that workplace power (or authority) is one of the most often-recurring themes that drive the gender pay gap in organizations. According to Huffman and Cohen (2004, 121) “Authority is a highly valued attribute of jobs because it is status conferring and shapes how financial rewards are allocated to workers”. Women have also been found to have weaker social networks than men do. For example, Belliveau (2005) figured that women attending single-sex institutions received lower pay offers than women attending sex-integrated institutions. Furthermore, she found out that the proportion of male in women’s advice networks were positively associated with the magnitude of women’s pay offers (ibid).

The most pertinent to my study, however, are the phenomena related to pay systems as well as different pay elements and practices. Different methods of rewarding employees (such as bonuses, allowances and performance-based pay) as well as methods of implementing the pay system can lead to different pay rates for female and male employees (European Commission, 2014b). Grimshaw and Rubery (2007) stated that pay practices are socially constructed, and thus lead to undervaluation of women’s work in many ways. First, pay is strongly influenced by social pressures and norms, and by the actions of
employers, governments and trade unions. Furthermore, according to Grimshaw and Rubery (ibid.), pay is often decided based on typically male behaviours such as performing long hours, working continuously for a long time and an aggressive negotiating style.

Next, we look at how different pay practices affect the gender pay gap. For example, the study by the Equality and Human Rights Commission (2009) found that in over half of the cases, the difference between the discretionary performance-based pay was at least 45% in favour for men. Furthermore, both basic and performance-based pay are higher in revenue-generating work, where women are underrepresented. Kangasniemi and Kauhanen (2013), in turn, compared how different performance-based pay systems impact on the gender pay gap. They found out that bonuses increase earnings quite the same for both genders. Women’s earnings increase slightly less than that of men, but the difference is not significant. On the other hand, piece and reward pay increase gender pay differentials, as men’s wage increases were higher than those of women. (ibid.)

Furthermore, because women have traditionally shorter career path, they tend to become discriminated also in seniority-based pay (see e.g., Rowbottom, 2010). These seniority-based pay elements are, however, gradually being replaced by performance-based increments. However, the new, more individualized performance-based pay systems may not be any equal as they provide managers more discretion (see e.g., Rubery & Grimshaw, 2014). In addition to the above-mentioned pay practices, also market salaries work against women as they iterates the existing (discriminatory) pay hierarchy in markets (Kim, 2000).

Since many national movements promoting equal pay require or recommend the use of gender-neutral job evaluation method, it is also clearly the most studied element within pay discriminatory studies. Indeed, researchers have been able to prove that job evaluation contains a number of elements that enables discrimination. For example, Löffström (1999) found that different job evaluation methods produce different wages, and some evaluation systems even systematically discriminate women. According to Löffström, (ibid.) job evaluation increases women’s relative wages, in general. However, the increases were notable different with BVT13- and Hay14-methods. Also Ames (1995) and Arnault and others (2001) as well as van Sliedregt, Voskuil and Thierry (2001) have proved the same in their own investigations.

Several studies have also identified a number of indirect factors that may affect how the evaluation method works. Since the researchers have been interested in the gender pay gap, they have been investigating whether the gender of the person being evaluated has an impact on the outcome of job evaluation. The results have been contradictory. For example, Hornsby, Benson and Smith (1987) manipulated the gender composition of jobs during the job evaluation process and found out that when the job titles were gender

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13 BVT = Befattningsvärdering tjänstemän is a job evaluation method used in Sweden.
14 Hay, a job evaluation method named after its founder Edward N. Hay, is widely used in the Nordic countries.
ambiguous, the gender composition manipulations had no significant effect on the outcome of job evaluation. On the other hand, while implementing a more realistic manipulation by using a sex-typed job titles, they found a significant difference between genders in the number of points allocated in job evaluation even though the job descriptions were exactly the same except for the title and any gender-laden pronouns. However, the results were surprising as the female-jobs were evaluated more favourably than the male-jobs. (Hornsby, Benson & Smith, 1987.) In addition, Mount and Ellis (1987) found a pro-female bias in their research, although the effect of the perceived job gender was only marginally significant. On the other hand, Grams and Schwab (1985) found only little evidence that the gender composition of jobs, by itself, influenced job evaluations.

In addition to the influence of the gender of the job incumbent, researchers have also been interested in the impact of the gender of job evaluator. For example, Arvey, Passino and Lounsbury (1977) found out that the gender of the evaluator showed a marginal but consistent effect on job evaluation scores as female evaluators gave relative lower scores to the job than male evaluators regardless the gender of the job incumbent. Within Hornsby and others’ (1987) study, instead, the gender of the evaluator affected significantly only on one job. In contrary to the firstly mentioned study, in this study, female evaluators gave slightly higher scores than males.

Psychological perspective

As previously noted, many individual factors, such as education and work experience, are strongly related to the gender pay equality. These factors are often studied in economical labour studies (see the subchapter of economical perspective). These factors are characterized by their measurability, and therefore their effect can be clearly measured. However, there are many factors related to the individual, such as attitudes, values and personal characteristics that are not as clearly measurable. Lately, scholars have become increasingly interested in the effect of these factors on labour-market outcomes and behaviour (see e.g., Heckman & Kautz, 2012).

The gender pay gap is often explained by the fact that women are satisfied with a lower pay because they compare their pay with other women in similar occupations. This idea is based on theories of distributive justice, which indicate that perceptions of justice have a comparative basis. These theories claim that the experience of pay justice or injustice depends on the extent to which their pay differ from those of similar others. This is a simply example of the social comparison. For example, in their recent study, Auspurg, Hinz and Sauer (2017) argue that the gender pay gap persist because both men and women consider it fair to pay female employees lower pay than to otherwise similar male employees. They draw this assumption from two theories. First, the same-gender referent theory notes that women are comparing their lower incomes mainly with that of other underpaid women. Secondly, the reward expectations theory argues that both men and women appreciate gender as a status variable, which gives expectations on how much each gender should be paid for equal work. Gender is a status characteristic that creates cultural beliefs about the
higher qualifications and status of men, and therefore entitles them higher rewards. (Auspurg, Hinz & Sauer, 2017.) Schneider’s and Valet’s (2017) research also supports the importance of the social comparison. Their recent analyses confirm the relevance of the social comparison in justice evaluation process. Indeed, individuals who earn less than similar others feel that their earnings are more unjust if they also reveal that they make social comparison. Instead, individuals who do not compare themselves to others consider relative earnings less important for justice perceptions. This phenomenon has been studied quite a lot around the world. Especially because nowadays women are well aware of the existing gender pay gap, but they do not report significantly greater dissatisfaction with their pay. Scholars have named this phenomenon as “the paradox of the contented female worker” (see e.g., Phelan, 1994).

In addition, Major, McFarlin and Gagnon (1984) as well as Davison (2014) have provided interesting views on the subject. For example, Major and others (ibid.) mention that even though numerous studies have shown that women and men choose to acquire information about the pay of same-sex over opposite-sex others, more recent studies suggest that they prefer to maintain an equitable balance with the pay of the average other when such information is available. Davison (2014), on the other hand, says that although women have lower pay, they do not necessarily feel they deserve any better pay and therefore do not feel dissatisfied. Indeed, in the absence of social comparative information and when working in an environment where their work was not monitored, women felt lower wages as a fair reward for their work and also paid themselves less than men, despite similar work inputs. Furthermore, women worked longer, did more work, did more correct work, and were more effective than men for the same pay. (Major et al., 1984.) In addition, Auspurg and others (2017) suggests that the paradox of a contented female worker may be due to the fact that women’s contribution to the labour market is not perceived as valuable as men’s. (Auspurg et al., 2017.)

A very general justification for the gender pay gap is that women lose in wages because of the differences in psychological traits. Women and men differ in several psychological traits. For example, it has been stated that women tend to value family over work, they have more negative attitudes towards holding power, they are less willing to negotiate and compete, and they are more risk averse. Moreover, women tend to have a lower self-esteem and to be less self-confident and disagreeable. (Croson & Gneezy 2009; Fortin, 2008; Manning & Swaffield, 2008; Mueller & Plug, 2006; Reuben, Sapienza & Zingales, 2015; Semykina & Linz, 2007.) Researchers have shown that these psychological traits may affect employee productivity and thus act like human capital variable in wage regression (see e.g., Mueller & Plug, 2006).

Fortin (2008) was able to demonstrate that gender differences considering the importance of money versus work had a modest but significant role in accounting for the gender pay gap. In another interesting study, Semykina and Linz (2007) demonstrated that women’s earnings were strongly affected by the personality, while the effect of the personality on men’s earnings was small and
Theoretical background

not always significant. Another gender difference in psychological traits, which is alleged to affect pay differentials, is that women avoid pay negotiations. Leibbrandt and List (2015) found that when it was not explicitly mentioned that wages were negotiable, men were more likely to negotiate higher wages, while women expressed their willingness to work for a lower wage. However, these differences disappeared completely, as the researchers explicitly mentioned that wages were negotiable. (Leibbrandt & List, 2015.)

2.6 Studying factors behind gender pay gap in this study

Although the gender-based pay differences have somewhat fallen over time, they still exist today due to wider gender inequalities across the economy and in society. It is important to study the disparities in access to workplace opportunities, because they have social, economic, and physiological implications (see e.g., Huffman & Cohen, 2004). Although the scholars all over the world have made significant efforts in clarifying the mechanisms that shape gender pay gap, there is still a need for new innovative and novel research. One of the less frequently studied areas is how employer practices, such as pay systems, can lead to discrimination and thus to gender pay differences within organizations (see e.g., Reskin, 1993). The aim of the present study is to provide more information on this less-studied topic, so that organizations would have a better chance of taking into account the gender equality in their own activities, and thus contribute to reducing the gender pay gap.

Pay is a remuneration, which is paid to an employee in return for performing work for an employer under the employer’s direction and supervision (Employment Contracts Act, 55/2001). It includes all forms of financial compensation that an employee receives in return for his or her work. Pay may be either monetary or non-monetary (Milkovich & Newman, 1996). This study focuses on the monetary pay. Monetary pay is received in the form of cash, such as wages, merit increases and incentives (ibid.). In most cases, organizations manage the distribution of the monetary remuneration through pay systems (see e.g., Rubery, 1997). Pay system consists of the basis of the used pay methods as well as the processes, practices and pay policies, which guide the implementation of the pay system (see e.g., Mulvey, LeBlanc, Heneman & McInerney, 2002).

Gender equality means that everyone has the right to equal treatment regardless of the gender (ILO, 1958). This requires that women and men have the same rights and opportunities in all areas of society, and that the behaviours, aspirations and needs of both genders are equally valued and favoured (Oelz, Olney & Tomei, 2013).

Equal pay means that men and women working for the same employer and performing equal work or work of equal value must receive equal rewards (Equal Remuneration Convention, 1951). This means that equal pay should not be paid only for the identical jobs, such as female and male nurses, but also for jobs that are completely different, but considered to be of equal value (see e.g., Acker, 1990). The idea of equal work is based on the assumption that every work
has an inherent value that is independent of market forces and that this inherent value is measurable with reasonable accuracy (Arnault et al., 2001).

**Gender pay gap** is measured slightly differently in different economic areas. In EU, the gender-based pay gap refers to the relative difference in the average gross earnings of women and men in the economy as a whole. Statistics Finland, instead, uses in its calculation regular wages. Both of these data are used in this study, so there may be slight differences in the numbers. In situations where the pay differentials across the EU are discussed, the EU figures are used. On the other hand, at the sections focusing solely on the Finnish context, the data of Statistics Finland is used. When the gender pay gap is discussed, it is often referred to the *unadjusted* and *adjusted* pay gap. The unadjusted pay gap does not take into account all the factors that explain the pay gap, such as differences in amount of work experience, education, job sector, position or hours worked. The adjusted pay gap, instead, describes the gap that remains when these measurable factors affecting the gender pay gap has taken into account (Blau & Kahn, 2007). According to several scholars and authorities, the explanatory factors, such as before mentioned work experience, education, job sector, position or hours worked, resolve from about 60% to 75% of the gender pay gap, depending on the source. The rest of the pay gap (adjusted pay gap) remains unexplained, and it covers about 25% to 40% of the pay gap (see e.g., Blau & Kahn, 2007; European Commission, 2014b.) In general, the unexplained pay gap is assumed to be due to discriminatory practices that put women into a worse position than men, as well as due to deeply rooted practices in economic and social structures which restrict women’s freedom of choice in working life (see e.g., Oaxaca, 1973; Belgorodskiy et al., 2012).

As previous paragraph highlights, the gender pay gap is a complex entity that is influenced by many different factors as a combination of **economical**, **sociological**, **institutional**, **organizational**, and **psychological** perspectives. In this study, the focus is at the organizational level - more specifically on factors related to the pay system. In certain cases, organizations do not pay women and men the same wages although they carry out the same work or work of equal value. It is of course possible that this is due to a direct discrimination, in which women are simply treated less favourably than men are. However, it is more likely to result from a policy or a practice that is not designed to discriminate, but leads to the unequal treatment between men and women (see e.g., Findlay et al., 2009; Baron & Bielby 1980; Baron 1984; Bielby & Baron 1986; Reskin 1993; Petersen & Saporta, 2004). For example, Rubery and Grimshaw (2014) state that the major problems for the equal pay at the organizational level lie not only in the grading of jobs but also in the implementation of pay systems and in promotion opportunities and practices. Indeed, researchers have discovered a number of organization level factors that contribute - directly or indirectly – to the gender pay gap.

