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The Algorithmic Call Centre

A study on employees perceptions of algorithmic management in call centres

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We hope you enjoy your reading.

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Sammanfattning

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Forskningsfråga: Hur upplever anställda på callcenter algoritmisk arbetsledning?

Syfte: Denna studie syftar till att ge insikter i hur anställda på ett callcenter upplever algoritmisk arbetsledning.

Metod: Studien utgick från en kvalitativ forskningsmetod, som innefattade intervjuer med ett relativistiskt och socialkonstruktionistiskt perspektiv för att uppfylla syftet och besvara forskningsfrågan. För analysen användes trestegsmetoden av Rennstam och Wästerfors (2018), och därefter en abduktiv ansats för att uppnå en slutsats. Urvalet bestod av sju tidigare anställda från fyra olika företag, verksamma inom den svenska låneförmedlingsbranschen.

Teoretiska perspektiv: Denna studie är positionerad inom forskning om algoritmisk arbetsledning, med tidigare litteratur bestående av både uppfattningar och användande. Dessutom har studien en teoretisk grund i litteratur inom resultatstyrning, prestationsmätning och övervakning.

Resultat: Anställda i callcenter upplever algoritmisk arbetsledning som stressande på grund av den prestationsinriktade och konkurrensutsatta miljö den medförde. Den intensiva miljön utvecklade en anställningskultur kallad "komma och gå", i vilken till och med välpresterande anställda inte stannade under längre perioder, vilket skapade möjligheter för yngre individer att snabbt avancera i företaget. Däremot uppmuntrades de inte att stanna längre än andra.

Slutsats: Algoritmisk arbetsledning upplevdes som att den intensifierade kulturen, vilket ytterligare förstärkte en redan konkurrensutsatt och prestationsorienterad miljö. Som ett resultat av detta upplevde anställda att de enbart arbetade för att öka den individuella statistiken och tog till förbigående metoder och fusk för att manipulera den. Teamledare uppfattades som oerfarna på grund av sin unga ålder, och deras arbetsuppgifter ansågs vara lätta, eftersom deras beslutsfattande enbart förlitade sig på algoritmisk data.

Abstract

Title: The Algorithmic Call Centre

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Key words: Algorithmic Management, Call Centre, Employee Perceptions, Performance Management, Surveillance

Research question: How do employees at call centres perceive algorithmic management?

Purpose: This study aims to provide insights into how employees in a call centre perceive algorithmic management.

Methodology: The study employed a qualitative research method, incorporating interviews with a relativist and social constructionist perspective, to fulfill its purpose and address the research question. For the analysis, the three-step method by Rennstam and Wästerfors (2018) was employed, and subsequently, an abductive approach to determine a conclusion. The sample consisted of seven former employees from four different companies, operating in the Swedish loan brokerage industry.

Theoretical perspectives: This study is positioned within algorithmic management research, with previous literature consisting of both perceptions and utilisation. The study further has a theoretical foundation in the performance management, performance measurement, and surveillance literature.

Result: Employees in call centres perceive algorithmic management as stressful due to the performance-oriented and competitive environment it entailed. The intense environment fostered a "come-and-go" employment culture, where even well-performing employees did not stay for prolonged periods, creating opportunities for younger individuals to advance quickly in the company. However, this did not encourage them to stay longer than others.

Conclusions: Algorithmic management was perceived as intensifying the culture, further enhancing an already competitive and performance-oriented environment. As a result, employees perceived that they were solely working to increase individual statistics and resorted to bypassing practices and cheating to manipulate them. Team leaders were perceived as inexperienced due to their young age, and their assignments were viewed as easy, as their decision-making relied solely on algorithmic data.

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1. Introduction

1.1 Background

Managerial decisions that used to be made by humans have been increasingly delegated to algorithms (Lee, 2018). Workers are monitored and assessed constantly, and the data collected from these practices is used to discipline, rate, and rank workers, pushing them toward their limits (Christl, 2023). Huws (2016, p. 7) describes this phenomenon as "a new paradigm of work". It explains how it is managed through online platforms, indirectly monitoring workers and putting pressure on them to produce quantifiable outcomes. This concept is more commonly known as algorithmic management, and Noponen (2019) concludes it is growing.

Algorithmic management allows for the scaling of operations, as it can optimise processes to achieve desired outcomes. However, this creates challenges for workers as it can distance them from decision-making, strengthen power imbalances, and create discriminatory practices (Mateescu & Nguyen, 2019). According to Christl (2023), call centres are considered the prototype of work environments where workers are subject to substantial digital control and surveillance, which is confirmed by Rowe et al. (2011, p. 2) who describes that call centres "are often considered to be a hotbed for testing new Information Technologies". The emerging usage of information technology has resulted in a significant transformation of work processes (Castells, 2010; Cijan et al., 2019), and several of the technology-providing companies even originate in the national security sector, selling systems to both governments and employers (Christl, 2023).

The intense surveillance and evaluation monitoring entail adverse effects on call-centre employees, constantly pressured to meet required objectives. Effects of algorithmic management on those subject to it include high levels of stress, other dehumanising aspects, and a feeling of need to quit their job (Doellgast & O'Brady, 2020; Jarrahi et al., 2021; Lee, 2018). While the positive effects of algorithmic management, drawn from gig and platform work, include flexibility and autonomy (Benlian, 2022; Wood et al., 2018; Berg, 2016), call-centre environments have been researched to a lesser extent (Wood, 2021). Therefore, further insights on algorithmic management in a call centre would help nuance the understanding of how it unfolds across different industries and contexts.

1.2 Problematization

Call centre managers have increasingly faced more complicated operational challenges and issues associated with sales and human resource management. Over the past few decades, technology advancements within the sector have increased competition, lowered costs, and improved quality. (Aksin et al., 2007). However, just like any new technology being implemented into an organisation, understanding its effects is crucial. What costs does this new technology entail? What are the effects on those subject to it? Is it effective? These are all questions one must ask.

Algorithmic management is a growing concept, implying that organisational activity is semi- or fully automated by software algorithms (Jarrahi et al., 2021; Crowston & Bolici, 2019). Like any new technology entering the workplace, conducting proper due diligence on algorithmic management is key to understanding its effects. Jarrahi et al. (2021, p. 11) state the importance of empirical research "on the front lines" in their study of algorithmic management at work, implying that a direction for future research is deeper insights into the worker's perspectives. They further underscore the importance of exploring how algorithmic management unfolds across different industries and contextual variations.

In platform and gig work, the use of algorithmic management has already been widely researched (Lee et al., 2015; Jarrahi et al., 2021; Jarrahi & Sutherland, 2019; Mateescu & Nguyen, 2019). However, the call-centre sector has been researched to a lesser extent (Wood, 2021), and with Christl (2023) describing the call-centre environment as the prototype for the usage of algorithmic management, this study aims to contribute with empirical evidence to strengthen the literature and contribute to further research.

1.3 Purpose and Research Question

This study aims to provide further insights into how employees in call centres perceive algorithmic management. The topic is investigated through interviews with former employees, which will provide insights not only valuable to those who tend to implement it, but also to HR and management departments at companies where it's already in practice. To understand what perceptions employees inhibit, we initially acquired knowledge about the algorithmic management tools present at the respondents' respective companies, as well as

the extent of their usage. Thereafter, we were able to explore, analyse, and provide answers to our research question:

How do employees at call centres perceive algorithmic management?

1.4 Disposition

This study is divided into six main Chapters: Introduction, Literature Review and Theoretical Framework, Methodology, Empirical Findings, Discussion, and Conclusions.

