



# Implementing Impact Accounting

Measurement and monetization of a firm's impact using  
the example of the gender pay gap

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## **Abstract**

In a world driven by capitalism and rising social and environmental challenges, innovative ideas are needed to solve these issues. Many business systems were developed in and for a time when today's challenges did not exist. This also applies to the current accounting systems which disregard the non-financial impact of a firm. The purpose of this study is to develop a framework for how the new concept of impact accounting can be implemented in a firm. Thereby the focus is put on defining, measuring, and monetizing the impact of the gender pay gap. To answer these questions this study applies a mixed-method approach, combining a literature review, expert interviews, and a case study with the firm Sonae. The results highlight the different methods and challenges of defining and measuring social impact, in specific the gender pay gap. Furthermore, the study shows that there is still a pay disparity, adversely affecting various areas. In addition, it is essential for the implementation of impact accounting to define specific metrics for the measurement of an impact, particularly in the context of the gender pay gap. Moreover, the monetization of the impact should be approached from various viewpoints. This paper contributes to the research in the field of impact accounting, specifically focusing on the measurement of the impact of the gender pay gap within a firm.

**Keywords:** Impact Accounting, Gender Pay Gap, Impact Measurement, Impact Monetization, Gender Equality

**Title:** Implementing Impact Accounting - Measurement and monetization of a firm's impact using the example of the gender pay gap

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## **Resumo**

Num mundo impulsionado pelo capitalismo e pelos crescentes desafios sociais e ambientais, são necessárias ideias inovadoras para resolver estes novos desafios. Muitos sistemas empresariais foram desenvolvidos numa época em que os desafios atuais não existiam e o mesmo se aplica aos atuais sistemas contabilísticos que não têm em conta o impacto não financeiro de uma empresa. O objetivo deste estudo é desenvolver um quadro para a implementação do novo conceito de contabilidade de impacto numa empresa, colocando o foco na definição, medição e monetização do impacto das disparidades salariais entre homens e mulheres. Para responder a estas questões, este estudo aplica uma abordagem de métodos mistos, combinando uma revisão da literatura, entrevistas a peritos e um estudo de caso com a empresa Sonae. Os resultados evidenciam os diferentes métodos e desafios de definir e medir o impacto social, em particular a disparidade salarial entre homens e mulheres e mostra ainda que existe uma disparidade salarial que afeta negativamente várias áreas. Além disso, é essencial para a implementação da contabilidade de impacto definir métricas específicas para a medição de um impacto, em particular no contexto da disparidade salarial entre homens e mulheres, e a monetização do impacto deve ser abordada sob vários pontos de vista. Este artigo contribui para a investigação no domínio da contabilidade de impacto, centrando-se especificamente na medição do impacto da diferença salarial entre homens e mulheres numa empresa.

**Palavras-chave:** Contabilidade de impacto, disparidade salarial entre homens e mulheres, medição do impacto, monetização do impacto, igualdade de género

**Título:** Implementar a contabilidade de impacto - Medição e monetização do impacto de uma empresa utilizando o exemplo da diferença salarial entre homens e mulheres

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## **Disclaimer**

The focus of this paper is to discuss the matter of gender inequality specifically the gender pay gap in the context of impact accounting. When using the term “gender” the author focused solely on the binary gender: women and men. However, the author acknowledges that gender identity goes far beyond those binary definitions of gender.

# 1 Introduction

We must act now. Ending the plight of billions of lives and the decline of our planet depend on our urgent action. There is a will. There is a way. And there has never been a greater need or a better time. – 8. Belief of the Impact Revolution (Cohen, 2018b, p.1)

Climate change caused by environmental damages, increasing income and wealth discrepancy, and rising social inequalities due to discrimination based on gender, race, or sexuality are just a few drastic examples of how our world is becoming increasingly unsustainable. They highlight how our current value creation and distribution system is broken (Moreira da Cruz, 2019; Serafeim et al., 2019). Even though there has been steady progress in improving environmental problems and social grievances, the recent years, marked by the COVID-19 crisis and wars, led to a disruption of the previously made advancements. Especially social inequalities such as gender parity are still an unsolved issue (Kali Pal et al., 2023). Given the current rate of progress, it is expected that it will take 131 years to close the gender gap and more than 50 years to close the gender pay gap. This highlights the urgent need to prioritize gender parity and take necessary measures to bridge these gaps (Kali Pal et al., 2023; Stielow et al., 2023). It is time to admit that it is essential to start including not only financial and physical capital in our decision-making but also human, social, and natural capital (Serafeim et al., 2019). Firms have the resources and the capacity to initiate and lead the needed changes (Moreira da Cruz, 2019). A system in which companies that show social and environmental integrity are more successful than those that solely look at their profits and are self-serving is needed (Cohen, 2021). The increasing number of firms reporting information about their ESG (environmental, social, and governance) data is a clear indication that the topic hit the radar of firms and leaders. Moreover, many CEOs, such as Larry Fink, CEO of Blackrock with his annual letter to CEOs, or Paul Polman former CEO of Unilever by initiating the Unilever Sustainable Living Plan, signal that they understood their responsibility and started paying attention to the long-term vision of a company (Henderson, 2018). There is a rising need to reimagine capitalism. The solution to changing the world does not lay in investing more money in old concepts that no longer work but in innovating new ideas and solutions (Cohen, 2021).

However many of today's systems are outdated and fail to assist in addressing today's urging issues (Cohen, 2018a). One of these is the current accounting system which was designed in and for another century. There is a growing understanding that companies must include more

than just financial indicators in their financial statement to enable leaders to make appropriate decisions that lead to higher value creation for the environment and society (Nicholls, 2018). One way to implement this is to connect information about a firm's impact with its financial statements. Every firm has a certain impact, either positive or negative, which for the moment is not entirely measured and reported completely and comparably (Serafeim et al., 2019). Ronald Cohen, the founder of the so-called “Impact Revolution” is convinced that impact thinking will bring about just as great a change as the technical revolution (Cohen, 2021). The increase in the efforts to comprehend, measure, and improve the social and environmental impact of firms in recent years shows the rising interest in this topic (Serafeim & Trinh, 2020). Therefore, the Harvard Business School developed the concept of “Impact-Weighted Financial Accounts”. These accounts include the monetary valuation of the impacts of a firm in their financial statement to offer actionable signals for business leaders. This will allow firms to compare their social and environmental impact with each other as well as with their financial performance and thereby help to take meaningful actions (Serafeim et al., 2019).

## **1.1 Aim of the Study**

This study aims to develop a concept of how impact accounting can be implemented in a firm. Specifically, this study's objective is to determine how the social impact of a company can be defined, measured and in the next step monetized so it can be used for impact-weighted financial accounts. Hereby the social indicator gender pay gap will be used as an example and measurement of impact. To make the results more reliable and applicable in practice, a case study with Sonae (MC) will be carried out. Moreover, a benchmark analysis of best practices concerning the gender pay gap in the industry will be conducted to compare the obtained information.

This thesis is structured in two parts, first the literature review and second the empirical research. The literature review, presenting a comprehensive review of the relevant literature, starts with a short introduction about corporate social responsibility and responsible business followed by a brief overview of the notion of impact, highlighting how it can be measured and monetized. Then the concept of impact accounting, its relevance, and possible applications are discussed. The second part of the literature review focuses on the gender pay gap, the factors impacting it, and the consequences of its existence. The second part of this thesis describes the used methodology and the obtained results from the case study, expert interviews, and benchmark analysis. These results are then being discussed, analyzed, and

compared with the literature review. To conclude this thesis, a summary and recommendations for further research will be provided.

## **1.2 Research Question**

Implementing impact accounting: How can the impact of a company be measured and monetized using the example of the gender pay gap?

Moreover, the study aims to answer the following questions:

- How can the impact of a company, specifically of the gender pay gap, be defined and measured?
- What are potential ways of monetizing the measured impact?
- What are best practices concerning the gender pay gap at companies?
- How could a possible implementation of Impact Accounting be done at Sonae (MC)?

## **1.3 Relevance of the Study**

There is a rising need for new innovative solutions to overcome today's increasing environmental and social obstacles, especially from firms (Henderson, 2018). However, many decisions made by leaders are based on outdated business systems, such as the current accounting system which does not include a firm's impact on the environment or society (Nicholls, 2018). Considering the urgency of today's issues, new concepts need to be developed. One of those rising social challenges, that calls for urgent action is the general gender inequality that women experience every day. Especially the gender pay gap is an issue that has many underlying reasons and consequences for society. The relevance of this topic is also demonstrated by the fact that it is included in the Corporate Sustainability Reporting Directives from the EU that entered into force by January 2023 (European Commission, 2023b). One of these, namely “ESRS S1 own workforce” focuses on equal treatment and opportunities for all, which also includes “gender equality and equal pay for work of equal value” (European Commission, 2023a).

## **2 Literature Review**

### **2.1 Corporate Social Responsibility and Responsible Business**

The concept of corporate social responsibility (CSR) has a long history and dates back several centuries. Already in 1953, Howard R. Bowen argued in his book “The Social Responsibility of a Businessman” that firms should not only focus on generating profits but also assume social responsibility. He defines social responsibility as the obligation of a firm to take the needs and expectations of society into consideration and not only maximize profits. These can include environmental issues, the well-being of society, or ethical issues (Bowen et al., 2013). Bowen's work set a milestone in the definition of CSR, and especially starting in the 70s, the term became more prominent and was used more frequently. Since then, the notion of CSR has continuously further developed and by the early 2010's, the holistic implementation of CSR was seen as a way of creating shared value whilst increasing a company's competitiveness (Latapí Agudelo et al., 2019).