The first possible factor is – naturally - the method the organization chooses to use in its wage determination, i.e., what pay system is used in the organization. According to European Commission (2014b), different methods of rewarding employees can result in different pay rates for women and men. At
least the impact of job evaluation, different performance-based pay schemes as well as market wages on the gender pay gap has been studied.

**Job evaluation.** One of the most important factors to achieve pay equality has been the attempt to promote the use of job evaluation. Since job evaluation is very commonly used worldwide, and the expectations set for it have been high, researchers have also been particularly interested in its functionality. Although several studies have shown that job evaluation reduces the gender pay gap (see e.g., Löfström 1999), researchers have also identified a number of inequalities associated with it. First of all, the method chosen for job evaluation is important because different methods lead to a different outcome, i.e., the points allocated, the pay grade classification or the actual wages (see e.g., Löfström, 1999; Ames, 1995; Arnault et al., 2001). Löfström (ibid.) also found that, for example, the Hay-method produces regularly and continuously lower wages for women. In addition, while job evaluation increased the relative pay of women, the salaries of some men also increased, thereby reducing the relative wage increase for women, on average (Löfström, 1999). Furthermore, changing – or manipulating – the implementation rules affects the outcome of job evaluation, some of which may be unfavourable to women’s relative wages (Van Sliedregt, Voskuil & Thierry, 2001).

The gender of a person being evaluated is expected to have an impact on the outcome of job evaluation. In studies on gender inequality, the assumption is that women are more critically evaluated than men (see e.g., Löfström, 1999; Arvey et al., 1977; Mount & Ellis, 1987; Grams & Schwab, 1985). Another factor that has also been suggested to affect the outcome of job evaluation and is closely related to the above-mentioned gender is the so-called crowding effect. This means that when the proportion of women in a particular job increases, the pay level of that job decreases (see e.g., Löfström, 1999; Grams & Schwab, 1985). The crowding effect is closely related to the belief that women’s skills and competences are undervalued. This is assumed to be related to the fact that women’s competences are not expected to require skills to be learned, but rather to be related to the female characteristics, such as emotions, caring and mothering, and thus they are not seen as worthy of pay (see e.g., Findlay et al., 2009). On the other hand, the gender of the evaluator (see e.g., Arvey et al., 1977; Hornsby et al., 1987) is also expected to have an impact on the outcome of the job evaluation, and thus the gender distribution of the evaluation group or the gender of the individuals involved in the job evaluation may influence the outcome of the evaluation. In addition to the above, the hierarchical status as well as the current pay of the job being evaluated are also expected to affect the outcome of the job evaluation. The assumption is that the higher the job status or the current pay, the more positive is the outcome of the evaluation (see e.g., Grams & Schwab, 1985; Mount & Ellis, 1987; Rutt & Doverspike, 1999; Smith, Hornsby, Benson & Wesolowski, 1989).

**Performance-based pay.** In addition to job evaluation, another commonly used method to distribute rewards are performance-based pay schemes. In contrast to the job evaluation, the assumption for these pay schemes is that they do not work in advantage for women’s pay. This is supposed to be related to the
Theoretical background

fact that these methods provide managers with more discretion, and it is often seen that in such situations women are in a weaker position than men (see e.g., Rubery & Grimshaw, 2014). Likewise, it is believed that the seniority-based pay systems works against women because women often have a shorter career path than men (see e.g., Rowbottom, 2010). However, these seniority-based pay components are slowly disappearing and being replaced by more individual, e.g., performance-based pay schemes, which, however, would not be any less discriminatory, as already stated above (see e.g., Rubery & Grimshaw, 2014). In addition, market wages are supposed to discriminate women, as they repeat the already existing gender-based pay inequality at the labour markets (see e.g., Kim, 2000).

In addition to the above factors, there are a number of other organizational practices, which work against women, and thus indirectly affect the gender-based pay differences. These are not directly the subject of this research, but a few of them will be mentioned as they contribute to wage formation, and their impact on wage differentials has been commonly identified. One of these factors is that women are treated differently from men in terms of hiring and promoting. First of all, it has been claimed that women have a limited access to well-paid positions in organizations (see e.g., Arulampalam, Booth & Bryan, 2007). This phenomenon is also called as the glass ceiling. The phenomenon of the sticky floor has also been found to have an impact on the gender pay gap (see e.g., Cotter, Hermsen, Ovadia & Vanneman, 2001). The third phenomenon of the same problem, but less cited, is the leaky pipelines. This refers to a situation in which women, when faced disadvantages at different stages of their careers, "leak out" before reaching management positions (see e.g., Zeng, 2011).
3. Research design

Research design is a set of methods and procedures used in collecting and analysing measures of the variables specified in the research problem. Research design defines the study type (for example, whether it is descriptive, experimental, review, or meta-analytical) as well as the sub-type (for example, whether it is a descriptive-longitudinal case study). Research design also includes a research problem and question(s), possible hypotheses and variables, as well as research procedure. In addition to these, research design also includes data collection methods and an analysis plan. (Creswell & Creswell, 2017.) In this chapter, I will present the research design of this study. I will start with the research problem and questions, then move to introducing the study type as well as research procedure, and finally end this chapter with describing the data collection as well as data analysis plan. The results of the study are described in the following chapter 4.

3.1 Research problem and questions

This study focuses on a persistent problem in Finnish working life, the gender pay gap and its origins in organizations. Despite gaining a large amount of attention, the pay gap between men and women has remained remarkably stable. According to Official Statistics of Finland, the gender pay gap has been narrowed by a little over 3% between 2000 and 2017, and currently women earn on average 16.1% less than men in Finland (Official Statistics of Finland, 2017). The reasons behind the gender pay gap have been studied extensively and from different perspectives. For example, economists, sociologists, social scientists and behavioural scientists have come to their own explanations of the problem, and today we have a very broad understanding of the factors that affect the gender pay gap. However, the problem is that we still do not have a clear overall understanding of how these perceived factors work together. The results are scattered and mostly serve one perspective at a time. Another problem is that factors affecting the gender pay gap that occurs at the organizational level - like pay systems - have been studied a lot less. The purpose of this study is to contribute to these two shortcomings. To begin with, I will focus on identifying the factors that have empirically been proven to affect the gender equality of the organizations’ pay systems, and thus contributing to unjustified gender-based pay differences. Secondly, my intention is not just to explore and list these
factors, but also to structure the identified factors systemically into a systemic model. This model brings together previous research evidence from different sources, and creates a cohesive framework, which reveals not just the factors behind the gender equal pay system, but also their interrelationships and dependencies.

With the above-mentioned research gaps and goals in mind, the research questions are as follows:

**RQ1:** Which factors (like actors, structures and mechanisms) have empirically been proven to affect the equality of the organizations’ pay systems?

**RQ2:** What kinds of dependencies and interrelationships exists between the identified factors?

The research provides information on those pay system related structures, practices and circumstances which, in one way or another, set genders in an unequal position and may thereby generate unjustified gender-based pay differences.

### 3.2 Research strategy and procedure

My method orientation can be described as qualitative meta-analysis (see e.g., Timulak, 2014). Meta-analysis is a helpful tool to review and accumulate empirical research, as is done in this study. In contrast to traditional qualitative studies, which analyse, for example, the observations of individual workers, in this study, each previously conducted study represents one data point. These studies may be either qualitative or quantitative itself. The studies and their results are not dealt with quantitative methods (like e.g., regression analysis), but merely qualitatively in order to find similarities, differences and interrelationships between previous findings.

According to Timulak (2014), qualitative meta-analyses are often used because traditional reviews lack a systematic approach to the synthesis of the research studies examining the same phenomena. Due to this shortcoming, several systematic approaches have been developed for this purpose during the recent years, such as qualitative meta-analysis, qualitative meta-synthesis, meta-ethnography, grounded formal theory, meta-study or meta-summary. The variety of different labelling may be misleading as two meta-analyses using the same name may sometimes be more different from two meta-analyses using a different name, as Timulak (ibid.) points out. However, the common factor to these various forms of meta-analysis is that they all are secondary analysis of the primary, original studies addressing the same research problem (see e.g., Wästerfors, Åkerström & Jacobsson, 2014).

Compared to the traditional narrative qualitative analysis, the objectives of meta-analysis are more thorough and comprehensive. Meta-analysis is not a method designed to produce oversimplification; on the contrary, the goal is to achieve more knowledge and understanding, not less. The ultimate goal of the meta-analysis is to review a number of studies to find their key elements, and
then translating these key elements into a new conceptualization or theory (Schreiber, Crooks & Stern, 1997.)

There are several different approaches to a qualitative meta-analysis. Some tend rather to summarize the findings of the original studies, while others aim at interpreting the original studies and offering an overarching or a particular perspective to the conceptualization. The common form to meta-analysis is that they use flexible analysis strategies based on comparison, abstraction, and detection of similarities and differences among the original studies, but however, trying to preserve contextual influences and details in the findings. (Timulak, 2014).

### 3.3 Data collection

The data of my study consists of studies on gender equality in organizations’ pay systems published in peer-reviewed scientific journals. This chapter presents the data collection in more detail.

The population was defined as scientific studies on gender equality in organizations’ pay systems, which were published in international peer-reviewed journals. The inclusion criteria were as follows:

- The findings of the conducted search (i.e., article, report, study) had to be empirical. Therefore, the studies had to deal with the topic from the perspective of proving something in an empirical manner. This criterion left, for example, conceptual papers out of my research. In addition, magazines and other news, working papers as well as editorial overviews and book/article reviews were excluded.
- The findings had to deal with the linkage between organizations’ pay systems and gender equality in some manner. This meant that, for example, studies dealing with the overall pay equality, such as gender-based pay comparisons, were excluded.

The search was conducted in two phases. The first phase was a sort of a “pilot search”, which aimed to perceive the limits of the information retrieval (i.e., which strategy generates all relevant information, but on the other hand does not incorporate anything extra). Several electronic journals’ databases (Ebsco Academic Search Elite, Ebsco Business Source Complete, Wiley, Sage) were used by exploiting Boolean search strategies with multiple keywords such as "gender pay gap", "gender gap in pay", "gender wage gap", "gender gap in wage", "gender pay differentials" and "gender pay equality" in order to identify as many studies dealing with equal pay and the pay gap as possible.

The search yielded a total of 1873 hits. First, of these, 172 duplicates and 505 abstracts only were removed. Secondly, articles were excluded if they were not in English (n=9), were news (n=29), trade publications (n=149), working papers (n=1), reviews or overviews (n=31), comments (n=21) or were published in a newspaper or other mass media (n=132) or were otherwise unfit non-academic sources (n=2). Then, I carefully read through all the abstracts and keywords of
the remaining 822 articles in order to identify those keywords and search queries that will guide me towards the relevant material that deal with the equality of the pay systems in organizations.

A detailed diagram of the search process is presented in Figure 2.

**Figure 2.** Search process of the pilot phase.

Based on the pilot search, I ended up with the following Boolean search queries and keywords combinations: (equal pay system*); (equal wage system*); (equal pay for equal work) AND (pay system); (equal pay for equal work) AND (wage system*); (gender equality) AND (pay system*); (gender equality) AND (wage system*); (gender equality) AND (pay polic*); (gender equality) AND (pay procedure*); (comparable worth) AND (pay system*); (comparable worth) AND (wage system*); (equal value) AND (pay system); (equal value AND (wage system))\(^{15}\).

At the second phase, relevant articles were sought by exploiting several electronic reference databases (Ebsco Academic Search Elite, Ebsco Business Source Complete, ProQuest ABI Inform and Scopus) with before mentioned keyword combinations.

A detailed diagram of the search process is presented in Figure 3. The initial search identified 873 potential international studies on gender equality within pay systems. First, 136 abstract-only hits were removed, as well as six exact duplicates. Secondly, studies were excluded if they were not in English, were

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\(^{15}\) * being a truncation symbol to represent multiple spellings and endings, ( ) being a symbol to include group of words or phrases, AND being a Boolean operator that combines search terms so that the search result contains all of the terms.
reviews, overviews, working papers, trade publications, news, wire feeds or were published in a newspaper or other mass media or were otherwise unfit non-academic sources. The remaining 458 were obtained and closely screened. Finally, all together 440 studies were excluded because they met no inclusion criteria. In the end, 18 articles were left for final analysis16. List of the articles is presented in Appendix 1.

3.4 Data description

All of the articles dealt with - in one way or another - some pay system related element that were suspected to affect the emergence of the gender pay gap. A vast amount of the articles (6 out of 18 articles) dealt with the gender of the incumbent or more widely the gender composition of the job. Another much-studied subject was job evaluation (5 articles). Other pay systems and procedures were studied a lot less. Two of the articles were about performance-

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16 The small number of remaining articles was surprising. The main reason for excluding the articles was that although many of the articles dealt with pay, there was no link to the pay system itself.
based pay plans and one article examined how the use of market wage surveys affects the gender pay cap. Other topics investigated in the articles were:

- How the status of job affects the outcome of the job evaluation process?
- How the current pay level affects the outcome of the job evaluation process?
- How the gender of job evaluator affects the outcome of the job evaluation process?

