



BI Norwegian Business School - campus Oslo

GRA 19703

Master Thesis

Thesis Master of Science

Hierarchical levels of social and economic leader-member exchange and their relationship with knowledge sharing

Navn: Ida Waage, Mona Electra Nilsen Hæstad

Start: 15.01.2019 09.00

Finish: 01.07.2019 12.00

BI Norwegian Business School
Oslo, Norway

Master Thesis

“Hierarchical levels of social and economic leader-
member exchange and their relationship with
knowledge sharing”

Program:
Master of Science in
Leadership and Organizational Psychology

Supervisor:
Anders Dysvik

Acknowledgments

This constitutes the final result of our Master of Science degree in Leadership and Organizational Psychology at BI Norwegian Business School. We wish to express our sincere gratitude to those who have helped us through this process.

First, we would like to thank our supervisor, Anders Dysvik, for sharing his thoughts and feedback during this process. We would also like to thank Ilka Verena Ohlmer for sharing her data with us and letting us collaborate with her in her Ph.D. project. Further, we would like to thank the respondents in this study. Finally, we would like to thank BI Norwegian Business School for two inspiring, challenging and educational years.

Table of Content

<u>ABSTRACT</u>	<u>IV</u>
<u>1. INTRODUCTION.....</u>	<u>1</u>
<u>2. THEORY AND HYPOTHESES</u>	<u>4</u>
2.1 SOCIAL AND ECONOMIC EXCHANGE THEORY	4
2.2 LEADER-MEMBER EXCHANGE	4
2.2.1 SOCIAL LMX AND KNOWLEDGE SHARING	5
2.2.2 ECONOMIC LMX AND KNOWLEDGE SHARING.....	7
2.3 THE TRICKLE-DOWN EFFECT IN EXCHANGE RELATIONSHIPS	9
2.3.1 THE TRICKLE-DOWN EFFECT ON EMPLOYEE KNOWLEDGE SHARING.....	11
<u>3. METHOD</u>	<u>12</u>
3.1 SAMPLE AND PROCEDURE	12
3.2 MEASURES	13
3.3 ANALYSIS	15
3.3.1 PRE-ANALYSIS	15
3.3.2 MULTILEVEL ANALYSIS	16
3.3.3 MEDIATING PROCESS ANALYSIS	16
<u>4. RESULTS</u>	<u>17</u>
4.1 DESCRIPTIVE STATISTICS	17
4.2 REGRESSION ANALYSIS	17
<u>5. DISCUSSION</u>	<u>22</u>
<u>6. LIMITATIONS</u>	<u>26</u>
<u>7. FUTURE RESEARCH DIRECTIONS.....</u>	<u>27</u>
<u>8. THEORETICAL IMPLICATIONS.....</u>	<u>29</u>
<u>9. PRACTICAL IMPLICATIONS.....</u>	<u>30</u>
<u>10. CONCLUSION</u>	<u>32</u>
<u>REFERENCES</u>	<u>33</u>
<u>APPENDICES</u>	<u>41</u>

Abstract

The aim of this master thesis is to first, explore the relationship between perceived social- and economic leader-member exchange relationships and knowledge sharing, and second, to explore if the trickle-down effect also exists for exchange relationships. The focus of this study lies on social leader-member exchange and economic leader-member exchange. We test if the social leader-member exchange relates positively social leader-member exchange on the lower hierarchical levels, and if economic leader-member exchange relates to economic leader-member exchange on the lower level. Further, we explore if lower level social leader-member exchange mediates the relationship between higher level social leader-member exchange and knowledge sharing.

The data from 114 employees working in a Norwegian retail organization revealed that social leader-member exchange on the lower levels relates significantly positively related to knowledge sharing, whereas economic leader-member exchange on the lower levels does not relate to knowledge sharing. This finding is in line with previous research in the field, suggesting that emphasizing social exchange relationships may be important for leaders and organizations, as it is positively related to several employee outcomes.

Furthermore, we find no support for the trickle-down effect on higher level social and economic leader-member exchange to lower level economic leader-member exchange. In addition, we find no evidence of an indirect relationship between higher-level SLMX and knowledge sharing. The non-significant findings on the trickle-down effect for leader-member exchange suggest that the immediate leaders play an essential role in forming their exchange relationships with their employees. Theoretical and practical implications are discussed, as well as limitations and directions for future research.

Keywords: leader-member exchange, LMX, social LMX, SLMX, economic LMX, ELMX, knowledge sharing, trickle-down effect, leadership

1. Introduction

Knowledge sharing is considered as one of the most critical assets for an organization to attain sustainable competitive advantage and to obtain long-term outcomes in today's knowledge economy (Akhavan, Hosseini, Abbasi, & Manteghi, 2015; Wang & Noe, 2010). Knowledge sharing refers to the process of mutually exchanging knowledge and the shared creation of new knowledge (De Vries, Van den Hooff, & de Ridder, 2006). Knowledge sharing is a strategic, intangible asset within organizations because it allows the organization to create and deliver value (Grant, 1996; Nonaka & Takeuchi, 1995). It relates to increased innovation capacity (Daellenbach and Davenport, 2004), which is crucial for organizations to remain competitive (Grant, 1996; Riege, 2005). Knowledge sharing relates positively to innovativeness (Collins & Smith, 2006; Van Wijk, Jansen, & Lyles, 2008), and organizational effectiveness (Nonaka, 1994; Nonaka & Takeuchi, 1995; Quigley, Tesluk, Locke, & Bartol, 2007).

Hence, the importance of knowledge sharing is supported through research, but yet, organizations often face problems when trying to facilitate knowledge sharing amongst their employees (Davenport & Prusak, 1998). An explanation for this may be that individuals often are reluctant to share their knowledge with others, because they see their knowledge as an essential part of their professional profile (Coakes, Coakes, & Rosenberg, 2008), and as their own competitive advantage (Černe, Nerstad, Dysvik, & Škerlavaj, 2014). Thus, some individuals want to keep their knowledge for themselves. The critical question then arises; under what circumstances do individuals share their knowledge?

There have been several attempts to identify organizational, social, and individual factors that enhance knowledge sharing (Bock, Zmud, Kim, & Lee, 2005; Coakes et al., 2008; Jarvenpaa & Staples, 2000; Lu, Leung, & Koch, 2006), one of them is leadership (Carmeli, Atwater, & Levi, 2011; Wang & Noe, 2010). For instance, management support (Connelly & Kelloway, 2003) and empowering leadership (Srivastava, Bartol, & Locke, 2006), are important leadership behaviors that facilitate knowledge sharing. Moreover, leadership can be a vital asset because leaders are in a position to create a context of cooperation, interaction, and a structure for knowledge sharing (Grant, 1996). However, in addition to physical modifications (i.e., assigning individuals to functions, projects and changing

structures) leaders can use processes of social influence to facilitate for increased knowledge sharing among their employees (Carmeli et al., 2011).