Firstly, an introduction to the subject of algorithmic management is presented. Thereafter, the introduction discusses the demand for knowledge when new technologies are implemented in an office. Lastly, the Introduction introduces the study's purpose and research question, concluding chapter one. The second chapter is the Literature Review, where previous research related to the area of study is discussed. The chapter is concluded by presenting the remainder of the Theoretical Framework, which consists of both Performance Management and other foundational theories, such as the Self-Fulfilling Cycle of Coercive Surveillance and Performance Measurement as Care or Coercion. Thirdly, the Methodology Chapter first presents an overview of the research method. After that, the sample, data collection method, analytical process, limitations, and AI-statement are discussed. After the method has been thoroughly presented, the Chapter containing Empirical Findings displays collected empirical data sorted into themes associated with the research question. The first section presents the current algorithmic tools, along with the perceptions they entailed. The second Section delves deeper into perception, but focuses more on leadership and bypassing algorithms. The final section of the analysis presents the findings on cultural perceptions. The fifth Chapter, the Discussion, explores our empirical material, comparing it with previous research and the theories from our Theoretical Framework. Furthermore, this Chapter summarises the comparisons and lays the basis for our conclusions. The last chapter consists of Conclusions, where the perceptions of employees are presented together with new findings.

2. Literature Review and Theoretical Framework

2.1 Previous Research

Algorithmic management is defined as using software algorithms in organisations to automate functions traditionally handled by human managers (Wood, 2021). Kellogg et al. (2019) use the perspective of "contested terrain" by Edwards (1979) to explain research on algorithmic management, which states that managers maximise labour value by implementing production technologies, leading to employee resistance. Their synthesising analysis of algorithmic research shows that managers can use algorithmic management to direct, evaluate and discipline workers. The algorithmic control further entails individual and collective resistance tactics, which they call algoactivism (Kellogg et al., 2019), defined as practices for bypassing or manipulating algorithms (Cobonpue et al., 2024).

Prior algorithmic management research mainly targets gig and platform work (Lee et al., 2015; Jarrahi et al., 2021; Jarrahi & Sutherland, 2019; Mateescu & Nguyen, 2019). Lee (2018) conducted an online experiment focusing on how workers perceive algorithmic decisions compared to human decisions. The author measured perceived emotional response, trust, and fairness from four managerial decisions requiring mechanical or human skills. Results show that for mechanical tasks, equal fairness and trustworthiness was perceived for algorithmic and human decisions. The trust for human managers did, however, come from their authority, whereas the trust for algorithmic management came from its objectivity and efficiency.

Furthermore, Lee (2018) found that more positive emotions were recognised toward human decisions because of social recognition, while algorithmic decisions triggered mixed feelings; useful, but also a tool for potential surveillance. For human tasks, algorithmic decisions entailed less fairness and trust, causing more negative reactions due to the algorithms' perceived lack of subjective judgment and intuition. Negative emotions were related to the algorithm's dehumanising effect, and the positive emotions from human decisions were attributed to social recognition.

Benlian, (2022) lists a few advantages that the workers gain from algorithmic control, such as platform and gig work flexibility (Benlian, 2022; Wood et al., 2018; Berg, 2016). Algorithmic management at platforms such as Uber or Lyft provides entrepreneurial opportunities where workers can maintain their autonomy while being presented with feedback drawn from algorithmic data that can guide them to success.

However, Wood's (2021) evidence from platform work shows that algorithmic management can increase standardisation and decrease opportunities for intrinsic skill use and discretion, worsening working conditions. He further concludes that algorithmic management intensifies work effort, creating algorithmic insecurity and fueling workplace resistance.

While algorithmic management is becoming more common, human oversight and administration is still preferred, especially in organisations with a more traditional structure (Noponen, 2019). Overall, previous research on platform work and gig work suggests an adverse effect of algorithmic management on employees. These effects include high stress and dehumanising aspects (Jarrahi et al., 2021; Lee, 2018). However, there also seem to be some conclusions regarding positive effects on workers, such as using monitored information to develop workers as well as workers maintaining authority (Doellgast & O'Brady, 2020).

According to Wood (2021), algorithmic management has already been widely researched in warehousing and platform work. However, algorithmic management is becoming more prevalent in other work contexts (Mateescu & Nguyen, 2019), and Wood (2021) states that algorithmic management is also present in banking and call centres, but has been researched to a lesser extent.

Christl (2023) investigated algorithmic control and surveillance in call centres, focusing on Europe. In these settings, alerts, reports and dashboards were used to identify outliers, and feedback regarding performance metrics intensified work practices. Workers collected "points" by behaving as desired and used these to compete with their colleagues. Calls and communication could be recorded and monitored to ensure quality, compliance, and customer satisfaction. The software could automatically analyse what was said, the phrasing, and the call's positive or negative sentiment. He further states that some of the vendors sell surveillance technologies that are classified as more invasive, targeting remotely working

employees. These technologies can record keystrokes, mouse clicks, and monitor through webcams.

Doellgast and O'Brady (2020) observed that surveyed call centre workers reported high levels of stress across different measures, such as sleep difficulties, stress injuries, emotional strain, and use of anxiety medication. Highly stressed workers were more likely to feel the need to quit, perceived as absent, and less satisfied with their jobs. Research on employee turnover tends to conclude high employee turnover rates and turnover intentions in call centres, classifying them as a crucial problem (Zito et al., 2018; Valle & Ruz, 2015; Valle et al., 2017; Holdsworth & Cartwright, 2003). Turnover rates can reach as high as 60-80% annually (Hillmer et al., 2004), and according to the study of Zito et al. (2018), emotional dissonance negatively impacts job satisfaction and positively relates to turnover. These aspects are important as Vignola et al. (2023) conclude that algorithmic management most likely influences workers well-being and health. However, the study mentions that the research in the area is limited. How algorithmic management is perceived by the employees in call centres is therefore relevant to further study.

To summarise, previous research suggests that algorithmic management has been researched to a lesser extent in call centres. To understand the effects of algorithmic management in organisational contexts, it is crucial to explore how it unfolds in different industries and contexts, drawing insights from the workers' perspectives. With the intention of exploring the topic and contributing to future research, this study aims to investigate how employees perceive algorithmic management in call centres.

2.2 Self-Fulfilling Cycle of Coercive Surveillance

Anteby and Chan's (2018) research on surveillance at an airport showcases an interesting scenario when surveillance was met with workers engaging in invisibility practices, which led to more surveillance being implemented, creating a Self-Fulfilling Cycle. The problematic setting started with employee theft occurring at an airport. To protect the good workers from being accused of theft, managers installed surveillance at certain checkpoints to catch employee theft. However, the majority of the workers perceived the surveillance as coercive rather than caring, making the workers feel seen but at the same time invisible,

unnoticed, and untrusted – creating a paradox (Anteby & Chan, 2018). The workers viewed the newly imposed surveillance as a punitive system that only accounted for their negative actions, and to avoid the repercussions, workers started to avoid surveilled areas, prolonged their breaks, and engaged in other invisibility practices. Later on, when the invisibility practices were picked up by management, new surveillance measures were added, closing the loop of the Self-Fulfilling Cycle (Anteby & Chan, 2018).

As discussed in 2.1, algorithmic management can fuel workplace resistance (Kellogg et al., 2019; Wood, 2021). In the call centre studied by Woodcock (2022), workers found ways to oppose surveillance and make it less functional. These aspects can be related to the previously discussed algoactivism (Kellogg et al., 2019; Cobonpue et al., 2024) and provide an interesting basis for further analysis through the theory of the Self-Fulfilling Cycle of coercive surveillance by Anteby & Chan (2018)

Furthermore, the study by Anteby and Chan (2018) is a practical example of how workplace surveillance can escalate, with both workers and managers participating. It also showcases how surveillance being portrayed as caring by management can be seen as the complete opposite by workers, sparking negative perceptions. The findings from the prior experiment by Anteby and Chan (2018) may provide answers to how, and why, surveillance and invisibility practices might fuel each other in a call centre, making it a relevant theory for our study.