Furthermore, the impact of women's social networks on pay offers (one article) as well as how the amount of pay increases affects the intentions to leave (one article) have been under investigation.

### 3.5 Data analysis

Theory building in a qualitative meta-analysis is an emerging process that involves several steps of dividing observations into parts, categorization, and reconstruction. Qualitative meta-analysis is designed to facilitate the development of knowledge. It is like a discourse that contributes to a fuller understanding of the phenomenon of interest. (See e.g., Thorne et al., 2004; Timulak, 2014.) Organizing and managing data require a systematic approach. This study applies the generic descriptive - interpretive approach described by Timulak (2014). According to this approach, the data was processed in the following steps:

1. **Conceptual framework:** Conceptual framework helps to organize the data; it usually follows a certain logic that allows breaking up data into manageable portions (meaning units).
2. **Clustering:** Data is compressed into smaller meaning units according to similarities and differences.
3. **Synthesis:** As qualitative research is often very wordy and provides extensive findings, the findings of qualitative meta-analysis often require summarization.

#### 3.5.1 Conceptual framework

The first step in the data analysis was creating a conceptual framework. In this study, the data consisted of the observations of the research articles included in the analysis. The findings were pay system related factors that have been found to contribute the gender-based pay differences within organizations. Articles often include not just the primary results of the study, but also researchers' assumptions as well as their theoretical explanations. This typical method of presenting research results of a scientific article constitutes the first stage’s conceptual framework within this study. Thus, the results of each article were organized into three levels: 1) primary results, 2) researcher's (or researchers') assumptions, and 3) the theoretical explanations. With *primary results*, I mean the main empirical results produced in each individual study. Researchers tend
to present their own assumptions about the results of their research. These findings were categorized into a group of *researchers' assumptions*. In addition to the above, researchers may sometimes (not always) suggest a broader theoretical justification to the results of their own research. These were categorized into a group of *theoretical explanations*.

According to Timulak (2014), once the data are assigned within the domains delineated by the established conceptual framework, they can be broken into manageable units (i.e. *meaning units*) within the domains. Another typical feature in scientific articles is that they explore how a particular factor, $X$, affects to another factor, $Y$. For this reason, the logical meaning units in this study are the explaining and explanatory factors of each article. These are described in Table 2.

Furthermore, data notes or "write-ups" often characterize qualitative research. These are often mere descriptions, but they are important in creating insights, as they often help to cope with the huge amount of data in the early stages of the analysis process. (Eisenhardt, 1989.) To facilitate the formation of the final systemic model, each article was described visually. Figure 4 shows an example of the visual description of the article, the rest are shown in Appendix 2.
Table 2. Explaining (X) and explanatory (Y) factors of the articles under examination.

<table>
<thead>
<tr>
<th>Article no.</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Used job evaluation method</td>
<td>Wage determination</td>
</tr>
<tr>
<td>2</td>
<td>Used job evaluation method</td>
<td>Outcome of job evaluation process</td>
</tr>
<tr>
<td>3</td>
<td>(1) Gender of job incumbent</td>
<td>Sores allocated in job evaluation process</td>
</tr>
<tr>
<td></td>
<td>(2) Gender of job evaluator</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Gender distribution of job seekers’ social networks</td>
<td>Employers’ salary offers</td>
</tr>
<tr>
<td>5</td>
<td>Result of performance evaluation</td>
<td>(1) Performance-based rewards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Salary increases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) Promotions</td>
</tr>
<tr>
<td>6</td>
<td>(1) Gender of job incumbent</td>
<td>(1) Total compensation</td>
</tr>
<tr>
<td></td>
<td>(2) Gender composition of job</td>
<td>(2) Base pay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3) Likelihood to receive incentive bonuses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4) Incentive bonuses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5) Merit pay raises</td>
</tr>
<tr>
<td>7</td>
<td>Use of job evaluation</td>
<td>(1) Total scores allocated in job evaluation process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Perceptions of job evaluation outcome</td>
</tr>
<tr>
<td>8</td>
<td>(1) Gender of job incumbent</td>
<td>(1) Total scores</td>
</tr>
<tr>
<td></td>
<td>(2) Current pay</td>
<td>(2) Scores to different compensable factors</td>
</tr>
<tr>
<td>9</td>
<td>(1) Gender-specificity of the job title</td>
<td>Number of points allocated in job evaluation process</td>
</tr>
<tr>
<td></td>
<td>(2) Gender of job evaluator</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Type of performance-based pay</td>
<td>Increases in wages</td>
</tr>
<tr>
<td></td>
<td>(a) Bonus pay</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Reward and piece rate pay</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Wage determination based on market</td>
<td>Outcome of wage determination process</td>
</tr>
<tr>
<td></td>
<td>wage surveys</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>(1) Used job evaluation method</td>
<td>Employees’ wage levels</td>
</tr>
<tr>
<td></td>
<td>(2) Gender composition of jobs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) Gender of incumbent</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>(1) Hierarchical status of the job</td>
<td>Outcome of job evaluation process</td>
</tr>
<tr>
<td></td>
<td>(2) Gender of job incumbent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) Current pay level</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>(1) Current pay level</td>
<td>(1) Job evaluation ratings</td>
</tr>
<tr>
<td></td>
<td>(2) Hierarchical status of the job</td>
<td>(2) Perceived pay level</td>
</tr>
<tr>
<td>15</td>
<td>Job status</td>
<td>Job evaluation ratings</td>
</tr>
<tr>
<td>16</td>
<td>Changing (manipulating) job evaluation practices</td>
<td>(1) Total scores of job evaluation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Pay grade classification</td>
</tr>
<tr>
<td>17</td>
<td>Differences in labour markets</td>
<td>Perceptions of pay equity</td>
</tr>
<tr>
<td>18</td>
<td>Amount of pay increase</td>
<td>(1) Pay satisfaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2) Likeliness to leave the workplace</td>
</tr>
</tbody>
</table>

Figure 4. An example of the visual illustration of the articles.
3.5.2 Clustering

The next step in the data analysis was the comparison and clustering of the meaning units according to their similarities. In this study, the most logical way to form clusters was to categorize the explaining and explanatory factors according to their similarities. The final clusters were formed according to the explained factors. Thus, 18 articles could be compressed into 11 clusters. Then, each clustered meaning unit was given an abstracted wording (categorizations). At this stage, the abstracted wording was intended to be merely descriptive, avoiding any interpretation in order to be true to the original data. It is important that formulated clusters retain references to the original studies so their origin is easily traceable (Timulak, 2014), thus the clusters were marked with the original article numbers. The clusters are described in Figure 5.
According to Timulak (2014), these abstracted categories within a clear conceptual framework represent the meta-analytic findings. In order to place these clusters into the conceptual framework, each cluster was illustrated visually in the same manner as the articles. These illustrations are presented in the following chapter together with the results.

As can be seen from the results-chapter (chapter 4), the analysis provided extensive amount of data. According to Timulak (ibid.), qualitative research often requires summarization because it tends to be very wordy. The summarization was done by creating a synthesis from the observations. This synthesis also serves as a basis for the the systemic model. The formulation of the synthesis is described in the following subchapter.
3.6 Synthesis

Where the previous step focused on individual clusters and their exact investigation and description, this step focuses on further summarization of the findings as well as the interactions between the findings. The construction of the synthesis was started from “tabula rasa”, with two essential elements in regards to the research problem: 1) the pay system and 2) the gender pay gap. The initial situation is described in Figure 6.

![Figure 6. The start of the synthesis.](image)

The beginning of the synthesis also led to a situation where I had to return to the origins of the research questions: What are those pay system related factors that have been empirically proven to contribute to unjustified gender-based pay differences and what kinds of dependencies and interrelationships exist between those identified factors? With these questions in mind, I began to place the identified meaning units in the picture. The final output of this stage is described in Figure 7.

When the basic elements had been placed in the illustration of the synthesis, it was time to add the relationships and interactions between these factors. At the same time, however, I kept in mind that synthesising is an emerging process and there is no need to “lock” the previous steps, as the visualization is updated continuously as the analysis progresses. This step is illustrated in Figure 8. In this way, the pieces slowly fell into their places.
Research design

Figure 7. The second stage of the synthesis.

Figure 8. The third stage of the synthesis.

In the last stage of the synthesis, I replaced the individual meaning units (e.g., job evaluation) with the synthesis of the research results describing that meaning unit (e.g., job evaluation increases women wages). This is the final result of my meta-analysis. This illustration (Figure 9) and the related results are presented in the following chapter.
4. Findings

This chapter presents the results of my research.

4.1 Cluster results

4.1.1 Gender of the job incumbent

The gender of the job incumbent or alternatively a gender composition in a certain job was the most studied topic in the articles I reviewed. Altogether six of the articles concentrated to examine how the gender of the job incumbent or the overall gender composition of the job in question affects either the outcome of job evaluation (i.e., ratings of compensable factors or total scores) or the earnings of the incumbent (Table 3).

Table 3. Topics of the studies concerning the gender composition of job/gender of job incumbent.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Articles (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How the gender of job incumbent affects the results of job evaluation?</td>
<td>3, 10, 15</td>
</tr>
<tr>
<td>How the gender of job incumbent affects employees' earnings?</td>
<td>8</td>
</tr>
<tr>
<td>How the gender composition of job affects the results of job evaluation?</td>
<td>11</td>
</tr>
<tr>
<td>How the gender composition of job affects employees' earnings?</td>
<td>8, 14</td>
</tr>
</tbody>
</table>

*Primary results*

The researchers did not reach a total consensus about whether the gender of job incumbent has an effect on the results of the job evaluation or not. Hornsby and others (1987) manipulated the gender composition of jobs during the job evaluation process and found out that when the job titles were gender ambiguous (e.g., personnel officer, assistant director/recreation, dispatcher and director/commission on aging), the gender composition manipulations had no significant effect on the outcome of job evaluation. On the other hand, while implementing a more realistic manipulation by using a sex-typed job titles (e.g., matron and jailer), they found a significant difference between genders in the number of points allocated in job evaluation even though the job descriptions were exactly the same except for the title and any gender-laden pronouns. However, contrary to the expectations, the female-jobs were evaluated more favourably than the male-jobs. (Hornsby et al., 1987) Likewise, Mount and Ellis (1987) found a pro-female bias in their research, although the effect of perceived
job gender was only marginally significant (Mount & Ellis, 1987.) Also Grams and Schwab (1985) found only little evidence that the gender composition of jobs, by itself, influenced job evaluations. While gender has no main effect on any compensable factors or on total scores, Gender x Job -interactions (representing the effect of gender on the relative hierarchy of jobs), in turn, were statistically significant for complexity, one of the compensable factors. (Grams & Schwab, 1985.) Furthermore, Arvey and others (1977) study found no evidence that the gender of the incumbent would have affected the results of job evaluation.

While the manipulations described above failed to prove, or showed only little evidence that female jobs would get weaker scores in job evaluation than do male jobs, Löfström (1999) found in her study a clear perception of the crowding. According to her studies, the relation between job evaluation value and wages fell as the share of women increased (i.e., crowding effect). However, it should be noted that this was the case for both the female and male employees. Furthermore, she also detected direct discrimination in one of her cases, meaning that women were paid less than their productivity in all branches regardless of the share of women.

All the above-mentioned studies dealt with the link between the incumbent gender and job evaluation. Elvira and Graham (2002), in turn, investigated what impact the incumbent gender had on earnings while the type of pay operated as a moderator. The subjects of the study were base pay, merit raises and cash incentive bonuses. Like Löfström, also Elvira and Graham were able to detect a clear crowding effect. According to their analysis, for each 10 % increase in the proportion of women in the job, individual employees receive 1 % lower base pay. The decline in earnings was in its highest in the case of incentive bonuses, when every 10 % increase in the proportion of women in a job decreased the likelihood of receiving incentive bonuses by 8.4 % and for each 10 % increase in the proportion of women in a job, workers in that job received 7.5 % less incentive bonuses. On the other hand, a 10 % increase in the proportion of women in the job had no effect on merit pay raises. While they controlled for the proportion of women, they found out that individual women in the same occupations, divisions, and with similar characteristics are slightly more likely to receive bonuses but earn 25 % less in bonuses than individual men. The same figure for base pay was only 1.4 %, and no individual gender differences were found in merit pay raises. (Elvira & Graham, 2002.)

Authors’ assumptions

There are a few assumptions, which the authors proposed based on their findings. First of all, Hornsby and others (1987) presume that the pro-female bias they found when rating two gender-laden jobs (i.e. matron/jailer) may be due to the stereotypical view that a female has to work much harder to keep up when working in a male dominated work setting (a jail, in this case) and were, therefore, scored higher than men in job evaluation. Furthermore, the belief that male prisoners might be more difficult to handle could also account for such a difference. (Hornsby et al., 1987.) On the other hand, Grams and Schwab (1985), who detected no main effect for the gender of the incumbent, but instead
found that Gender x Job -interactions were statistically significant for one of the compensable factor (i.e., complexity), suggesting that certain compensable factors may be more susceptible to gender bias than others, or on the other hand, the result could be only a statistical artefact. (Grams & Schwab, 1985.)