However, despite the fact that research reveals that leadership is an important facilitator to knowledge sharing (Carmeli et al., 2011; Connelly & Kelloway, 2003; Strivastava et al., 2006), it is yet vital to increase our understanding of how leader-member exchange (LMX) relationships influence, foster and also, may hinder knowledge sharing. Thus, given the importance of knowledge sharing for organizational-level outcomes, we are going to integrate a social exchange perspective (Blau, 1964) to better understand under what circumstances employees may choose to share their knowledge. More specifically, we will explore how social LMX (SLMX) and economic LMX (ELMX) relationships are related to knowledge sharing amongst individuals within an organization.

According to Kuvaas, Buch, Dysvik, & Haerem (2012), SLMX relationships are characterized by a long-term orientation, consisting of ongoing exchanges between leaders and followers. These relationships are based on diffuse obligations, where there are expectations about a future return, but the time of the return is less critical. Individuals in these exchange relationships are less in need of an immediate pay off, because the relationships are based on socio-emotional exchanges, meaning that the relationship is based on trust in that the other party will reciprocate at some point in the future (Kuvaas et al., 2012). Thus, SLMX is similar to the traditional conceptualization of LMX (Walumbwa, Cropanzano, & Goldman, 2011). ELMX relationships, on the other hand, are more transactional and contractual of character. These exchange relationships are characterized by more short-term, discrete, and financially oriented exchanges (Kuvaas et al., 2012). As opposed to SLMX, individuals in ELMX relationships do not emphasize diffuse obligations, and they are more concerned with pay off within a specific period of time. Hence, these relationships consist of more calculus-based trust. Individuals in ELMX relationships are also more concerned about immediate self-interest and having a correct balance between what one gets and what one gives (Kuvaas et al., 2012).

In addition to investigating the direct relationship between SLMX and ELMX and knowledge sharing, we are going to explore how hierarchical levels within an organization relates to these relationships. Scholars argue that the tone on

the top in an organization may be a critical asset in affecting employee behaviors and attitudes lower in the organizational levels (Weaver, Treviño, & Agle, 2005). Moreover, stemming from social learning theory (Bandura 1977, 1986) and social exchange theory (Blau, 1964), individuals in social networks influence each other, and the trickle-down effect (Wo, Schminke, & Ambrose, 2019) emphasizes the indirect social influence. Trickle-down effects refer to “the flow of perceptions, feelings, attitudes and behaviors down the organizational hierarchy” (Wo et al., 2019, p. 2). To our knowledge, the trickle-down effect in LMX relationships is yet to be explored. As recommended by Jiwen Song, Tsui, and Law (2009), we are going to investigate if the LMX relationships that line managers have to their supervisors (SLMX vs. ELMX) is related to the relationship the employees have with their line managers.

In sum, by drawing from the social exchange theory (Blau, 1964) and focusing on the dyadic exchange relationships between leaders and followers, we propose that the qualities of these relationships are crucial for knowledge sharing. More specifically, we assume that the occurrence of knowledge sharing depends on the degree to which an employee experiences a social or an economic exchange relationship with their leader. Additionally, we will explore the relationship between exchange relationships higher in the hierarchy and exchange relationships lower in the hierarchy. We assume that the type of relationship that line managers have with their supervisors (SLMX vs. ELMX) influences the type of relationship that line managers have with their employees (SLMX vs. ELMX), which, then again, relates to employee knowledge sharing. To our knowledge, there is limited research in this field, and thus, our study has both theoretical and practical implications. Theoretical implications because there is a lack of research in this field, and thus, we aim to shed light on the trickle-down effect in exchange relationships. This study also contributes to the research conducted by Kuvaas and colleagues (2012), by exploring the direct relationship between SLMX, ELMX and knowledge sharing. Our implications for practice mainly concern that organizations and leaders may develop a deeper understanding of knowledge sharing through hierarchical levels within an organization.

2. Theory and Hypotheses

2.1 Social and economic exchange theory

Social exchange theory (SET) is one of the most influential conceptual paradigms for understanding organizational behavior (Cropanzano & Mitchell, 2005). A collective agreement that social exchange theorists have is that social exchange involves interactions that generate obligations (Emerson, 1976). Further, these interactions are interdependent and contingent on the actions that are carried out by the other person (Blau, 1964). In other words, it describes the nature of exchanges between humans and how relationships evolve over time.

Furthermore, the exchange theory typically argues that individuals in an organization may develop exchanges and relationships with their employer due to both social and economic reasons. Moreover, employees may respond to their employer differently depending on the treatment they receive (Jiwen Song et al., 2009). According to Shore, Tetrick, Lynch, & Barksdale (2006), there are four significant distinctions between social and economic exchanges; the level of trust, the degree of investment, duration (long-term orientation vs. short-term orientation), and the emphasis of the relationship (social vs. economic). Social exchange relationships emphasize a high level of trust, extensive investment, long-term commitment and in general emphasizes socio-emotional aspects of the relationship (Shore et al., 2006; Wu, Hom, Tetrick, Shore, Jua Li, & Song, 2006). In contrast, an economic exchange relationship is characterized by a low level of trust and relationship investment (Blau, 1964). These exchange relationships are short-term, close-ended, and have well-defined obligations. Their emphasis is on narrow financial obligations (e.g., pay and benefits) without any long-term investments (e.g., employment security or career planning) in the employee (Shore et al., 2006). Thus, an economic exchange relationship does not emphasize socio-emotional outcomes.

2.2 Leader-member exchange

The social and economic exchange theory focuses on exchanges with and within the organization. As an extension of this, the leader-member exchange theory (LMX) is based on the premise that different types of exchange relationships, with varying levels of quality, develop between *leaders* and followers within an

organization (Graen & Uhl-Bien, 1995; Sparrowe & Liden, 1997). These relationships have typically been assumed to fall on a single continuum from low- to high-quality relationships. Relationships that are economical, transactional, impersonal, and out-group have traditionally been characterized as low-quality relationships. On the contrary, relationships that are social, relational, and in-group have been associated with high-quality relationships (Goodwin, Bowler, & Whittington, 2009; Sparrowe & Liden, 1997).

A considerable amount of research has focused on developing an understanding of LMX relationships (e.g., Graen & Uhl-Bien, 1995), and empirical research has found that LMX relationships are related to a diverse set of outcomes, such as employees organizational commitment, job satisfaction, task performance, helping behaviors, and turnover intentions (Gerstner & Day, 1997). However, a considerable amount the LMX research relies on social exchange theory (Blau, 1964; Walumbwa et al., 2011). This research has exclusively measured social exchange relationships and their relation to a diverse range of outcomes, without taking into account measures of transactional or economic relationships. Hence, it lacks measures of the psychological sense-making of both the social and the economic aspects of the LMX relationships, and thus, scholars have exclusively explored how social, and not economic, exchange relationships can be related to employee outcomes (Kuvaas et al., 2012). However, in 2006, Shore and colleagues (2006) made a significant empirical contribution to the social exchange theory. They developed measures that captured the employee's social *and* economic exchange relationships with their organization. Relying on these measures, Kuvaas and colleagues suggest that LMX relationships may be represented by both social leader-member exchange (SLMX) and economic leader-member exchange (ELMX) (Kuvaas et al., 2012). More specifically, they consider that one should view social and economic exchange relationships as qualitatively different relationships, as opposed to seeing them as a continuum from low- to high-quality relationships (Kuvaas et al., 2012).

