



BI Norwegian Business School - campus Oslo

GRA 19703

Master Thesis

Thesis Master of Science

Does observation of employees affect the quality of Leader Member Exchange (LMX)-relationships?

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Start: 15.01.2021 09.00

Finish: 01.07.2021 12.00

- Master of Science Thesis -

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Acknowledgements

We would first and foremost like to express our greatest gratitude to our supervisor, Jon Erland Bonde Lervik, for his enthusiasm, exciting discussions, feedback and helpful contributions to our research topic. Jon Erland has been very engaged in this process and very helpful in guiding us towards the direction we needed. We are grateful for the theoretical insight he has provided us, particularly in areas we experienced as challenging. It has been an honor to have Jon as a supervisor. Thank you!

Finally, we would like to thank each other for the great teamwork. The process of writing this thesis has been challenging, enriching and we genuinely believe this thesis touches upon a very interesting and relevant topic.

Have a good read,

The authors

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Abstract

This study seeks to explore the relationship between observation of employees and leader-member exchange theory (LMX). Hence, exploring whether observation of employees affects the quality of relation shared between an employee and its closest supervisor.

Our study examines a total of 286 respondents working within the field of marketing and sales in the UK and USA. The results show that intense and hierarchical forms of employee observation negatively affects LMX-quality. In the results we also found a significant positive impact on LMX-quality, when employees perceive that the intention of observation is to facilitate learning and development, which we have operationalized through the theory of mastery climate. Furthermore, the study posits that a performance climate negatively affects LMX-quality. However, we did not find any support for this in the results.

1.0 Introduction

In management theory, controlling and monitoring have been a central part of management tasks since the earliest management theories (Ball, 2010). People are intensely observing and being observed in the workplace. "Employee observation" can be argued to be a principal function of performance management (PM), which according to Aguinis (2013), involves measuring employees to ensure that their performance is in line with the strategic goals of the organization. However, digitalization is changing the climate of work. As argued by Leonardi and Treem (2020), the question is whether our existing theoretical frameworks can understand, interpret, and predict how these changes will affect the way we work and the behavioral consequences this might yield. Research on PM systems has also been primarily focused on explaining how one can achieve the intended consequences of PM. In contrast, the unintended consequences of such systems may have been less explored (Franco-Santos & Otley, 2018). In this thesis, we are interested in investigating how the observation of employees affects the relationship between an employee and their closest supervisor, specifically, the quality of a Leader-Member Exchange (LMX)-relationship. There has been extensive research on LMX-theory and the area of employee observation". However, we have found little research on the consequences employee observation might have on relations in an organization. Thus, by viewing "employee observation" through the lens of LMX-theory, we hope to serve the field with understanding of a new dimension on what consequences observation of employees might have on the relationship between an employee and the closest supervisor.

Today, "employee observation" extends far beyond "clocking in, counting and weighing output and payment by piece-rate" (Ball, 2010, p. 89). "Employee observation" has become much more prominent in later years, especially within so-called "low skilled" professions (CNBC, 2020). For example, Amazon was granted patents in 2018 for wristbands that monitor workers' every move, utilizing algorithmic control over employees. Workers are monitored on various aspects, from using the bathroom to seeing how far their hands are from the correct bin (Mabud, 2019). Environments that seem more like a version of Charlie Chaplin's "Modern Times, 1936", rather than the more modern "idea of work" as something fulfilling, creative, and meaningful. However, new dynamics and work patterns

are emerging as work environments have changed quickly, and observation of employees is no longer exclusive to "blue-collar" professions but has also become common in "white-collar" professions (Sheng, 2019).

The changing dynamics of work create new demands for how employers observe the performance of their employees. One obvious way technology has changed how people work is by facilitating remote working, which lockdowns have accelerated under Covid-19 (The Economist, 2020). Furthermore, organizations have, over time, invested heavily in employee observation tools or Electronic Performance Management (EPM) software, and according to Benson (2020), the surveillance has "boomed" due to the outbreak of Covid-19. The International Labor Organization (ILO, 2020) estimated that 2.7 billion workers (81% of the global workforce) were subject to full or partial lockdown. This unforeseen shift has also transformed many people's attitudes to remote working and home offices. Studies accumulated with the Covid-19 situation indicate that home office and observation software will be an extended member of the "future of work" (Benson, 2020; CBNC, 2020; The Economist, 2020), and it is estimated that 80 % of world businesses will implement employee observation tools before 2030 (Suemo, 2019).

Bernstein (2017) argued that an important perspective to focus on in future research of observation is the behavioral consequences of feeling observed. A study on the influence of EPM by Davidson and Henderson (2000) indicates that the visual presence (feeling observed) of EPM resulted in easy tasks being performed with greater proficiency and challenging tasks being performed with less proficiency. Also, when attempting to solve easy tasks, the presence of EPM resulted in a significant positive effect on mood states. In contrast, the presence of EPM caused a more negative mood state and a higher level of subjective stress when solving challenging tasks (Davidson & Henderson, 2000).

Hence, we find it interesting to investigate the relationship between employee observation and LMX-theory, as LMX-theory concerns itself with the dyadic relationship between an employee and its closest supervisor (Graen & Uhl-Bien, 1995). Thus, this master's thesis would like to contribute to the literature by increasing the understanding of how employee observation influences LMX-relationships. Based on the theory and actualization presented above, we have formulated the following research question for our master thesis:

Does observation of employees affect the quality of Leader Member Exchange (LMX)-relationships?

To answer our research question, we have used a quantitative research method, and we have chosen to focus on people who work within sales and marketing as we see these categories as quite generalizable. In addition to being fairly generalizable, it is a large target group, making the data collection fortunate. In our study we have primarily focused on the observation that happens from the closest supervisor, as this is the most relevant level of observation when researching the effect on LMX. We have used a survey for data collection, and the study uses a set of regression analyses to identify the predictive power observation has on LMX-quality.

2.0 Theoretical framework

Our study uses literature from several different research areas, and in this part of the paper we will synthesize some of the most important literature on each topic, to give a fuller understanding of the different areas, and the connection between them. The theoretical framework is structured in the following way. First, we will go through the theory of our dependent variable Leader-Member Exchange (LMX). Further follows chapters on employee observation, monitoring and surveillance, and finally mastery and performance climate. Thus, it follows the logic of our research model and our hypotheses.

2.1 LMX

The Leader-Member Exchange (LMX) theory is a well-known and popular approach in understanding relational leadership (Martin et al., 2010). LMX-theory focuses on placing the dyadic relationship between leader and follower as the focal point of the leadership process (Northouse, 2019). A central premise of the LMX-theory is that leaders differentiate between their followers in relation to the quality of the relationships formed with each other (Bauer & Green, 1996). The objective of LMX-theory is to explain the effects leadership has on members, teams, and organizations (Bauer & Green, 1996). In the early studies of LMX, the main focus of the research was on the existence of in-groups and out-groups within organizations (Liden et al., 1997). In-groups are where the relationship between leader and member is based on expanded and negotiated role

responsibilities. Out-group relationships are based merely on defined roles through formal employment contracts (Dansereau et al., 1975). More emphasis has been put on how LMX-theory is related to effectiveness in organizations in later research, more specifically, how LMX-quality influences work-related outcomes, such as employee turnover, performance evaluations, frequency of promotions, organizational commitment, and several other outcomes (Northouse, 2019). The later studies found that these work-related outcomes were positively influenced by high-quality leader-member exchanges (Harris et al., 2011). Graen and Uhl-Bien (1995) described high-quality relationships as relationships that are “characterized by a high degree of mutual trust, respect, and obligation.” (p. 227) Furthermore, in a study of how leader-member relationships develop, Nahrgang et al. (2009) found that followers look for trusting and cooperative leaders.

We can see that trust is a central theme in building high-quality relationships. Our perception of employee observation is that this can portray a lack of trust in employees, given the need to monitor their performance. So, we believe that this can be an area of conflict between observation of employees and building high-quality LMX-relationships. In addition to other well-known outcomes from a high-quality LMX-relationship, a meta-study by Martin et al. (2016) on the relationship between LMX and performance showed a link between high-quality LMX-relationships and increased performance. These findings are highly interesting because one can argue that the driving purpose of PM and hence "employee observation" is to increase performance and results. Therefore, we see an obvious theoretical discrepancy between deploying observation mechanisms in order to ensure high performance, and facilitating high-quality LMX-relationships, also known to be positively associated with performance (Martin et al., 2016).