2.3 Performance Measurement as Care or Coercion

Sewell et al. (2012) studied call centre employees to understand the consequences and purpose of performance measures. Performance measures as workplace surveillance could be perceived in two different ways: as a helpful tool to expose free-riding and as intrusive and oppressive, used as a servant of narrow interest by intensifying work. These two perceptions are theorised as performance measurement as care and performance measurement as coercion.

Performance measurement systems compare workers' performance levels to the standards set by the management team. This allows managers to identify employees falling below

acceptable standards, where punishment is justified, and those who exceed these standards can serve as an example to the poor-performing workers. As a result, managers can oversee employees and maximise their work effort (Sewell et al., 2012).

Performance measurement as care rewards employees who are willing to behave according to expected norms of behaviour while punishing those who reject them. In this way, the purpose is to serve the majority's interest while protecting them. From an organisational view, this is efficient since managers can maintain the rationality and efficiency of the workers' behaviours while ensuring they pursue the right action by preserving social contracts. Furthermore, using performance measurement as care entails identifying employees whose behaviour is considered unacceptable to their colleagues and the organisation. These poor-performing workers are then corrected and punished by the use of coercive methods, which is justified, since it serves the interests of the majority. Notably, this performance measurement type must stay within "acceptable limits of intrusion" (Sewell et al., 2012, p. 195), as it otherwise might not be perceived as legitimate. In conclusion, well-performing employees subject to performance measurement as care perceive it as protective. In contrast, poor-performing employees reject its legitimacy since they feel their behavioural self-interests are threatened. In this setting, the employees accept being overseen.

Performance measurement as coercion works the other way, trying to "subordinate the interests of the majority to those of a minority" (Sewell et al., 2012, p. 193). The purpose is to maximise productivity by ensuring the workers are exerting their full mental and physical capacity. The theory discusses the opposing interests between employees and managers and how the two groups pursue the promotion of these. The employees are theorised as overseen, trying to avoid being surveilled to minimise their work effort. Managers categorise the workers as, for instance, lazy, good, bad, compliant, or normal. The subjugation is something the workers wish to avoid, as they want to pursue autonomy. In a dystopia, performance measurement as coercion can lead to a bizarre level of work intensification and a complete elimination of autonomy (Sewell et al., 2012).

The two different types of performance measurement are of interest as they allow this research paper to discover how the workers perceive the surveillance. It allows us to delve

deeper into questions such as whether or not respondents believe they were treated fairly and whether they understood the purpose of the surveillance at their respective companies.

2.4 Performance Management

In the early 1990s, performance management grew and was widely used in the HR field. Initially, there was confusion regarding the actual definition of the term, but now it is commonly agreed that its purpose is to effectively manage teams and individuals in order to reach high levels of organisational performance. This implies reaching, stretching, and exceeding targets of inter alia quality, growth, and profits. Performance management is distressed by underperforming employees. However, it provides methods and resources to improve employee performance and effective use of abilities – allowing them to reach their full capacity (Armstrong & Baron, 2005).

"Performance management is known as the 'Achilles' heel' of human capital management" (Pulakos, 2009, p.3). Data from Watson Wyatt shows that less than 40% of workers said that their technology systems were used effectively and that they provided muddy performance goals. Additionally, only 30% believed that the same system improved their performance. Pulakos (2009) further explains that performance management is among the lowest-rated areas in employee satisfaction surveys. However, performance management is still a process that gets work done as it communicates expectations, drives behaviour, and identifies poor performers who need development programs or correction (Pulakos, 2009).

Moreover, performance management and performance measurement repeatedly follow one another. Performance measurement today examines an organisation as a whole while creating an impact on strategy, thus affecting managerial decisions (Folan & Browne, 2005). Performance management can be used to achieve competitive advantages (Helmold & Samara, 2019) and is used throughout all organisational levels (Brudan, 2010). Therefore, it is important to understand how this management system unfolds in a modern call centre and how it is perceived by its employees, making it a highly relevant concept for our study.

3. Methodology

3.1 Research Method - an Overview

This study was conducted using interviews – a qualitative research method renowned for emphasising words rather than numbers (Bryman & Bell, 2024). Due to the qualitative nature of the research question, which surrounds employee perceptions, the interview was the most suitable method for collecting empirical material.

The study employed an abductive approach, which entails considering both empirical evidence and existing theory when drawing conclusions (Bryman & Bell, 2024). As a result, we were prepared to reinterpret our empirical findings if more logical answers to our research question emerged from theoretical discoveries. Although the study had a somewhat theoretical starting point, indicating a deductive approach (Bryman & Bell, 2024), we decided that referring to the approach as abductive was more suitable, as it was predominant in many aspects. Furthermore, the abductive approach was also prioritised due to the limitations that the deductive approach entailed, such as one being too bound to theory testing. However, one limitation of the abductive approach includes its emphasis on hermeneutic doctrine (Bryman & Bell, 2024), as one must interpret the findings more carefully. Since there are only two authors of this study, drawing accurate conclusions could be challenging under time constraints. To combat this problem, all empirical evidence was thoroughly and carefully reviewed to prevent misinterpretations.

Lastly, the study adopted a relativist ontology, meaning multiple truths can coexist and facts vary depending on the viewpoint of the observer (Easterby-Smith et al., 2021). As we study employee perceptions, the study is naturally grounded in a social constructionist epistemology. Social constructionism can be described, according to Easterby-Smith et al. (2021, p. 77), as: "That reality is determined by people rather than objective and external factors, and hence it is most important to appreciate the way people make sense of their experience". By combining a relativist ontology with a social constructionist epistemology, we were cautious when interpreting the interview quotes, which is important due to the qualitative nature of the study.

3.2 Sample and Study-Location

Accessibility aspects decided the location of the study. We have prior working experience within the loan brokerage industry, which gave us a network of people that could be studied. After conducting a literature review that revealed the low extent of previous research on algorithmic management in the banking and call centre industry (Wood, 2021), we realised that conducting the study would contribute to further insights and discoveries. At first, we wished to interview two or three managers to gain an understanding of the managerial algorithms present in their organisations and how they are being used. Initially, we had hoped to interview respondents currently working at the companies, but due to access issues, our plan changed to only interviewing former employees. Interviewing former employees is still a solid strategy, especially so when attempting to avoid bias. Being former employees, they are less likely to fear retaliatory backlash when sharing workplace experiences and may provide more truthful responses (Mason, 2015), enhancing the study's validity. As a result of our previous experience within the industry, the sampling method is purposive, meaning that participants were selected based on specific criteria rather than being randomly selected (Bryman & Bell, 2024). This approach allows the identification of engaging individuals willing to provide in-depth insight (Bryman & Bell, 2024). Additionally, it allowed us to target individuals from four different companies, making the sample more generalisable for the entire call centre sector.

Ultimately, the sample consisted of seven respondents from four different companies, all of whom were in the loan brokerage industry. Furthermore, the working tasks of the respondents consisted of calling new or former customers and trying to figure out whether they had any loans. If they had loans, their goal was to renegotiate their deals in an attempt to cut costs with one of their cooperative banks.