2.2.1 Social LMX and knowledge sharing

According to Kuvaas and colleagues (2012), SLMX relationships align well with the traditional conceptualization of high-quality LMX, as they are characterized by diffuse obligations where there are expectations about the future

return; however, the time of the return is somewhat unclear and less critical (Kuvaas et al., 2012). SLMX relationships have an ongoing, long-term orientation that consists of exchanges of support, investment, and resources. Employees in high-quality (S)LMX relationships are likely to perform voluntary roles and tend to go beyond the formal requirements that are stated in the job contract, because they trust that their supervisors will reciprocate at some point in the future (Chan & Mak, 2012; Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Erdogan & Enders, 2007; Graen & Uhl-Bien, 1995; Ilies, Nahrang, & Morgeson, 2007).

Research in the field of SLMX has primarily found that SLMX is related to positive individual and organizational outcomes. SLMX relationships are positively associated with work performance and organizational citizenship behaviors (Kuvaas et al., 2012), and work effort (Buch, Kuvaas, Dysvik, & Schyns, 2014). Additionally, these relationships are positively related to task- and contextual performance, and hence, emphasizing that employees who receive resources are more likely to be motivated to reciprocate the resources they are given by their leader (Gerstner & Day, 1997; Ilies et al., 2007; Kuvaas et al., 2012; Walumbwa et al., 2011). These findings can to some extent be explained by the fact that a relationship based on social aspects is better than a relationship based on instrumental aspects, as, in the former one, the follower's effort will be higher than what is expected in the formal job contract (Ruiz, Ruiz & Martinez, 2011). Furthermore, and most relevant for our study, high-quality LMX is positively related to knowledge sharing (Carmeli et al., 2011).

As previously mentioned, knowledge sharing comes with a cost and risk for the individuals that choose to share their knowledge, because they may lose their competitive advantage as individuals. This means that for knowledge sharing to occur, there should be a strong motivation for reciprocity (Chiu, Hsu, & Wang, 2006; Ipe, 2003). In a similar vein, employees may choose to share their knowledge when they feel confident that they will receive favorable treatment or resources from important stakeholders in the organization (Kim, Kim, & Yun, 2015). On the other hand, reciprocity in the relationship is also likely to result in a felt obligation to perform beyond what is required. Thus, these individuals may increase their knowledge sharing as a way of fulfilling these obligations to receive positive reciprocity from their leader (Kim, Han, Son, & Yun, 2017).

Furthermore, there is a positive relationship between employees' knowledge donating and leaders' knowledge collection for employees that perceive high levels of SLMX with their supervisor. Leader-member relationships that emphasize socio-emotional outcomes, mutual trust, and diffuse future long-term obligations, is a necessary condition for the process of knowledge sharing between employees and leaders (Dysvik, Buch, & Kuvaas, 2015). Moreover, Carmeli and colleagues (2011) found that leaders that exhibited transformational leadership *and* emphasized high-quality (S)LMX relationships, through developing employee's relational identification and organizational identification, resulted in increased knowledge sharing.

Given the similarities between the SLMX and high-quality LMX constructs (Kuvaas et al., 2012), and given the influential position leaders have in developing exchange relationships with their subordinates (Carmeli et al., 2011), we assume that SLMX is positively related to knowledge sharing. More specifically, as individuals in SLMX relationships are likely to engage in knowledge sharing because they trust that they will receive high levels of resources by going beyond their in-role performance, we assume that their motivation for sharing knowledge comes from the reciprocity and their anticipation of a long-term relationship with their leader. Thus, we hypothesize the following:

Hypothesis 1: SLMX rated by the employees relates positively to knowledge sharing.

2.2.2 Economic LMX and knowledge sharing

ELMX relationships, on the other hand, are characterized by more short-term, discrete, and financially oriented exchanges (Kuvaas et al., 2012). ELMX relationships distinguish from SLMX relationships by emphasizing pay and benefits (financial exchanges) over care, support and "give and take" (socioemotional exchanges). Thus, these exchange relationships are more impersonal, formal, and transactional, leading to a relationship where mutual trust and support are less critical (Kuvaas et al., 2012). Employees in these exchange relationships are often motivated by immediate self-interest (Buch et al., 2014; Kuvaas et al., 2012).

In contrast to the SLMX research, which aligns well with the traditional LMX research, and thus, can be viewed as heavily researched (Walumbwa et al., 2011), the amount of research on ELMX relationships is underdeveloped (Buch et al., 2014). More empirical research, using Kuvaas and colleagues' measures for ELMX, is needed to learn more about the relationships between ELMX relationships and outcomes. However, from a theoretical perspective, ELMX is likely to encourage behavior that meets, and not exceeds, organizational expectations (Shore et al., 2006, Kuvaas et al., 2012). Employees in these relationships are likely to withhold effort and not get involved in extra-role performance because they worry about future returns and their self-interest (Buch et al., 2015). As high performing behaviors are likely to be behaviors that require an individual to go beyond what is expected, there is a reason to believe that high levels of ELMX will have a negative relationship with these behaviors (Ruiz et al., 2011; Buch et al., 2015). In fact, research has found a negative relationship between economic exchange perceptions and both work performance and organizational citizenship behaviors (Kuvaas & Dysvik, 2011; Jiwen Song et al., 2009). These findings were replicated by Kuvaas and colleagues (2012), as they found that ELMX relationships were negatively related to the same constructs. ELMX is also negatively associated with work effort (Buch et al., 2014). Furthermore, ELMX relationships and laissez-faire leadership are found to have a positive correlation (Buch, Martinsen, & Kuvaas, 2015). This is an important finding that organizations, and leaders, should be aware of, considering that laissez-faire leadership is regarded as destructive leadership and is associated with negative outcomes (Buch et al., 2015).

The research concerning ELMX relationships and knowledge sharing is limited, especially research that investigates direct links. A related concept to ELMX is exchange ideologies. Exchange ideology refers to the degree to which an employee believes that the work that is put down is contingent on the treatment by the organization (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Individuals that have a strong exchange ideology are more sensitive to reciprocity (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001) and social exchange (e.g., Chiaburu & Byrne, 2009) than those that have a weak exchange ideology. In sum, individuals with a strong exchange ideology share characteristic with individuals in an ELMX relationship. Kim and colleagues (2017) explored in their study how exchange

ideology was related to knowledge sharing and found that individuals' exchange ideology was negatively associated with knowledge sharing.