In addition to CSR, the notion of sustainability is progressively gaining prominence, especially in strategic management. The United Nations Brundtland Commission defined sustainability in 1987 as ensuring that the needs of future generations are met while meeting the needs of the present (United Nations, n.d.-a). However, tradeoffs are needed for sustainability. Companies must decide whether they want to invest less for smaller profits in the near future or more for larger ones at a later date (Bansal & DesJardine, 2014).

Nowadays the term “Responsible Business” is becoming more frequently used. They can be defined as businesses that not only do well for the firm but also act good for the environment and society by including sustainability from a holistic point of view at the core of the firm's strategy and considering all relevant stakeholders' interests. A responsible business also shares the same broader purpose while aiming to increase society's well-being (Moreira da Cruz, 2023). Therefore, the outcome of a sustainable business might also be different from a responsible one and some activities are either responsible or sustainable and not both (Bansal & DesJardine, 2014).

In response to the increasing relevance of both notions for firms and the rising social, environmental, and economic issues, the United Nations defined the 17 Sustainable Development Goals (SDGs) at its Sustainable Development Summit in 2015 (United Nations, n.d.-b). These goals are targeting to support the private sector in addressing the world's biggest challenges. However, a report published in the Harvard Business Review in 2019

points out that the implementation of the 17 SDGs is not successful enough to really solve urgent issues and that most companies that were analyzed in this study do not truly engage in implementing the SDGs but mainly reframe existing SDG activities. They are urging companies to take more serious actions and find new innovative solutions. The increasing need for new solutions led to the development and focus of new concepts and approaches such as social entrepreneurship, impact investment, and others (Kramer et al., 2019). Particularly the notion of “impact” has gained prominence in the past few years and provides several promising approaches that could help to solve today’s challenges. One of them is impact accounting.

## 2.2 Impact

Before going into more detail about what impact accounting is, the term impact and its meaning in the context of companies, CSR, and sustainability must first be defined.

One of the major contributors to the concept of impact is Sir Ronald Cohen. By creating the “Impact-Revolution”, he found a new solution for solving today's issues. Defining impact as the measurement of the benefits to society and the environment resulting from an action, he urges everyone to shift their focus to this concept (Cohen, 2021). Another but similar definition of impact comes from the Impact Frontiers who describe impact as “a change in an outcome caused by an organization (...) positive or negative, intended or unintended” (Impact Frontiers, 2023, p.1). The outcome can be defined as the “level of well-being experienced by a group of people, or the condition of the natural environment, as a result of an event or action” (Impact Frontiers, 2023, p.1). Based on the Impact Management Project, there are five dimensions that impact can be understood across: what, who, how much, contribution, and risk. The table below will shortly describe each dimension.

**Table 1:** *Five Dimensions of Impact*

<b>Dimension</b>	<b>Definition</b>
<b>What</b>	Which outcome the firm/organization is contributing to, whether it is positive or negative, and the importance of it to its stakeholders
<b>Who</b>	Who and which stakeholders are affected by the firm/organization and how satisfied they are concerning the environmental and social outcome of the firm/organization
<b>How much</b>	How many affected parties experience the outcome, to what extent do they feel the change in outcome, and for which period
<b>Contribution</b>	Determines whether a firm’s/organization’s effort caused outcomes better than what would have been without the firm’s/organization's activities
<b>Risk</b>	The likelihood that the intended impact is different than anticipated

Note: Adapted from impactfrontiers.org, (Impact Frontiers, 2023)

### **2.2.1 Impact Measurement**

One intended factor of impact is that it should be measurable and thereby also comparable. The process of impact measurement includes assessing the impact using either qualitative or quantitative methods. These are based on observed data obtained from surveys or other instruments, in comparison to an estimation informed by theory or a control group (Common Approach, 2023). As mentioned before, impact is about outcomes, therefore individuals, firms, and society needs to shift from measuring activities to measuring outcomes (Cohen, 2021).

However, there is not one universal method for measuring impact. Despite the increasing interest in this topic in the past few years, there are still several different approaches and not a set of universally used methods. At the moment there are more than 150 different ways to measure impact worldwide, all of which tackle the issue from a different viewpoint (Cohen, 2021). Measuring impact can be done on different complexity and detail levels. This starts from just identifying possible impacts or counting outputs and the receivers of those outputs, to using predefined metrics, gathering stakeholders' feedback, measuring well-being, and going to the highest level of measurement, which is implementing impact evaluations and monetizing impacts (Basile et al., 2021). In addition, the measurement and valuation of an impact is often based on models rather than looking at the real-time changes in people's well-being or the condition of the environment (IFVI, VBA, 2023). This is due to the complexity of measuring and valuing the harm or benefit of a firm to third parties. Especially social costs are very challenging to measure and value from a company's point of view due to the different factors that are not directly in control or influenced by the firm (King & Pucker, 2021).

### **2.2.2 Impact Valuation and Monetization**

Valuing and monetizing impact can be understood as the process of linking impact with a monetary unit which makes it universally understandable and comparable. Especially in a business context, currency is commonly used, and everyone can convert a monetary value into a good or service. However, valuing and monetizing social or environmental impact also comes with the risk of limiting its perceived value. Moreover, it might train leaders even further to only focus on monetary values and might take away their intuition about the value of social and environmental issues (Serafeim et al., 2019).

Nevertheless, there is not much evidence of companies monetizing their impact and the ones that have claimed to have undergone a process to monetize their environmental or social

impact mainly focus on monetizing their inputs and activities (Serafeim et al., 2019). Chapter 2.6 will describe an example of monetizing an impact more in detail based on the “impact-weighted financial accounts” Project from Harvard Business School.

### **2.3 Impact Accounting**

A firm's overall goal is to produce value for its different stakeholders, which can be equity holders and non-equity holders. Ideally, a firm creates value for its equity-holding stakeholders not at the expense of the other stakeholders. However, whenever this happens, traditional accounting methods fail to display this unequal distribution of value (Serafeim et al., 2019).

Impact Accounting introduces a new way to reimagine capitalism and give business leaders indications to guide their decision-making by connecting the consequences of a firm's actions with its financial statements. This is done by measuring, valuing, and consequently monetizing the impact of a firm which provides the necessary information to prepare so-called impact-weighted financial accounts (Serafeim et al., 2019). The Harvard Business School Initiative “Impact-Weighted Financial Accounts” (Serafeim et al., 2019) defines these as

line items on a financial statement, such as an income statement or balance sheet, which are added to supplement the statement of financial health and performance by reflecting a company’s positive or negative impacts on employees, customers, the environment and the broader society (p.5).

Without considering the impact of a firm, it is impossible to make decisions from a holistic point of view that reflects the real value for the environment and society that a company is creating (Serafeim et al., 2019). Even though a study conducted by Harvard Business School shows that many companies already report and measure different data about their environmental, employment, and product impact in a broader sense, they mainly focus on input and activities. Impact accounts on the other hand provide valuable information about the output and the impact of the firm on stakeholders. This could help on the one side firms to make better decisions as well as investors to make educated judgments about the allocation of their financial resources (Serafeim et al., 2019). The information retrieved from impact accounting can be used and beneficial for different stakeholders such as managers of a firm, existing or potential investors, and other groups that are affected by a firm's decision such as employees, customers, or local communities (IFVI, VBA, 2023).

### **2.3.1 Benefits of Impact Accounting**

By giving impact a monetary value, it becomes better understandable for managers, investors, and other stakeholders as well as easier to compare and analyze. This helps to assess trade-offs between financial and sustainability issues (Serafeim et al., 2019). Moreover, displaying the benefits of a certain decision in monetary value makes it easier for businesses to justify long-term investments that improve their positive impact and value creation. Impact accounting also introduces a standardized way of assessing a firm's impact as well as impact funds for investment decisions which would decrease transaction costs in ESG capital markets (Serafeim et al., 2019). The gained transparency of a firm's impact through impact-weighted accounts will create incentives for firms to improve their positive impact and decrease the negative one. This can lead to the attraction of more financial capital by investors but also more consumers who are becoming increasingly conscious about their buying decisions. Having impact-weighted accounts in place might also lead to governments and regulators giving incentives to firms in the form of tax rates or procurement requirements that are tied to their impact-weighted account performance to improve their impact (Serafeim et al., 2019).

The way that accrual accounting standards and regulations such as IFRS are well-understood and help to evaluate firms based on their economic activities, creating impact accounting standards would also come with the benefits of transparency, comparability, and accountability (Serafeim et al., 2019). In addition to the benefits mentioned above, impact accounting is not limited to a specific industry, entity, or even geographic location and can therefore be used by everyone to assess a firm's impact (IFVI, VBA, 2023).

### **2.3.2 Challenges and Limitations of Impact Accounting**

Impact accounting comes with the general challenge of measuring and valuing impact, especially if there is a possibility that the monetized impact does not provide useful information for decision-making. Moreover, there might be measurement uncertainties since the impact can only be estimated and based on judgments and models rather than exact descriptions (IFVI, VBA, 2023). Financial accounts base their information on observable market prices such as costs for production or revenues from goods sold, however, the opposite is the case for impact accounts since impact does not have an observed price. This means that its monetization needs to be based on approximations which can falsify the results (King & Pucker, 2021). It is also complex to measure the impact of a firm on all its stakeholders and consider all different aspects. Another challenge when implementing impact accounting is its long-term vision and the fact that it will take time to socialize, make it understandable, and

accept a new concept of valuing corporate performance (IFVI, VBA, 2023). An additional challenging aspect of impact accounting is the lack of implementation standards. Even though several undertakings are working on defining those, right now it is quite difficult for firms to find the right way of using impact-weighted financial accounts due to its novelty.