With the sample consisting of seven former employees, one could always question whether the theoretical saturation point has been achieved. Bryman & Bell (2024) addressed the issue by using the thumb rule by Warren (2002) and Morse (2004), which stated: "the broader the scope of a qualitative study and the more comparisons that need to be made between groups in the sample, the more interviews are required" (Bryman & Bell, 2024, p. 366). Seven respondents can be considered a relatively small sample size, making it challenging to draw relevant conclusions. However, by using four different companies operating in the same

sector, it compensated for the relatively small sample size by covering larger parts of the industry.

3.3 Data Collection and Ethical Considerations

Before the interviews were conducted, respondents were briefed regarding the subject and what was to be discussed during the interview. An interview guide was established, however, some questions deviated from the interview guide due to the semi-structured nature of the format. Maintaining a semi-structured format means that predetermined subjects will be covered, but the order is irrelevant (Bryman & Bell, 2024). The format allowed us to ask follow-up questions to clarify previous answers, and delve deeper when new findings emerged. For example, during the last interview, it was revealed that the respondent had unexpectedly worked as both a floor worker and a team leader. Therefore, we decided that asking more questions regarding the team leading role would provide deeper insights.

During the process of creating the interview guide, we aimed to keep the conversation as open as possible; therefore, we formulated a broad range of questions. After all, understanding all aspects of the workplace is important, as there could be several explanations to one phenomenon. The first interview guide included seventeen questions – but after the first interview was conducted, it became apparent that the interview duration was short. As a result, we started to speculate whether we were fully utilising the interviews. However, since the information provided from the initial interviews were deemed satisfactory, we decided to proceed as usual.

Interviews were conducted both remotely and on-site. Although the latter appears better in Bryman & Bell (2024); combining the two allowed us to maintain flexibility. The interviews were recorded through the voice-memo app on Iphone, and in some cases through Google Meet. Thereafter, most of the voice recordings were transcribed by Turboscribe.ai, and a few by hand. Lastly, due to our ethical consideration of anonymity, respondents and companies were renamed before anyone other than the authors took part of the empirical material.

3.4 The Analytical Process

After the interviews were conducted and transcribed, we employed the three-step method developed by Rennstam and Wästerfors (2018) to analyse the empirical data. These three steps consist of sorting, reducing, and arguing (Rennstam & Wästerfors, 2018). At first, we considered that a thematic analysis was suitable due to the qualitative nature of the research question (Bryman & Bell, 2024). However, the steps presented by Rennstam and Wästerfors (2018) are fairly similar to those of a thematic analysis, and at the same time, the framework provides deeper insights into how an analysis should be structured and conducted.

3.4.1 Sorting

"Qualitative material never arrives at the analyst's desk already sorted" - Rennstam & Wästerfors, 2018, p. 69

Due to the semi-structured format of the interviews, the answers to the predetermined questions were scattered throughout the transcribed interviews without a clear structure. To make the process of finding these answers easier – comments were inserted into the transcription document during the initial sorting process, assigning a category to each answer. Rennstam & Wästerfors (2018) refer to this as a thematic sorting process, where themes are identified based on recurring elements within the qualitative data. It is worth noting that these categories were not necessarily included in the study. Instead, they were a supporting function for us to localise the otherwise scattered answers. Apart from recurring themes, other interesting findings related to the research question were also highlighted.

Initially, interviews were read, and comments were made by both authors separately. Later, when the individual coding process was finished, we discussed and merged findings into separate categories. Coding both separately and jointly allowed us to gain nuanced insights of the empirical data, which was vital for the study. Being open-minded was a guiding principle for the coding process, enabling us to avoid bias early on. As a result, we disregarded seeking answers to our research question and looked at the empirical data in itself.

3.4.2 Reducing

After the empirical data was sorted into general themes, it was time to decide what chapters or themes the analysis would consist of (Rennstam & Wästerfors, 2018, p. 107). For the first draft of the analysis, the mistake was made in maintaining the most recurrent themes that the sorting process generated. For example, at first glance, the theme of leadership was one of the more recurring themes; therefore, the first draft of the analysis chapter included a Section solely about leadership. However, after a meeting with our supervisor, we realised that the theme only had a small connection to the research question. Therefore, we had to reduce the category to fit the study's purpose. This part can be related to categorical reduction, which is the process of prioritising themes that provide new knowledge or fit the purpose of the study better (Rennstam & Wästerfors, 2018). Two criteria were used to decide our selection of themes:

1. *What themes will aid us to answer the predetermined research question?*
2. *What empirical evidence is new, or can develop previous research?*

These criteria were essential for maintaining a common thread throughout the entire analysis, while also fulfilling the study's purpose. Finally, the reduction process required discarding information due to the broad number of themes acquired from the sorting process.

3.4.3 Argumentation

The last step of the analytical process was argumentation, which involves presenting the findings and discussing their meaning (Rennstam & Wästerfors, 2018, p. 143). Firstly, the quotes from the interviews needed to be translated because they were conducted in Swedish. Translations were done carefully to ensure that there were no misinterpretations of the respondents. Conclusions were drawn by examining the agreement among all respondents. If more respondents agreed with a certain statement, the statement would be more generalisable, solidifying the conclusion. If the conclusion was solid enough or if a pattern had been found, a discussion about its implications was initiated. Under each statement, quotes were sorted from strongest to weakest, placing the strongest arguments first and nuanced interpretations thereafter.

3.5 Limitations

According to the credibility criteria established by Lincoln and Gubas (1985), presented in Bryman and Bell (2024), the study has undergone a check for its trustworthiness. The four criteria consist of credibility, confirmability, transferability, and dependability, and are suitable for evaluating the study given its social constructionist epistemology (Lincoln & Gubas, 1985).

The first criterion, credibility, refers to the extent to which the findings are believable. There are various methods for ensuring credibility in a study, such as respondent validation (Bryman & Bell, 2024). However, due to time constraints, no respondent validation was carried out after the study. To combat the issue, extra precautionary measures were taken when interpreting each quote to ensure that the interpretations were correct from the outset. Overall, when conducting the analysis, efforts were made to implement as few of our personal aspects as possible, focusing on the respondents' implications.

The following criterion, as proposed by Lincoln and Gubas (1985), is confirmability, raising the question of whether the author's values are taking up too much space in the study (Bryman & Bell, 2024). With both authors having previous experience in the loan brokerage industry, it was essential not to let our experiences influence the results. Combating bias was achieved by maintaining reflexivity and focusing solely on the respondents' perceptions of the issue. During the interviews, to further prevent any bias, the line of questioning was conducted neutrally, especially when discussing more sensitive subjects such as culture, perceptions, and cheating.

Moving on, the third criterion is transferability, which refers to whether the study's results can be applied to other contexts (Bryman & Bell, 2024). This study aimed to make conclusions transferable for companies operating in the call centre industry. However, there are limitless possibilities for utilising call centres, including customer service, help desks, emergency response services, and telemarketing (Gans et al., 2003). The list goes on and on – raising the question of whether interviewing employees in the loan brokerage industry is transferable to the typical call centre. Gans et al. (2003) characterise the typical call centre as: "an endless room with numerous open-space cubicles, in which people with earphones sit in front of computer terminals, providing teleservices to phantom customers" (Gans et al., 2003., p. 82).

Since the interviews were conducted with people working in a similar environment, matching the description above, we were confident that our sample accurately reflects the characteristics of a typical call centre.

The final criterion is dependability, raising the question of whether the results are applicable for tomorrow (Bryman & Bell, 2024). One of the study's significant weaknesses associated with the criteria is its sample, which consists of former employees. Depending on how recently the respondents were employed, an issue with dependability might occur, as the situation today may differ from how it was back then. However, with respondents being employees between 6 months and 4 years ago, and the findings of the algorithmic management tools present at each company being similar, we are confident that the use of former employees generated a fair representation of the situation today and how it will evolve tomorrow as well. Furthermore, as stated in Section 3.2, interviewing former employees should be considered a strength, as they will not have to fear retaliatory backlash.