Additionally, Foss, Minbaeva, Pedersen, and Reinholt (2009) found in their study that there was no relationship between external motivation to share knowledge (sharing knowledge because it is in your self-interest) and knowledge receiving. ELMX was not included in this study, but their findings suggest that sharing knowledge for instrumental reasons (which is likely to occur in ELMX relationships) will not increase the knowledge-collecting, and further, the knowledge sharing.

As suggested by Kuvaas and colleagues (2012), more empirical research is needed to learn more about the associations between ELMX relationships and employee outcomes. The aim of this study is to contribute to the literature on social and economic leader-member exchange. In contrast to SLMX relationships, we assume ELMX relationships is not related to knowledge sharing, because individuals in ELMX relationships may lack the necessary trust in that this "extraordinary" behavior will be rewarded. Their motivation for sharing knowledge is likely to be more instrumental, and thus, if they lack the trust in that they will be rewarded in the nearest future, we assume that they will view knowledge sharing as a too costly behavior. Thus, we hypothesize the following:

Hypothesis 2: ELMX rated by the employees will not relate to knowledge sharing.

2.3 The trickle-down effect in exchange relationships

It is well known from social learning theory and social exchange theory that individuals in social networks influence each other, and the trickle-down effect (Wo et al., 2019) emphasize the indirect social influence. Trickle effects involve how an individual influence a transmitter and how that transmitter influences another individual (Wo et al., 2019). Trickle-down effect refers to "the flow of perceptions, feelings, attitudes and behaviors down the organizational hierarchy" (Wo et al., 2019, p. 2). Furthermore, drawing from the Role-Set Theory perspective (Merton, 1957), higher-level leaders that have more formal authority play an important role in affecting other employees' attitudes, and behaviors. Thus, as the supervisors of the line managers play a vital role in shaping the exchange relationships (Carmeli

et al., 2011), we assume that the line managers are influenced by this exchange relationship, which is further trickled-down towards their employees.

Research in the trickle-down literature has found that ethical leadership trickles down from top managers to supervisors, and results in ethical leadership of lower-level followers (Schaubroeck, Hannah, Avolio, Kozlowski, Lord, Treviño, & Peng, 2012; Ruiz et al., 2011). Empowering leadership trickles down from second-level leaders to first-level leaders, that further influences subordinates' task performance and OCB (Byun, 2016, cited in Wo et al., 2019, p. 7), and authentic leadership trickles down to supervisors' authentic leadership that in turn influences employees' helping behavior (Hirst, Walumbwa, Aryee, Butarbutar, & Chen, 2016). As for "dark" leadership behavior, managers' abusive behavior trickles down to supervisors' abusive behavior, which in turn affects employees' deviance behavior (Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012). These findings are in line with other scholars, arguing that the tone at the top may be a critical asset in affecting employee attitudes and behavior (Weaver et al., 2005). In a similar vein, transformational leadership trickles down from managers to employees through supervisors (Bass, Waldman, Avolio, & Bebb, 1987).

As transformational leadership is considered as an antecedent of LMX (Dulebohn et al., 2012), and thus, is positively related to LMX (e.g., Carmeli et al., 2011), we find it interesting to explore if exchange relationships also can be exposed to the trickle-down effect. When higher-level leaders emphasize either SLMX or ELMX towards their line managers, we assume the line managers mirrors these higher-level leaders (supervisors) and thus, act similarly towards their employees (Brown, Treviño, & Harrison, 2005). If exchange relationships can influence other exchange relationships, it is crucial that organizations are aware of this, and hence, it is of importance to investigate. Concerning previous research findings on the trickle-down effect and on the positive outcomes of SLMX, and if exchange relationships influence other exchange relationships, it could be a strategic step to emphasize SLMX relationships throughout the whole organization. To our knowledge, no one has investigated how relationships may affect other relationships in an organization. This line of research is also requested by other scholars (Jiwen Song et al., 2009). Thus, we are going to explore if the LMX relationships that the line managers have to their supervisors (SLMX vs. ELMX) is

positively related to the relationship that the line managers have to their employees. We hypothesize the following:

Hypothesis 3: The degree of SLMX that line managers have to their supervisor relates positively to the SLMX relationship that employees have with their line managers.

Hypothesis 4: The degree of ELMX that line managers have to their supervisor relates positively to the ELMX relationship that employees have with their line managers.

2.3.1 The trickle-down effect on employee knowledge sharing

Scholars argue that leaders higher in the hierarchy play a more critical role in improving employee job response than immediate supervisors do (Ruiz et al., 2011). Therefore, building on hypotheses three and four, we are interested in exploring if exchange relationships between line managers and their supervisors are related to knowledge sharing. Furthermore, with the assumption that the trickle-down effect exists for exchange relationships, one can assume that exchange relationships higher in the hierarchy have an indirect impact on employee outcomes.

Thus, we assume that SLMX amongst the line managers and their supervisor indirectly relates to knowledge sharing, through the mediating effect of SLMX between employees and their line manager. Thus, based on previous research stating that the tone on top is crucial for employee outcomes (Jiwen Song et al., 2009), we assume that the SLMX higher in the hierarchy is indirectly related to the knowledge sharing in the lower level.

Hypothesis 5: The relationship between the line managers' SLMX and knowledge sharing is mediated by the employees' SLMX.