Although there are several limitations and challenges to impact accounting, particularly in measuring impact, Ronald Cohen clearly states that it is not necessary to have a 100 percent accuracy in measuring impact and that it is better to be roughly right than precisely wrong. Moreover, he argues that a change in the current capitalistic system like impact accounting has already successfully happened once before. Namely in 1929 after the stock market crash, when standardized accounting regulations were put in place and many experts predicted that this would be the end of capitalism. Today it is hard to imagine a time before these regulations and Cohen expects the same to happen with impact-weighted financial accounting standards (Cohen, 2021).

## **2.4 Gender Gap**

The gender gap can be defined as “the gap in any area between women and men in terms of their levels of participation, access to resources, rights, remuneration or benefits” (European Commission, 1998, p.28). Based on the Global Gender Gap Report 2023 conducted by the World Economic Forum the current global gender gap score for the 146 countries included in the study stands at 68.4%, indicating that this part of the gap is closed (Kali Pal et al., 2023). The UN has also dedicated one of the 17 SDGs to this matter, aiming to achieve total gender equality. They argue that the persisting gender inequality stagnates social progress. Even though women and girls represent half of the world’s population, they are underrepresented in many areas. Many of them take on a disproportional part of unpaid work at home which subsequently leads to a gender pay gap (United Nations, 2020).

## **2.5 Gender Pay Gap**

The gender pay gap is one of the quantifiable indicators of gender inequality (International Labour Organization, 2019a). The gender pay gap can be defined as “the difference in average gross hourly earnings between women and men” (European Parliament, 2023, p.1). The current gender pay gap in the EU is 12.7% (rounded up to 13%), which means on average women earn 12.7% less than men per hour (European Parliament, 2023). The gender pay gap has been decreasing in the past decades, namely by 3.1% in the EU since 2010 (from 15.8% to 12.7%). This slow progress shows, that this is a prolonged process and the gap is still far from being completely closed (McEvoy, 2023). Analyzing the gender pay, gap it is essential to distinguish between the explained part of the gender pay gap, also called the unadjusted gender pay gap, and the unexplained or adjusted gender pay gap. Several factors such as occupation, work experience, or working hours objectively explain why there is a difference in male and female wages. When accounting for those factors we talk about the adjusted gender pay gap or the unexplained part (International Labour Organization, 2019b). Even though the unexplained part is more difficult to address due to its unknown factors and reasons, the SDG Stocktake Report 2023 states that the private sector could close two-thirds of the unexplained gender pay gap by 2030 through different measurements such as information about pay gaps, promotion quotas, salary history bans, paid paternity leave and some others (Hipple et al., 2023).

When talking about the gender pay gap, it is important to distinguish it from equal pay, which states that women and men must receive the same remuneration for the same work unless there is a plausible justification for a difference in payment (Equality and Human Rights Commission, 2021). Equal pay for equal work is one of the European Union’s founding principles and is embedded in the Treaty on the Functioning of the European Union (TFEU). However, there are still several challenges with the enforcement of this rule due to a lack of pay transparency and pay discrimination (Lecerf, 2023). To better understand the impact of the gender pay gap the following chapter will discuss several reasons for its existence.

### **2.5.1 Reasons for the Gender Pay Gap**

There are multiple reasons why women are still being paid less, despite the efforts of many companies and organizations. Several studies have been conducted in this field and identified different reasons. The “Equality and Human Rights Commission” identified the following reasons for the gender pay gap in their “Research Report 109” (Brynin, 2017).

### *2.5.1.1 Gender Role Theory*

Traditional gender roles play a big role when talking about the different allocation of payment amongst employees. Already at a young age children get socialized with certain gender roles which influence their decisions concerning their aspired degree and occupation. Another factor impacting a gender pay gap that can be closely associated with the gender role theory is the so-called motherhood penalty and husband premia. These two phenomena explain how men financially benefit from marriage and having children while for women it is the opposite. Especially giving birth results in a tremendous penalty for mothers (Petersen et al., 2014). A study by Correll et al. found that mothers are being evaluated as less committed and competent concerning paid work when compared with nonmothers. This means there is discrimination against women who are mothers concerning hiring and salary decisions. In comparison to that, fathers are seen as more committed to paid work and therefore being offered higher wages in comparison to childless men (Correll et al., 2007).

### *2.5.1.2 Human Capital Theory*

A rather popular explanation for the gender pay gap is the gender differences in human capital. Many existing explanations revolve around the main argument that women are unable to dedicate as much energy and time to their careers in the labour market due to the division of work within the family (O'Neill, 2003). This implies that men have more time and resources to invest in their education and career. Moreover, a career break, mainly because of women having children, decreases the level of work experience and reduces their career prospects (Brynin, 2017). However, even though this might explain a certain part of the gender pay gap, many argue that there is still a part of the gender pay gap that cannot be explained through the human capital theory (Manning & Swaffield, 2008). In addition, the male advantage has weakened, and the education level of women is continuously increasing which implies that the gender pay gap is decreasing.

### *2.5.1.3 Gender-based undervaluation*

Another potential reason for a difference in payment for women and men is the undervaluation of “women’s work”. This means that the work completed by female employees is valued less than the one by male employees. Institutionalized undervaluation describes how the undervaluation of female work is part of the formal structure when it comes to determining wages (Koskinen Sandberg, 2017). However, there is evidence that undermines the undervaluation theory and suggests that it is becoming less relevant (Brynin, 2017).

In addition to the above-mentioned aspects, the systematic review of the gender pay gap from Bishu and Alkadry identified three major reoccurring reasons for the existence of the gender pay gap by reviewing 98 different journal articles which will be described in the following three paragraphs (Bishu & Alkadry, 2017).

#### *2.5.1.4 Access to Workplace Authority*

Inequality in access to workplace authority based on different factors such as gender or race can lead to disparities in the allocation of financial rewards at the workplace. Bishu and Alkadry argue that often women do not have the same possibility as men to get jobs with higher authority. Furthermore, even if women manage to hold positions with authority, they might have a lower level compared to male colleagues, which also leads to a difference in the financial return.

#### *2.5.1.5 Access to Hiring and Promotion*

Hiring and promotion decisions are an essential part of people's careers and affect people in many ways. However, those decisions are often affected by subjective opinions. Bishu and Alkadry argue that the use of subjective appraisals for promotion and hiring may lead to a situation where women and minorities are consistently overlooked for potential career advancement opportunities, depriving them of the chance to receive the benefits, both economic and otherwise. Different frameworks such as "glass ceiling", "leaky pipeline" and "Sticky floors" explain this phenomenon. Based on a study conducted in the USA, it can be stated that on average white men have more access to higher-paid jobs in comparison to women or other minorities (Tomaskovic-Devey & Hoyt, 2019).

#### *2.5.1.6 Gender Representation*

The reviewed studies focus on asymmetries of gender representation in the field of agency, position, and occupation segregation in a firm. Agency segregation explains that more women mainly work in certain agencies that are non-policy influencing agencies. Position segregation looks at the fact that there are more women in lower positions in a firm compared to men. Lastly, occupational segregation suggests that female workers are more concentrated in jobs in the fields of education and social services and less in the finance, science, technology, engineering, and math sectors. In more feminized occupations, as above mentioned, both women and men are paid less on average than those in non-feminized occupations. Many of these feminized occupations also require fewer qualifications and are often part-time (Brynin, 2017).

Even though all those factors have an impact on the gender pay gap, one of them seems to be a major reason for the existence of the gender pay gap. Studies have shown that the motherhood penalty can account for up to 75% of the gender pay gap (Stielow et al., 2023).

## **2.5.2 Impact of Gender Pay Gap**

The gender pay gap has an impact across many areas, especially social but also economic, and on firms individually. Closing the gender pay gap could increase business performance, enhance the global economy, and increase women's independence as well as their bargaining power (O'Donnell et al., 2020).

### *2.5.2.1 Economic factors*

A study published by the World Economic Forum in 2023 states that the general gender inequality leads to a loss of approximately 12 trillion USD in global GDP (World Economic Forum, 2023). The "Women in Work Index 2023" from PricewaterhouseCoopers (PwC) shows that based on the current progress an 18-year-old girl entering the labor market today will not experience pay equality in her lifetime since it is estimated to take another 50 years until the gender pay gap is fully closed (Stielow et al., 2023). Moreover, a project focused on analyzing the social and economic benefits of equal pay between women and men states that the elimination of the gender pay gap in Portugal could lead to an increase of approximately 4% of GDP per capita in Portugal. This corresponds to an increase of 737 Euros per capita and an overall increase of 2.7 billion Euros in GDP, assuming the population size stays constant. This shows that ensuring equal participation by women and men in the labor market would not only decrease the gender pay gap but also have a positive impact on the growth of an economy (Bastos et al., 2021).

### *2.5.2.2 Company factors*

An existing gender pay gap at a company might tremendously impact the company and the employee's satisfaction, motivation, and commitment. A survey conducted by the Equality and Human Rights Commission in 2018 has shown that almost two-thirds (61%) of women would take the gender pay gap of a company into consideration when applying for a job. Moreover, 58% of women are less motivated to recommend an employer if they know about a gender pay gap at the firm (Equality and Human Rights Commission, 2018). Adequate and fair remuneration for work will foster a higher commitment by employees which will lead to better productivity and job performance. Subsequently, firms with a gender pay gap will

experience reputational loss and will also find it more challenging to attract and keep the best talents (Kraft et al., 2020).