Measuring LMX has been done in several different ways. However, according to a meta-analysis performed by Gerstner and Day (1997), the LMX-7 measure has the soundest psychometric properties. Thus, we will use this measure in our questionnaire to measure the quality of the relationship between leader and member as our dependent variable.

2.2 Observation of employees

Observing employees can be argued to be a principal function of performance management (PM), which can be defined as “a continuous process of

identifying, measuring, and developing the performance of individuals and teams and aligning performance with the organization's strategic goals” (Aguinis, 2013, p. 2). Hence, the link between PM and employee observation is quite apparent. Ball (2010) argued that controlling and monitoring have been recognized as a central part of management tasks since the earliest management theories where people are intensely observing and being observed in the workplace. Furthermore, according to Bernstein (2017), observation in the workplace is important because we neither learn nor control anything if we do not observe. However, the intensity and form of observation in the workplace have changed rapidly in the last decades. Interestingly, long before the emergence of the internet, Zuboff (1988) argued that everything that could be converted to information (exchanges, events, objects), and the data would be used wherever possible for surveillance and control (Kavenna, 2019). Today we live in the age of surveillance capitalism, an economic system which is centered around "commodifying" personal data with a primary purpose of making a profit (Zuboff, 2019).

Increased digitization, digitalization, and datafication of work and communication, coupled with new infrastructures, have made it easier for the behaviors of people, collectives, and technological devices to see and be seen (Leonardi & Treem, 2020). According to Leonardi and Treem (2020), such increased digital connectives give rise to the phenomena of behavioral visibility. Behavioral visibility can yield both positive and negative outcomes (Leonardi & Treem, 2020). However, Bernstein (2017) highlights shifting trends towards workplace observation in the literature of transparency, whereas the object of observation has changed from organizational outcomes to detailed individual activities within them. According to Bernstein (2017), there are indications of a split in the field, where managers view observation substantially from the observer's perspective.

In addition to Bernstein's (2017) prospects of changes within the field of transparency, Bernstein (2012) introduced the "transparency paradox", whereby transparency may reduce workers' performance. Bernstein (2012) suggests that contrary to the typical assumption of transparency as something positive due to increased understanding of the organization, transparency may be met by strategically deployed defense mechanisms by individuals, such as hiding behavior and encryption to disrupt the understanding the observer has of the behaviors observed (Bernstein, 2012). Moreover, changes can also arise in work

patterns where employees change their way of working to one that better satisfies the goals in which they are being measured (Applin & Fischer, 2013).

Furthermore, in line with technological development, observation is changing from people observing technology to technology observing people (Bernstein, 2017). Research on the effect of physical and electronic monitoring by Aiello and Svec (1993) found an equally negative effect of physical and electronic monitoring. However, in contrast to physical monitoring, where it is more situational as a leader comes and goes, electronic observation can be much more constant and intense, which may contribute to a more substantial negative effect of electronic observation.

To operationalize "employee observation," we have looked further at the concepts of monitoring and surveillance, which will be discussed in the following sequence.

2.2.1 Monitoring and surveillance

In the literature within employee observation the terms monitoring, and surveillance are used frequently and interchangeably, and denote similar practices (Ball, 2010). However, we find it important to distinguish between the two. The terms can both have positive and negative consequences and associations. Still, scholars tend to write about them differently in line with their respective publication venues, where monitoring is more neutral and does not share the same dystopian baggage as surveillance (Ball, 2010). One essential distinction between the terms, according to Bernstein (2017), is a difference in the hierarchy. Monitoring can be described as a non-hierarchical system that gathers information about tasks and/or activities to make it widely available. In contrast, surveillance is more close, constant, and comprehensive supervision by managers (Bernstein, 2017). In other words, "the few are watching the many" (Sewell & Barker, 2006, cited in Bernstein, 2017, p. 4).

According to Ball (2010) any discussion regarding workplace surveillance begins with the idea that surveillance and business organizations go hand in hand. Organizations watch their employees primarily to protect their assets. However, the observation's intensity and nature say much about how the organization views its employees (Ball, 2010). The first real debate regarding workplace surveillance took place in the 1980s. The debate culminated from work commissioned by the US Office of Technology Assessment into a report that combined political,

economic, sociological, and psychological perspectives on workplace surveillance (Ball, 2010). However, since the 1980s, the development of methods, processes, and employee monitoring and surveillance tools have skyrocketed (Sheng, 2019).

Based on Bernstein's (2017) and Ball's (2010) distinguishing, we consider monitoring to be a neutral and non-hierarchical process that is less intense and makes information widely available for learning and development purposes. In contrast, we perceive surveillance as a more hierarchical and non-neutral form of monitoring where the information is used more coercively. Thus, we find the degree of intensity and hierarchy interesting when distinguishing between monitoring and surveillance in regard to LMX-theory. As mentioned in previous sections, a high-quality LMX-relationship is a dyadic relationship between leader and follower, where mutual trust and respect are central premises. Hence, an intense and hierarchical form of employee observation (surveillance) appears quite contradictory to a high-quality LMX-relationship, where employee trust and respect is not expressed to any great extent.

We found it challenging to operationalize intensity and hierarchy under the same term. We, therefore, divided them and formulated the following hypotheses:

***Hypothesis 1:** Higher intensity of observation will negatively impact LMX-quality.*

***Hypothesis 2:** A higher degree of hierarchy in observation will negatively impact LMX-quality.*

2.3 Mastery and performance climate

An important distinction between employee monitoring and surveillance is the intention behind the performance data collected on employees (Ball, 2010; Bernstein, 2017). Regarding intention, a critical distinction in performance management (PM) literature is the difference between "hard" and "soft" human resource management (HRM). Hard HRM is used to evaluate employees' contribution to the bottom line, and soft HRM focuses on systematic competence development and employee performance development (Gooderham et al., 1999). Moreover, Zuboff (1985) argued that rather than using technology to automate production, it could be used to inform employees in the organization on work processes, and thus increase both operations and innovation, which will be most important to the long-term success of an organization. However, it is challenging

to measure intention. We have therefore turned to established constructs that capture the experience from the employees' perspective. Hence, to operationalize intention, we find the area of the motivational climate, more specifically the concepts of mastery and performance climate, interesting.

The motivational climate at work is, according to Nerstad et al. (2013), identified by the employee's perceptions of the existent criteria for success at the workplace, such as practices, procedures, and policies (Ames, 1992a). In other words, "What must an employee do to be successful at work?" (Nerstad et al., 2013, p. 2232). Two dimensions characterize the motivational climate at work. These are mastery and performance climate (Nerstad et al., 2013).

According to Ames and Ames (1984a; 1984b), mastery climates refer to work structures that emphasize learning and mastery of skills. Where perceived effort, sharing, and cooperation between individuals are valued (Nerstad et al., 2013) a mastery climate focuses on development and competence building and does not emphasize competition and comparison. Achievement in a mastery climate is experienced when they perceive that their current performance exceeds their prior achievements (Nerstad et al., 2013). Performance climate can, in many ways, be described as the counterweight of mastery climate. Performance climate represents a motivational system (Ames & Ames, 1984a), where success is defined by how the individual performs compared to others (Nerstad et al., 2013). Hence, a climate that focuses on achieving results and normative competence where only the "highest achievers" are acknowledged for success (Ames, 1984; Nerstad et al., 2013). Furthermore, measurement items for performance climate suggest, based on questions regarding how performance is interpreted and evaluated, that a form of observation must occur to identify a performance climate (Nerstad et al., 2013). We, therefore, see a natural link between performance climate and observation because there has to be an observation to evaluate the climate (performance). Employee observation may therefore be seen as the collection of "raw data." In contrast, performance climate may be seen as the application of this "data."