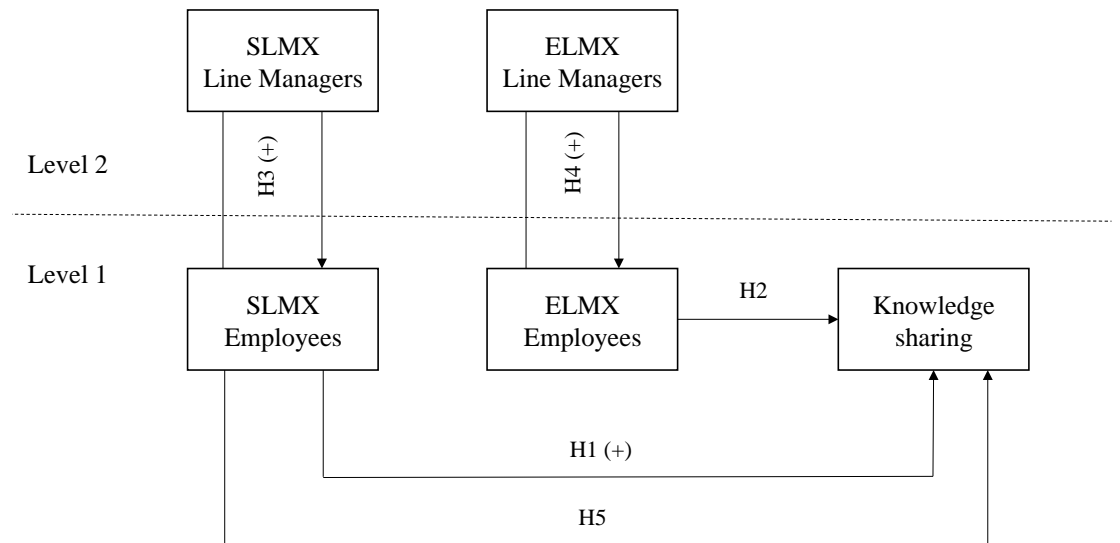


Figure 1. Conceptual model and hypothesis

3. Method

3.1 Sample and Procedure

In this study, the data was gathered as part of a bigger research project on differential employee investments. The current organization is part of the retail industry, and the name of the organization, as well as respondents, are anonymized. The responsible researcher collected data at two different points in time, where the independent variables *SLMX* and *ELMX* of line manager and employee were measured in time one, and the dependent variable *knowledge sharing* was measured in time two. All 1346 employees of the participating organization received an invitation e-mail to participating in the survey. Out of these respondents, we were interested in 1114 employees based on their hierarchical position in the organization. After screening the data for outliers and employee observations that completed both surveys, 114 employees remained in our data set, resulting in a response rate of 10,23%. The HR department provided archival data on employee

demographics and job-related information, such as gender, tenure, region number, department number and the respondents' proposition in the organization.

The current organization has 121 stores in total located in Norway, that is distributed in six different regions. In our data sample, we have employee observations from 41 stores, where 48,78% of the stores have three or more employees that have completed both surveys. The stores have one store manager (referred to as line manager from now), assistant manager, and employees. 33,88% (41) of the line managers, and 6,77% (9) of assistant managers, and 7,52% (64) employees answered the survey. The age of the respondents ranges from 18 to 61 years, where the mean age is 34 years, with a standard deviation of 11 years. The tenure ranges from 58 days to 28 years, where the average tenure is 6,3 years with a standard deviation of 6,6 years. The organization consists of mostly females, resulting in that the majority of the observations in our sample are females (98,6%).

3.2 Measures

All measures of this study are scales validated in previous existing research. All items are measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). All measures were obtained through employee self-reports. All of the measures had a Cronbach's alpha of above 0.70, and thus, they can be considered as reliable (Gliem & Gliem, 2003). A full list of all items can be found in Appendix A.

Social Leader-Member Exchange (SLMX). In order to measure SLMX, the four-item scale developed by Kuvaas and colleagues (2012), was used. Examples of sample items are "my relationship with my immediate/store manager is based on mutual trust", and "my immediate leader has made a significant investment in me", and "I try to look out for the best interest of my immediate leader because I can rely on my immediate leader to take care of me". The items had a Cronbach's alpha of 0.88. To distinguish between the hierarchical levels of relationships in the organization, we created two variables out of the SLMX scale. Social leader-member exchange relationships between line managers and their supervisors (SLMXL), and social leader-member exchange relationships between employees and line managers (SLMXE).

Economic Leader-Member Exchange (ELMX). In order to measure ELMX, the four-item scale developed by Kuvaas and colleagues (2012), was used. Examples of sample items are “the most accurate way to describe my relationship with my immediate leader is that I do what I am told to do”, “I do what my immediate leader demands from me, mainly because he or she is my formal boss” and “my relationship with my immediate leader is mainly based on authority, he or she has the right to make decisions on my behalf and I do what I am told to do”. The items had a Cronbach’s alpha of 0.82. To distinguish between the hierarchical levels of relationships in the organization, we created two variables out of the ELMX scale. Economic leader-member exchange relationships between line managers and their supervisors (ELMXL), and economic leader-member exchange relationships between employees and line managers (ELMXE).

Knowledge Sharing (KS). Knowledge sharing was measured by using the eight-item scale developed by De Vries and colleagues (2006). Example of sample items are “when we have learned something new, we tell each other about it”, and “we appreciate being up-to-date about what our colleagues know and have knowledge about”. The items had a Cronbach’s alpha of 0.92.

Control Variables. To control for variance explained by socio-demographic, individual differences, we included *age* and *tenure* as control variables in our analysis, as these variables have been associated with knowledge sharing (Constant, Kiesler, & Sproull, 1994; de Vries et al., 2006; Ojha, 2005). Unfortunately, our final data set only contained two observation that was men, which made our gender variable not sufficient in order to control for gender. Therefore, we removed the gender variables from our model. Furthermore, as our objective is to investigate exchange relationships between hierarchical levels we controlled for department and region as there might be differences across the organization. The HR department accounted for the control variables. Because SLMX and ELMX are two distinct exchange relationship qualities (Kuvaas et al., 2012), we controlled for ELMX when investigating SLMX (Buch et al., 2015).

3.3 Analysis

3.3.1 Pre-Analysis

The data was analyzed using the software SPSS version 25. Before testing our model, we performed data exploration and tested statistical assumptions underlying regression analysis (Pallant, 2013). First, we evaluated the normality of our data with the skewness and kurtosis measures and the normal q-q plot. From the normal q-q plot, there was evidence of outliers, and we tested their significance for our analysis with a Mahalanobis test and Cook's score (Pallant, 2013). After finding a cutoff point, which was based on the numbers of predictors and the chi-square table, we found two employee observations that had extreme values and removed them from our data. However, there was some evidence of non-normality as the residuals from the normal q-q plot had little deviations from the straight line, and some of the skewness and kurtosis measures were not close to zero (Doane & Seward, 2011). Concerning this, we applied bootstrapping in our analysis to account for the small sample size and non-normality (Hayes, 2009).

Thereafter, we conducted a Cronbach's alpha test and a factor analysis (principal component analysis with varimax rotation) to evaluate the construct validity. Due to our small sample size (N=114), Tabachnick and Fidell (2013) emphasize that several high item loadings are necessary to account for the less reliable correlation coefficients that usually exists in small samples. Therefore, we followed the relatively string rules-of-thumbs of the item loadings (Nunnally and Bernstein, 2007, cited in Kuvaas & Dysvik, 2009, p. 222; Kiffin-Petersen and Cordery, 2003), where we retained only items with strong loadings of 0.50 or higher on target construct, and a cross-loading of less than 0.35 on other included factors. The items and factor loadings can be found in Appendix A.

Moreover, we explored the pairwise relationships of the variables with scatter plots and Pearson correlation. There was no evidence of issues with multicollinearity as none of the independent variables correlated with each other, nor the mediating variables (Pallant, 2013).

Furthermore, as the group sizes in our sample are unequal (e.g., employees=64; line managers=41), and there were signs of heteroscedasticity from the scatterplot, we performed a levene's test of equality of error variances. The

levene's test showed that the variance between the groups were significantly equal; thus, our data satisfies the assumptions of homoscedasticity.