### *2.5.2.3 Social factors*

A study investigating the social and economic benefits of closing the gender pay gap reveals a positive impact on a country's poverty level (Bastos et al., 2021). In general, women are more likely to suffer from poverty in comparison to men due to their lower employment and salary outlooks (European Institute for Gender Equality, 2023). A study conducted using data from Portugal shows that equal pay would lead to a decrease in poverty concerning incidence, intensity, and severity. Especially the incidents would go down by 24-29% depending on the analyzed year (Amaro et al., 2023). In addition, a gender pay gap means less financial independence for women. Eliminating the gender pay gap could lead to an increase in economic security and the share of household income contributed by women. This could be beneficial for families, especially children due to women's higher investment in health, education, housing, and nutrition (Amaro et al., 2023).

## **2.6 Impact Accounting with Gender Pay Gap**

The Harvard Business School has conducted several studies and developed practical guidelines on how impact accounting can be implemented using different impact dimensions and following the methodology from Serafeim et al. (Serafeim et al., 2019). One of these studied dimensions is employment impact from which some part of the calculation can be useful for calculating gender pay gap impact. Therefore, the following chapter will shortly describe the relevant results and findings.

The authors defined a three-step methodology including the following steps: Firstly, the identification of main factors affecting the chosen area, the so-called impact dimensions, secondly, they developed a best-in-class benchmark and thirdly they established a way to monetize the impact. The identified impact dimensions for the employment impact are wage quality, career advancement opportunity, health and well-being, diversity, and location (Freiberg et al., 2020). Based on those six impact dimensions they established the following seven steps to calculate the employment impact of a company (Fadhel, 2022):

1. Identify total salaries paid by a company in the accounting year
2. Subtract wage quality impact
3. Subtract diversity impact
4. Subtract opportunity impact
5. Add local job creation impact

6. Add or subtract health and wellbeing impact
7. Add or subtract career advancement impact (Fadhel, 2022, p.3)

For each dimension, they defined an individual way of calculating the impact. For this research, the calculation of the diversity and opportunity impact are of relevance and will therefore be summarized and explained in more detail.

The goal of the diversity adjustment is to determine whether a firm is having a negative impact by employing employees who are not representative of the local population's demographics. The essential first step of the calculation is to compare the firm's workforce demographics with the local population. The resulting representation gap will be multiplied by the number of employees at the firm to receive the workforce gap. In the final step, this gap will be multiplied by the average annual salary. These steps need to be repeated for each demographic group and each location and in the end summed up.

The calculation for opportunity adjustment aims to determine a firm's negative impact based on whether its job categories and seniority levels are representative of the company's demographics. Therefore, in the first step, they calculate the expected number of employees in a job category and or seniority level based on the firm's demographics. Afterward, this number will be compared with the actual demographics of a certain job category and or seniority level to identify the gap which can then be multiplied by the so-called opportunity penalty. These steps need to be repeated for the different levels and demographic groups.

The detailed steps of the calculation and the data needed to carry them out are presented in Appendix A.

## **3 Research Methodology**

### **3.1 Research Design**

To answer the research question of this study a combination of primary and secondary qualitative research has been carried out. First, a case study was conducted. Since this thesis aims to add to the current knowledge and potentially starts the development of new ideas about the implementation of impact accounting it can be described as an atypical case study (White & Stephen Rayner, 2014). During the case study, an individual semi-structured interview with an expert from the case study firm was conducted. Moreover, a benchmark analysis of competitors and best practices in the sector of the case study firm was implemented. In addition to the case study, individual semi-structured interviews with experts were conducted.

### **3.2 Data Collection**

#### **3.2.1 Case Study**

The case study was conducted with the company Sonae and its sub-holding Sonae MC. To get a better insight into the firm, its annual management report from the year 2022, the websites as well as other relevant available information, such as the “Plan for Gender Equality” were analyzed. Moreover, to answer specific questions about impact measurement, impact accounting, and the gender pay gap, an interview was carried out.

##### *3.2.1.1 Interview Sonae*

The additional data from Sonae (MC) was obtained through one semi-structured interview with a representative from the Sonae Human Resources Team, namely Teresa Cabral Menezes, who specializes in Diversity and inclusion, Corporate HR, and Employer Brand. The interview partner was chosen based on her knowledge and expertise, especially about the impact of Sonae and gender equality issues. The questions used in the interview can be found in Appendix B.

##### *3.2.1.2 Benchmark Analysis*

To better evaluate and compare the firm's performance concerning the gender pay gap a benchmark analysis of competing firms was conducted. Due to the size of Sonae and its multiple sub-holding acting in different areas, for the benchmark analysis, a focus on Sonae MC and its competitors was put.

The benchmark analysis consists of a comparison of 12 different companies and three gender pay gap numbers from relevant institutions/countries. The companies were chosen based on a ranking of the biggest retail chains in Europe (Sabanoglu, 2023) and Portugal (Pekic, 2023) plus two companies (Ikea and Unilever) that are known for their ESG engagement based on the authors' knowledge. Moreover, the availability of data was taken into consideration when choosing the firms. The information obtained was gathered by reviewing annual/management reports as well as specific gender reports as far as they were available. To provide conformity and keep the benchmark analysis clear, no other sources of information were taken into consideration. Therefore, any gaps in the analysis do not necessarily mean that the information is not available but that it could not be extracted from the reviewed reports. This benchmark analysis focuses solely on information available concerning the gender pay gap, gender gaps on different seniority levels, and any information on parental leave. The choice of data was made based on its relevance for answering the research question.

### **3.2.2 Expert Interviews**

The data retrieved from the expert interviews was obtained through semi-structured individual interviews. This method enabled the author to get answers about the same topics from each interview partner whilst maintaining the feeling of a natural conversation that increased an unreserved information flow. The questions guiding the interviews can be found in Appendix C. Interviews with five different people working in the field of impact measurement were conducted. They all work in different companies and different positions which ensured the extraction of unbiased and independent information from each interview partner. All interview partners were chosen based on their knowledge on this field rather than national or company restrictions.

#### *3.2.2.1 Interview partners*

- Sofia Queiroz, Principal at Mustard Seed Maze, Portugal
- Delia Dorninger, Senior Analyst at Kaya Impacto, Mexico
- Chongyang Du, Senior Equity Analyst at Net Purpose, UK (remote)
- Ana Pimenta, Chief Impact Officer at Blink, the Netherlands
- Alexandra Martins, Programs Director at Bridge for Billion, Spain

#### *3.2.2.2 Interview process*

Each interview lasted for a minimum of 30 and a maximum of 50 minutes and all of them were carried out online through Teams, Telephone Google Meet, or other channels. All

interviews were conducted between the 20<sup>th</sup> of October and the 8<sup>th</sup> of December 2023. At the beginning of each interview, a short introduction about this research paper and the topic was given to avoid any misunderstandings. Consent of each interview partner was given to use the information from the interview for the thesis as well as sharing the name.

### **3.3 Data analysis**

After gathering all the data, each information was evaluated accordingly. Due to the numerical nature of the data from the benchmark analysis, its analysis was straightforward, and the data was simply compared amongst each other. Moreover, the availability of data was also taken into consideration and analyzed. The interviews with Sonae and the experts were analyzed using the method by Philip Mayring described in his book “Qualitative Inhaltsanalyse” (Mayring, 2015) and the method described in the book “Dissertation Skills for Business and Management Students” (White & Stephen Rayner, 2014). All interviews were transcribed, and the main statements were classified into different inductive categories and subcategories. The interview with Sonae was analyzed separately and four main and 12 subcategories were defined. The expert interviews were analyzed based on five main and five subcategories. The main statements from each interview were summarized into core statements and then analyzed. The analysis as well as the transcripts of the interview can be reviewed upon request.

## **4 Results and Findings**

### **4.1 Results from Expert Interviews**

All five interview partners work in different areas and have therefore distinct purposes for measuring impact. Quieroz is employed by an impact investment firm that invests in early-stage impact funds, which requires measuring their impact. Du aims to provide impact data to their clients. Pimenta is responsible for developing and implementing the firm's impact strategy and ensuring that the social and environmental impact across their investments is maximized. Dorninger does not directly measure impact at work but engages with impact firms that actively try to produce positive impact and therefore need to measure it. Martins, on the other hand works for a social incubator that helps different social projects and firms, which includes measuring their impact. All of them measure social as well as environmental impact without having a specific focus area.

#### **4.1.1 Impact Measurement**

##### *4.1.1.1 Methods for Impact Measurement*

When talking about measuring the impact, four out of the five specialists talked about KPIs that they define to measure the impact. Du mentioned that they have a list of 250 metrics that they try to use for the impact measurement. The goal is to have this list as comprehensive as possible with enough granularity while also providing scalability and simplicity so that the firm assessment can be done in the same way. Quieroz, Dorninger, and Pimenta pointed out that the KPIs need to be defined individually for each firm/project based on the impact that they are trying to achieve. These need to be defined as precisely as possible. Quieroz also mentioned that for any metric that must be measured due to certain legal requirements (e.g. CO2 emissions), they use the same KPIs. Moreover, reporting platforms are being used in her projects to measure the impact. Two of the experts also stated that they try to use the Iris+ metrics as a reference to make it more uniform. All of them mentioned that they link those metrics to available company information. Quieroz pointed out that they link the metrics to the business model of the firm while Dorninger, Pimenta, and Martins highlighted the theory of change and the relevance of defining it and understanding it. Pimenta especially described a two-step process of understanding the theory of change and then, in a second step, developing a scorecard based on the five dimensions of impact, using 10-12 questions to assess the impact of a firm. Furthermore, two of them also look at external evidence and other externalities that the company has. Du pointed out that they always try to link the available information from scientific literature and reports with the firm to better evaluate the impact.