3.6 AI Statement

No generative AI was used in conducting the study. However, since we are not native English speakers and do not have full proficiency in academic English writing, we have used Grammarly to improve spelling and structure. Furthermore, to streamline the transcribing process, turboscribe.ai was used to transcribe some of the interviews. After the programme had transcribed the interviews, we realised that its accuracy was limited. Therefore, the interviews were carefully listened to, and any recordings that the programme misinterpreted were corrected.

4. Empirical Findings

4.1 Algorithmic Management Tools and Perceptions

4.1.1 Algorithmic Management Tools

The interviews started with a discussion of the managerial algorithms present at the respondents' respective companies and how their management teams utilised them. While there were both similarities and differences, the most recurring metrics were the number of calls, the number of applications filed, and the average call duration.

"The metrics that exist are: number of calls per day, call duration - that is, how long the calls were on average, response rate, number of applications, and number of meetings carried out. Number of customers helped - how many you managed to help in the end, and also commission." - Backlund

"They use a lot of stats and stuff like that. How many people do you call? What hit rate do you have? What can you do better? [...] What voice, what tone you have, to try and push so that you can get better too." - Forslund

While the algorithms recorded statistical measurements, another method employed by managers to gain insights into their subordinates' performance was through close monitoring, using software to listen to their calls in real time.

"We had a manager who always sat in the same room as us and listened to our calls, so that they are of high quality and that you don't cross any boundaries that you shouldn't cross. So the monitoring is absolutely constant. They can also connect and listen to us while we talk, and all conversations are saved." - Edlund

However, call monitoring was perceived as a tool that provided protection and was used by managers under the motivation of employee development, justifying its existence.

"That's also why they record it. Because if the customer disputes our UC-check, we have that recorded. And it is also for our safety that the call is recorded, in case there are any threats or something in the call" - Edlund

Grönberg was the first to mention a more unusual metric, which may be a result of him being the only respondent who climbed high enough in any of the companies to become a coach and provide insights beyond the lowest-status employees.

"The coach and the managers can see if you're not calling. A timer will come up on you immediately. The second you stop calling, the clock starts ticking. If you haven't made a call for three minutes, the managers will see. Everyone will see it" - Grönberg

None of the other respondents mentioned the metric of a timer that counted the time spent not on a call, which might be a result of the difference between companies or simply a fact that this metric was not displayed for lower-status employees to see. Furthermore, while only minor differences were recognised throughout the interviews, a pattern that emerged was the manager's use of a leaderboard. The leaderboard summarised most of the previously discussed performance metrics and displayed them publicly at the office for everyone to see. It primarily displayed the number of applications filed per day, ranking each employee from highest to lowest.

"So there was always a leaderboard. Who was the best and who was the worst" - Edlund

"We had a TV, a scoreboard of sorts. It was really just applications on it (applications completed, applications booked) that you saw on a TV screen, and then there were bars where you saw names and how many applications people had. [...] It was mainly the applications that were visible to others" - Backlund

The leaderboard was used by management to motivate employees by highlighting those who were performing well and those who could improve. While monitoring the number of daily applications was identified as the primary statistic presented on the leaderboard, Andersson and Dahlberg at Company 1 presented additional individual employee statistics on their leaderboard.

"They had statistics on everything that was possible to have a quantitative measurement on, open for the entire company to see on a big screen. And I guess that's a leaderboard, or whatever you want to call it." - Andersson

"The statistics for applications were on big screens. The call statistics were for each day you worked I think, and they came up on a screen, and then you could also see them weekly. So it was on display for everyone" - Dahlberg

To summarise, the most discussed algorithmic management tool by respondents was the leaderboard. It worked as a summarised reflection of one's performance, and both managers and colleagues appeared to form their perceptions of an individual based on the number of applications submitted.

4.1.2 Leaderboard of Stress and Motivation

Another clear pattern that emerged from the interviews was the positive correlation between the number of applications filed and the perception of the previously discussed leaderboard. For example, Grönberg and Edlund usually performed well, submitting more applications

than their coworkers, which led to a more positive perception of publicly presented statistics at the office.

"Not to sound cocky, but I was usually always on top of the leaderboard. So for me, it wasn't that stressful. But you felt glad in a sense, since you always strived to be at the top. You always wanted to be good at your job, obviously" - Grönberg

"I don't want to brag, but I was always on top over there. With another guy named Jack. Then we sat next to those who were further down on the leaderboard. And one could see that they did not enjoy working there, because it's not fun being on the bottom of the list" - Edlund

The other respondents all provided proof of the same correlation when discussing the leaderboard more generally.

"It felt great when you were at your best, and bad when it was not going well" - Dahlberg

"Stressed to perform, yes, if you were having a bad day. Definitely. Because one could clearly see if you were having a bad day in the office. And that was not particularly fun" - Andersson

Respondents' negative emotions towards the leaderboard were associated with stress when they performed poorly, while positive emotions were associated with the relief of being at the top. More generally, with the leaderboard resetting each day, its existence was often associated with stress. Even if an employee was performing well one day, they still had to perform the next day – making the relief temporary. However, while stress was the primary perception of the leaderboard, it also seemed to provide some motivation. Cederholm believed that stress was more prominent but that there was a subtle line between the two.

"Yes, I believe so. I would however say that they were somewhat close" - Cederholm

Similarly, Backlund and Dahlberg both found motivation and stress from the same leaderboard.

"Maybe a mixture of both. Well I believe it is to motivate people. But there is certainly a stressful part to it. But perhaps there is a subtle line to what is motivating or stressful" - Dahlberg

"There are both positive and negative aspects to it. On the one hand you could be motivated when you see that it is going well for others – leading to me feeling that 'it is possible'. [...] on the other hand, if you're not performing well, one can put too much pressure on themselves" - Backlund

In conclusion, the leaderboard was perceived as positive by employees when they performed well and negative when they performed poorly. Some respondents noted a subtle distinction between stress and motivation. However, it became clear that algorithmic management tools were mainly contributing to workplace stress, and this was even more pronounced when the statistics drawn from them were publicly presented at the office.

4.2 Algorithmic Leadership and Bypassing Practices

4.2.1 Inexperienced Leadership

As explained in the previous Section, managers were using the leaderboard as a tool to motivate employees and draw conclusions regarding individual performance. With managers having a central role in algorithmic management, discussing leadership and the people

utilising the algorithms provided further insight to how it was being perceived. According to Grönberg, the team leaders' main task is to improve their subordinates' performances.

"I think the idea is that the coach or team leader should make sure that the case handlers get better at selling. That's their main task. Not to monitor or supervise them, even though that's part of the job." - Grönberg

However, the respondents perceived leadership at their organisations relatively different, with opinions ranging from highly unsatisfactory to highly satisfactory. On the one hand, positive aspects were associated with the leader's commitment to motivating employees.

"It was good. It was pushy, salesy. They wanted to get everyone dialling and to send in as many applications as possible. So they tried to be as motivating as possible and pushed us to be constantly active." - Dahlberg

"Very good leadership. I had a great boss who was really nice, although his superior was a bit hierarchical, but that didn't affect me." - Edlund

On the other hand, some of the negative perceptions of the leadership included their laziness and impersonal methods.