Due to our data approximately satisfying all of the standard assumptions of OLS regression, we continued further with the analysis.

3.3.2 Multilevel analysis

Since our data set has a nested structure (i.e. employees working below line managers and line managers working below regional managers) we estimated interclass correlations for mediator and dependent variables (employees (ELMXE), employees (SLMXE), knowledge sharing) in accordance with the procedure suggested by Heck, Thomas, and Tabata (2013). The individual line managers ID number was used as a group-level identifier. We estimated the intercept-only models (null-models) for employees (ELMXE), employees (SLMXE), and knowledge sharing to partial out variance that can be attributed to within and between-group effect. All interclass correlations were below the suggested threshold of 5% (*SLMXE*, $ICC=0,034$; *ELMXE*, $ICC=0.043$; *KS*, $ICC=0,054$) (Heck et al., 2013). As the average number of employees within each of the 41 departments are two employees, there is not much bias due to the nested structure in the data set. Thus, results indicate that a neglectable amount in the variance in the mediator and dependent variables are explained on the between-group level. Accordingly, an ordinary least square (OLS) regression analysis at the individual level is suggested as more adequate (Heck et al., 2013).

3.3.3 Mediating process analysis

To test the proposed hypotheses, we performed hierarchical mediating regression analysis (Cohen, West, & Aiken, 2014). The causal steps approach proposed by Baron and Kenny (1986) was followed. According to the causal step approach, three conditions must be met to support a mediating relationship. First, the independent variable must be significantly associated with the mediator. Second, the independent variable must be significantly associated with the dependent variable. At last, when the mediator is included in the model, the relationship between the independent and dependent variable should disappear (full mediation) or significantly diminish (partial mediation). Furthermore, due to the shortcomings inherent in the Baron and Kenny method (Preacher & Hayes, 2004), and to count for non-normality and our small sample size, Hayes (2009) emphasizes

estimating a bootstrap confidence interval to test for significant partial or completely indirect effect. Therefore, we bootstrapped our sample distribution and derived bootstrapped confidence intervals by using the PROCESS macro in SPSS.

In Step 1, we controlled for age, tenure, department and region on the dependent variables' SLMXE, ELMXE and knowledge sharing. Also, when we measured the relationship between the independent variable SLMXL, the mediator SLMXE on knowledge sharing, we controlled for ELMXE. In Step 2, we included the independent variables SLMXL and ELMXL. At last, in Step 3 we accounted for the mediation effect of SLMXE, between SLMXL and knowledge sharing.

4. Results

4.1 Descriptive statistics

The descriptive statistics of the individual-level and the group-level variables are presented in table 1 and table 2. First of all, when we measured the group-level variables we noticed that five line managers that have completed both surveys lacked employees within their store that have completed the surveys. Unfortunately, these five line managers have not been rated, and hence, did not get a SLMX and ELMX score, resulting in 36 observations in the group-level table.

Furthermore, all of the utilized scales show internal validity with three distinct factor loadings and with reliability scores with a $\alpha < .70$. The employees in the organization experience a higher degree of SLMX relationships than ELMX relationships (SLMXE: mean=4.17; SLMXL: mean=3.86; ELMXE: mean=3.49; ELMXL mean= 3.08). As expected, the SLMXE correlates positively with knowledge sharing ($r = .53, p < 0.01$); however, the SLMXL neither correlates with SLMXE ($r = -.26, ns$) nor with knowledge sharing ($r = -.19, ns$). The same appears for ELMXE, which neither correlates with ELMXL ($r = .06, ns$) nor with knowledge sharing ($r = .20, ns$).

4.2 Regression analysis

The standardized coefficients from the hierarchical regression analysis are presented in table 3. First of all, when we included the control variables, we removed the non-significant variables with high p-value until the model fit improved. This resulted in age being removed ($\beta = -0.01, p = .91$)

Based on our findings, we found support for hypothesis 1. There is a positive and significant relationship between SLMXE and knowledge sharing ($\beta = .50$, $p < .01$). Furthermore, our findings also support hypothesis 2. ELMXE does not relate to knowledge sharing (ELMXE: $\beta = .16$, *ns*).

There was no significant finding of SLMX between line managers and their supervisors being positively related to SLMX between employees and their line managers ($\beta = -.18$, *ns*). Interestingly, when controlling for department the model fit was improved (without department $R^2 = .04$, $p = 0.08$; with department $R^2 = .07$, $p = 0.06$). However, as we used the .05 significance level when estimating our model, hypothesis 3 was not supported, indicating that there is no trickle-down effect between SLMXL and SLMXE.

There was no significant finding of ELMX between line managers and their supervisors being positively related to ELMX between employees and their line managers ($\beta = .15$, *ns*). Thus, hypothesis 4 was not supported; there are no trickle-down effect between ELMXL and ELMXE.

Furthermore, as there is no significant association between the independent variable (SLMXL) and the mediator (SLMXE) ($\beta = -.18$, *ns*), nor with the independent variable (SLMXL) and the dependent variable knowledge sharing ($\beta = -.17$, *ns*), the first and second condition of mediation was not met. Therefore, to estimate a bootstrap interval of the indirect effect was considered as unnecessary. Thus, hypothesis 5 was also not supported; indicating that SLMXL and knowledge sharing is not mediated by SLMXE.

Table 1 *Descriptive Statistics, Correlations, and Reliabilities of Individual-level measures*

Variables	Mean	SD	1.	2.	3.	4.	5.	6.	7.
Age	31.42	11.07	-						
Tenurerindays	1338.87	1472.28	.44**	-					
Department	63.5	39.0	-.19	-.28**	-				
Region	3.42	1.71	-.05	.10	-.09	-			
KS	4.35	.62	-.05	.13	-.16	-.03	(.92)		
SLMXE	4.17	.86	.02	.05	-.19	.08	.53**	(.88)	
ELMXE	3.49	.94	-.13	.06	.09	-.12	.15	-.03	(.82)

N=104. Cronbach's alpha on the diagonal.

KS = knowledge sharing; SLMXE = social leader member exchange of employees; ELMXE = economical leader member exchange of employees;

*p<0.05, **p<0.01., ***p<0.001

Table 2 Descriptive Statistics, Correlations, and Reliabilities of Group-level measures

Variables	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
Age	31.81	8.49	-								
Tenurerindays	1627.87	1679.42	.65**	-							
Department	71	37	-.17	-.15	-						
Region	3.20	1.70	-.07	.23	-.33*	-					
KS	4.36	.52	-.10	.25	-.09	.05	(.92)				
SLMXE	4.29	.65	-.04	.20	-.19	.05	.55**	(.88)			
ELMXE	3.58	.82	-.02	.32	.14	-.13	.20	-.15	(.82)		
SLMXL	3.86	.77	-.03	-.30	.08	.02	-.19	-.26	-.26	(.82)	
ELMXL	3.08	.94	.12	.16	.02	-.04	.24	.06	.19	.07	(.79)

N=41, Cronbach's alpha on the diagonal for group-level variables age, tenureindays, department, region, KS.