Pimenta also brought up a method of translating the impact into SDG units and using these to make the impact more measurable and comparable. Martins also uses the SDGs to understand which impact the firm is targeting, however, without translating it into SDG units. They use surveys two years after the completion of the project to get information about the effectiveness and the impact of the project retrospective.

#### *4.1.1.2 Challenges of Impact Measurement*

Due to the different goals of impact measurement, all the interviewees face individual challenges. However, all of them mentioned difficulties concerning the data that is needed to implement proper impact measurement.

Quiroz stated that it is particularly challenging for early-stage companies it is challenging to link the financial KPIs with impact KPIs due to missing historical data. On the other side, she also faces issues concerning a lack of information with developed firms which forces them to make many assumptions. Martins faces the same issue with young firms and projects. Du emphasized again the gap between the scientific background and real-life decision-making to enable proper impact measurement. In addition, she highlighted the difficulty of quantifying social impact credibly due to its subjective assessment. Moreover, she faces the difficulty of not being able to show efficiency from an impact point of view. Pimenta stated that there are still several challenges when measuring impact. For her, one of the biggest challenges is the lack of expertise in the field of impact strategy and measurement. Furthermore, the quality of the data is often unsatisfactory because the reporting is not taken seriously enough and not done regularly. In addition, many firms are initially unclear about the impact they would like to achieve, so the setting of targets and baselines is not done properly, which also makes the connection between the strategy and intended impact more demanding. Another big challenge is the comparability of impact. Martins highlighted the challenge of obtaining the necessary data to measure the impact since many people do not see the direct benefit of reporting and gathering the necessary data. She mentioned moreover, that having standardized measurements is extremely challenging in her job.

#### **4.1.2 Monetization of Impact**

When asking the experts about their knowledge about monetizing of impact, only Pimenta was familiar with it. Dorninger, Du, and Martins have heard of it but never actively pursued it. However, all of them could see the benefit of it. Du further stated that it is not so different from impact measurement, as it still involves factors to calculate the measurement that are

linked with some background information either from literature or the firm. She highlighted the importance of demonstrating the impact measurement process that happens when monetizing the impact.

Pimenta emphasized the difficulty of giving a monetary value to certain things such as impact, even though this has been done for several years, e.g. SROI (social return on investment). From her point of view, there are two main challenges concerning impact monetization; first, the shadow price of it (e.g. What is the value of a human life?) and second, that it is an evaluation only of efficiency and not performance.

### **4.1.3 Impact Accounting**

No one of the interviewed experts except Pimenta had a deeper knowledge of impact accounting. However, she raised several issues that she still sees unclarified when looking at the current suggestions for the implementation of impact accounting. First, she mentioned that impact is often related to intangible matters (e.g. change in people's behavior) and externalities (e.g. improvement of quality of the air). In financial accounting, there are several rules and principles to be able to account for these matters, including for example, that some intangible values (e.g. brand) cannot be included in the financial statements. Accounting for social and environmental matters is even more complex. In addition, she stated that valuation and accounting are different concepts, and the under-developing impact accounting frameworks seem to be mixing both. Nevertheless, she acknowledged the importance of measuring and accounting impact but not necessarily including it in the financial statements.

### **4.1.4 Gender Pay Gap**

All the experts have some experience or knowledge about measuring the impact of gender-related topics, but not specifically with the gender pay gap. Quieroz and Dorninger suggested using gender-related data that the firm is already reporting or has available for the measurement of the impact of the gender pay gap. Du highlighted the difficulty of measuring the impact of gender-related solutions and recommended reporting data about the gender gap or the ratio of women in higher management. Furthermore, she stated that closing the gender gap and having gender equality also has a positive impact on the environment due to different factors. Martins has experience with measuring metrics about female entrepreneurs and female leaders in firms. Pimenta stated that there are two different ways of assessing the impact of the gender pay gap, internally and externally. Both aspects should be evaluated when measuring the impact of the gender pay gap. Moreover, she stated that the gender pay

gap affects the firm in several ways and might also have an impact on items in financial statements for example the revenue of a firm. This might be an interesting angle to look at when valuing and measuring the impact.

## **4.2 Case Study Sonae (MC)**

Sonae is a multinational holding headquartered in Maia, Portugal. It was founded in 1959 and employs more than 48,000 people and has a turnover of 7.7 billion Euros. They have a diverse portfolio of different sub-holdings, such as “Worten”, focused on electronics and appliances, “Sierra”, a real estate developer, manager, and investor or “Zeitreeel” the largest Portuguese fashion group (Sonae, 2022b). However, the biggest of them is Sonae MC, the retail sub-holding. They were the first company to open a hypermarket in 1985 in Portugal. With more than 1,400 stores, a turnover of 5,978 million Euros, and 38,000 employees in 2022 it is the leading company in Portugal in the food retail sector. Six main companies are operating under Sonae MC, namely “Continente” and “Meu Super” in the food retail, “Wells”, “Dr. Wells” and “Go Natural” in the health, wellness, and beauty segment, and in northern Spain “Arenal”. With all their brands they weekly serve 4.3 million customers (Sonae MC, 2022).

Sonae as well as Sonae MC recognizes the importance of addressing today's social and environmental issues. It has several initiatives and projects aiming at increasing their positive impact on the environment and community. Moreover, its parent company Sonae has developed the so-called “Plan for Gender Equality” which sets different goals and actions for improving gender inequality (Sonae MC, 2022).

Sonae’s plan for gender equality for 2024, which is the second edition of the plan, includes a brief introduction of the context, a self-assessment, the actual plan for gender equality as well as the monitoring of the plan's execution. The self-assessment is based on the guidelines for equality plans by the Commission for Equality in Labour and Employment (CITE) (*Commission for Equality in Labour and Employment*, 2019). Their self-assessment as well as their action plan is conducted based on seven dimensions. These are 1. Strategy, mission, and values, 2. Equal access to employment, 3. Initial and continuous training, 4. Equality in working conditions, 5. Parenting protection, 6. Balance between professional, family, and personal life, and 7. Preventing harassment in the workplace (Sonae, 2022a). The relevant facts for this study from the self-assessment can be found in “Table 3: Benchmark Analysis”.

## **4.3 Results from Interview Sonae**

### **4.3.1 Impact at Sonae**

The information received concerning the understanding, role, and importance of impact at Sonae clearly states that it plays an essential role in their business. Impact is described as the way they touch and affect people, the community, and stakeholders as a whole and create value for them, assuming that the impact is positive. Moreover, they include impact in their mission which they defined as creating long-term value. Their commitment to creating positive impact can be seen in everything they do, the way they work and interact with each other. Moreover, they try to anticipate the needs of employees and customers and create an impact not only for themselves but also for the community. To better illustrate their commitment, Menezes named several initiatives that Sonae is engaging in. These are for example a volunteering program for their employees, initiatives to support students to finish school in poorer Portuguese regions, or dedicating a budget for every MC store to support their local community. In addition, they have more female-oriented initiatives such as a partnership with women in tech of Worten, a traineeship for women in Mozambique, or leadership programs for talented women to move from middle management to higher management.

### **4.3.2 Impact Measurement at Sonae**

Sonae measures the impact of their initiatives on different levels. However, they mainly focus on measuring the positive impact that they are creating. Furthermore, Menezes mentioned that the quality of their measurement and analysis is still not as good as they want it to be. Some of the simpler ways of measuring impact is evaluating the investment they made, the people they reached, or the number of people joining a training. For the unconscious bias training for leaders, they started to conduct upward feedback which means that the employees give their point of view about the leader's development after the training. This helps to measure the impact of such training. Moreover, Sonae is developing a tool in cooperation with a Portuguese university to measure the impact of their learning initiatives using the SDGs and a matrix. Additionally, they also assess the grades of the students who are participating in their school initiative. When looking at the women participating in the female leadership program, they monitor their career paths and movements to evaluate the effectiveness of the program.

When talking about the main challenges of impact measurement at Sonae, Menezes stated that especially getting and collecting the data as well as creating the appropriate tools to measure

the impact are their biggest obstacles. This is the case, especially for data that is related to DEI (diversity, equity, and inclusion) since it is very sensitive and data retraction can only be done voluntarily. Moreover, identifying the important factors and defining the appropriate metrics are challenging for them. In addition to all those factors, the big company size and complex company structure make data consolidation even more difficult.

Menezes mentioned that Sonae has already defined several KPIs for the performance measurement of the executive team. These are not only focused on financial performance but also for the planet and people. For the planet, these are plastic reduction and CO2 emission and reduction, and for people, women in leadership positions, employment engagement, and top talent retention.

### **4.3.3 Gender Pay Gap at Sonae**

The gender pay gap at Sonae is being analyzed and measured but not presented publicly, not even within the firm. However, their employees are becoming increasingly aware of this issue and are therefore demanding information from their employer on what they are doing to reduce or eliminate it. The goal of Sonae is to reduce the gender pay gap to less than 3%. They are trying to achieve this by putting a special focus on gender during their talent management cycle. They want to focus not only on the payment but also on promotion and gender equality as a whole. The HR Team is eager to look closer on how leaders promote their employees. Moreover, they have certain regulations during the recruitment process that oblige them to have a gender-equal pool of possible candidates and choose the underrepresented gender when having to decide between two equally qualified people.