According to Ames and Ames (1984b), both mastery and performance climate can reflect two different value orientations that unfold in two different viewpoints towards success and failure and information attached to performance and strategies. This also aligns well with Ball's (2010) argument that intensity of observation say much about how organizations view their employees. We

therefore view the concepts of mastery and performance climate as a good operationalization of the intention behind collecting performance data on employees, which we see as a part of observation at work. Mastery climate can be seen as collecting performance data on employees to make them widely available for the employee to use for learning and development purposes. In contrast, a performance climate can be seen as a work climate where performance data is used in a more coercive manner, where the intentions behind the observations are for disciplining and rewarding purposes.

Furthermore, the two motivational climates' assumed outcomes interestingly have clear similarities to the outcomes of LMX (Nerstad et al., 2013; Harris et al., 2011). One interesting implication in the research by Nerstad et al. (2013) of "Achieving success at work" is that "leaders can supposedly improve employee's motivation, well-being, performance, and intentions to stay in the organization" (p. 2245) by facilitating an environment where employees are given opportunities for growth and development, thereby implementing values of mastery climate as criteria for success at work (Nerstad et al., 2013). Mastery climate interestingly relates to LMX-theory and the positive work-related outcomes that a high-quality LMX-relationship expresses, such as high levels of trust and positive influence on work-related outcomes including turnover intention, organizational commitment, and performance evaluations (Harris et al., 2011). Furthermore, whereas a high-quality LMX-relationship is associated with various positive outcomes, a weak LMX-relationship is characterized by a significantly less satisfying relationship that has several similarities to Nerstad et al.'s (2013) description of a performance climate (Bauer & Green, 1996). A performance climate emphasizes success and performance based on individual comparison where the highest "achievers" get rated as competent and hardworking which seems pretty relatable to the concepts of "in and out-group" in LMX-theory.

In Nerstad et al.'s (2013) research, they developed a scale to measure motivational climate at work, including a mastery and performance climate questionnaire. Our research methodology will use this questionnaire as we see an interesting connection between the intention behind employee observation and motivational climate (mastery & performance).

Based on the theory presented above, we have formulated the following hypotheses:

Hypothesis 3: A mastery climate will positively impact LMX-quality.

Hypothesis 4: A performance climate will negatively impact LMX-quality.

3.0 Research methodology

Quantitative research has been the dominant approach to business research. Bryman and Bell (2011, p. 150) described it as “entailing the collection of numerical data and exhibiting a view of the relationship between theory and research as deductive.” Thus, by choosing a quantitative approach, we aim to test our hypotheses regarding the impact monitoring and surveillance have on the quality of relationship between leader and member. Based on our hypotheses, we have devised the following research model.

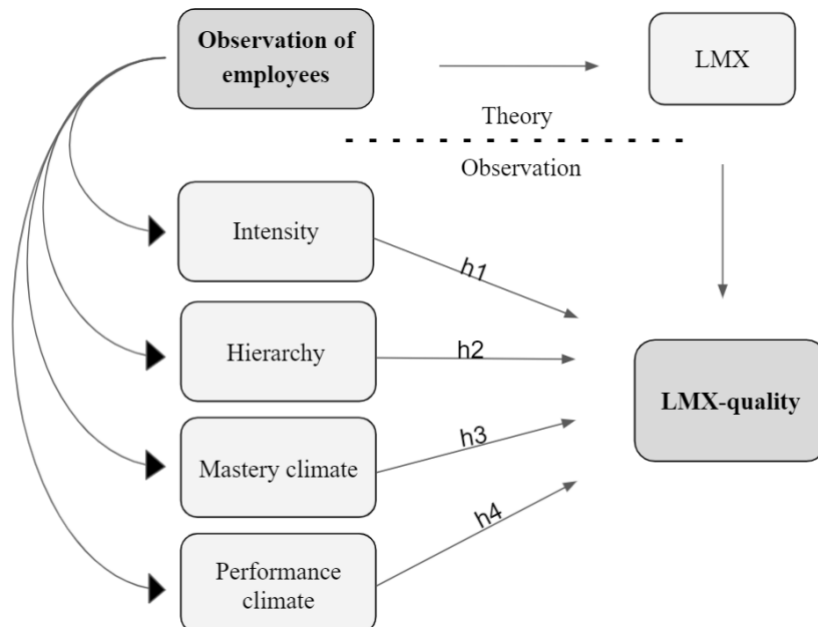


Figure 1 research model.

3.1 Quantitative method with a cross-sectional research design

We have used a cross-sectional research design, which can be defined as a research design that:

... entails the collection of data on more than one case (usually quite a lot more than one) and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables (usually many more than two), which are then examined to detect patterns of association. (Bryman & Bell, 2011, p. 53)

The reason for choosing a cross-sectional design is that we are interested in the variation between members of different organizations within the same profession and will be collecting the data at a single point in time. There are numerous mechanisms for observation and performance management that can be deployed to track the productivity and effectiveness of sales and marketing employees. These mechanisms, and the way they are utilized can differ from organization to organization, thus making it interesting to capture the variation. The data will be collected through a self-completion questionnaire using Qualtrics (<https://www.qualtrics.com>), and the context in which this survey will be deployed is with people working within sales and marketing. The questionnaire was distributed through the online platform "Prolific" (<https://www.prolific.co/>), and data gathered were analyzed in SPSS.

3.2 Sampling and distribution

3.2.1 Sampling

Sampling is selecting a segment of a population to investigate (Bryman & Bell, 2011). Collecting data is an important aspect of the research process. We collected data through a sample survey to investigate our variables LMX and employee observation (intensity, information availability, mastery climate, performance climate). A sample survey is defined as "a study involving a subset (or sample) of individuals selected from a larger population" (Levy & Lemeshow, 2008, p. 3). We collected our data based on a quantitative approach, using a self-completion questionnaire developed in Qualtrics. Self-completion questionnaires can cause common method variance (Podsakoff et al., 2003), which can influence the validity of our findings. Examples of such are the "social desirability bias," where respondents tend to answer questions in a manner that will be viewed favorably by others instead of choosing responses that reflect their true feelings (Grimm, 2010).

3.2.2 Survey distribution

The survey was distributed electronically through the online platform "Prolific", a well-known platform to recruit participants worldwide for academic studies. Through Prolific, we sampled participants within the homogenous group "sales and marketers" primarily working in lower levels of an organization, meaning people in operative roles within sales and marketing, reporting to a

manager or supervisor. We wished to capture subjects' opinions from various organizations, as we believe practices and attitudes regarding monitoring and surveillance differ between organizations and organizational practices. Thus, responses from a more comprehensive selection of organizations will hopefully provide us with considerably more diversity in the collected data, as well as an adequate sample size. When a sample is homogeneous, the sample size is less concerning than in a heterogeneous sample (Bryman & Bell, 2011). Thus, we collected a sample size of 300 respondents to our survey.

3.3 Research ethics

When performing research, there are certain ethical considerations one should take in order to conform to ethical standards in social science research (Johannessen et al., 2016). First of all, participation in the study was voluntary, and we collected informed consent from all participants. According to Crow and colleagues (2006), informed consent is regarded as a central element of conducting research that adheres to ethical standards and requires that participants are provided with sufficient information regarding the project, which enables them to make an informed decision of participating. In our survey, the participants were required to read an informational letter about the study, and how the data would be managed, and then answer whether they gave their consent as participants of the study. The survey was also anonymized, and no personal information was at any point available. We used the anonymization-software that is available in Qualtrics, ensuring that no identifiable data was collected, including IP-addresses of the respondents. We also broadly categorized the alternatives in the demographic variables in such a way that there would be no possibility of identifying any individual.

3.4 Demographics

We received a total of 300 respondents for our survey. However, after some data cleaning (see section 3.6) we were left with 286 respondents. The study recruited more females than males, accounting for 59.1% over 40.6% working within sales and marketing. The remaining 0.3% belonged to the third gender (non-binary/third gender). With respect to age, a large part of our respondents were in between 18-24 (N=58, 20,3%). However, the majority of the respondents were between 25 to 34 (N=133, 46.5%), followed by the age group of 35–44

(N=62, 21.7 %). Respondents between 45–54 constituted a small part (N19, 6,6%), and the respondents between 55-64 even less (N=9, 3.1%). Finally, respondents of 65 years or above had minimal involvement (N=5, 1.7 %). These numbers can be said to be expected in regard to our sampling method. Firstly, operating roles within sales and marketing tend to be at entry-level, usually represented by young professionals. Secondly, our data was gathered electronically through Prolific, a "paid survey-service," which one might expect is largely represented by "young" individuals. Furthermore, out of the 286 respondents, the demographic characteristics also determine that 70.6% are resident in the UK while 29.4% are from the USA. The user base in Prolific is mainly centered around these two countries.