"Since the leadership is so deeply based on algorithmic management, in the end it becomes pretty bland to just keep hearing 'come on now, hit this target, reach this level, then the next level.' It was very impersonal." - Andersson

"The leadership wasn't great. Well, I don't think you need any skills to lead in that type of

job. Now I'm a bit critical of them, but they were very lazy, what were they really doing there? They were supposed to be coaches, but they were really bad at it. They wanted to be your best friend, which I found was really weird." - Cederholm

Cederholm believed that one does not need any skills to work as a team leader at a call centre. Backlund, who had a relatively satisfactory experience with the leadership at his organisation, similarly declared the team leaders as inexperienced and untrained, however motivating it being due to their young age. Cederholm and Backlund both provide evidence that perceptions of a team leader at a call centre include them possessing relatively low leadership proficiency.

"Relatively good leadership. Many of our superiors were similar in age to us and therefore probably not that trained or experienced in their roles." - Backlund

"There really isn't any kind of leadership in their roles. It's more about making sure everyone is sitting at their computers and trying to sell all day." - Grönberg

Across all four companies, superiors were at a young age. Grönberg, who had only worked at Company 4 for three months, was promoted to a coaching role, indicating fast climbing opportunities for employees. When trying to figure out how people of a young age could handle a group of subordinates effectively without prior experience, we realised it could have to do with the simplicity of the tasks.

"In a way, employees are reduced to a number or a single measurement" - Andersson

As Andersson mentions, algorithmic management allows the manager to reduce employees down to a number, leading to the manager's role being perceived as simple and easy to

manage. As a result, most respondents thought they could lead as well as their superiors, and in some cases, they even thought they could do a better job.

"Competence-wise, yes. But enthusiastically no. Because I did not think the job was particularly fun. Therefore I would not have the same motivation towards it." - Andersson

"Yes, I believe so. I would have done a better job." - Cederholm

Although the quotes sound overconfident, they indicate a clear pattern: leading a call centre team with the help of algorithmic tools does not require a high level of leadership expertise. The evidence suggests that the employees perceive algorithmic management as reducing them to a number, underscoring the simplicity of being a manager, where no fundamental skills are required. However, the simplicity of managing through the help of algorithms can be regarded as a highly effective tool that creates opportunities for 19 or 20-year-olds to lead a team, underscoring why inexperience was a common perception.

4.2.2 Bypassing Algorithms and Cheating

With the manager's primary task being the improvement of employee performance, they reduced their employees to a number and could easily evaluate accomplishments. As a result, respondents mentioned that it was common to try to bypass and cheat algorithms in order to improve one's statistics, thereby enhancing oneself in the manager's eyes. As an extension to this, the respondents sometimes even discussed the commonality of cheating or committing serious rule violations. Results show that these practices are widespread at call centres.

"The number of calls made, if you put it that way, is quite easy to cheat on. You can sometimes click through customer cards to get the number up, but what counteracts or evens it out is, well, the call time usually goes down then, so it's a balancing act there. I would say that it was more common that people tried to call a lot of people in order to justify that 'I tried anyway'." - Backlund

"Even if the application was completely ready, you could wait to send it in until the next day and finish it the next time you worked. Then you'd start the next day with an application." -

Cederholm

Almost every respondent mentioned that they were working solely for the numbers. It entailed sending in applications they knew would not go through, almost considered trash, to shape their statistics and look like better employees.

"We never hung up the calls, but it would call when you clicked on it to call, so you could stay on the same call and pretend to be on for several minutes, but you were actually doing something completely different. So you sat there for ten minutes. [...] It was a lot of just working for the numbers." - Cederholm

"Then you also wanted to submit applications to get on these leaderboards, even though you knew that you wouldn't be able to help this customer. This was because you realized that they had taken out a lot of credit reports. You still submitted them just to shape the stats." -

Forslund

Attempts to cheat the algorithmic system led to some questionable interactions between callers and customers, resulting in unethical and rule-breaking practices. These included not providing information about a credit report being retrieved and excluding GDPR-related information.

"We have certain rules of conduct from the Swedish Financial Supervisory Authority that had to be met when a credit report was made, and that's not something you can do without approval. Then maybe - with this stress - you tried to get your KPIs and figures up and were a

little more careless with the mandatory parts regarding GDPR questions and credit UC questions that were our basic rules in conversations that you needed to mention, and that you avoided them a little more, in order to then get an application and get it up on the leaderboard." - Backlund

Cederholm mentioned that even the managers encouraged their employees to in some ways cheat, just to make their own department look better. He also mentioned that it was sometimes obvious who was cheating or not.

"The applications themselves, you could submit applications which were crappy, knowing that they wouldn't go through, just to get an application in. [...] There were a lot of people who did that, who could get twelve applications in a day, on a part-time shift, normally you get maybe three. But those applications were worthless, it was just like he was threatening the customers or something." - Cederholm

"It's very common, and it was common for managers to encourage it too. Their department looked bad if they didn't have enough people. So they could say things like, 'Screw that, get it from the internet' or 'just send it in'." - Cederholm

The common theme among the respondents was their understanding that one would rather risk breaking the rules than being one of the worst-performing employees.

"I think there are more people who would rather take the chance of getting applications than completely follow the rules." - Backlund

In conclusion, management's prioritisation to improve the delivery of numbers from employees led to a highly competitive and performance-oriented environment. As a result,

employees felt the need to engage in serious rule-breaking practices or cheat in order to improve their statistics and enhance their appearance. This meant employees would rather risk it and face the consequences than be one of the worst-performing employees.

4.3 Cultural Perceptions

4.3.1 Bro Culture

As the call centres contained a highly performance-oriented environment, it became clear that it was part of their cultures. The sample of this study includes seven different respondents, all of whom are male. At first glance, this may lead to injustice or bias in the empirical material regarding perceptions. However, it was evident from the discussions that a clear majority of the case handlers were male.

"So in customer service 9 out of 10 were girls, where there was no focus on sales. They answered customer service questions and had a higher base salary, but they also got a commission on when people called in to cancel their insurance or loan but they managed to persuade them to not cancel. And that's where there's less sales and it may suit girls better. I'm not going to sit around and assume why girls work in customer service and not as handlers, but at the sales floor or handlers floor there were 20-30% girls if you're being generous." - Grönberg

One interesting remark from the quote listed above is that Grönberg made the stereotypical judgement that women could be less suited for working in sales. However, answers from other respondents suggest that the gender disparity between departments likely stems from the culture in the sales department, making it less appealing for female employees.

"There's definitely an element of bro culture, and a competitive atmosphere. You didn't want to be the one with zero applications." - Cederholm

"It's a competitive environment. And it was only people around my age. 19-20 and 21." - Edlund

The quotes introduce an argument for a "bro culture" and highlight how it is a highly competitive working environment. Overall, the different companies share similar company cultures, primarily influenced by the predominance of young male employees. On the one hand, Edlund thought the competitive culture was rooted in the commission-centred business model, which naturally made the office more "sales-y". However, from the other interviews, it became clear that it originated from the leaderboard. Nobody wanted their name at the bottom, which turned the workers against each other in a competitive manner. As a result, algorithmic management intensified the corporate culture, making it a more result-oriented and competitive environment.

"It was naturally quite a competitive environment at the office. They had notifications for every application that went through, so that everyone at the company could see when you had made a sale." - Andersson

It becomes clear that the "bro culture" and result-oriented system creates an intense corporate culture that is not meant for everyone. This culture is based on a winner mentality, where one either performs or leaves, and is intensified by algorithms that track and compare the performance of employees.

4.3.2 The "Come-and-go" Culture

The algorithmic management tools identify who is a winner and who is a loser, sorting out who might be fit for the company and who is not. In this way, everyone is welcome, but not everyone can stay. This Section displays the part of our findings within the culture related to the form of employment, which is identified as a "come-and-go" culture. When solely discussing employees resigning, it is often related to part-time employees balancing their

studies with work, as well as an employment option that allows people to earn money and then perhaps travel.