The reasons that the gender pay gap still exists are very widely ranged according to Menezes. The main reason from her point of view is legacy. They had and still have a big focus on the retail sector which has been a very male-dominated sector and still is. It can also be observed that there is still a strong gender division in different sectors. This means that some branches from Sonae are still dominated by male employees such as the retail or tech sector, and others more by female employees, such as the fashion sector. Moreover, Sonae has an asymmetry when looking at the gender distribution on different hierarchy levels. Higher jobs which also have a higher salary are represented more by men than by women. Menezes further commented that unfortunately parental leave might also be a reason that Sonae still has a gender pay gap. Furthermore, she mentioned that Portuguese society and therefore its

regulations are very conservative, which makes it more difficult to tackle certain issues like parental leave.

Mendezes stated that there are no specific unified metrics defined for the measurement of the impact of the gender pay gap at Sonae. They do have KPIs for women in leadership positions. Moreover, each business unit has its own assessments of the gender pay gap which includes comparing the salary of different job function groups and functions.

#### **4.3.4 Impact Accounting at Sonae**

Mendezes does not have any prior knowledge about impact accounting. However she mentioned that she does believe that an implementation of impact accounting would make sense at Sonae.

## 4.4 Benchmark Analysis

**Table 2:** *Overview Information for Benchmark Analysis*

Company	Sector	Country	Source of Information	Year Data
Sonae	Multinational Holding	Portugal	Plan for Gender Equality 2024 (Sonae, 2022a)	2022
Sonae MC	Retail Sector	Portugal	Annual Report 2022 (Sonae MC, 2022)	2022
Ikea	Retail Sector	UK	Gender Pay Gap Report 2022 (Ikea UK, 2022)	2022
Unilever UK	Consumer Good Sector	UK	UK Gender Pay Report 2022 (Unilever UK, 2022)	2022
Jerónimo Martins	Retail Sector	Portugal/worldwide	Gender Equality Plan 2022/23 (Jerónimo Martins, 2021)	2021
Rewe	Retail Sector	Germany	Nachhaltigkeitsbericht 2022 (Rewe Group, 2022)	2022
Retail Average	Retail Sector	UK	Year 6 Gender Pay Gap Reporting 2022/23 (PwC UK, 2023)	2023
Mercadona	Retail Sector	Spain	Annual Report 2022 (Mercadona, 2022)	2022
Tesco	Retail Sector	UK	Annual Report & Financial Statements 2022 (Tesco PLC, 2022) Everyone's Welcome Report 2022 (Tesco PLC, 2022)	2022
Lidl UK	Retail Sector	UK	Gender Pay Gap Report 2022/23 (Lidl, 2023)	2022
Carrefour	Retail Sector	France/worldwide	Promoting diversity and inclusion, combatting discrimination and harassment Report (Carrefour Group, 2022)	2022
Auchan	Retail Sector	France	Financial Report 2022 (ELO, 2022)	2022
Aldi UK	Retail Sector	UK	Website Gender Pay Gap (Aldi UK, 2023)	2022
EU	-	-	Equal Pay Day 2022 Factsheet (European Commission, 2022)	2021
Portugal	-	-	Equal Pay Day 2022 Factsheet (European Commission, 2022)	2021

**Table 3: Benchmark Analysis**

Company/Country	% Gender Pay Gap	% Gender Gap (ratio female and male employees)				% Parental Leave
		Overall	Employees	Management Level	Board of Directors/Supervisory Board/Executive Team	
Sonae	Executives: 24% Senior & Middle Managers: 7% Coordinators & Supervisors: 7% Technicians & Specialists: 5% Operational: 0%	F: 66% M: 34%	F: 66% M: 34%	F: 39% M: 61%	Directors & Supervisory Board: F: 36% M: 64% Executive positions: F: 23% M: 77%	F: 5% M: 4%
Sonae MC		F: 66% M: 34%		F: 39% M: 61%	F: 36% M: 64%	F: 6% M: 4%
Ikea UK	5.58% <sup>1</sup>	F: 50.5% M: 49.5%				
Unilever UK	1.3%			F: 57% M: 43%	F: 23% M: 73%	
Jeronimo Martins	2.4%	F: 77% M: 23%		F: 68.1% M: 31.9%	F: 36.4% M: 63.6%	
Rewe		F: 65.3 % M: 34.7%		F: 46% M: 54%	F: 11.2% M: 88.8%	
Retail Average	12.7%					
Mercadona		F: 61% M: 39%				3,574 employees (M&F); 3.61% <sup>2</sup>
Tesco	10.5%	F: 53% M: 47%			F: 31% M: 69%	
Lidl UK	10.9%	F: 44.1% M: 55.9%				

<sup>1</sup> Number calculated based on Information available in Ikea Gender Pay Gap Report 2022

<sup>2</sup> Number calculated based on information available in Mercadona Annual Report 2022

Carrefour		F: 55.2% M: 47.8%	F: 56.4% M: 43.6%	F: 42.5% M: 57.5%	F: 25.3% M: 74.8%	
Auchan		F: 62.9% M: 37.1%		F: 51.1% M: 48.9%		
Aldi UK	10.04 %	F: 47.75% M: 52.25% <sup>3</sup>				
EU	13%					
Portugal	11.4%					

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<sup>3</sup> Numbers calculated based on information available at Aldi UK Website

#### 4.4.1 Analysis of the data

The researched data shows several gaps and limitations, especially when looking at the available data concerning a gender pay gap. Hereby it needs to be noted that firms in the UK with more than 250 employees are obliged by law to publish a “Gender Pay Gap” report stating the exact number of the gender pay gap. However, no data concerning the gender gap on different levels as well as data concerning parental leave need to be disclosed (gov.uk, 2023). No information concerning the exact measurement of these numbers is available therefore it is assumed that the same or similar methods were used to make it possible to conduct a comparison.

Out of the eleven companies, six disclose information concerning their gender pay gap. Only three firms provide information on parental leave, and even this information is also not congruent and therefore not comparable. Most data is available concerning the overall firm gender gap. All firms except Unilever share this information.

When looking at the numbers of the gender pay gap Unilever, Jeronimo Martins as well as Ikea act as a best practice due to their very low gap of less than 10%. In general, all firms that had data available are below the retail industry average of 12.7% as well as the EU average of 13% and the gender pay gap in Portugal of 11.4%. When looking at the overall firm gender gap, most firms have an almost equal percentage of female and male employees and many of them have even a higher percentage of women than men working in their company. However, the higher one goes up the firm hierarchy, the lower the percentage of female employees becomes. No firm has a higher percentage of female than male workers on their Board of Directors/Supervisory Board/Executive Teams. Some companies, such as Rewe, have a huge gap between the different seniority levels, from 65% of women overall at the firm to only 11% of women on the highest level. This might be a possible explanation why despite the high percentage of female employees there is still a gender pay gap. The firms with the highest number of women in their highest hierarchy level are Sonae (including Sonae MC) and Jeronimo Martins with 36% and 36.4% respectively. Sonae discloses detailed information about the gender pay gap on different levels which shows that their gender pay gap is very high with 24% at the executive level, and very low with 0% at the operational level. Overall, the benchmark analysis shows that the analyzed firms in this industry still face the issue of gender pay gaps as well as overall gender gaps.

## 5 Discussion

Due to the differences in the information obtained, it is difficult to make a direct comparison between the findings from the literature review and the data collected from the interviews. The literature review offers limited information about impact measurement, whereas there is a lot of information available on the gender pay gap. On the contrary, the expert interviews provided in-depth information about impact measurement.

The data concerning impact measurement received from the interviews shows that even though there are some similarities, the measurement is still done on different levels of granularity and complexity, which can also be seen in the literature (Basile et al., 2021). This shows again the complexity of impact measurement and having a unified method for it. The information from the interviews concerning the definition of the impact of the gender pay gap and its measurement is not very comprehensive due to the lack of expertise of the interview partners in this field. However, some of the metrics that were suggested to be used for the measurement of gender-related topics, such as gender representation, are also included in the literature concerning factors that influence the gender pay gap. Therefore, one way to define and measure the gender pay gap at a firm is to take a closer look at factors from the literature such as the gender role theory, which also includes the motherhood penalty, access to workplace authority, and the position as well as occupation segregation. This would also align with the statement from Du that for impact measurement it is essential to connect the existing literature and scientific research with business operations. Based on the information retrieved from the interviews, it is crucial to make sure that those defined metrics to measure the impact of the gender pay gap are aligned with the firm's business model and strategy. Moreover, to get a full picture of the impact of the gender pay gap, Pimenta also pointed out that externally impacted factors, thus the factors that the gender pay gap has an impact on, need to be taken into consideration. Looking at the literature these would be the economic, social, and company impact that the gender pay gap has, namely the increase in the GDP (Bastos et al., 2021; World Economic Forum, 2023), the decrease in poverty (Equality and Human Rights Commission, 2018; Kraft et al., 2020), and the increase in motivation and commitment of employees when closing the gender pay gap (Amaro et al., 2023; Bastos et al., 2021). Moreover, for the definition of the impact it might be also helpful to use the 5 dimensions of impact to get a better understanding of it, the same as Pimenta is also doing in her work.

The general challenges of impact measurement mentioned by the expert also align with the literature concerning the challenges of impact accounting. Especially receiving credible data

without any uncertainties and analyzing it, are critical issues. The information concerning the monetization of the impact of the gender pay gap based on the literature as well as the information from the interviews is not sufficient to suggest a general applicable calculation. Nevertheless, the gender pay gap itself can easily be calculated and put into a monetary value, hereafter called the market value. However, only valuing the gap itself would neglect the real impact that the gender pay gap has. The calculations from the impact-weighted financial accounts initiative combined with the information about how to define and measure the impact of the gender pay gap give sufficient background to propose a first idea on how impact monetization can be done. These calculations only focus on the negative impact of the gender pay gap.