Table 1. Demographics

Gender		
	Frequency	Percent
Male	116	40.6
Female	169	59.1
None-binary / third gender	1	0.3
Total	286	100.0
Age		
	Frequency	Percent
18 - 24	58	20.3
25 - 34	133	46.5
35 - 44	62	21.7
45 - 54	19	6.6
55 - 64	9	3.1
65 +	5	1.7
Total	286	100.0
What is your current country of residence?		
	Frequency	Percent
UK	202	70.6
USA	84	29.4
Total	286	100.0

3.5 Measurement items

This study has used both established measures from pre-existing research and self-developed measures. The questionnaire is based on our methodological model and is primarily structured around the Likert-scale to record responses, as this has been proven to be reliable in many different contexts (Cummins & Gullone, 2000). Established measures are used in regard to the concepts "LMX", "mastery climate", and "performance climate". These are already tested measures and are well-known for the quality of reliability and validity. Regarding our self-developed measures, "intensity" and "information availability", we have, based on the lack of existing measures, designed measures for these concepts in line with established theory and our research question.

3.5.1 LMX

The respondent's Leader-Member Exchange (LMX)-relationship was measured by applying "LMX-7". The LMX-7 questionnaire is a well-established questionnaire developed to measure the quality of working relationships between leaders and followers (Graen & Uhl-Bien, 1995) and is known to have high validity (Furunes et al., 2015). The 7-item instrument is a generalized measure that is not reliant on specifying the context and contains questions that ask the respondent to describe the relationship between either his/her leader or subordinate, such as the degree of mutual respect, trust and obligation exchanged in their relationship (Hanasono, 2017). This study focuses mainly on the perspective of the subordinates. The questionnaire has a 5-point Likert scale and is interpreted by the following score: very high = 30–35, high = 25–29, moderate = 20–24, low = 15–19, and very low = 7–14. Scores within the upper ranges indicate stronger, higher-quality leader-member exchanges, whereas scores of the lower range indicate exchanges of less quality (Northouse, 2019). However, it is important to specify that LMX is not used as a binned variable in our analyses, but with a sum of scores from the 7 LMX-variables.

3.5.2 Intensity

To our knowledge, unfortunately, there are no established pre-existing measurement tools for this concept. We, therefore, self-developed measures based on theory available within the field of observation from Aiello and Svec (1993), Ball (2010), Bernstein (2012; 2017), and Leonardi and Treem (2020). In our questionnaire, the concept of intensity consists of five questions regarding: 1. How frequently the respondent's leader observes his/her work. 2. Whether or not the organization uses software tools/programs to measure work performance. 3. If yes, how frequently are these tools/programs used to measure the respondent's work performance? 4. How many key performance indicators (KPI) does the respondent have? 5. The respondents' subjective feeling of how intense these performance-measurements are.

3.5.3 Hierarchy

Like the concept of intensity, we could not find any established pre-existing measurement tools for "hierarchy", thus we created self-developed

measures. The scale consists of four items using a 5-point Likert scale (1 = strongly disagree – 5 = strongly agree). These questions focus on: 1. The respondent's insight towards the data collected on his/her work performance. 2. The degree of insight the respondent's colleagues have into his or her work performance. 3. Whether or not only the supervisors have insight into the respondent's work performance data. 4. Who is responsible for setting the respondent's performance goals? The last question differs from the "strongly disagree – strongly agree", ranging from "I do not have stated goals", to "The goals are the same for everyone".

3.5.4 Mastery climate

To measure mastery climate, we applied the motivational climate at work questionnaire developed by Nerstad et al. (2013). As highlighted in the motivational climate theory, mastery and performance climate constitute two central counterweights within a motivational climate. Thus, the Nerstad et al. (2013) scale consists of divided items that measure mastery climate and performance climate. In mastery climate, there are six items in the questionnaire, structured around a 5-point Likert scale (1 = strongly disagree – 5 = strongly agree). In the questionnaire, the respondents were asked to evaluate statements regarding his/her work climate.

3.5.5 Performance climate

To measure performance climate, we have, as mentioned, used Nerstad et al.'s (2013) measurement scale, consisting of measurement items for mastery and performance climate. There are, in total, eight items measuring performance climate, structured around the 5 point-Likert scale (1 = strongly disagree – 5 = strongly agree). Here, the respondents were presented with statements similar to the mastery climate measures but in an individualistic/competitive manner.

3.5.6 Control variables

Before going onto the more theoretical measures in the questionnaire, respondents were asked questions regarding demographics and circumstantial information about their working situation. The demographic questions consisted of gender, age, and country of residence. The work-related questions included: "Have you been working from home during the last year?", "Are you a leader in

your organization?" and, "What is the size of the company you work for measured in employees?" Questions regarding the respondent's age and size of the company were categorized into broad categories in order to protect anonymity. Finally, "working from home" was categorized by an average number of days per week.

3.6 Pre-testing of the measurement items

Before we started the process of formally collecting data, we performed a pre-testing of the measurement items on five test-subjects of varying backgrounds, but all within the scope of the target-population of the actual study. Bryman & Bell (2011) argue that pre-testing items may serve as a way of ensuring construct validity and reliability. Our pre-test gave us positive results on the items, in the sense that they were easy to understand, had little ambiguity, and that the questionnaire as a whole was well designed and easy to complete. Thus, we could deploy the study to the actual target-group of the study. The results of the pre-test subjects will not be included in the actual study.

3.7 Data cleaning and preparation

Before beginning the process of analyzing the data, it was necessary to first perform some data cleaning and data preparation of the dataset. We started out with 300 respondents to the survey in Qualtrics, which was exported to SPSS. Then, we started the process of cleaning out data based on a set of criteria. First, we removed all responses that had missing values, meaning that we removed any response that had either not completed the whole survey, or had skipped answers at any point during the survey.

Second, we removed all responses that had failed any of the attention checks in the survey. We had attention checks during the survey, where respondents were specifically told to answer in a certain way and failing these might indicate that the respondent was answering carelessly.

Third, we manually checked all responses that had an abnormally long or short completion time, in order to uncover careless respondents who had obvious flaws of logic in their responses. Examples of this are respondents who answered that there was no observation or performance measurement at their workplace, however, answered that they found performance measurement to be highly intensive at the workplace. We manually checked all answers below a completion

time of two minutes, as well as all responses exceeding 10 minutes of response time.

Finally, there were some items that we needed to re-code, in order to get the correct values in our analysis. We had some reverse-scored items that we re-coded into "same variable" on a 5-point scale (1 = 5, 2 = 4, 4 = 2, 5 = 1). This re-coding was carried out on all variables within the measure of mastery and performance climate. We also had some items where a possible answer was "I don't know" or "not applicable", where the value of these responses was recorded to 0. This re-coding was performed on the variables INT1, INT3, and INT4. After cleaning and preparing the dataset, we were satisfied with the dataset, and ready to start performing the relevant analyses.

3.8 Data credibility: Validity and reliability

According to Saunders et al. (2009), one can determine the credibility of data by assessing its validity and reliability. In other words, if we can trust that the data collection techniques will yield consistent findings. Validity can be defined as the extent to which a concept is accurately measured in a quantitative study (Heale & Twycross, 2015). Reliability can be defined as:

the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. (Joppe, 2000 p. 1)

To ensure the validity of our data, we have used pre-existing and validated instruments for measurement where possible. For these measures we can be confident that construct validity is of high quality (Bryman & Bell, 2011). As described in section 3.5, the measures of LMX, mastery, and performance climate are all validated instruments that have received a solid amount of attention, and that are thoroughly researched in order to develop a valid and reliable measure for these concepts. For the self-developed measures, we initially relied on face validity when creating the items, which concerns the extent to which a test appears to measure what it is intended to measure (Sartori & Pasini, 2007).