Likewise, a few assumptions regarding the evaluator were presented. Mount and Ellis (1987), who also found a pro-female bias in the job evaluation context, which, however, was markedly weaker than previously reported biases, assumed that persons selected or volunteering to participate in a comparable worth study may have more favourable attitudes toward women’s work than those who do not volunteer. Furthermore, those who participate in such a study may become sensitized to issues such as the wage gap or the underpayment of women through training or evaluation expertise.

Elvira and Graham (2002), who investigated the impact of the incumbent gender, found that the pay gap was the largest in incentive bonuses, moderate in base pay and none in merit raises. They summarized that the gender composition of the job influences worker earnings to different extents depending on the formalization of pay systems: the more women in a job and the lower the formalization, the lower the earnings of individual workers in those jobs. Employees working in female-dominated jobs earn less in total compensation and base pay. They are also less likely to receive incentive bonuses and, when they do, earn lower bonuses. Elvira and Graham (ibid.) also stated that it seems that use of incentive bonuses could widen the gender pay gap. Furthermore, they assume that the devaluation of women’s work might be the primary source of the gender pay gap.

Theoretical explanations
The crowding effect is one of the most cited reasons behind the gender pay gap. Elvira and Graham (2002) present a few theoretical explanations as to how crowding affects the gender wage gap. First of all, the neoclassical economics approach, which stresses the importance of supply and demand factors, suggests that because women enter fewer occupations than men do, supply and demand factors translate this into lower pay for female jobs. The neoclassical economics approach also suggests that possibly lower requirements for female-dominated jobs explain the relationship between the gender composition of jobs and earnings in those jobs. The devaluation perspective, in turn, suggests that if organization members internalize this societal standard of the lower value of women’s work, female jobs are treated in that way also within the organization. (Elvira & Graham, 2002.) Löfström (1999) suggests that because women are concentrated in only a few occupations, wages fall because these jobs are degraded in the sense that their productivity is believed to be lower. Furthermore, she continues that ultimate cause for discrimination is that employers have “a taste for discrimination”, i.e., since they do not like women, they pay them less.

Hornsby and others (1987) discussed about possible explanations for the pro-female bias, which they found in their manipulated job evaluation survey. First, they state that previous research has shown that when contextual cues suggest a female job incumbent, but male job factors are rated, higher points are
allocated. Furthermore, perceived masculinity or femininity of a job is related to gender distribution of that job. It may be possible for the evaluators to react more to perceived masculinity or feminity than to reported gender ratios. Overall, job ranking depends in part on the factors used in the evaluation as well as the relative weight of each factor. In most cases, the weightings are derived from current wage levels and thus reflect the current pay gap.

It is also possible that gender stereotypes can influence evaluation procedures, because job evaluation is a judgement process (Hornsby et al., 1987). Elvira and Graham (2002) refer to these possible errors related to judgmental processes as cognitive biases. They argued that the lesser the formalization, the lower and decentralized the decision-making in organizations, the greater the opportunity for these cognitive biases to shape pay system decisions. Previous studies have shown that gender biases can occur through inevitable and sometimes unconscious cognitive processes that enter pay systems if formal policies and procedures are lacking. This potential may be higher when employers are uncertain about women’s performance levels and qualifications. In addition, the lack of accountability for decisions, the lack of normative structure, as well as ambiguity in performance criteria are related to cognitive biases. Finally, the lower power and reduced access to valuable social networks may facilitate the gender biases. (Elvira & Graham, 2002.)

Elvira and Graham (2002) found also that the degree of formalization in pay system affects the size of gender differences. They found the greatest gender differences in the case of incentive bonuses. Related to this result, Elvira and Graham refer to internal labour market theories, according to which job and pay structures within firms can influence a worker’s earnings. For example, if the jobs in which women tend to work are less critical to organizational success, then those jobs may be less likely to receive incentive bonuses or smaller bonuses may be allocated. (Elvira & Graham, 2002.)

Results are summarized in Figure 9.
Figure 9. Results of cluster 1 (gender of job incumbent/gender composition of jobs).
4.1.2 Job evaluation methods and practices

Job evaluation is traditionally seen as the key method to measure the equal value of jobs. This is based on the idea that re-evaluation of jobs would reveal the undervaluation of women’s work and the consequence to a lower pay (Acker, 1990). A number of international studies have shown that job evaluation is quite sensitive method to use in the narrowing of gender-based pay gap (see for example Arvey, 1986; Grams & Schwab, 1985; Schwab & Grams, 1985).

Three of the reviewed articles studied what kind of an impact different job evaluation methods themselves or differences in implementing the methods have on either the result of the evaluation or the pay specified according to the evaluation result. In addition to this, one article dealt with the relationship between job evaluation and the impact of gender in wage determination. The list of the topics is shown in Table 4.

Table 4. Topics of the studies concerning job evaluation.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Articles (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chosen job evaluation method and its relation to gender effect on wage setting</td>
<td>1</td>
</tr>
<tr>
<td>Chosen job evaluation method and its relation to job evaluation outcome (points/total scores/pay grades/corresponding salaries)</td>
<td>2, 14, 18</td>
</tr>
</tbody>
</table>

Primary results

The articles mostly showed that the use of job evaluation decreases the gender pay gap. The researchers detected, however, that different evaluation methods lead to different outcomes. Löfström (1999) found in her study that using job evaluation increases women’s relative wages, in general. She compared two different job evaluation methods, BVT and HAY, and noticed that using the BVT-method increased the relative wages of women approximately two percentages, while the corresponding figure with HAY-method was six percentages. What was surprising, though, was that not only women were winners. Using job evaluation lead to higher wages for 60-65 % of the women and lower wages for 35-40 %. The figures for men were approximately the opposite: 60 % of men were “losers” and 40 % were “winners”. Furthermore, Löfström detected that there were more female winners in groups with already relatively high wages.

Ames (1995), in turn, found out that the outcome of job evaluation process is dependent on how women’s wages are set in relation to men’s wages after the evaluation of jobs. He compared two so-called comparable worth –plans used in Canada. One of these, used in Manitoba, removed gender effects from wage setting, while the other one used in Ontario, did not. Ames noticed that the wages of female jobs are determined in different ways within these two plans after the jobs have been evaluated. Within the Ontario-plan, the wages of female-dominated jobs are set according to the lowest possible wage of any male-dominated job in same worth category. On the other hand, within the Manitoba-plan the wage structure of male-dominated jobs are set as the standard for the wages of female-dominated jobs, too. (Ames, 1995.) Likewise,
Arnault and others (2001) detected that the outcome of job evaluation process is dependent on the job evaluation method chosen. Just like Ames, also they noticed that different methods used in job evaluation lead to different outcomes.

Van Sliedregt and others (2001) intentionally manipulated the data of five job evaluation systems to investigate the effects of manipulation on the total job evaluation scores and the consequent pay grade classification. The manipulations carried out were: 1) omitting undefined scale anchors, 2) changing scale weights and 3) reducing the number of job evaluation characters (compensable factors). They found out that the effect of manipulations on the total scores of job evaluations are minor. On the other hand, all the manipulations did have a significant impact on the pay grade classifications done after evaluation of jobs.

**Authors’ assumptions**

Based on his results, Ames (1995) ended up to conclude that a job evaluation system is only as good as its implementation. Ames summarizes that the pay equity process involves several stages, where policy choices are made. Various players in a pay equity process can and do use the power to produce the results they like, with more powerful players being more likely to get their way. (Ames, 1995.) Arnault and others (2001), in turn, reasoned that the job evaluation process is not able to identify and measure the unique, objective values of each job corresponding to its inherent worth. This being a case, the scores provided by different job evaluators do not provide mutually consistent adjustments to the existing pay scale, and the outcome of the job evaluation process is dependent on who will be chosen to measure the job worth. (Arnault et al., 2001).

In contrast to the above-mentioned researchers, van Sliedregt and others (2001) concluded that job evaluation instruments perform very well in assessing relative job worth. On the other hand, according to their study, the next step after assessing total job values – i.e. pay grade classification - is rather sensitive to manipulation. Furthermore, they deduced that the relatively low pay grade agreement percentages are not necessarily caused by poor psychometric qualities of job evaluation data, as previous research has suggested, but may be the result of a lack of the compatibility between the total scores and pay grade structures. (Van Sliedregt et al., 2001.)

As Löfström (1999) found out the use of job evaluation does not just raise women’s wages, but also men’s wages in female-dominated jobs, she extrapolated that it is female jobs, rather than women, that are believed to have a lower productivity. Furthermore, as she found out that there were more female winners in groups with already relatively high wages, the case might be that discrimination is more frequent in well-paid jobs. (Löfström, 1999).

**Theoretical explanations**

Arnault and others (2001) conclude that the fact that job evaluators were not able to identify a unique, objective value of each job indicates that the only meaningful notion of job value is its marginal productivity. They continue that
no previous research has been able to prove the construct validity of job evaluation method nor the convergence of different job evaluation procedures.

Ames (1995), in turn, justifies his results by the fact that existing job evaluation systems have been devised to replicate market wages, rather than correct gender inequities. Furthermore, he presents that job evaluation criteria tend to be gender-biased and concentrate mainly on the job content of male-dominated work. Likewise, the way the wages are set based on the results of job evaluation may be gender-biased. All this is due the fact that there is a long history of devaluing women's work. (Ames, 1995). Löfström is along the same line with Ames and discusses the reasons why women work in low paid jobs. According to Löfström, one explanation is that their “free will” is influenced by many social, cultural and ideological factors. For example, many women may believe that only certain jobs are suitable for them and therefore do not even consider alternatives. This belief affects their educational choices, and ultimately they cannot get other jobs because of the lack of the necessary qualifications. In addition, women may lack information about wages, working conditions, and the availability of different jobs. Alternatively, she has all the information she needs, but because of family responsibilities, she may not be able to choose among all alternatives. Finally, there may also be barriers and hindrances preventing women from entering parts of the labour markets. (Löfström, 1999.)

Van Sliedregt and others (2001) argue that their research results are due to the lack of compatibility between total job evaluation scores and pay grade structures. Based on previous research they present that this link may be strengthen by 1) extending the number of scale anchors by adding undefined ones, 2) weighting the factors equally and 3) reducing the number of job specific evaluation factors.

The results are summarized in Figure 10.
Figure 10. Results of cluster 2 (Job evaluation methods and practices).
4.1.3 Job status

The hierarchical status of the job is expected to have an impact on the outcome of job evaluation. Three of the articles dealt with this theme. The list of the topics is shown in Table 5.

Table 5. Topics of the studies concerning job status.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Articles (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How the job type (assistant / director) affects on the total scores of job evaluation?</td>
<td>15</td>
</tr>
<tr>
<td>H: Perceived organizational level would mediate the effect of pay level on the job evaluation ratings. H: Manipulated pay and organizational level would have an effect on total points. H: The effect of manipulated pay and organizational level on total points would be mediated by the effects of perceived pay level and perceived organizational level.</td>
<td>16</td>
</tr>
<tr>
<td>How the job title status affects on job evaluation ratings?</td>
<td>17</td>
</tr>
</tbody>
</table>

Primary results

According to Mount and Ellis (1987), the evaluators were able to differentiate between an assistant job and a director job in terms of their content (Mount & Ellis, 1987). On the other hand, Rutt and Doverspike (1999) found out that the perceived organizational level mediated the effect of pay on the job evaluation ratings. Furthermore, the perceptions of pay and organizational level did mediate the effects of manipulated pay and organizational level on job evaluation ratings. (Rutt & Doverspike, 1999.) In addition, Smith and others (1989) scored similar result as they found that job title status significantly influenced job evaluation ratings. Surprisingly though, the more familiar with the jobs being rated, the more strongly the title of the job affected. (Smith et al., 1989.).

Authors’ assumptions

Rutt and Doverspike (1999) commented on the results of their study by saying that the organizational status of the job is an important biasing factor on job evaluating ratings (Rutt & Doverspike, 1999). Smith and others (1989) agreed with previous researchers and stated that the title sets an initial expectation (“an anchor”) for the value of the job being rated. If information found in the job description is inconsistent with this initial anchor, the change in evaluation is insufficient to correct the error caused by the anchoring bias, as they called it. The outcome of the evaluation reflects the rater’s expected valuation given to the title based on individual stereotypes or biases. (Smith et al., 1989.) In contrast to other researchers, Mount and Ellis (1987) did not found biasing effects based on the job title. They do not, therefore, believe that status of the job is a major threat to the outcome of job evaluation.

Theoretical explanations

Only Smith and others (1989) brought up a theoretical explanation to their research result. They explained that the anchoring bias exists when judges are given an inappropriate starting value in making a decision. When such an inaccurate anchor is given, judges tend to make insufficient corrections, and
reach a final point determination that is incorrect in the direction of the initial anchor. (Smith et al., 1989.)