N=36, Cronbach's alpha on the diagonal for group-level variables SLMXE, ELMXE, SLMXL, ELMXL

KS = knowledge sharing; SLMXE = social leader member exchange of employees; ELMXE = economical leader member exchange of employees;

SLMXL = social leader member exchange of line managers; ELMXL = economical leader member exchange of line managers.

*p<0.05, **p<0.01., ***p<0.001

Table 3 *Regression Analysis*

	<u>SLMXE</u>			<u>ELMXE</u>			<u>Knowledge sharing</u>		
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 3
Intercept	4.34	5.23	3.50	2.90	4.26	4.89	4.26	4.89	3.05****
Controls									
Tenure	-0.01	-0.02	0.10	0.10	0.09	0.08	0.09	0.08	0.09
Department	-0.18	-0.19	0.11	0.13	-0.15	-0.16	-0.15	-0.16	-0.06
Region	0.05	0.06	-0.12	-0.09	-0.03	-0.03	-0.03	-0.03	-0.06
ELMXE					0.16	0.15	0.16	0.15	0.16
Independent variable									
SLMXL		-0.18				-0.17		-0.17	-0.08
ELMXL				0.15					
Mediation effect									
SLMXE									0.50****
ΔR^2	0.04	0.03	0.03	0.02	0.06	0.03	0.06	0.03	0.24****
R^2	0.04	0.07	0.03	0.05	0.06	0.09	0.06	0.09	0.33
F	1.23	1.90	1.06	1.32	1.59	1.93	1.59	1.93	8.00****

*p<0.05, **p<0.01, *** p<0.001

N = 104; standardized regression coefficients are shown.

SLMXL = social leader member exchange of line managers;

SLMXE = social leader member exchange of employees;

ELMXL = economic leader member exchange of line managers;

ELMXE = economic leader member exchange of employees.

5. Discussion

With this study, we first, explore the direct relationship between both SLMX and ELMX rated by employees and knowledge sharing. Second, we investigate if SLMX- and ELMX between line managers and their supervisor is positively related to SLMX- and ELMX between employees and their line manager. Third, we explore if the SLMX among employees and their line managers mediate the relationship between higher-level SLMX on knowledge sharing. In other words, this study tests the existence of a trickle-down effect in SLMX and ELMX, and furthermore, it tests if higher-level SLMX is related to knowledge sharing through SLMX in lower levels.

First, we hypothesized that SLMX rated by employees is positively related to knowledge sharing. This is supported, meaning that there is a significant positive relationship between SLMX reported by employees and knowledge sharing. This is in line with previous research, proving that interpersonal relationships consisting of trust and reciprocity are closely related to knowledge sharing (Dysvik et al., 2015; Carmeli et al., 2011).

Second, we hypothesized that ELMX rated by employees is not related to knowledge sharing. This hypothesis is also supported. This is in line with the previous research that argues that ELMX relationships do not influence or encourage individuals to do more than they are asked (Kuvaas et al., 2012). Based on this finding, and as knowledge sharing is considered a voluntary act and extraordinary behavior (Davenport, 1997; Chiu et al., 2006; Ipe, 2003), we can assume that individuals in ELMX relationships do not see knowledge sharing as something they voluntarily want to take part in. One explanation for this can be that they lack pro-social motivation and the trust in that they at some point in the future will receive benefits from sharing their knowledge.

Thus, one can argue that the contractual and transactional character of ELMX, which has a heavy emphasis on having a “correct” balance between what one gives and what one gets from one’s leader, is not associated with knowledge sharing. As research suggests, individuals in ELMX relationships are more likely to emphasize contractual agreements and transactional benefits, over trust and long-term orientations (Kuvaas et al., 2012). Arguably, these exchange relationships may

be more prone to extrinsic rewards, which further is recommended not to be used as the primary motivator for knowledge sharing initiatives (Brock et al., 2005).

Our findings entail that in organizations where there is a high degree of ELMX relationships, knowledge sharing should be encouraged through other means than through economic exchange relationships. Arguably, leaders have to facilitate knowledge sharing by structural and contextual factors, for instance, by setting aside time for knowledge sharing sessions and workgroups. However, as knowledge sharing is considered as a voluntary act (Davenport, 1997), and hence, requires that the individual that is sharing knowledge is motivated to do so, it is not guaranteed that facilitating for it by psychological means is enough for knowledge sharing to occur. Moreover, as individuals in ELMX relationships are more concerned for their immediate self-interest (Kuvaas et al., 2012), one can assume that knowledge sharing will be challenging to facilitate for in this exchange relationship.

Third, we hypothesized that there is a positive relationship between SLMX amongst line managers and their supervisors and SLMX amongst employees and their line manager. This is not supported. In a sense, this is surprising, considering that multiple studies have found that the trickle-effect exist for leadership behaviors and styles (e.g. Schaubroeck et al., 2012; Hirst et al., 2016; Mawrtiza et al., 2012; Ruiz et al., 2011; Bass et al., 1987). Furthermore, there is a strong correlation between transformational leadership and high quality (S)LMX (Carmeli et al., 2011), and thus, a reason to believe that leaders that develop high SLMX relationships with their employees, also exhibit transformational characteristics, as they emphasize trust, support, and a long-term commitment.

Some explanations for the non-significant relationship do exist. When we investigate the exchange relationships from the top toward the lower levels, our model assumes that line managers influence employees in different departments. We can assume that the line managers do not need social leader-member exchange relationships with employees in other departments, simply because they are not their line manager. Thus, as the trickle-down effect entails that there is an ongoing flow of perceptions amongst individuals that interact with each-other (Wo et al., 2019), there is no sign of the trickle-down effect.

However, when we control for department the model fit is improved, and the finding is statistically significant at the .10 significance level. This way, we can

assume that we capture the SLMX within each department, and not SLMX across departments. Thus, at the .10 significance level, we can assume that the trickle-down effect occurs when the line manager perceives a social exchange relationship with their supervisor. This is in line with previous research that has established a trickle-down effect in transformational leaders (Bass et al., 1987). Another possible explanation for this finding can be drawn from the Role-Set theory (Merton, 1957) and the trickle-down literature (Brown et al., 2005). It is likely that when higher level leaders emphasize social exchange, this may be reflected in lower level relationships because the higher-level leaders act as role models (Brown et al., 2005) and because they have formal authority (Merton, 1957).