#### Calculation Market Value:

Using the gender pay gap of the firm and deducting it with 0% or the industry best practice, to receive the amount of money that the firm is missing to pay to have no gender pay gap or the same as the industry best practice.

$$\begin{aligned} & \text{“GPG Firm”} - \text{“GPG Industry Best Practice” or “GPG = 0%”} \times \text{male average wage} \\ & \times \text{number of women at the firm} = \text{GPG Impact firm} \end{aligned}$$

#### Calculation Impact Value:

For the calculations of the impact value, it is essential to first define the impact dimensions. These can be defined using the existing literature about the gender pay gap. Based on the information obtained from the research concerning the gender pay gap, the factors gender representation (occupational segregation and position segregation) and motherhood penalty on the one hand and the economic (GDP), social (poverty), and corporate (employee motivation and commitment) factors on the other hand should be used due to their relevance.

One idea to calculate the impact value of the gender pay gap for a firm is to adapt the diversity adjustment calculations from the impact-weighted financial account initiative from the Harvard Business School (Fadhel, 2022). Hereby the firm's workforce gender representation on each seniority level is compared with the local population's gender representation.

The following data will be needed for the calculation:

1. Population gender representation of each company location (e.g. 58% women, 42% male)
2. Workforce gender representation of each company location for each seniority level (e.g. 55% women, 45% men on employee level)
3. Number of employees for each seniority level for each company location (e.g. 1000 employees)
4. Annual average wages for each seniority level for each company location (e.g. 35.000€ employee level)

Calculation:

1. Determine the difference (representation gap) between the local population and firm workforce for each seniority level

*Firm workforce for a seniority level (%) – local population (%) = representation gap (%)*

representation gap: 55%-58% = -3%

2. Determine the workforce gap

*representation gap (%) x number of employees in this seniority level = workforce gap*

workforce gap: -3 % x 100 = - 3

3. Determine the diversity debit

*workforce gap x average annual salary of seniority level = diversity debit*

Diversity Debit: -3 x 35.000€ = - 105.000 €

4. Repeat steps 1 – 3 for each seniority level
5. Repeat steps 1 -4 for each location of the firm (if applicable)
6. Sum up all values to know the total gender representation adjustment.

Since this calculation compares the company's performance only with the local population, it would be recommended to also compare it with the firm's overall gender representation. This can be done by adapting the “Opportunity Adjustment” calculations of the impact-weighted financial accounts initiative from the Harvard Business School. The suggested calculation can be found in Appendix D.

The benchmark analysis of this study clearly shows that the gender pay gap still exists in the examined industry. Moreover, each firm also has big gender gaps based on the different seniority levels. This suggests that firms need to carefully choose how they would like to

measure their gender pay gap impact. Whether they want to set their goals high and aim for a gender pay gap of 0% and no gender gap on any seniority level or if they want to be on the same level as their competitors and industry best practices. Due to a lack of information concerning paternity leave, no statement can be made based on this. Even though this would be an interesting figure to analyze the impact of the gender pay gap since the motherhood penalty is one of the biggest reasons for the gender pay gap (Stielow et al., 2023).

The information received from the interview with Sonae concerning the firm's involvement in impact aligns with the information that was found online. Sonae also included the impact in its mission and has clearly defined objectives, which aligns with the recommendation of many experts concerning impact measurement. However, the information from the interview mainly focuses on community impact which is not directly relevant for this study. Therefore, their impact measurement is also concentrated on the positive community impact that they are creating. When comparing their level of impact measurement with the literature it is clear that they do it on different levels. On the one side, they implement the very simple approach of counting outputs and receivers of these outputs, on the other side, they conduct it also on a more complex level by getting stakeholder feedback, in their case from employees (Basile et al., 2021). Moreover, they are also developing a tool to measure the impact using the SDGs, which is also something that the experts of impact measurement mention. Their main challenge also aligns with the challenges mentioned by the experts, which is getting and collecting qualitative data. The reasons why the gender pay gap still exists at Sonae overlap for the most part with the information received from the literature, meaning that they also face position and occupation segregation as well as issues concerning paternity leave (Bishu & Alkadry, 2017; Petersen et al., 2014).

Therefore, based on the information received through the expert interviews and the literature for measuring the GPG, it would be recommended for Sonae to use data, that they are already measuring as well as define clear metrics based on their main reasons for the gender pay gap combined with information from the literature. In addition, it would be helpful to concentrate solely on Sonae MC, excluding any other entities, to facilitate the measurement and make it more precise since this was also mentioned as one of their challenges. To make it simpler in the first step and ensure a robust approach, it would not be recommended to also consider the impact factors of the gender pay gap on society, such as a decrease of GDP and an increase in poverty, in the calculation. Due to their high involvement in creating a positive impact, it would be useful to also consider this when valuing and monetizing their gender pay gap

impact. The calculation for the market value of the gender pay gap should be done by aspiring a gender pay gap of 0% or using the benchmark best practice from their industry (e.g. UK Unilever 1.3% or Jeronimo Martins 2.4%).

Idea calculation impact of gender pay gap at Sonae MC:

1. Negative market value: “GPG Sonae MC” – “0%” or “Industry best practice 1.3% / 2.4%” x average male salary Sonae MC x amount of women working at Sonae MC”
2. Negative impact value: defining main impact factors for the gender pay gap, setting clear metrics and KPIs to measure them and using example calculations as mentioned above
3. Positive Impact Value: defining the initiatives (e.g. female leadership program) that help to mitigate negative impact factors and adding up the costs for those

Negative Market Value + negative Impact Value + positive Impact Value

= Gender Pay Gap Impact at Sonae MC

## 6 Conclusion

This study aims to develop a framework on how impact accounting can be implemented at a firm using the example of the gender pay gap. The definition, measurement, and monetization of the gender pay gap impact is the focus of this research. Due to the novelty of the concept of impact-weighted financial accounts and the limited available information concerning the measurement of the impact of the gender pay gap, this thesis offers a unique and new contribution to the field. While the literature provides extensive information about the gender pay gap, its roots, and impact factors, the interviews focus more on impact definition and measurement. Both the literature as well as the results emphasize the complexity of defining and measuring impact in general due to the high dependency on having credible data collection and analysis as well as defining the appropriate metrics, especially for the gender pay gap. However, based on the obtained information, it is suggested to use the factors that impact the gender pay gap obtained from the literature such as the gender role theory, motherhood penalty, and occupational segregation to define KPIs and metrics. The study proposes an innovative approach to monetizing the impact of the gender pay gap, emphasizing the need for firm-specific metrics and in the next step the consideration of broader economic, social, and company impacts. The calculation includes the market value of the gender pay gap, the percentage of the gap in comparison to 0% gap or benchmark best practice, as well as the impact value, which is based on the defined impact dimensions.

The benchmark analysis as well as the literature clearly shows that the gender pay gap still exists for many firms and still poses a big issue, which makes it even more relevant for the implementation of impact accounting. The recommendation for the implementation of impact accounting at the case study firm Sonae (MC) focuses on not only taking the negative impact but also the positive impact, that the firm is creating through different initiatives, into consideration.

To sum up, for the implementation of impact accounting at a firm it is essential to put a focus on the definition, measurement, and monetization of the impact that one wants to account for. In the case of the gender pay gap, due to the lack of predefined metrics for the measurement, it is recommended to consult the literature as well as the firm structure and strategy to ensure an appropriate definition of metrics. Moreover, the comparison with the industry to get a better understanding of the performance of the firm concerning the gender pay gap is essential to assess the positive or negative impact.

## **6.1 Limitations and Further Research**

There are several gaps and limitations in this study due to the limited availability of similar previous studies. The field of impact accounting is relatively new and has not been researched thoroughly by different researchers and institutes, so far mainly by Harvard Business School. Therefore, all the available information is based on the research and studies from Harvard Business School. This gives certain limitations and biases to the available information. Moreover, the information available concerning the notion of “impact” often comes from firms and experts working in the field and less from scientific studies. This can also be explained due to its relative novelty. Concerning the gender pay gap, there is a wide range of different literature and studies available which made the selection process in certain cases more challenging. Even though there is a lot of information available concerning the factors and reasons that lead to a gender pay gap, there is comparatively little research concerning the impact of the gender pay gap.

The scope of this thesis is not extensive enough to fully cover the topic of impact accounting and how this can be implemented. Therefore, this study focused on defining, measuring, and monetizing the impact of the gender pay gap and not on how and where to include the monetized impact in the financial statements.

Due to the high complexity and novelty of this study, there are several recommendations for further research. First of all, the measurement of the impact of the gender pay gap needs to be further researched and case studies with other firms could be beneficial to make a general proposition on which factors need to be used for the measurement. Moreover, further calculations for the monetization of the impact are necessary. Especially for the external factors such as the increase in GDP and poverty level, should be defined in further research. Most importantly to get a full picture of how to implement impact accounting a bigger focus on accounting and the incorporation of the monetized impact in one or more financial statements needs to be further researched.