Results are summarized in Figure 11.
Figure 11. Results of cluster 3 (job status).
4.1.4 Current wage level

The current wage level of the job being evaluated are believed to act as a distorting factor in the same way as previously described job status. Three of the reviewed articles dealt with this theme. The list of the topics is shown in Table 6.

Table 6. Topics of the studies concerning current wage level.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Articles (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How the current wage level effects on job evaluation ratings (per compensable factor, total scores and relative hierarchy of jobs)?</td>
<td>10</td>
</tr>
<tr>
<td>How the knowledge of current wage level effects on total scores of job evaluation?</td>
<td>15</td>
</tr>
<tr>
<td>How the (manipulated) wage level effects on total points of job evaluation?</td>
<td>16</td>
</tr>
</tbody>
</table>

Primary results
All the articles came to the same conclusion: the current wage level is a significant biasing factor in the job evaluation process. Grams and Schwab (1985) found a strong evidence that the current wage level influences evaluations of jobs (Grams & Schwab, 1985). In addition, Mount and Ellis (1987) found exactly the same phenomenon as the previous researchers: the main effect for the pay level was statistically significant. Jobs in the high-pay condition were rated higher than those in low-pay condition. (Mount & Ellis, 1987.) Likewise, Rutt and Doverspike (1999) were along the same lines: total points of job evaluation and the current wage level were significantly correlated.

Authors’ assumptions
Mount and Ellis (1987) stated their results to be consistent with earlier studies, but pointed out that their study showed markedly weaker pay effects. They explain this by the following factors: They chose to their own research intentionally two jobs that were very different, both professionally and hierarchically. The authors note that this could be a significant factor as the magnitude of pay bias might be related to the content of the jobs or to the homogeneity among jobs in a cluster being evaluated. Furthermore, the evaluators in their study were familiar with evaluated jobs, in contrast to earlier studies. These compensation professionals might develop a frame of reference very different from that of the ad hoc evaluators in previous studies. (Mount & Ellis, 1987.) Rutt and Doverspike (1999), in turn, pointed out that while it is clear that bias in relation to the current wage level does occur, the research on what psychological mechanisms are responsible for the effect has been relatively absent.

Theoretical explanations
Grams and Schwab (1985) establish their results to be due to the so-called predictor contamination. This, in turn, is caused by the fact that current market wages are biased against women so that jobs held by women are systemically underpaid relative to jobs held predominantly by men. (Grams & Schwab, 1985). Mount and Ellis (1987) justified their results by same reasons as the
previous researcher. They remind that this pay bias is the so-called indirect bias (vs. direct bias), in which the job evaluation judgements are influenced by the knowledge of discriminatory current wages. (Mount & Ellis, 1987). Rutt and Doverspike (1999) are partly on the same line. They suggest that pay bias might be caused by the volition or the deliberate distortion by the evaluator or, on the other hand, by the so-called cognitive labelling. This means that the knowledge of the current wage level leads to a low/high worth or value label. Furthermore, the current wage level is assumed to provide information on the possible organization level of the job. (Rutt & Doverspike, 1999.)

Results are summarized in Figure 12.
Figure 12. Results of cluster 4 (current wage level).
4.1.5 Gender of job evaluator

While scientists have suspected that the gender of job incumbent might have an impact on the outcome of job evaluation, also the gender of a job evaluator has been under scrutiny. Two of the articles selected in my study dealt with this issue. In both articles, the study design was the same: how the gender of a job evaluator affects the outcome of the job evaluation process.

Primary results
Arvey and others (1977) found out that the gender of the evaluator showed a marginal but consistent effect on job evaluation scores. Female analysts gave relative lower scores to the job than male analysts across 22 (from total of 32) dimensions regardless the sex of the job incumbent. (Arvey et al., 1977.) Within Hornsby and others' (1987) study, instead, the gender of the evaluator affected significantly only on one task (i.e., mechanic). In contrary to the firstly mentioned study, in this study, female evaluators gave slightly higher values than males in supervisory control. (Hornsby et al., 1987.)

Authors' assumptions
Arvey and others (1977) discuss based on their research results that both male and female analysts might be necessary when carrying out job evaluation processes. Furthermore, their results suggest that it is important to be alert in situations where particular jobs or job families are consistently analysed by either male or female evaluators only. (Arvey et al., 1977.) Hornsby and others (1987) assume that the fact that women evaluate the mechanic job more favourably than men may be due to men having a better knowledge of the mechanics' actual tasks. (Hornsby et al., 1987.)

Theoretical explanations
Hornsby and others (1987) did not provide any theoretical justification for their research, although they reminded that job evaluation is a judgement process. Therefore, it is possible for gender stereotypes to hinder evaluation processes. (Hornsby et al., 1987.) Arvey and others (1977), in turn, pointed out that previous research has shown that sex role stereotypes are rather pervasive and powerful both in general and in the business world. Achievements are differentially assessed according to the hypothetical sex of the performer. Besides, male and female incumbents describe their jobs differently the way that women tend to underrate their work. Furthermore, they continue that research has proven job analysis to be overrated in terms of its objectivity. A relatively low interrater agreement has been found between job incumbent and supervisor descriptions of the same jobs. Likewise, a considerable variation among trained job interviewers observing the same job has been found. (Hornsby et al., 1987.)

Results are summarized in Figure 13.
Figure 13. Results of cluster 5 (gender of job evaluator).
4.1.6 Performance-based pay

Although most of the articles included in my research dealt with job evaluation, some articles about other pay systems were also included in the analysis. This subchapter introduces two articles about performance-based pay. The list of the topics is shown in Table 7.

**Table 7.** Topics of the studies concerning performance-based pay.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Article (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How performance evaluation effects on performance-based reward, pay</td>
<td>7</td>
</tr>
<tr>
<td>increases and promotion decisions?</td>
<td></td>
</tr>
<tr>
<td>How different performance-based pay systems effect on gender wage</td>
<td>12</td>
</tr>
<tr>
<td>differentials?</td>
<td></td>
</tr>
</tbody>
</table>

**Primary results**

In his article, Castilla (2008) investigates the role of merit-based reward systems in shaping gender differences in wages and promotions. He developed and tested two different propositions and found out that women received less compensation than men with equal scores on performance evaluation. Pay decisions based on the performance evaluation are done in two stages: first, a head of a unit recommends to HR a particular pay increase for a given employee, and secondly, HR personnel member makes the decision to approve or reject a given pay increase recommendation. According to the Castilla’s results, the bias is likely to happen in the first stage. (Castilla, 2008).

Kangasniemi and Kauhanen (2013), in turn, compared how different performance-based pay systems impact on the gender pay gap. They focused on the bonus system as well as on piece and reward rates. They found out that bonuses increase earnings quite similarly for both genders. Women’s earnings increase slightly less, but the significance of the difference is minor. Piece and reward rates, however, tend to increase gender wage differentials. They increase wages by 6% for men but around 4% for women. (Kangasniemi & Kauhanen, 2013.)

**Authors’ assumptions**

Castilla (2008) describes his research result as the performance-reward bias. This bias exists when there is a disparity in the effect of ratings on pay increases by gender (and race as well). (Castilla, 2008).

Kangasniemi and Kauhanen (2013), instead, emphasize that it is important to take into account the nature of performance-based pay plan in order to be able to understand its effects on the gender pay gap. They point out that piece and reward rates measure a performance mainly on the personal level, while bonuses vary between personal and organizational indicators. According to the authors, this may be one explanation for why different types of performance-based pay systems have different effects on the gender pay gap. (Kangasniemi & Kauhanen, 2013.)
Theoretical explanations

Castilla (2008) offers two main theoretical explanations for the performance-reward bias. The first explanation is the social-psychological theory about accountability. According to this, if decision-makers know that they are held accountable for making fair decisions, there will be fewer biases. Another factor is the transparency. The more transparent the practices are, the easier the disparities are noticed and corrected. This is also strongly related to information-processing bias. This means that it is more difficult for individuals to detect discrimination at a personal level than at an organizational or societal level. Finally, Castilla’s study provides some field evidence of the existence of “double standards”, meaning that women must work harder to prove that their ability is similar or greater than men’s. (Castilla, 2008).

Likewise, Kangasniemi and Kauhanen (2013) introduced several theoretical explanations for their research results. First of these is the discrimination. If an organization uses subjective ratings, they may reflect a bias in perception or attitudes of a supervisor (or any other conducting the appraisals). In addition, individuals within the same performance-based pay scheme may also have different tasks, which result in a higher potential pay than others do. In addition, segregation is related to the impact of performance-based pay, as they are not used in all workplaces and in all jobs. There are also differences related to the selection (or choices) between the sexes. This means that, for example, family responsibilities which focuses mainly on women, may lead to a higher degree of randomness in their output (and thus lower productivity), which in turn leads to the fact that women prefer fixed wage systems. Furthermore, the differences between men and women in efforts and achievements can affect the fact that women earn less when it comes to the performance-based pay. This refers to the fact that individuals set their effort to achieve the outcome that is personally optimal for them. Unevenly divided responsibility for the family may lead to the fact that women also set their goals lower than men do. (Kangasniemi & Kauhanen, 2013.)

Results are summarized in Figure 14.
Figure 14. Results of cluster 6 (performance-based pay).
4.1.7 Differences in labour markets

Differences in pay structures between different labour markets can affect the amount of the gender pay gap. Only one of the articles dealt with this theme. Belgorodskiy and others (2012) investigated pay equality issues amongst men working in ICT in the United Kingdom and New Zealand. The article includes seven different hypotheses concerning the pay justice. My study focuses on one of these hypotheses, which deals specifically with gender pay equality.

Primary results

The paper addresses the issues surrounding the gender pay gap focusing on the Information Communication Technology (ICT) sector of the labour markets of United Kingdom and New Zealand. The hypothesis concerning the gender pay gap was formulated as follows: “My pay package is in line with that of my colleagues of a similar level who are male”. Both national (UK and NZ) groups of respondents disagreed with the statement. The results suggest that the New Zealanders are more strongly in disagreement. According to the interviews made by the authors, it could be stated that the fact that women do not consider their pay package to be in line with their male colleagues are due to four factors. At first, the gender pay gap tend to instigate already at the early stage of a woman’s career. It should be a quite well known fact that women often have a lower starting pay than men do. The second factor are the issues concerning promotions. According to the authors, women tend to have quite a struggle to be promoted. The third issue seems to be the pay secrecy that prevails in the labour market. The last factor mentioned by the researchers is not directly related to the organizational level, but will be indirectly apparent in the organizational level as well. These are the issues concerning the domestic division of labour. The women in this study experienced the discrimination in pay and promotion during and after a maternity leave. (Belgorodskiy et al., 2012.)

Authors’ assumptions

According to the authors, women have a lower starting pay because they lack confidence to negotiate the pay and promote themselves and, therefore, accept lower wages. Difficulties in getting a promotion seems to be due the lack of necessary networks. According to the authors, the career mobility, higher levels of pay, positions and status are achieved through networking, which women seems to lack. The pay secrecy leads to the fact that it may be difficult for females to negotiate a fair pay, which properly reflects their job and contributions. (Belgorodskiy et al., 2012.)

Theoretical explanations

The fact that women lack confidence to negotiate pay and promote themselves are due to following facts. First, women are less inclined to negotiate than men are. Moreover, if they do negotiate, they tend to get different treatment than males. Secondly, there are often negative consequences if women step out their gender role and, for example, ask for pay raise. Thirdly, women have learned
that a male oriented behaviour (like aggression, loudness and over-confidence) are not expected from them. (Belgorodskiy et al., 2012.)

The authors do not provide actual theoretical explanations for the existence of the pay secrecy, but instead bring up a few facts of labour markets in UK and NZ, which are likely to affect the existence of the pay secrecy. Within both countries, the ICT sector employment relations are highly individualized. In the UK, pay and other work related issues are often agreed bilaterally and kept confidential. Similarly, in NZ labour market deregulation and decreased trade union memberships facilitated individual employment contracts for ICT workers. Furthermore, The Privacy Act conducted in 1993 in NZ has also contributed to the pay secrecy. (Belgorodskiy et al., 2012.)

Results are summarized in Figure 15.
Figure 15. Results of cluster 7 (differences in payment structures between labour markets).
4.1.8 Market wages

Kim (2000) examines in her article the use of market pay surveys to see how they influenced women’s wages. She uses a 1989 research of the government wage setting in the state of Washington, as well as her own research of the government wage setting in the state of California. (Kim, 2000.)

**Primary results**

Based on her investigation of the use of market pay surveys, Kim (2000) detects a number of factors, which may lead women to have lower pay levels than men. First, even those companies that do discriminate against women are involved in wage surveys. This naturally leads to the fact that if the salaries included in the wage survey are biased, employers using these wage surveys will incorporate these biases into their own wage structures. (Kim, 2000.)