According to Bonett and Wright (2015), "Cronbach's alpha is one of the most widely used measures of reliability in the social and organizational sciences." (p. 3). Thus, to test the reliability of the construct variables we found through factor analysis, a reliability analysis using Cronbach's alpha was used

(appendix 2). We tested each of the composite variables we were left with after our PCA, to check for internal consistency within the new variables. Ideally, one would have a minimum Cronbach's alpha of .70 on all composite variables, in order to deem the variable as reliable. A Cronbach's alpha of .70 and above indicates good internal consistency (DeVellis, 2012). Four out of the five variables had a Cronbach's alpha above .70 and can be considered as reliable and to have good internal consistency. The variable of hierarchy has a Cronbach's alpha of .640, so just below the generally acceptable level of reliability.

3.9 Analysis

3.9.1 Principal component analysis

All analyses are performed using IBM SPSS 27.0 software, and first we performed a principal component analysis (PCA) to summarize the items within each latent variable (proposed constructs) (Appendix 1). The results of Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.866) show that our sample is well suited for a factor analysis.

The aim is to use these latent or composite scale variables in correlation and regression analysis for addressing the research question and our hypotheses. This analysis was able to extract five factors (components) (See rotated component matrix in Appendix 2) including the dependent (outcome) variable. One of the items was removed since it fell into another factor (Who is responsible for setting goals for your work performance?). This item was intended as a measure of hierarchy but loaded into the factor of intensity.

The factor analysis was performed using a varimax rotation and was converged in six iterations. All variables within the proposed composite variables of LMX-7, intensity, information availability, mastery climate, and performance climate were included, in order to find the factor loadings of all the proposed composite variables.

3.9.2 Correlation & descriptives

The descriptives of the binned LMX-score shows that the majority of respondents have either high or very high LMX-7-scores (table 2). In fact, over 60% of the respondents are within these two categories of LMX-quality.

Table 2 - LMX7 Score (Binned)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7.00 - 14.00 (very low)	11	3.8	3.8	3.8
	15.00 - 19.00 (low)	38	13.3	13.3	17.1
	20.00 - 24.00 (moderate)	64	22.4	22.4	39.5
	25.00 - 29.00 (high)	103	36.0	36.0	75.5
	30.00 - 35.00 (very high)	70	24.5	24.5	100.0
Total		286	100.0	100.0	

Using the composite variables extracted from the factor analysis, the study used Pearson correlation to identify the relationship between intensity, hierarchy, performance climate and mastery climate on the LMX-7 scores, as well as including all the control variables as shown in table 3.

Table 3 - Descriptive Statistics, Correlations, and Scale Reliabilities among Variables

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1.LMX	25.3322	5.64178	(.90)												
2.Intensity	10.7587	4.30192	-.054	(.71)											
3. Hierarchy	9.2727	2.96691	-.266**	-.283**	(.64)										
4. Mastery Climate	23.0769	5.26301	.469**	.032	-.183**	(.89)									
5. Performance Climate	21.8916	7.41730	-.130*	.416**	-.079	-.163**	(.88)								
6. Gender	1.60	.498	.050	-.155**	.086	.012	-.159**								
7. Age	3.31	1.075	.028	-.066	-.110	-.066	.043	-.139*							
8. COR	1.29	.456	.100	.038	-.008	.091	-.049	-.050	.121*						
9. WFH	2.33	1.955	-.122*	-.016	.051	-.130*	.015	-.017	.099	.079					
10. WSC	3.12	1.441	-.196**	.314**	.077	-.093	.181**	-.055	-.051	.021	-.033				
11. ALO	1.42	.574	.206**	-.003	-.175**	.139*	.098	-.139*	.110	.140*	-.035	-.133*			
12. WDW	2.28	1.075	.058	-.296**	.151*	.027	-.281**	.084	.038	-.016	.163**	-.078	.020		
13 PNL	2.90	1.113	.084	.440**	-.121*	.071	.287**	-.152**	-.069	.040	-.176**	.264**	.004	-.340**	

N=286. Scale reliability indicated by Cronbach's Alpha coefficients are in parentheses.

Note: COR = Country of residence, WFH = Working from home, ALO = Are you a leader in your organization, WSC = What is the size of the company you work for measured in employees, WDW = Which goals are the most important determinant for how your work-performance is evaluated, PNL = At what organizational level is work-performance measured.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The correlation table reveals that hierarchy and mastery climate have a significant relationship with LMX-7 score at 0.01 level, while performance climate has a significant relation at 0.05 level (table 3). The -0.266 Pearson correlation value (i.e., also known as the coefficient value) of hierarchy indicates that the direction of relationship with the LMX-7 score is negative. The strength of the relationship is weak. In simpler terms, the two variables share a significantly negative and weak relationship with one another. Similarly, a -0.130-correlation value also indicates that performance climate is negatively associated with the LMX-7 score. Finally, the correlation value of mastery climate reflects a positive and moderate relationship between LMX-7 score and mastery climate among the respondents. It suggests that greater hierarchy and performance climate is associated with low LMX. On the other hand, LMX-quality improves within a mastery climate. The correlation table also reveals that the relationship between intensity and LMX-7 score is insignificant as its sig-value is above the assumed level of significance.

The results of the control variables in the correlation analysis show that neither gender, age, country of residence, or at what level of the organization performance measurement is made were significantly correlated with LMX-quality. Neither was the variable of what type of goals that were most important for evaluation of your work-performance. However, we did find in the correlation table that working from home had a significant negative correlation (-.122 at the 0.05 level) with LMX-quality. We also found that both being a leader (.206), and the size of the company (-.196) yielded significant correlations with LMX-quality at the 0.01 significance level.

4.0 Results

In this part of the paper, we will be looking into the results of the regression analyses which is used to test our hypotheses, and to address the research question which aims to examine the impact of employee observation on the quality of LMX-relationships between employees and supervisors, the study uses regression analysis.

The multiple regression model assesses the impact of a set of predictors (independent variables) on LMX-relationships between employees and their closest supervisors. We have used a linear regression-model consisting of LMX-

score as the dependent variable, and intensity, hierarchy, mastery climate, and performance climate as independent variables.

To check for potential impacts of the control variables, we also tested each of the control variables individually into the regression model, together with intensity, hierarchy, performance climate, and mastery climate, as well as putting all control variables into the regression model simultaneously.

We performed a step-by-step introduction of variables into the regression model, to see how the model changed during the introduction of the different variables. We were interested in observing how both the coefficients, as well as the adjusted R-square changed during this process. Firstly, by looking at only the variable of intensity as a lone predictor in the model, we can see in the results of table 4 that it is not a significant predictor of LMX-quality, as expected after the non-significant results in the correlation analysis.

Table 4

Coefficients ^a					
Model	Unstandardized Coefficients		t	Sig.	
	B	Std. Error			
1					
	(Constant)	26.095	.900	28.989	.000
	Intensity	-.071	.078	-.913	.362

a Dependent Variable: LMX7 Score

Before we started to introduce multiple variables into the regression model to see how they interact, we also found it interesting to see how the variable of hierarchy worked as a lone predictor for LMX-quality. We can see in table 5 that hierarchical observation is a statistically significant predictor (-.506) on LMX-quality. The adjusted R-square of this model is .068, meaning that hierarchy alone truly explains 6.8% of the variance in LMX-quality.

Table 5

Coefficients ^a					
Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	30.026	1.059	28.360	.000
	Hierarchy	-.506	.109	-4.654	.000

a Dependent Variable: LMX7 Score

However, when the intensity-variable is introduced alongside hierarchy, as in table 6, it becomes a significant predictor (-.185 at the 0.05 sig. level), as well as increasing the beta coefficient of hierarchy to -.582 due to its function as a suppressor-variable.