"There were a lot of young people who worked beside their studies. So it was a lot that you reached a certain age and then started to focus a bit more on your studies, after a year or something like that" - Dahlberg

Some respondents mention that most people working at their respective companies were aware, even before starting their employment, that they would not stay for long. They saw it as temporary employment and highlighted that the management team was aware of its occurrence.

"They basically knew that people were there to work for a year or a year and a half" - Dahlberg

"Then again, it's a job that you have simply to earn money to maybe travel. So I guess it's not a job that most people have because they want to work there for a long period of time" - Forslund

However, not every employee resigned from their employment. Management puts high pressure on employees to achieve and reach key performance indicators (KPIs), in other words, several performance goals related to algorithmic statistics. If these conditions are not met, a meeting will be scheduled, and new performance-related deadlines will be established. Ultimately, if new deadlines are not met, one may face termination.

"If you didn't perform and got no applications at all, I think you could get an action plan. Say 'if you don't reach these metrics you will get fired' [...] It was something along the lines

of you having to meet certain KPIs - like number of calls per day and number of filed applications per week or something like that. If you didn't meet that you got fired, I think." - Backlund

"It went pretty quickly. Immediately after the training you started calling and then, even if you did not succeed within two weeks, it was like; 'Okay, now we need to have a conversation, you are doing something wrong'." - Cederholm

Cederholm similarly mentions how the fast-paced environment puts expectations on employees to perform right from the start. Dahlberg also felt the need to perform quickly, or risk being fired on the spot, which made the employment type very insecure. This was also the reason why Dahlberg was fired in the end.

"The form of employment we had was quite. It was not very safe. They could probably fire someone on the day if they wanted to, because of the performance measures" - Dahlberg

"You didn't quite get any time to get adjusted to working there before you were kind of pushed. That drives a lot of people away" - Cederholm

Respondents mentioned that not everyone is suited for the call centre industry. Introducing the subject that one may need to possess a particular personality to successfully handle the intense conditions and jargon of a call centre.

"I believe the call-centre industry is not for everyone" - Forslund

"Not everyone is cut out for the sales industry. You might think that it's different from what it is until you start." - Grönberg

Furthermore, the commission-based model may not be suitable for everyone, as one's salary mirrors individual performance. Edlund explains that it is relatively simple and easy to earn money if one is good at their job, thereby strengthening the argument that certain personalities might be a better fit for the job.

"It's probably mainly because it's a commission-based model. The more you sell, the more money you get. Plus, it's a very easy job. [...] If you're good at it, you can sell, and there are many who can sell. There are many who make good money at that age if you can sell." - Edlund

Almost every respondent mentioned that the pressure and intense working conditions under algorithmic management significantly impacted the turnover rates at their respective companies. As a result, only a few respondents enjoyed working at a call centre and would never consider doing it again, even those who were performing well.

"It's quite tiring to just sit and make calls. The way they did there. There was really just one task [...] I was probably mostly walking around thinking about when I should quit" - Dahlberg

"I would never go back to cell because you are exhausted on other levels after calling all day. And that doesn't fit everyone" - Grönberg

In conclusion, employees perceived the algorithmic intensification of culture as one of the reasons for higher turnover rates. The turnover relates to the "come-and-go" culture, where

some employees leave on their own accord, and some are unable to perform under intense conditions, resulting in their termination for underperformance. As a result, certain personalities are better suited to working in a call centre, and even those who are well-performing seem to struggle with working there for a long time, which reinforces the argument for a "come-and-go" type culture.

5. Discussion

5.1 Existence of Algorithms in Call Centre Environments

Our study confirmed that performance-oriented metrics and call monitoring are algorithmic tools used in call centres. However, a leaderboard that summarised individual employee performance statistics and presented them publicly at the office was the most common algorithmic management tool. Employees collected "points" which were presented on the leaderboard and enabled them to compete with one another. These findings align with Christl (2023), who identifies call monitoring and performance metrics, such as dashboards, alerts and reports, as the most common, allowing employees to collect "points" and compete with one another. Christl (2023) additionally identified some metrics that can be described as more invasive, such as keystroke monitoring or surveillance through webcams. These findings were not found in our study, likely due to the job format for our sample. For example, no one in our sample could work from home, making the concept of webcams useless since there was always a coach or team leader sitting in the same room. Overall, the findings from this study are similar to those found by Christl (2023), solidifying his and our findings in a relatively understudied area. However, one must remember that the call centre sector is broad, and the algorithms in place for each company are likely tailored to their specific working tasks. Therefore, it is challenging to reach a consensus on the algorithms in place throughout the entire call centre sector. Nevertheless, our findings reveal the algorithms in place at some of the largest companies in the Swedish loan brokerage industry, making the answer generally applicable to that sector. Furthermore, as stated in our literature review, algorithmic management in a call centre environment is a relatively underexplored research area (Wood, 2021), and our findings develop and strengthen previous findings.

5.2 Coercive Surveillance in Call Centres

The surveillance at the studied call centres was, in some cases, described as constant, where team leaders not only listened in real-time but also evaluated employees through performance metrics. The theory of performance measurement as care or coercion presented by Sewell et al. (2012) offers interesting insights into whether surveillance can be perceived as motivated by protection or as a means to control employees.

Our empirical findings indicate that a majority of respondents perceive real-time surveillance and performance metrics as coercive measures. The coercive perception is attributed to managers employing methods that ensure full mental and physical performance from their employees, explained by Sewell et al. (2012) as coercive characteristics. These methods contributed to most employees feeling stressed about performing and even more stressed when they failed to do so. Furthermore, managers at our studied call centres use algorithms as performance measures to categorise their employees by ranking them by the number of applications filed, further strengthening the argument for coercive methods (Sewell et al., 2012). Sewell et al. (2012) emphasise that performance measurement when used as coercion, can lead to high levels of work intensification (Sewell et al., 2012); this will, however, be further discussed in Section 5.4.

Performance measurement as care rewards employees who act accordingly with expected norms of behaviour and punishes those who reject them. Therefore, performance management as care implies serving the majority (Sewell et al., 2012), which in our case is the employees. However, we found evidence to the contrary in our empirical material. Instead of serving the majority, the performance measurements helped the minority, the managers, identify those who did not live up to expectations and subsequently punished them, thereby strengthening the argument for coercive practices. Interestingly, well-performing employees often perceive the performance measurement as protective (Sewell et al., 2012). Grönberg and Edlund were both well-performing employees at their respective companies and are the only ones who found and mentioned other positive factors of the surveillance besides motivational aspects. The positive aspects were related to protection, as recorded calls could be saved and reviewed when customer complaints arose, allowing evidence regarding what they agreed to or not. In this way, Edlund felt that he could motivate his filed applications more easily and have support from recordings that he did not commit any rule violations.

Overall, our empirical material reveals evidence that the employees at the studied call centre perceived performance measures as coercive. There are a few factors that suggest a more care-related performance measurement system. However, this is explained by the favourable view held by well-performing employees, as noted by Sewell et al. (2012). Our findings provide further evidence that well-performing employees may perceive performance measurement systems more positively than those who are not performing well. However, we cannot conclude whether this can be attributed to differences between companies or personalities, given the positive emotions emanating from underrepresented companies in our sample.

5.3 The Self-Fulfilling Cycle in the Performance-Oriented Call Centre

Our empirical evidence suggests that algorithmic management reduced employees to numbers, categorising them thereafter, in line with coercive methods (Sewell et al., 2012). As a result of the reduction, employees perceived that no fundamental leadership expertise or skills were required to lead a call centre team when assisted with algorithmic tools. Furthermore, the leadership was perceived as inexperienced and young, which was explained by the companies allowing for rapid advancement. Consequently, this might have led to managers being undereducated in the consequences of their practices.