Another, much subtler reason why the market pay surveys lead to underpayment of women is the fact that women’s skills are undervalued. In the state of Washington, women’s jobs were more likely to be surveyed for market wage rates than were men’s jobs. Furthermore, men’s jobs were likely to be higher paid for two reasons: they were indexed to another male job, which was on the average higher paying than the female jobs, and they were more likely to be insulated from the market. Women’s jobs, on the other hand, were likely to be indexed to other female jobs, which were also low paid, or their pay was determined by relatively low wages in the market. (Kim, 2000.)

The use of market pay wages is also linked to a problem of defining relevant market. Employers must conclude which companies, industries and geographical areas are included in the survey. In the state of California, women’s jobs were disadvantaged for two reasons. First, it was less likely that their wages were compared to the wages of metropolitan areas, where the wage level is higher. Secondly, the amount of cities or counties included in female pay surveys, were higher. This works against women, because limiting the number of cities or counties in the sample are likely to increase market wage estimates as these samples usually contain the most populous cities and counties. (Kim, 2000.)

Furthermore, according to Kim’s survey the administrators tend to have a desire to maintain the status quo. For example, the State of California had an explicit policy to maintain the current pay structure, because it is believed that workers get upset if the existing wage structure would be changed. (Kim, 2000.)

**Authors’ assumptions**

The author raises a number of assumptions based on the research results. When it comes to the fact that the State of California included a number of companies in the wage survey, which were later found guilty of gender-based discrimination, the author ponders that it might not be an isolated case. She believes that many other employers also used the State of Californian’s pay survey in their wage determination process. Thus, the bias infused many other pay systems as well. (Kim, 2000.)
When referring to the undervaluation of women’s skills, the author points out that if the women’s skills remain to be invisible, they will not be rewarded, regardless of what wage setting method is used. The pay survey process involves making numerous judgements regarding the required skills in each job. When determining, which job in another firm is equivalent to the job in one’s own firm, one is implicitly evaluating the skill levels of employees. In addition, the general practice of indexing women’s jobs to other women’s jobs through job evaluation process ensures that the underpayment of women’s jobs is spread across the pay system. (Kim, 2000.)

About maintaining the status quo, the author stresses that by maintaining wage relationships through wage setting process perpetuates existing discrimination. (Kim, 2000.)

Theoretical explanations
The chain of argumentation was not straightforward in this article. Instead, it considered the use of market wages broadly from several points of view. However, at least the following theoretical explanations were presented.

The author ponders several theoretical explanations for the results of her study. First, the wage setting is a political activity. For this reason, those who know how the process works can easily manipulate the pay grading. Thus, in general, whether the job is surveyed or not is ultimately a secondary in importance to the larger political context of the pay setting. Another important factor is that power is rewarded. Women are less likely to ask for pay raises. They often lack knowledge about the pay survey process and do not understand how the system is used. Furthermore, the organizations representing them were either ineffective or did not work within the existing pay setting system, choosing instead to supplant the current system. Thirdly and perhaps the most importantly, women did not have the necessary contacts and political influence in the workplace. The fourth important factor is the fact that several decisions made in the setting process involve making a series of judgements, and when making judgements, gender biases may occur. (Kim, 2000.)

Results are summarized in Figure 16.
4.1.9 Pay raises

Balkin and Gomez-Mejia (2002) consider in their article, what kinds of gender-specific effects pay raises produce in a university context. They set out two hypotheses. H1: For a specified pay increase, male faculty are expected to experience lower levels of pay satisfaction than females after controlling for performance, pay level, and individual and institutional characteristics. H2: For a specified pay increase, male faculty are expected to be more likely to leave the university than females after controlling for performance, pay level, and individual and institutional characteristics. (Balkin & Gomez-Mejia, 2002.)

Primary results

Based on their research, Balkin and Gomez-Mejia (ibid.) confirmed both the above-mentioned hypotheses. Indeed, for a given pay raise, male faculty were more likely to be dissatisfied after controlling for pay, pay raises, performance, and individual and organizational differences. Furthermore, lower increases in pay were associated with a higher turnover rate for male faculty than that of females. (Balkin & Gomez-Mejia, 2002.)

Authors’ assumptions

The authors reflect based on their research results that men are more sensitive to changes in their pay increases than females. Indeed, women are more likely to be satisfied with their pay raises, even if these are lower than those of males. In addition, if not satisfied, men are more likely to act because of their dissatisfaction. According to the authors’ inference, it may be that faculty administrators may allocate higher pay raises to male faculty because this reduces their dependency threat. (Balkin & Gomez-Mejia, 2002.)

Theoretical explanations

The authors made a number of theoretical justifications for their research results. Consider the first hypothesis, according to which women are more satisfied with their pay increases than men, this is due to at least two factors. First, women tend to be more satisfied with unfair wages, because they compare their pay to that of female referents. Secondly, women have lower wage expectations than men do. This, in turn, is due to the following factors. First, women may lack information about male pay levels. Secondly, women are likely to be aware of the pay gap, which may limit their pay expectations. In addition, women tend to underestimate their own abilities and efforts. Furthermore, women tend to reflect their success for external causes, whereas men take personal credit for their success. (Balkin & Gomez-Mejia, 2002.)

Next, we look at the second hypothesis, according to which men are more likely to act on their dissatisfaction. According to authors, this information leads to the fact that higher pay raises are allocated to male faculty because of the dependency threat. The resource dependence theory suggests that the power of individuals is determined by (a) what a person does in the organization and (b) the skill of the individual in doing it. According to the authors, there are two dependency threats that are particularly relevant in a university context. These
are the possibility of disruptive acts by subordinates against managers and the potential for subordinate turnover. The first dependence threat is due the male’s tendency to react more strongly to perceived inequalities by publicly expressing their anger in various ways. Another dependency threat is that men have greater job mobility and thus will change their job more easily. (Balkin & Gomez-Mejia, 2002.)

Results are summarized in Figure 17.
Figure 17. Results of cluster 9 (pay increases).
4.1.10 Social networks

In several previous subchapters, it has been discussed about the impact of social networks in the emergence of the gender pay gap. Belliveau (2005) approaches the subject by studying how employer’s assumptions regarding women’s social networks and the subsequent access to the comparative pay information influence on their pay offers.

Primary results
This article has proposed a number of hypotheses concerning both the amount and the number of pay offers as well as the amount of received job offers. However, in the following only the hypotheses relating pay offers are concentrated. The hypotheses are:

H1: Women attending the single-sex institutions will receive lower salaries than women attending sex-integrated institutions.
H2b: Proportion of men in women’s advice networks will be positively associated with the magnitude of women’s pay offers.
H3b: Proportion of employed adult men in women’s advice networks will be positively associated with the magnitude of women’s pay offers.
H4b: Proportion of male in peers in women’s advice networks will be positively associated with the magnitude of women’s pay offers.
H5: The effect of proportion of male in peers in advice networks on pay offers will be weaker for women who attend a sex-segregated institution than for women attending a coeducational institution. (Belliveau, 2005).

The first hypothesis was confirmed. Indeed, women’s college students received significantly lower pay offers than their coeducational counterparts; the wage penalty was approximately 9 percent. The second hypothesis (H2b) was confirmed only in part. The total advice network heterophily is related to the pay in case of students in a coeducational college, but not related in the case of students in a women’s college. The third hypothesis, instead, was rejected. Relationship between the employed adult heterophily and the pay is nonsignificant to the magnitude of women’s pay offers. Hypothesis H4b, in turn, was confirmed, as did hypothesis 5 (H5). This means that the peer advice network heterophily is positively and significantly related to the compensation, and women’s college students receive significantly lower returns to their peer advice network heterophily than do their coeducational counterparts. (Belliveau, 2005).

Authors’ assumptions
According to the author, these results embodies the recruiter assumptions about the women’s college students’ access to pay information and pay expectations. An affiliation with single-sex institutions are believed to be related to the limited availability of cross-gender advisory networks, and thus affect the firms’ beliefs of women’s wage expectations. (Belliveau, 2005).
Theoretical explanations
The social capital of men and women differs in such a way that women have social networks that are of less profitable in obtaining jobs and acquiring information about maximum pay levels. Thus, women do not get as good job search results as men do. Because women do not have information about men’s pay levels, women tend to have lower wage expectations and lower sense of the entitlement to pay. (Belliveau, 2005.)

Results are summarized in Figure 18.
Figure 18. Results of cluster 10 (social networks).
4.1.11 Valuation of skills

The undervaluation of women's skills is one factor, which is often said to affect the gender pay gap. Findlay and others (2009) investigated how the low skill visibility and valuation in the pay in female occupations influence the gender pay gap by concentrating on the skills and rewards of early years workers.

Primary results
The authors were able to detect that the nursery nurses' skills were significantly undervalued. Indeed, nursery nurses obtain the lowest or second lowest score in nine of total thirteen job evaluation factors and score best only in the lowest weighted factors. Nursery nurses' own perceptions of their skills and contributions to child education are significantly different from their employers' perceptions. (Findlay et al., 2009.)

Authors' assumptions
According to the authors, nursery nurses' jobs have been interpreted restrictively and skills are underestimated due to gendered assumptions. The caring dimension of their work overshadows their important role in education. Despite the complex technical and emotional skills underpinning care services to young children, caring work is not appreciated, probably due to its association with mothering. (Findlay et al., 2009.)

Theoretical explanations
The authors conclude that at the background of their research results is the fact that many caring skills are not recognized as skills but as the natural, innate or acquired attributes of being a woman. Childcare work is particularly problematic as its association with mothering skills militates against its recognition as learned and valuable. And when care work is not conceptualized as pedagogy, it is a poorly qualified and poorly paid low status work. Secondly, the undervaluation of the care work is due to the valuation of individuals and occupations socially. Many social processes contribute to the gender pay inequality, such as the occupational segregation and labour supply constraints. These social values translate into attitudes at the workplace, and the undervaluation of women's jobs are created by how skills and jobs are actually valued within the workplace. These valuations appear, in turn, within intra-organizational pay grading practices. Job evaluation can uncover significant gender inequalities in the intra-organizational pay. In addition, job evaluation is a management tool used often to legitimize, not challenge organizational hierarchies. In addition, it is also susceptible to implementation errors, the authors conclude. (Findlay et al., 2009.)

Results are summarized in Figure 19.
Figure 19. Results of cluster 11 (valuation of skills).
4.2 Synthesis results

The synthesis focused on finding similarities and differences between the meaning units, and most importantly in this case, the interactions between the meaning units. While the focus in the previous subchapter was on the details, this subchapter focuses on the overall picture of the results. The visualizations as well as description below summarizes the main findings of the articles, supplemented by the relationships between different factors.

There are considerable differences within labour markets, even within Europe, not to mention the rest of the world. This is already evident from the different pay gap figures in different countries. Different labour markets will certainly set their own challenges for promoting wage equality. One of these challenges is what kind of methods organizations have available for wage determination. While other labour markets are more centralized, where labour market organizations define the methods available to organizations, other labour markets favour organizational or even individual agreements on pay determination.

Most studies included in my synthesis concentrated on job evaluation. This is not surprising, as it has been considered as one of the most important means of promoting pay equality, and is widely used in different labour markets. These systems were introduced because the job-oriented evaluation was believed to reveal the undervaluation of women's work. Since then, research has revealed several problems related to job evaluation and its practices. First of all, although job evaluation has been found to increase women's relative wages on average, it also raises the wages of some men (Löfström, 1999), indicating that job evaluation maintains the existing gender pay gap to some extent. Secondly, different evaluation methods have different effects on wages, some have even been found to systemically discriminate women. For example, Löfström (ibid.) found that the BVT-system increases women's relative wages by 2%, while the Hay-method increases women's wages even by 6%. However, there were other problems with the Hay-system, as despite the moderately high pay increases, women were paid less than their productivity in all branches regardless of the share of women. This refers to direct discrimination of women. (ibid.)

A surprising observation was that there was no solid evidence that the gender of the person being evaluated was relevant to the outcome of job evaluation. On the contrary, some of the studies included in the analysis even found a pro-female bias indicating that when a job incumbent was a woman, the job was rated higher (Arvey et al., 1977; Mount & Ellis, 1987). It is also consistent with the previous mentioned findings that if a job title was declared to be female-related, the job was evaluated more favourably (Hornsby et al., 1987). On the other hand, the overall gender distribution of the job seems to have some impact on the job evaluation outcome, indicating that female-dominated jobs are rated lower, although the observed effects were minor. (Löfström, 1999; Grams & Schwab, 1985). On the other hand, there was clear evidence of undervaluing female skills as Findlay and others (2009) found that nursery nurses obtain the
lowest or second lowest score in nine of the 13 job evaluation factors and score best only in the lowest weighted factors.

An interesting observation was also that if female-dominated job were more critically evaluated, women would also appear to be slightly more critical in the role of the job evaluator (Hornsby et al., 1987). The current pay level of the job also has a significant impact on the outcome of the evaluation, namely that jobs with assumed high current pay are rated higher (Grams & Schwab, 1985; Mount & Ellis, 1987; Rutt & Doverspike, 1999). On the other hand, there was no consensus on the impact of the hierarchical status of the job on the evaluation outcome. The outcome of the evaluation can also be influenced by changing the agreed evaluation rules, such as omitting undefined scale anchors as well as changing scale weights (Van Sliedregt et al., 2001).