Table 6

Coefficients ^a					
Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	32.715	1.543	21.206	.000
	Intensity	-.185	.078	-2.379	.018
	Hierarchy	-.582	.112	-5.174	.000

a Dependent Variable: LMX7 Score

The topic of "suppression effects" in regression is somewhat mystic and remains a topic that many find difficult to grasp. But in essence, a suppressor variable has a function of strengthening the predictive power of the other variables within a multiple regression (Kim, 2019). According to Horst (1941), these variables work by *suppressing* criterion-irrelevant variation in the other predictors, enhancing the predictive power of the other variables, and thus the model as a whole. This explains why intensity alone is not correlated with LMX-quality yet can have a significant impact within the regression analysis. This model had an adjusted R-square of 0.83, indicating that the model consisting of intensity and hierarchy truly explains 8.3% of the variance in LMX-quality.

The next step is to introduce mastery climate into the model, as shown in table 7.

Table 7

Coefficients ^a					
Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	20.464	2.020	10.132	.000
	Intensity	-.172	.070	-2.473	.014
	Hierarchy	-.426	.103	-4.154	.000
	Mastery Climate	.463	.056	8.331	.000

a Dependent Variable: LMX7 Score

This model has a significantly improved adjusted R-square of .261, indicating that this model truly explains 26.1% of the variance in LMX-quality. Mastery climate is a significant predictor (.463 at the 0.01 level) and adds a significant amount of predictive power to the model. An interesting notion is the significantly lower intercept value, and the moderated effect of intensity and hierarchy, which underlines the substantial impact mastery climate has on the model.

The next step is to look at the results of the regression analysis including all four hypothesis variables, as shown in table 8.

Table 8

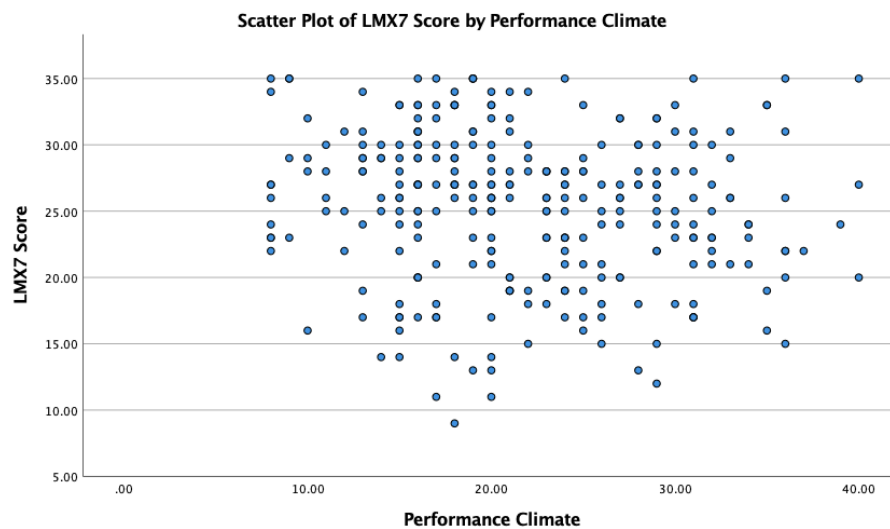
Coefficients ^a					
Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	20.885	2.193	9.523	0.000
	Intensity	-0.156	0.077	-2.041	0.042
	Hierarchy	-0.426	0.103	-4.144	0.000
	Performance Climate	-0.022	0.043	-0.497	0.620
	Mastery Climate	0.457	0.057	8.075	0.000

a. Dependent Variable: LMX7 Score

Individually analyzing each independent variable's impact on the model with all hypothesis-variables included, three out of four predictors are found to be statistically significant. Hierarchy (-0.426) and mastery climate (0.457) are significant at 0.01 level while intensity (-0.156) is significant at 0.05 level. Performance climate is found insignificant in this case as its p-value (i.e., sig-value) is greater than the assumed level of significance threshold. Interestingly, there is next to no change in the coefficients of the intercept and the other predictors after introducing performance climate into the model.

The adjusted R-square suggests that the model truly explains 25.9% of the variance in the LMX-score. Interestingly, the adjusted R-square of the “full” model is lower after introducing performance climate into the regression model. An explanation as to why the regression model without the variable of performance climate better explains the variance of LMX can possibly be found in the scatterplot below (figure 2).

Figure 2



As we can see, there is no clear linear relationship between LMX and PC, making it less likely to find any significance as a predictor in a regression model.

According to the analysis of variance (ANOVA) table, the “full” regression model is statistically significant in predicting the LMX-relationship score at 0.01 level, $F = 25.934$, $p < 0.01$. It means that the model, comprising intensity, hierarchy, performance climate, and mastery climate, significantly explains the LMX-7 score. In fact, all of the step-by-step regression models

except the one only including intensity, were found significant at the 0.01 level in the ANOVA table of each model.

The results of the regression analysis including all control variables (Table 9) show that neither gender, age, country of residence, which goals that are the most important determinant for work-performance evaluation, or working from home significantly predicted LMX-quality in the model.

Table 9

Model		Coefficients ^a			
		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	16.162	3.043	5.311	.000
	Intensity	-.128	.084	-1.526	.128
	Hierarchy	-.369	.105	-3.518	.001
	Mastery Climate	.408	.057	7.138	.000
	Performance Climate	-.027	.045	-.612	.541
	Gender	.786	.589	1.335	.183
	Age	.132	.274	.481	.631
	COR	.671	.638	1.052	.294
	WFH	-.163	.151	-1.084	.279
	ALO	.988	.523	1.889	.060
	WSC	-.493	.215	-2.298	.022
	WDW	.419	.292	1.435	.153
	PML	.745	.302	2.467	.014

Dependent Variable: LMX7 Score.

COR = Country of residence, WFH = Working from home, ALO = Are you a leader in your organization, WSC = What is the size of the company you work for measured in employees, WDW = Which goals are the most important determinant for how your work-performance is evaluated, PML = At what organizational level is work-performance measured.

We received similar results both by introducing the variables individually into the model, and by including all of them at the same time. In the regression model including all control variables, we did find that both being a leader (1.162), at what level of the organization performance measurement is made (.745), and the size of the company (-.549) yielded significant results in predicting LMX-quality.

5.0 Hypotheses results

The purpose of this study was to investigate the relationship between employee observation and LMX. In this section we will summarize our findings in light of the hypotheses.

5.1 Hypothesis 1 – Intensity

Hypothesis 1 predicted that an increase in observation intensity would negatively affect LMX-quality. Our findings in the regression model indicate that the level of intensity is a significant predictor (at the 0.05 sig. level) of LMX-quality in all models including the hierarchy-variable. Interestingly, and as mentioned in the results, the variable of intensity is not directly correlated with LMX-quality (table 3). However, it works as a suppressor variable by strengthening the predictive power of the other variables in the regression. Hypothesis 1 is partially supported and shows that an increase in observation intensity negatively impacts the relation between a leader and an employee when a form of hierarchical observation takes place.

5.2 Hypothesis 2 – Hierarchy

Hypothesis 2 predicted that more hierarchy would negatively impact LMX-quality. The correlation analysis gave promise as information availability and LMX-quality were significantly correlated (-.266) at the 0.01 significance level (table 3). The results of our regression analysis show that the level of hierarchy significantly predicts LMX-quality (at the 0.01 sig. level) in all constellations of the model. Hypothesis 2 is supported and indicates that a more hierarchical type of observation decreases LMX-quality. We must, however, be cautious with these results, as reliability testing has proven a low (Cronbach's alpha of .641) internal consistency in the variable.

5.3 Hypothesis 3 – Mastery climate

Hypothesis 3 predicted that mastery climate has a positive relationship on LMX-quality. The correlation analysis showed a significant correlation (.469 at 0.01 level) between mastery climate and LMX-quality (table 3). Further, the results in the regression analyses indicate that mastery climate significantly predicts LMX-quality (at the 0.01 sig. level) in all of the step-by-step regression models. Thus, hypothesis 3 is supported.

5.4 Hypothesis 4 – Performance climate

Hypothesis 4 predicted that a performance climate negatively impacts LMX-quality. In the correlation analysis (table 3), performance climate showed a weak but significant negative correlation ($B = -.130$ at the 0.05 sig. level) with LMX-quality. However, in the regression analyses performance climate was not found as a significant predictor of LMX-quality. The fact that the model we tested without performance climate included had a higher adjusted R-square than the ones where it was included, also suggests that Performance climate has no significant impact on LMX-quality. Hypothesis 4 is therefore not supported.