The presence of the leaderboard made the office environment performance-oriented, leading to employees being more exposed to high levels of stress, in line with previous research (Doellgast & O'Brady, 2020). From our empirical material, we can conclude that when stress was overburdening, workers could turn towards cheating the algorithms. Nevertheless, this is not anything new. Kellogg et al. (2019) presented a similar case where managers attempting to maximise labour value through algorithmic management encountered resistance, leading to employees trying to bypass the algorithms. They coined the term "algoactivism", and it is also applicable to the study by Wood (2021), where algorithmic management fueled workplace resistance. The theory of the Self-Fulfilling Cycle of Coercive Surveillance, as proposed by Anteby and Chan (2018), explains how bypassing practices and the further implementation of surveillance fuel each other. Workers perceived the surveillance as coercive and simultaneously felt both seen and invisible, creating a paradox. Interestingly,

our empirical evidence reveals the existence of the same paradox, where the high usage of performance measurements makes employees feel seen, but the reduction of individuals to numbers makes them feel less seen. Given the coercive perceptions of the performance metrics (as discussed in Section 5.2), the paradox, and the bypassing of algorithms all present at the studied call centres, one could theorise about a Self-Fulfilling Cycle of Coercive Surveillance also being present as the foundations are already in place. However, no such evidence was found. To study the presence of such a cycle, one would need to examine, for instance, historical data or conduct a study over a prolonged period, which would be an interesting subject for further research.

5.4 Algorithmic Intensification of Culture

As previously discussed in Section 2.4, the purpose of performance management is to effectively manage individuals and teams in order to achieve high levels of organisational performance (Armstrong & Baron, 2005). Our empirical findings indicate a strong relationship between the management practices observed in the studied call centres and those of performance management. The culture at these call centres is highly performance-oriented and is related to a "bro culture"; described as a highly competitive environment.

Respondents discuss that they are solely working for the numbers and to shape their statistics, which in some cases led to cheating. The respondents provide empirical evidence that managers formed their perceptions of employees solely based on the number of applications filed, creating a highly competitive and performance-oriented environment where daily results were presented on a leaderboard in front of everyone at the office. Sometimes, all employees even received a notification when someone's application went through. As a result, employees felt that they would rather take a risk and break the rules than strictly follow the book and be perceived as poor performers. However, when employees were performing poorly, managers would schedule a meeting to discuss what was going wrong and what could be improved. Sometimes, an action plan was established as a last resort, containing performance-related deadlines that had to be met, where failure to meet these deadlines would result in termination. These managerial practices at the call centres relate to performance management aspects, as management attempts to provide methods to enhance the performance of employees who are not performing at their full capacity (Armstrong &

Baron, 2005). However, this made employees feel the need to perform quickly, which in turn contributed to workplace stress.

The management's efforts to enhance employee performance fostered a performance-oriented environment within the office. The leaderboard, which pitted colleagues against each other in a competitive manner, combined with pressure from team leaders to meet set expectations, led to algorithms being a significant contributor to an intense and competitive culture. As a result, it is safe to conclude that algorithmic management has intensified the corporate culture, which is a topic not discussed by previous research.

The algorithmic intensification of culture led to further segregating perceptions regarding who was a winner and who was a loser, as performance was tracked and compared. Employees had to earn their place by delivering results, and in this way, many people were welcome to try out, but not everyone was allowed to stay. As a result, a "come-and-go" employment culture was observed. Previous literature tends to conclude that high employee turnover rates are a crucial problem in call centres (Zito et al., 2018; Valle & Ruz, 2015; Valle et al., 2017; Holdsworth & Cartwright, 2003; Hillmer et al., 2004). As observed in our empirical material, the high turnover rates at the studied call centres are not a secret but rather well-known among employees and management.

Algorithmic management can, as previously discussed, be observed as contributing to high stress levels, resulting in an impact on the well-being of the individuals subjected to it – supporting the argument of Vignola et al. (2023), who concluded that this might be the case. On the one hand, the high turnover rates can, according to our empirical analysis, be understood as being caused by the intense culture. The culture glorifies a winner mentality, and we can draw conclusions that there are only certain types of personalities that are well-suited for the call centre industry. However, even though an employee possesses the right personality and is performing well, they still leave; why is that? The answer to this question is observed as a result of algorithmic management and the "come-and-go" employment part of the culture.

Algorithmic management was perceived as contributing to increased turnover rates at call centres, making employees unwilling to stay, even if they were performing well.

Furthermore, respondents viewed the employment at their respective call centres as temporary, describing it as a job one takes to work alongside studies or as a full-time option to earn money and then perhaps travel. As a result, none of the respondents viewed the call centre environment as a place where they would want to develop and grow over a prolonged period – creating a norm to come-and-go.

One could also ask the question of what the perfect employee at a call centre is like and what traits this individual might possess. That is, however, a question that would be interesting for future research to explore in more depth.

6. Conclusions

Contributing to algorithmic management research, this study aims to provide further insights into how employees perceive algorithmic management in a call centre. The study provides valuable insights for those who tend to implement it, as well as managers or HR departments in call centres where it is already in practice. As our research question investigates how employees perceive algorithmic management, it implies a perception of both the tools and those who utilise them. Our findings confirm previous research that performance metrics and call monitoring were common algorithmic tools present in call centres. However, the most common tool used by managers was a leaderboard, which summarised individual employee performance statistics and presented them publicly in the office.

Our study reveals that employees' perceptions of algorithmic management are both motivational and stressful, with the latter being more prominent. The stressful aspects contributed to employees working solely for the numbers, and our empirical evidence reveals new findings, including the common practice of bypassing procedures and even cheating to manipulate statistics. Furthermore, new findings also suggest that this is a result of an algorithmic intensification of culture, which enhances the performance-oriented environment. The culture is fueled by competitiveness and promotes a winner mentality, contributing to perceptions of the work environment unravelled as trait- and personality-specific, where only a few succeed. Moreover, employees also perceive that turnover rates are positively correlated with the intensification of culture by managerial algorithms and that this contributes to a "come-and-go" employment culture, where even well-performing employees

do not see a future within any of the companies. As a result, there are opportunities for young people to advance quickly; however, this does not necessarily encourage them to stay longer than others. Due to this fast-paced ladder climbing, we observe employees perceiving their managers as inexperienced, with algorithmic tools being the sole basis for their decision-making. Therefore, the manager's job was perceived as easy and gave almost every respondent confidence that they could lead just as well and, in some cases, even better.

Our study takes place in the loan brokerage industry, and generalising our findings across the entirety of the call centre sector is difficult due to the variety of tasks call centres in between. However, this research paper provides foundational evidence for future research that could investigate how certain personalities are better suited for competitive environments and why some are not. Further research could also investigate how perceptions of algorithmic management might differ between well-performing and poorly performing employees. Finally, moving away from personality-related opportunities, one could also explore whether a Self-Fulfilling Cycle of coercive surveillance is present in these environments, as we were unable to conclude whether bypassing and cheating practices led to further surveillance being implemented.

7. References

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8. Appendix

Name	Time of Employment	Role	Time of Interview	Company
Andersson	8 months	Case Handler	18:32	Company 1
Backlund	1 year and 11 months	Case Handler	17:36	Company 2
Cederholm	1 year	Case Handler	13:39	Company 1 and Company 2
Dahlberg	2 years	Case Handler	25:52	Company 1
Edlund	1.5 years	Case Handler	14:32	Company 3
Forslund	6 months	Case Handler	18:34	Company 1
Grönberg	6 months	Case Handler and Team Leader	25:01	Company 4