While the gender distribution of the job had only little impact on the outcome of the job evaluation, the impact on the incentive bonuses were more significant. For each 10% increase in the proportion of women in a job, the likelihood of receiving incentive bonuses decreases by 8.4%. Furthermore, for each 10% increase in the proportion of women in a job, workers in that job would receive 7.5% less in incentive bonuses. The gender distribution of the job has also been shown to affect the level of basic pay as well as total compensation. For each 10% increase in the proportion of women in a job, individual employee receive 1% lower total compensation and 1% lower base pay. (Elvira & Graham, 2002.) Performance-based pay have been found to have a direct relationship with the employee's gender, as women receive less compensation than their male counterparts with equal performance evaluation scores (Castilla, 2008). Furthermore, piece and reward rates generate lower wage increases for women than for men, and thus tend to increase the gender pay gap (Kangasniemi & Kauhanen, 2013). In addition, the use of market wages also works against women, as market wages repeat the already prevailing gender pay gap in the labour market (Kim, 2000).

With the exception of the employee’s gender, the factors related to the individual (and the pay system) were hardly studied in the articles included in my research. However, a few interesting observations were found. In one study, it was found that if the employer believes that there are men in the social advisory networks of the female jobseeker, the pay offers they received were higher than those of who were not believed to have male advisors. The difference between the pay offers given was considerable between the two groups studied, as women with male advisors in their social networks received about 9% higher pay offers. (Belliveau, 2005.)

When looking at the individual’s point of view, it was also interesting to detect that women are more likely to be more satisfied in their pay increases than men are. Furthermore, men are also more likely, if not satisfied, to act on this satisfaction as lower increases in pay are associated with a higher turnover rate for male that of females. (Balkin & Gomez-Mejia, 2002.) Furthermore, perceptions of pay seem to vary between different labour markets. On the other hand, although the perceptions differed in the different labor markets, the
perception of wage inequality was common: Women both in the UK and NZ did not consider their pay equal to that of male. (Belgorodskiy et al., 2012.)

Results are summarized in Figure 20. In the figure, the factors found to increase the gender pay gap are indicated in **bold italics** and the factors that were found to be irrelevant in regards to the gender pay gap are marked with grey. Furthermore, factors that were found to be significant in wage formation, but which actually do work in favour for women, are marked with normal font.
Figure 20. Synthesis results.
5. Discussion and Conclusions

The gender pay gap is a complex issue underlying a number of interrelated as well as some independent factors. In recent decades, several researchers have invested a lot of effort to find out which factors underlie behind the gender pay gap. In most cases, the researchers as well as the media refer to the segregation in the labour market, undervaluing of women’s work as well as the unequal distribution of family responsibilities. Considering how much we know about the factors affecting the gender pay gap at the societal as well as the individual level, it is surprising how little attention has been paid on the role of pay systems – or any other employers’ practices – in creating inequalities at the workplace. Although several researchers have stressed that organizations play an important role in producing and maintaining inequality in working life (see e.g., Baron & Bielby 1980; Baron 1984; Bielby & Baron 1986; Reskin, 1993), research has so far been quite limited. However, investigating gender equality issues at workplaces is particularly important as they have significant social, economic and physiological implications (see e.g., Huffman & Cohen, 2004; Jaffee, 1989; Wright, Baxter & Birkelund, 1995). Therefore, the aim of this thesis was to provide more profound understanding of the facts we know about gender equal pay practices at the workplaces. In this chapter, I present the most important conclusions of my study. I begin by visualizing the results of my study with a systemic model that summarizes the factors that have been found to affect the gender pay gap at the organizational level (5.1.). I then continue by reflecting the possible social and managerial implications (5.2.). At the end of the chapter, I discuss the limitations of the study (5.3.), and, on the other hand, ponder the opportunities the study offers for future research (5.4.).

5.1 Systemic model

In this subchapter, I present the systemic model that brings together previous research evidence from the articles that were included in my study. Summary of the model is shown in Figure 21. At the right-hand side are listed the pay system related factors that have been found to affect the gender pay gap at the organizational level (see the synthesis in previous chapter). These factors are marked with bold italics. The left side of the figure, on the other hand, describes the factors that influence the emergence of these organizational level phenomena contributing the gender pay gap. These factors are categorized on
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three different levels based on where they occur: at the societal level, at the organizational level or at the individual level. The factors that are directly related to pay system are indicated in bold. The arrows in the picture, in turn, show the dependencies and relationships between the factors. The colour of the arrows is irrelevant. Colours have been used solely to make it easier to perceive the beginning and the end of each arrow.

As can be seen from the figure, a wide variety of factors influence on how pay systems work and generate gender-based pay differences at the organizational level. It is surprising how little information was found about the concrete pay system related factors that affect the gender pay gap. However, this may be due to some constraints in my data (see evaluation of the study for more details). Secondly, the question may be that perhaps there is only little research on the gender equality of the pay systems, as indicated earlier. Alternatively, the question may also be that the impact of societal and individual factors cannot be ruled out when examining the pay systems. In any case, the systemic model highlights how strongly both the attitudes and values prevailing at the societal level as well as individual factors are reflected in the pay system implementation at the organizational level. Next, I will discuss the systemic model in more detail. I will begin to describe the systemic model at the organizational level, and then expand my perspective on societal and individual factors. I will complement the discussion with my own reflections as well as with the theoretical debate.

Values and attitudes. First of all, several different values and attitudes affect all the organizational activities. In particular, the undervaluation of women’s work seems to have a strong impact on the pay system implementation in organizations. The societal undervaluation of women’s work flows directly to the organization’s value atmosphere through the devaluation effect. This means that if the organization members have internalized a societal norm that considers female work to be less valuable, they are seen as such within the organization as well (see e.g. Elvira & Graham, 2002).

The undervaluation of women’s work is indirectly reflected in a number of factors related to the pay system implementation. The undervaluation of women’s work is particularly strongly reflected in both job and performance evaluation criteria, which are said to focus merely on the content of male dominated work (see e.g. Ames, 1995) as well as on male behaviour (see e.g. Elvira & Graham, 2002). Naturally, this leads to a situation where the skills required for women’s work as well as female behaviour are left unrewarded. Especially skills related to female-dominated caring work are often considered as (almost) invisible. Many caring skills are not recognized as skills but as natural, innate or acquired attributes of women. For example, childcare work is particularly problematic as it is strongly associated with mothering.

Furthermore, it has been suggested that organizations have a “taste of discrimination”. This rather bold theory suggests that since women are not liked at organizations, they are paid less than men with the same productivity (Löfström, 1999).
Systemic model of pay system related factors contributing to gender pay gap

Figure 21. The systemic model of the gender pay gap
Most of the articles included in my study mentioned the undervaluation of women's work to be the underlying factor behind the gender pay gap. The undervaluation is often attributed to segregated labour markets. The undervaluation theory suggests that women's work, skills, and competences are often undervalued especially in occupations where they are in the majority. (See e.g. Löfström, 1999). As the labour markets in Finland are highly segregated, the undervaluation of women’s work can potentially affect strongly the pay gap in Finnish work organizations.

**Gender roles and stereotypes.** Another important societal factor affecting pay system implementation at organizations are traditional gender roles and stereotypes. This is in line with previous research (see e.g. Arvey et al., 1977) that has shown that gender roles and stereotypes are rather pervasive and powerful both in general and in the business world. The effect of gender roles is twofold, as can be seen from the systemic model. First of all, expectations of women's behaviour affect the way they act in the workplace. An important factor from the pay system point of view is that women are not expected to behave decisively and aggressively, for example, by asking for a pay raise. Previous studies have shown that if women step out from their gender role, it has negative consequences, and therefore women are not inclined to negotiate for a better pay (see e.g. Belgorodskiy et al., 2012). Secondly, managers make pay-related decisions based on the traditional gender roles. This results in women not being rewarded, even if they behave in the "male" way as required by the evaluation criteria.

**Chosen pay system.** Of course, the gender pay gap is also significantly influenced by the pay system that the organization decides to use. Previous studies have shown that even different job evaluation methods produce different wages. Therefore, from the gender pay gap point of view, it is not irrelevant which instrument or tool the organization chooses to use for wage determination. The studies did not provide very clear guidelines on what issues need to be considered when selecting the job evaluation method. However, a few tips could be found. For example, the Hay-method was found to systematically produce lower wages for women despite their productivity (Löfström, 1999).

On the other hand, there were clear differences between the different types of pay systems in terms of producing gender-based pay differentials. As a general guideline, one could say that the less formalized the pay system, the more gender-based pay differentials it generates. Previous studies have found that women receive less performance-based rewards with equal performance evaluation scores (Castilla, 2005). This is strongly related to the implementation of the pay system, because performance evaluation is always a judgemental process, and thus there is an opportunity for cognitive biases. I will present the factors related to evaluator and biases in more detail in a few moments.

There are also differences between different performance-based pay systems in how they produce gender-based pay differentials. Kangasniemi and Kauhanen (2013) points out that it is important to take into account the nature
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of performance-based pay plan in order to be able to understand its effects on the gender pay gap. It may be that performance-based pay systems that measure performance mainly on the personal level are less favourable to women than pay systems where at least some of the indicators are at the organizational level. This, also, may be strongly associated with the undervaluation of women’s work and contributions.

**The evaluator.** The systemic model also shows that the evaluator has an impact on the evaluation outcome. Several pay systems require some kind of evaluation, either job or performance evaluation or both. It is clear that the evaluation, even though evaluation tools as fair as possible are used, can never be completely objective. Evaluations require decisions, decisions involves judgement, and judgements are influenced by evaluator’s values and attitudes, such as gender stereotypes or other biases regarding women’s work. These biases that interfere with the evaluation are strongly related to the evaluator’s attitudes. They can affect the outcome of the evaluation and hence the wages. The clearest bias found in this study, was the current pay, which serves as an anchoring bias so that jobs with high pay were rated more demanding than the jobs with low pay (see e.g. Rutt & Doverspike, 1999). Accordingly, also the current market wages, which work for the benefit of men, may also act as an anchoring bias (Grams & Schwab, 1985). Because women tend to be occupied in low-wage sectors and jobs, this pay anchoring has a negative impact particularly on women’s wages. Furthermore, wages may also be distorted by information-processing bias, which refers to the situation where individuals are less able to perceive gender discrimination on personal level than on an organizational or societal level (Castilla, 2005).

**Organizational and managerial practices.** Of course, numerous organizational and managerial practices also affect how the pay system is implemented at the organizational level. Of these, the lack of accountability and transparency are related to before mentioned decision-making processes. Social-psychological theory about accountability suggests that when decision makers know they will be held accountable for making fair decisions, biases are less likely to occur. Secondly, if the organizational practices were sufficiently transparent, the disparities would be more noticeable and therefore more easily corrected. (Castilla, 2005.) On the other hand, transparency may also be expected to affect the pay secrecy, which I will talk about in a moment. Both of these before mentioned factors would promote the adherence to the agreed implementation rules. It has been established that at least the evaluation-based pay systems are easily manipulated as changing the agreed implementation rules affect the outcome of the evaluation (see e.g. Van Sliedregt et al., 2001). It is also possible that even if the evaluations were carried out as equally as possible, the way the wages are set are gender biased (ibid.). However, the goal of wage setting in an organization is not to promote equality but rather to serve broader management goals.

**Pay secrecy.** The aforementioned pay secrecy affects the gender pay gap so that it prevents women from gaining access to male pay information. This, in turn, results in women not being able to negotiate a fair pay for themselves. Lack
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5.2 Practical implications

of pay information is also caused by the fact that women are often excluded from the core organizational activities. This, in turn, also affects that women do not get the social capacity they need to have the power to negotiate better wages for themselves. The exclusion of organizational activities also affects the lack of useful social networks for women. It has been stated that women with men in their social advisory networks receive better pay offers (Belliveau, 2005).

**Pay perceptions.** Furthermore, gender differences in pay perceptions also affect the pay related decisions at the organizational level. First of all, women have been found to be satisfied with a lower pay. Several factors have been found to affect this: women compare their wages with other women in similar jobs, women do not have information on the pay level of men, and women are aware of the current pay gap and thus are content with their fate. Secondly, men tend to act more strongly than women do if they are not satisfied with their pay. This may lead to a situation where higher wages and more pay raises are directed to men in order to avoid negative consequences in the organization.

As is apparent from the above, the implementation of the pay system is very closely connected with the operating environment (i.e. the organization) and with the actors (i.e. the individuals). This makes it very difficult to isolate the elements related solely to the pay system. As a long-term researcher on pay systems, I naturally was aware of the factors at the societal and individual level that affect the gender pay gap. I must admit, however, that I was surprised at how strongly these factors affect at the different stages of wage determination at the organizational level. Based on the above, I have to conclude that the best way to influence the gender neutrality of the pay system is to create an atmosphere that encourages the promotion of equality, to develop implementation practices as transparent as possible, and to increase the accountability for decision making at various stages of pay determination. I will present my thoughts on useful practical implications in more detail in the next subchapter.