6.0 Discussion

As discussed previously in this article, there has been a lack of research on the behavioral and relational consequences of feeling observed at the workplace (Leonardi & Treem, 2020; Franco-Santos & Otley, 2018). This study aimed at contributing to a better understanding of the relationship between observation of employees, and the quality of relations shared by employees and their closest supervisor (LMX-quality). We devised four hypotheses based on relevant theory and based on the reasoning that there was a natural conflict between the need for observing employees at work, and the fact that trust is a central theme in high quality relations between employees and their supervisors (Graen & Uhl-Bien, 1995). As summarized in section 5 of this study, three out of four hypotheses were supported or partially supported, and in light of this we will discuss the findings. As a general summary, the regression models reveal that intensity and hierarchy negatively impact the LMX-relationship score since the coefficient (beta) values are negative. This implies that an increase in the extent of observation intensity and presence of higher levels of hierarchical observation will lead to a decrease in the quality of relationship shared between an employee and their closest supervisor at work. On the other hand, the beta of mastery climate indicates a positive impact implying that when a higher degree of a mastery climate exists, the LMX-relationship score will be higher.

The results show that higher intensity of observation has a negative impact on LMX-quality, when there is a form of hierarchical observation present, as intensity was only found to be a significant predictor when the hierarchy-variable was also part of the model. Thus, indicating that intensity has a suppression-effect

on hierarchy. In contrast, hierarchy was found to be a significant predictor in all models, regardless of which other variables were included in the model, showing a more solid and direct correlation with LMX-quality. The fact that the predictive power of hierarchy was also stronger in the models where intensity was included supports the theory of intensity working as a suppressor variable for hierarchy. The relation between these two variables supports the theory from Ball (2010) and Bernstein (2017), that the degree of intensity and hierarchy are two main differences between monitoring and surveillance. Thus, supporting our theoretical expectation that a combination of increased intensity and hierarchy, labeled as surveillance, would negatively affect the quality of the relation shared between an employee and their closest supervisor.

A very interesting discussion in light of these results is the fact that Martin and colleagues (2016), also found that high quality LMX-relationships have a positive impact on work performance, which is highly interesting based on the assumption that an important function of observing employees at work is ensuring high productivity and performance. Hence, there is a clear conflict between deploying observation mechanisms in order to ensure high-performing employees, and our findings which have shown that there is a negative link between observation and LMX-quality.

We must, however, also shed some light on the reliability-issue of the hierarchy-variable. We found that the hierarchy-variable has a Cronbach's alpha of .640, indicating that it is just below what is normally considered an acceptable level of reliability (DeVellis, 2012). Thus, indicating that the internal consistency within the construct variable is not at a desirable level, and that we should be a little cautious when interpreting the results of the analyses performed on this variable. As the instrument used to capture this concept was developed by us, and not a pre-existing and validated instrument due to the lack of established instruments within this concept, the issue of reliability was not unexpected. However, we believe that it provides some interesting indications that can be further examined in future research. As argued by Ioannidis (2005), it is much more likely that research yields "true" and reliable findings, after confirmation from many studies, and ideally from low-bias meta-analyses. In our case, this was not available as our topic is still somewhat unexplored, and there is a lack of a theoretically solid framework to operationalize and measure the concept of observation of employees.

Another highly important factor we identified as a differentiator between the negatively loaded concept of surveillance, and its more neutral counterpart monitoring, was the intentions behind the observation of employees. As pointed out earlier in this article, intention is hard to capture. Thus, to operationalize intention, we used motivational climate as a theoretical framework. More specifically, we used Nerstad and colleagues' (2013) research on mastery and performance climate. As we saw this as a way of capturing how employees experience the "aftermaths" of having their performance observed. As mentioned by Ames and Ames (1984a; 1984b) mastery climate is centered around the use of collected data in order to facilitate learning and mastery of skills, while performance climate is more oriented towards collecting data as a foundation for evaluation of performance.

Performance climate was not found to be a significant predictor for LMX-quality in any of the regression model compositions, and as seen in figure 2, there was no linear relationship between performance climate and LMX-quality. As we can see in the questionnaire of performance climate, there needs to be some form of observation to create a performance climate (Nerstad et al., 2013). Thus, the insignificant results of performance climates impact on LMX-quality might be explained by the fact that performance climate naturally consists of some level of observation, and that having a performance climate is not additionally negative on LMX-quality. In contrast, our findings show that mastery climate has a positive influence on LMX-quality. Seeing as the outcomes of LMX and mastery climate share a lot of similarities (Harris, 2011; Nerstad et al., 2013), the significant relation between them is not surprising. Our results also show that a combination of the intensity- and hierarchy variables alongside mastery climate was the strongest predictor for LMX-quality, based on the adjusted R-square values of the different model compositions. The results indicate that observation is generally negative, but that if the perceived intention of collecting performance data is to facilitate growth and development, this counteracts the negative impact of being observed. This is also supported by the fact that mastery climate is significantly and negatively correlated with hierarchy. Hence, when employees experience a mastery climate, this reduces the perceived level of hierarchical observation.

Based on the very strong impact mastery climate has on the predictive power of the regression model, the question of causality naturally arises. Thus, an alternative way of interpreting the findings is that climate in itself is the most

important influence on LMX-quality, and not climate in the context of observation. In this interpretation, one could argue that having a mastery climate in general could counter the negative feelings of being observed.

For the control variables, several variables were found as significant predictors in the regression analysis. The fact that being a leader has a positive effect on LMX is not particularly surprising, given that being a leader is likely to imply that one has more influence on observation structures. Also, one could argue that being a leader increases the chances of being in the “in-group” of your supervisor, in which LMX-quality is generally higher than in “out-groups”. The fact that a bigger size of company negatively affects LMX-quality is not surprising either, as one could argue that a smaller organization makes it more likely to create better relations with your supervisor, as the supervisor has a smaller number of employees to manage. Also, bigger organizations might generally rely on more observational mechanisms, as an increase in the number of employees naturally involves more need for structure and control. At what level of the organization performance measurement is made (PML) was also found to be a significant predictor in the model, despite not being significantly correlated with LMX-quality in the correlation analysis. This might indicate that similar to the intensity-variable, PML’s predictive power in the model can be explained by the theory of a suppression effect in the regression analysis (Kim, 2019).

For generalizability of the paper, it is certainly an interesting finding that none of the demographic variables yielded significant results. Neither gender, age, nor country of residence had any statistically significant correlation with LMX-quality, or any significant effect as a predictor in the regression analyses, indicating that our results apply regardless of demographics. However, we expect that results for country of residence could potentially have had a much bigger impact on the model if a bigger variety of countries, and thus cultures, were included in the study.

There are many other potentially negative behavioral side-effects that can occur as a consequence of employee observation. Kellogg and colleagues (2020) introduced the concept of “algoactivism”, where changes in work patterns may arise in order to better satisfy the goals in which they are being measured (Applin & Fischer, 2013). A typical example of this could be a common performance measure for people within sales and marketing, such as activity measures in sales work, for example, the number of sales calls or advertisements during a shift,

which could lead to individuals prioritizing to have a lower degree of quality in the work to satisfy the performance measures. In other words, work for more quantity rather than quality. As previously discussed, trust is a central element of building high-quality LMX relationships. Thus, feeling the need to alter your work behaviors in order to satisfy performance goals can be argued to be conflicting with the feeling of being trusted by your leader.

7.0 Practical implications

Although there are certain limitations that will be highlighted in the next chapter of this article, our findings imply that deploying observation mechanisms that employees perceive to be intensive and hierarchical negatively affects the quality of relation between employees and supervisors. This was found especially if the subject of observation does not perceive that learning and development is the intention behind the observation. This has several practical implications in the form of well-known outcomes of LMX. Organizations that utilize intense and hierarchical observation may experience a higher degree of intended employee turnover, more actual turnover, and less organizational commitment (Harris et al., 2011). Moreover, in light of the study by Martin and colleagues (2016), organizations are likely to experience less performance from their employees when deploying observation mechanisms that employees perceive to be intense and hierarchical. Thus, our findings also imply that having observation mechanisms that are perceived by employees as intensive and hierarchical for the sake of controlling and increasing performance in employees is counterproductive and will rather lead to outcomes that will be damaging to performance.