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# Appendices

## Appendix A: Calculation of “Diversity Impact” and “Opportunity Impact” from impact-weighted financial accounts initiative

Impact	Diversity Impact	Opportunity Impact	
		Opportunity across Job categories	Opportunity across seniorities
<b>Data needed</b>	<ol style="list-style-type: none"> <li>1. Population demographics for each company location</li> <li>2. Workforce demographics for each company location</li> <li>3. Annual wages earned at the firm for each location</li> </ol>	<ol style="list-style-type: none"> <li>1. Total workforce demographics at each company location</li> <li>2. Job category demographics at each company location</li> <li>3. Annual wages earned for each employee, with location, Job category, and gender and race/ethnicity specified in accordance with local regulatory guidelines</li> </ol>	<ol style="list-style-type: none"> <li>1. Total workforce demographics at each company location</li> <li>2. Seniority demographics at each company location*</li> <li>3. Annual wages earned for each employee, with location, seniority level, and gender and race/ethnicity specified</li> </ol>
<b>Calculation Steps:</b>	<ol style="list-style-type: none"> <li>1. Determine the difference (representation gap) between the local population and firm workforce. <i>Firm workforce (%) – local population (%) = Representation Gap (%)</i></li> <li>2. Determine the workforce gap. <i>Representation Gap (%) x Number of Employees at the firm = Workforce Gap</i></li> <li>3. Determine the diversity debit. <i>Workforce Gap x Average annual salary = Diversity Gap</i></li> <li>4. Repeat Steps 1 – 3 for each demographic group.</li> <li>5. Repeat Steps 1 – 4 for each location.</li> <li>6. Sum all values to determine the total diversity adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Determine the average annual wages paid in each Job category (Total unadjusted annual wages paid in Job category1 / Total employees in Job category1). Rank the Job categories from highest to lowest salary and determine the median category. Establish a “high salary group” and “low salary group” group (employees in Job categories earning above the median rank are in the “high salary group” and those earning below are in the “low salary group”).</li> <li>2. Determine the expected number of employees of a demographic group (e.g. Black Female) in the “high salary</li> </ol>	<ol style="list-style-type: none"> <li>1. Determine the average salary in each seniority level (e.g. 1-4) for each Job category (e.g. “Sales”)</li> <li>2. Determine the expected number of employees of a demographic group (e.g. Asian Male) in each seniority and Job category. <i>Firm workforce demographics x the total number of employees in the seniority level and job category = expected number of employees of a demographic group in a seniority level</i></li> <li>3. Determine the Opportunity Gap for the demographic group in the Seniority Level and Job category. <i>Actual representation – expected</i></li> </ol>

		<p>group”.</p> <p><i>Firms workforce demopgrahics x the total number of employees in the “high salary group” = expected number of employees of a demographic group</i></p> <p>3. Determine the Opportunity Gap in the “high salary group”.</p> <p><i>Actual representation – expected representation = opportunity Gap in the “high salary group”</i></p> <p>4. Determine the Opportunity penalty and the Opportunity Adjustment.</p> <p><i>Average “high salary group” salary – average “low salary group” salary = Opportunity penalty</i></p> <p><i>Opportunity gap in the “high salary group” x opportunity penalty = Opportunity adjustment</i></p> <p>5. Repeat Steps 2 – 4 for each demographic group.</p> <p>6. Repeat Steps 1 – 5 for each Job category.</p> <p>7. Repeat Steps 1 – 6 for each company location.</p> <p>8. Sum all values to determine the total opportunity across Job categories adjustment.</p>	<p><i>representation = opportunity gap</i></p> <p>4. Determine the Opportunity penalty and the Opportunity Adjustment.</p> <p><i>Average salary in seniority level (n) – average salary in seniority level (n-1) = opportunity penalty</i></p> <p><i>Opportunity Gap x Opportunity Penatly = opportunity adjustment</i></p> <p>5. Repeat Steps 2 – 4 for each demographic group at a specific seniority level and Job category.</p> <p>6. Repeat Steps 2 – 5 for each Seniority level at a specific Job category <i>except for entry-level employees.</i><sup>9</sup></p> <p>7. Repeat Steps 2 – 6 for each Job category.</p> <p>8. Repeat Steps 1 – 7 for each company location.</p> <p>9. Sum all values to determine the total Opportunity across seniorities adjustment.</p>
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Note: Adopted from *Practitioner Guide To Calculating Employment Impact-Weighted Accounts*, by A. Fadhel, August 2022, p. 10-15, Harvard Business School, Impact-Weighted Accounts Project (Fadhel, 2022, p.10-15)

## **Appendix B: Questions Interview Sonae**

### **Impact**

- What is your understanding of “impact”?
- How important is creating impact for Sonae?
- In which ways do you create impact?
- Is impact already measured at Sonae?
  - If yes:
    - For which purpose do you measure impact?
    - What kind of Impact do you measure?
    - How do you measure impact? What is your knowledge about the practice of impact measurement?
    - What are the biggest challenges when measuring impact?
  - If not:
    - Why not?

### **Impact Accounting:**

- Have you ever heard about Impact Accounting?
- What is your knowledge about monetizing impact?

### **Gender Pay Gap:**

- Does Sonae monitor the gender pay gap?
  - If yes, how high is the gender pay gap?
  - If not, why not?
- What do you think are the biggest factors for the gender (pay) gap at Sonae?
- How do you perceive the impact of the gender pay gap?
- In which form does this show/appear?
- Which actions do you take to reduce & eliminate the gender pay gap?
- Why do you think it is important to take those actions?
- The Motherhood penalty is one of the biggest reasons for the gender pay gap – Is Sonae taking any actions against the motherhood penalty?
- Have you had any contact with measuring the impact of the gender gap/ gender equality?

- How would you do it concerning the gender pay gap?

#### **Plan for gender equality Sonae:**

- There are many Indicators (e.g. nr. of training, events created, leadership program) in the action plan. How do you measure the impact of these? And if this leads to more gender equality?
- In the plan it is stated that you have equal access to employment, however, there are big gender gaps in higher-level positions. Are there any specific reasons for that?
- In the plan there are very few actions concerning parental leave, why?

#### **Implementation of Impact Accounting with gender pay gap impact at Sonae**

- Which indicators that Sonae is already reporting concerning gender, that could be useful from your point of view for Impact Accounting? (e.g. ratio male/female employees)

## **Appendix C: Questions Expert Interview**

### **Measuring Impact:**

- For which purpose do you measure impact?
- Which kind of impact do you measure?
- How do you measure impact? What is your knowledge about the practice of impact measurement? (What are examples of those Impact KPIs?)
- What are the biggest challenges when measuring impact?
- Have you had any contact with measuring the impact of gender pay gap/ gender equality? How would you do it concerning the gender pay gap?
- Can you recommend any best practices for measuring impact in general or for the specific chosen indicators?

### **Monetizing Impact:**

- Have you ever monetized impact?
  - If yes, for which purpose and how?

### **Impact Accounting:**

- Have you ever heard about Impact Accounting?
  - If yes, what is your knowledge about it?

## Appendix D: Idea calculations for the impact of gender gap within a firm

Impact	Opportunity Impact	
	Opportunity across Job categories	Opportunity across seniorities
<b>Data needed</b>	Total workforce gender representation at each company location Job category gender representation at each company location Annual wages earned for each employee, with location, Job category, and gender	Total workforce gender representation at each company location Seniority gender representation at each company location Annual wages earned for each employee, with location, seniority level, and gender
<b>Calculation</b>	<p>Determine the average annual wages paid in each Job category (Total unadjusted annual wages paid in Job category1 / Total employees in Job category1). Rank the Job categories from highest to lowest salary and determine the median category. Establish a “high salary group” and “low salary group” group (employees in Job categories earning above the median rank are in the “high salary group” and those earning below are in the “low salary group”).</p> <p>Determine the expected number of employees of gender in the “high salary group”.</p> <p><i>Firms workforce gender representation x the total number of employees in the “high salary group” = expected number of employees of each gender</i></p> <p>Determine the Opportunity Gap in the “high salary group”.</p> <p><i>Actual gender representation – expected gender representation = Opportunity Gap in the “high salary group”</i></p> <p>Determine the Opportunity penalty and the Opportunity Adjustment.</p> <p><i>Average “high salary group” salary – average “low salary group” salary = Opportunity penalty</i></p> <p><i>Opportunity gap in the “high salary group” x opportunity penalty = Opportunity adjustment</i></p> <p>Repeat Steps 1 – 4 for each Job category.</p> <p>Repeat Steps 1 – 5 for each company location.</p> <p>Sum all values to determine the total opportunity across Job categories adjustment.</p>	<p>Determine the average salary in each seniority level (e.g. 1-4) for each Job category (e.g. “Sales”)</p> <p>Determine the expected number of female employees in each seniority and Job category.</p> <p><i>Firm female employees (%) x the total number of employees in the seniority level and job category = expected number of female employees in a seniority level</i></p> <p>Determine the Opportunity Gap for the gender representation in the Seniority Level and Job category.</p> <p><i>Actual representation – expected representation = opportunity gap</i></p> <p>Determine the Opportunity penalty and the Opportunity Adjustment.</p> <p><i>Average salary in seniority level (n) – average salary in seniority level (n-1) = opportunity penalty</i></p> <p><i>Opportunity Gap x Opportunity Penalty = opportunity adjustment</i></p> <p>Repeat Steps 2 – 4 for each Seniority level at a specific Job category <i>except for entry-level employees.</i><sup>9</sup></p> <p>Repeat Steps 2 – 5 for each Job category.</p> <p>Repeat Steps 1 – 6 for each company location.</p> <p>Sum all values to determine the total Opportunity across seniorities adjustment</p>

Note: Adapted from *Practitioner Guide To Calculating Employment Impact-Weighted Accounts*, by A. Fadhel, August 2022, p. 12-15, Harvard Business School, Impact-Weighted Accounts Project (Fadhel, 2022)