5.2 Practical implications

It is clear that promoting equality between women and men in working life would bring numerous benefits to the society, the organizations and the individuals themselves. Over the last decades, women’s participation in the economy and their contribution to the family finances have increased considerably. As a result, women have growing expectations for their working life, and if companies want to attract the best talent, equality in working life is a necessity. Equality is essential in creating quality jobs and a highly motivated workforce. Quality jobs, in turn, are crucial when building a positive working environment where all workers are equally valued for their skills and contributions. This study offers some important practical implications for both organizational and societal level.

Naturally, it is important for organizations to play their part in promoting equality in working life. For this reason, it is important that equality issues are addressed and taken into account in all managerial decisions. The continuous
training of supervisors helps to maintain awareness of equality issues, and to develop more equal management practices. Furthermore, gender equality plans and audits enable organizations to plan and measure their progress in implementing gender equality and gender equal pay.

If the organization implements a pay system based on job evaluation, it is particularly important to increase awareness of potential biases among those involved in job evaluation and pay decisions. It is also good to pay attention to the composition of the evaluation groups; they must include representatives of both genders and all staff groups. Organizations must also pay attention to the evaluation criteria and ensure that they treat both genders equally. In addition, pay system related practices and tools (such as evaluation criteria) must be included in regularly executed gender equality audits.

Furthermore, organizations should pay special attention to the transparency and the accountability in all pay related practices. In particular, all decisions related to pay should be accompanied by specific accountability audits. In addition, the pay knowledge of employees should be increased and the transparency of the pay system should be ensured. By increasing women's knowledge of both male and female pay levels, women are offered information about what is fair pay for them in relation to their job and skills, as well as in relation to their male colleagues. Naturally, this also requires that organizations have an atmosphere where women feel entitled and empowered enough to claim equal and fair pay.

Indeed, organizations can do a lot to promote equal pay. However, there are surprisingly few factors directly related to the pay system that organizations can influence. On the other hand, there are many aspects in the implementation of the pay system as well as in the supporting management systems, which can promote pay equality at the organizational level. In addition, much has to be done at the societal level to achieve gender equality in pay. First of all, it must be ensured that the female workforce, in particular, has sufficient information on the factors affecting the pay gap. Women's skills and competences are often undervalued, especially in occupations where they are in the majority. This results in lower pay for women. Therefore, more action is needed to increase the appreciation of women's skills and competences.

In addition, gender roles and traditions still influence choices and decisions made by women and men at a very early age, although it can be assumed that the effect of traditions will be diminished little by little. However, society could be more active in dismantling these gender inequalities.

In previous years, Finland has had a clear strategy on gender equality and equal pay. The tripartite Equal Pay Programme in 2006-2015 was active and productive, and awareness of pay equality was actively present in various media. Although the equal pay strategy and its objectives were updated at the end of the previous program, unfortunately the gender pay gap has not played a particularly important role in Finland in recent years. In this respect, the government need to perform measures that are more active.
5.3 Evaluation of the study

In this section, I will evaluate my study and its limitations. As with any other qualitative research, any qualitative meta-analysis needs to establish its trustworthiness (Morrow, 2005). For this purpose, Timulak (2014) recommends credibility checks. One commonly used method for credibility check in meta-analysis is to work in a group of meta-analysts so that each member of the group implements different steps of meta-analysis independently, and then consolidate the synthesis through a consensual discussion (Atkins, Lewin, Smith, Engel, Fretheim & Volmink., 2008; Bondas & Hall, 2007). Since this is a thesis, this option was not relevant. I had to (and wanted) to take the different steps of the meta-analysis myself to demonstrate my ability as an independent researcher. Another approach to establish the trustworthiness of the meta-analysis is the use of an auditor (or auditors) who can oversee all of the steps in the meta-analysis and offer his or her perspective and critical appraisal. Once again, as this is a thesis, this was done by working closely with the supervisor who read the research critically at each stage. In this respect, I believe that my research satisfies the demands of the trustworthiness. However, few restrictions need to be pointed out in regards of the data in use.

First, the amount of the articles that hit the search and met the inclusion criteria were surprisingly small. Indeed, I really expected more research on pay systems' equality. This makes me wonder if the search terms were, however, too exclusive. On the other hand, I also tried more tolerant search terms, but then the number of hits was overwhelming. In fact, finding the right balance in the inclusion and exclusion of the search terms was difficult. However, I repeated the search several times with different search terms, and now afterwards I must say that the decision I made on search terms seems to be the best possible at that time. Another thing that surprised me about the articles that hit the search was that many of them was published in the 1980s or -90s. It is possible that this is due the fact that the pay systems and the pay equality (which also appeared in search terms) were present especially in those decades, especially because of the comparable worth -movement. Perhaps more tolerant search terms would have helped also in this problem.

5.4 Further research

The study offers several interesting perspectives for further research. My own aspirations for the future research are two-fold. First, as you might have interpreted from the previous subchapter, I am not quite satisfied with the structure of my research material. I would definitely like to supplement the material with a broader search. This could provide a broader and deeper perspective on the pay system related factors that contribute to the gender pay gap. Or not, it remains to be seen. In any case, it would definitely improve triangulation and thus help building the trustworthiness of the study.

Secondly, I would like to test how my model corresponds with the real working life. The Finnish Ombudsman for equality issues annually several statements on wage discrimination claims. It would be interesting to study whether the issues
Discussion and Conclusions

raised in the claims are related to the factors I found in my study. I will do this in my doctoral dissertation. In order to study the correspondence of the systemic model developed in this study and the real working life in Finland, I have, based on my research, and developed the following preliminary propositions, which I will be testing in my dissertation:

1. The undervaluation of women’s work is strongly shown in the implementation of pay systems at the organizational level.

2. A large part of the equality problems in the organizations’ pay systems are related to the job evaluation.

3. Equality problems are more prevalent in situations where organizations have no formal pay system implementation practices, such as transparency and accountability.

In my doctoral dissertation, my main goal is to examine whether the above propositions are valid based on the statements made by the Finnish Ombudsman for Equality. In addition, I examine how the propositions appear in the filed claims. This analysis provides at least more information about the functionality of the model and, at its best, even validates it.

Furthermore, since so many societal factors are closely involved in the implementation of the pay system at the organizational level, it is important to have more information on how to change the existing value atmosphere. However, I pass this challenge on to other researchers as my own research passions remains at the organizational level.
References


References


References


References


Appendices

Appendix 1. Articles included in analysis.

<table>
<thead>
<tr>
<th>No.</th>
<th>Author(s)</th>
<th>Article’s name</th>
<th>Year of publ.</th>
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Appendix 2.2. Visual illustration of article 2.

Appendix 2.3. Visual illustration of article 3.

Appendices

Appendix 2.4 Visual illustration of article 4.

Appendix 2.5, Visual illustration of article 5.

[Diagram with text and labels indicating various factors and conclusions related to performance evaluation and reward systems.]


- **Primary Results**: The percentage distribution of job titles was found to be significantly different among various job and job evaluation types.
- **Assumptions**: Suggests that previous evaluations of job performance by gender may have biased.
- **Considerations**: Can be confounded by stereotypical views that females have to work much harder to keep up with male counterparts, even male controlled work setting such as mail.

- **Test 1**: No difference between job titles.
- **Gender of the job evaluation**: No gender bias detected.

- **Test 2**: A more complex analysis reveals that a difference exists, with job descriptions that are more complex and difficult for the actual job execution below procedures. Mapping was found that the job is more complex and difficult for the actual job execution below procedures.

- **Test 3**: More detailed analysis of the gender of the evaluator only significantly difficult for the evaluators to establish job equivalence. The evaluators were not able to establish job equivalence.

- **Job Evaluation**: Job evaluation results were not significantly biased.

- **Hypothesis**: No significant difference was found for the hypotheses that women tend to receive higher job evaluations than men.

- **Conclusion**: Therefore, it is possible for job evaluation to contain gender bias in the job evaluation process.
Appendix 2.10. Visual illustration of article 10.


- **Primary Results**: Results after controlling for firm/individual effects
  - Bonus increase earnings quite similarly for both men and women.
  - Women's earning increase slightly less compared to men.

- **The Nature of Performance Pay**: Important for understanding the impact of performance on gender wage differentials.
- Price and reward ratios measure performance mainly at a professional level, whereas performance measures in lower positions range from individual level to company level.
- This is one potential explanation for the differences in the impact on gender wage differentials.

- **Theoretical Explanations**
  - **Discrimination**: Individuals in higher positions may have different levels of which result in higher potential pay than others.
  - **Segregation**: Performance pay is not used in all types of jobs and for all individuals.
  - **Differences in Selection**: Family responsibilities may lead to higher degrees of satisfaction in women's job and lower productivity, leading to performance for fixed wage schemes.
  - **Differences in Effort**: Individuals set their effort to achieve the outcome that is personally optimal for them, division of labor within the family may affect effort choices in the labor market.


RQ2: Does systematic job evaluation or comparable worth programmes increase the relative wages of women?

**PRIMARY RESULTS**

- Main finding:
  - In many cases, women's wages are lower than those of men, but in some industries, women often earn more.

**RESEARCHED ASSUMPTIONS**

- Hypothesis: Job evaluation is biased, as women are often given lower grades than men.

**IS AUTHOR’S ASSUMPTIONS**

- X1: Women work in lower-paid jobs.
- X2: Women lack information about wages, working conditions, and the availability of different jobs.
- X3: Women’s family obligations reduce their access to certain job opportunities.
- X4: Barriers and biases prevent women from entering parts of the labour market.

Article highlights whether systematic job evaluation increases the relative wages of women. Two different evaluation schemes were used.
Appendix 2.12.2. Visual illustration of article 12, second extended study.


Extended model: analysis of discrimination and crowding effect.

Main finding I: Relation between wages and evaluation value fell on the share of women in the number of workers (both for men and women), i.e. crowding effect was found in both cases (BVT&UP)

Main finding II: Women were paid less than their productivity in all branches regardless of the share of women, i.e. direct discrimination were found in HAY case.

Women are concentrated in only a few occupations. Wages then fall because these jobs are “degraded” in the sense that the true productivity is believed to be lower, the higher the share of women in the labor force.

Ultimate cause for discrimination is that employers (or customers) have “a taste for discrimination”, i.e., since they don’t like women, they pay them less than men with the same productivity.


**STUDY I**
- Hypothesis I: Salary level would have an effect on job evaluation ratings.
- Hypothesis II: Perceived organizational level would moderate the effect of salary level on job evaluation ratings.

**RESEARCH QUESTIONS**
- Why is salary a critical factor in job evaluation ratings?
- How does perceived organizational level influence the effect of salary on job evaluation ratings?

**THEORETICAL EXPLANATIONS**
- Cognitive labeling: Salary information is key to a low/high worth or value label.
- Salary provides information on the possible organizational level of the job.

**Appendices**
Appendix 2.15: Visual illustration of article 15.

Appendix 2.16. Visual illustration of article 16.


Data of the job evaluation systems were used to investigate the effects of three manipulations on total job value scores and pay grade classification.

Effect of adding unstructured scores on total job scores are reduced.

Effect of adding unstructured scores on pay grade classification values vary by region.

Weights fairly affect relative total job value.

Equal weightings do not affect agreement among pay grade classifications.

The exclusion of job specific factors did not affect relative total job values.

The exclusion of job specific factors did not affect the pay grade agreement percentages.

Job evaluation instruments performing well in assessing relative job worth.

The relatively low pay grade agreement percentages are not necessarily caused by poor job evaluation quality (job evaluation bias). The previous research has suggested, but may be the result of a lack of comparability between total job value scores and pay grade structures.

Extending the number of scale anchors for job evaluation scores may improve inter-rater reliability.

Differential weightings may affect the match between total job value scores and pay grade.
Appendix 2.17: Visual illustration of article 17.


- **I. PRIMARY RESULTS**
  - Only results concerning pay equity are illustrated.
  - New Zealand: videos, surveys n=488 and in-depth semi-structured interviews n=11 vs. UK: only surveys n=23 and in-depth semi-structured interviews n=14.

- **II. RESEARCHERS’ ASSUMPTIONS**
  - Women balk at negotiating job and promote themselves and therefore accept salaries that are below market value.
  - Lower pay package in line with that of a colleague of a similar level who is male.
  - Career mobility, high levels of pay, positions and status are achieved through “networking”.
  - It may be difficult for females to multiply pay packets which properly reflects their position in salary secret career.
  - Family, career, broken and new domestic division of labor.

- **III. THEORETICAL EXPLANATIONS**
  - Women are less inclined than men to negotiate and face differential treatment when they do.
  - There are often negative consequences if women step out of their gender role and are more aggressive in asking for higher pay.
  - Women have learned that perceived aggression — toughness and over-confidence — are not what society expects from women.
  - Women are excluded from core organizational activities resulting in the loss of social and material benefits from internal networks.
  - Highly individualized employment relations.
  - Lack of trade union membership and collective bargaining.
  - Pay is often agreed bilaterally.
  - Pay is kept confidential from other employees.
  - Taking time out of the labor market to have children is one of the main reasons that women earn less than men.
  - Managers make decisions on women’s body, childcare decisions and salary-free participation regardless of the individual.