Based on this, our research suggests that organizations should be very cautious of how employees will perceive the form of observation when deploying employee observation mechanisms. More specifically, we would advise leaders to adhere to the principles of what creates a mastery climate, where learning and development are the intended outcomes of measuring the performance of employees. In order to achieve this, we argue that organizations may benefit from being transparent about observation and the intentions of it, to make information widely available for employees.

As argued by Zuboff (1985), using data to inform employees is beneficial to create organizations where human capacities are utilized for teaching and learning, and facilitates more innovation by enhancing each employee's

comprehension of core processes in the organization. Despite this being an article from 1985, we still see it as a highly relevant insight that can be transferred to the modern ways of working, also in white collar professions. Zuboff (1985) argued that *informating* rather than *automating* would be much more beneficial for the long-term success of the organization.

8.0 Limitations, ethics and future research

As with most research, there are certain limitations to this study that need to be discussed. We wish to highlight some factors that we have identified as limitations to our study, as well as highlighting some propositions for future research.

Firstly, there are some limitations regarding the lack of existing observation measures, especially for our construct's intensity and hierarchy. Hence, the instruments used to capture these concepts were developed by us. The lack of confirmation from previous studies is an apparent limitation, as they are essential for the research to be more accurate (Ioannidis, 2005). Development and validation of new measures is a comprehensive and time-consuming process. Thus, the time constraints for this thesis is a natural cause for the lack of validation of the intensity- and hierarchy measures. Moreover, intensity and hierarchy are pretty comprehensive constructs, which we found challenging to operationalize and capture. For example, we believe there might be discrepancies between employees' perceptions of being observed at work and the factual level of observation. This might be mediated by several factors, such as low transparency in the organization and a lack of available information for the employee. This means that when individuals answer the questionnaire, they might not know the extent of observation they are subject to.

Thirdly, we believe there might be limitations due to weaknesses in sampling, as a convenience sample has been chosen due to limited time and resources. Furthermore, our group of interest (sales and marketing) might not be as homogeneous as we intended. When collecting data through prolific, the population is roughly categorized, meaning we do not have deep insight into what subgroups/roles individuals possess. However, having respondents from various backgrounds and environments can also be seen as positive due to the generalizability of the results.

Furthermore, this study does not measure causality, meaning we cannot safely conclude the directions of the relationships (Bryman & Bell, 2015). Therefore, it could be that the LMX-quality affects our construct and not our constructs affecting the LMX-quality. Hence, future research should conduct a longitudinal experimental study in order to conclude causal relationships safely (Dysvik & Kuvaas, 2011). Furthermore, we suggest that future research look into the underlying dimensions of employee observation separately to better understand how these dimensions affect an LMX relationship. Developing and validating more solid and empirically proven constructs of intensity and hierarchy would also be “helpful” for future research within this topic.

Moreover, our data is collected during a pandemic, where many respondents have reported that they are or have been working from home over a more extended period. Furthermore, some of the inspiration for this study was the belief that the lack of physical presence at work challenges the trusting relationship between a leader and employee, which could be an incentive to implement or increase employee observation. Therefore, one interesting notion for future research is to replicate our study and investigate any differences between non-physical and physical presences towards LMX-quality.

Lastly, our study focuses mainly on the employee's perspective. We, therefore, suggest that an interesting perspective for future research is to view our study from a leader's perspective, which might yield a greater understanding of the intentions behind, and what triggers employee observation.

To summarize our limitations and be more specific towards future research, we suggest finding a more reliable measurement scale for hierarchy and intensity and exploring alternative ways of measuring observation to increase the R square of the regression model. Furthermore, we believe the link between LMX, and motivational climate is highly interesting to investigate further in terms of connecting the relational properties of LMX-relationships and the organizational properties of motivational climate. We believe this potentially creates new practical implications for how an organization can facilitate better LMX-relationships through Mastery Climate.

9.0 Conclusion

This study set out to contribute as a bridge between existing theory on the topics of employee observation and LMX, and shed light on the behavioral and relational consequences of feeling observed. The results of our study highlights the negative influence employee observation has on the quality of relation between an employee and its closest supervisor, as well as the important impact of how employees perceive the intensions behind employee observation. Although our results have partially weak and moderate findings, as well as certain validity- and reliability-issues, we believe that our findings contribute with interesting implications worth researching further in the future.

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Appendices

Appendix 1 – Factor analysis

KMO and Bartlett's Test					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy					0.866
Bartlett's Test of Sphericity	Chi-Square	4375.493			
	df	435			
	Sig.	0.000			

Rotated Component Matrix ^a					
	Component				
	1	2	3	4	5
How frequently does your closest leader observe your work-performance?					0.411
To the best of your knowledge, does your organization use software tools/programs to measure your work-performance?					0.819
How frequently are these software tools/programs used to measure your work-performance?					0.823
How many Key Performance Indicators (KPI's) are used to measure your work performance?					0.533
How do you perceive the intensity of these performance-measurements to be?					0.559
I have full insight into the data collected on my work performance.					0.519
My colleagues have full insight into my performance data, and vice versa.					0.783
Only the supervisors have full insight into the data collected on work performance					0.783
Who is responsible for setting goals for your work performance?					0.630
To which degree do you agree to these statements? - In my department/work group, there exists a competitive rivalry among the employees.					0.779
To which degree do you agree to these statements? - In my department/work group, work accomplishments are measured based on comparisons with the accomplishments of coworkers					0.737
To which degree do you agree to these statements? - In my department/work group, rivalry between employees is encouraged					0.766
To which degree do you agree to these statements? - In my department/work group, internal competition is encouraged to attain the best possible results					0.776
To which degree do you agree to these statements? - In my department/work group, only those employees who achieve the best results/accomplishments are set up as examples.					0.661
To which degree do you agree to these statements? - In my department/work group, one is encouraged to perform optimally to achieve monetary rewards.					0.485
To which degree do you agree to these statements? - In my department/work group, an individual's accomplishments are compared with those of other colleagues.					0.789
To which degree do you agree to these statements? - In my department/work group, it is important to achieve better than others.					0.705

To which degree do you agree to these statements? - In my department/work group, one is encouraged to cooperate and exchange thoughts and ideas mutually	0.774
To which degree do you agree to these statements? - In my department/work group, each individual's learning and development is emphasized.	0.747
To which degree do you agree to these statements? - In my department/work group, cooperation and mutual exchange of knowledge are encouraged.	0.831
To which degree do you agree to these statements? - In my department/work group, employees are encouraged to try new solution methods throughout the work process.	0.776
To which degree do you agree to these statements? - In my department/work group, one of the goals is to make each individual feel that he/she has an important role in the work process	0.755
To which degree do you agree to these statements? - In my department/work group, everybody has an important and clear task throughout the work process.	0.746
Do you know where you stand with your leader, and do you usually know how satisfied your leader is with what you do?	0.751
How well does your leader understand your job problems and needs?	0.738
How well does your leader recognize your potential?	0.810
Regardless of how much formal authority your leader has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?	0.790
Again, regardless of the amount of formal authority your leader has, what are the chances that he or she would "bail you out" at his or her expense?	0.761
I have enough confidence in my leader that I would defend and justify his or her decision if he or she were not present to do so.	0.757
How would you characterize your working relationship with your leader?	0.812
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.	
a. Rotation converged in 6 iterations.	

Appendix 2 – Reliability testing

Reliability Statistics - LMX

Cronbach's Alpha	N of Items
.903	7

Reliability Statistics - Intensity

Cronbach's Alpha	N of Items
.711	5

Reliability Statistics - Hierarchy

Cronbach's Alpha	N of Items
.641	3

Reliability Statistics - Mastery Climate

Cronbach's Alpha	N of Items
.887	6

Reliability Statistics - Performance Climate

Cronbach's Alpha	N of Items
.877	8