Fourth, we hypothesized that there is a positive relationship between ELMX amongst line managers and their supervisors and ELMX amongst employees and their line manager. In relation to the discussion above of SLMX and the trickle-down effect, hypothesis 4 was not supported at the .10 significance level, even when we controlled for department. Hence, there is no evidence of the trickle-down effect between hierarchical levels of ELMX. This underpins that the exchange relationships are of different qualities. However, a possible explanation could be that the current organization lack exchange relationships with economic qualities. As the mean scores of SLMX and ELMX are different, and the SLMX score is higher, we can assume that the current organization holds more exchange relationships with social qualities. Thus, we can assume that the non-significant finding of the relationship between higher and lower level ELMX can be explained by the weak appearance of ELMX within the organization.

Furthermore, another possible explanation can be that the characteristics of SLMX relationships are more prone to the trickle-down effect than the characteristics of ELMX. In relation to this, as SLMX and ELMX hold different behaviors, attitudes and expectations, and SLMX is seen as more beneficial regarding positive employee outcomes (e.g., Kuvaas et al., 2012); we can assume that ELMX may be filtered out by line managers. This assumption is primarily drawn from previous research that finds that ELMX relationships is negatively related to work performance and organizational citizenship behaviors (Kuvaas et al., 2012), and positively related to laissez-faire leadership (Buch et al., 2015). In addition, our results also show that the individuals in the lower levels perceive higher levels of SLMX than the line managers perceive with their supervisors.

Although there may be several reasons for this, one possible explanation may be that the line managers filter out ELMX.

Fifth, we hypothesized that the relationship between SLMX rated by the line managers and knowledge sharing is mediated by the SLMX rated by the employees, i.e., that when SLMX relationships are present in the higher levels, there is an indirect relationship through the employees' SLMX with knowledge sharing. As the conditions for mediation was not supported, there was no evidence of an indirect relationship between higher-level SLMX and knowledge sharing. This finding is interesting; as it contradicts previous research in the sense that higher-level leadership is not related to employee outcomes (Ruiz et al., 2011). Their findings suggest that the formal authority stemming from the top is more important in influencing employee outcomes, no matter how large the organizational distance is between them and the employees. Our findings are not in line with this, suggesting that the immediate supervisor and thus, a higher level of interaction between immediate leader and follower, may be of higher importance than higher-level formal authority. Based on the significant positive relationship between lower-level SLMX and knowledge sharing, our finding suggests that this relationship is not dependent on higher level SLMX.

To sum up our non-significant findings from hypothesis 3, 4, and 5, it is important to point to one general, yet possible explanation. All these hypotheses concern the trickle-down effect in exchange relationships, and thus, one possible explanation for the non-significant findings can be related to the fact that not all individuals share the same values and attitudes within an organization. Within every organization, it is likely to be groups that have other values and attitudes than what is formally expressed by higher-level leaders (Schein, 1992). This means that although SLMX or ELMX is emphasized higher in the hierarchy, there is a chance that some of the line managers will not acknowledge this. Hence, there is a chance that the line managers will not continue the development of the same social or economic qualities towards their employees, even though this is emphasized, or even encouraged by their supervisors.

6. Limitations

Our study has several limitations, which is vital to consider when interpreting the results of this study. First of all, our cross-sectional research design implies that we cannot draw any causal conclusions of our findings (Bryman & Bell, 2015). Also, considering that we include the trickle-down effect in our study, it is important to point out that we cannot draw conclusions about the direction of the effect. However, as previous research has established the trickle-down effect from higher level leaders towards lower-level employees (e.g., Schaubroeck et al., 2012; Ruiz et al., 2011; Bass et al., 1987), we have based our assumptions on these findings. In addition, as the data was collected from one Norwegian organization, the findings cannot be generalized.

Furthermore, some weaknesses and limitations with our measures are important to mention. First, we assessed ELMX and SLMX data only from the followers' point of view, meaning that we cannot draw conclusions about agreement between leader and follower on their relationship quality (Schyns and Day, 2010; Schyns and Wolfram, 2008). However, as the objective of our study was to investigate the relationship between perceived exchange relationships on knowledge sharing, we consider the one-way individual perception of the exchange relationships as sufficient.

Scholars point to a significant limitation regarding measures of knowledge sharing, in that it too often relies on self-reported data of either intention to share knowledge or knowledge-sharing behaviors (Wang & Noe, 2010). Thus, as the knowledge sharing data in our study consists of self-reported intention, there is a chance of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), as knowledge sharing can be considered as a measure that relates to social desirability effects (Wang & Noe, 2010). However, in order to minimize the impact of common method bias the responsible researcher for our data introduced a time lag between the measurements of the independent variable and dependent variable (Podsakoff et al., 2003).

Furthermore, there were some effects that our models did not control for, such as how long the leader and employees have worked together and the organizational climate. Some scholars argue that LMX develops over time (Graen & Uhl-Bien, 1995). We did control for organizational tenure, but dyad tenure

should have been controlled for as well. Furthermore, previous studies on knowledge sharing suggest that organizational climate have a strong influence on the individual's intention to share knowledge (Bock et al., 2005)

As the aim of our study was to investigate relationships between exchange relationships in hierarchical levels, we were supposed to conduct a multilevel regression analysis. This model would have been more beneficial as it is better in capturing the effect of the hierarchical levels within the organization. Unfortunately, the response rate from the different hierarchical levels was not sufficient, where 51% of the stores contained less than three employees that completed both surveys, resulted in little or no variance between the groups.

Concerning the investigation of the hierarchical levels within the current organization, we also had to remove most of the observations in our data. This is because only 41 store managers had completed both surveys, and we could only use the employees within these stores. As a result, we ended up with a small sample size of 114 observations. Furthermore, the distribution of gender within the organization is highly skewed, and when most of the observations were removed, we ended up with two men in total.

7. Future Research Directions

Future research should address some of the limitations. As a general note, we would encourage future research to continue studying ELMX relationships. High-quality (S)LMX relationships has received the most attention, and thus, we already know much about the implications of these relationships. The ELMX literature, on the contrary, is still underdeveloped, and both its antecedents and outcomes should be studied more in the future. Furthermore, as most of the research on ELMX relationships have either found negative relationships or no relationships, it is of great importance to identify under which conditions ELMX relationships positively relate to different organizational outcomes. As not all people react in the same way to the quality of interpersonal relationships (Fernet, Gagné, Austin, 2010), it is also of high importance to identify essential moderators that allow ELMX relationships to be translated into higher levels of follower performance, and also knowledge sharing.

Moreover, and as recommended by Kuvaas and colleagues (2012), future research should investigate ELMX relationships in contexts where one perhaps

should expect more positive implications. Stemming from the general conception of social exchange theory that both social *and* economic exchange is in general motivating productive work behaviors (Judge & Piccolo, 2004; Rhoades & Eisenberger, 2002), it can be argued that ELMX may be sufficient under particular working conditions, for instance when performance is easy to measure and monitor (Kuvaas et al., 2012). This could for example be in positions where one's working day is more of the independent kind. Arguably, ELMX may be useful for individuals that value short-term contracts and thus, are not that interested in committing to the organization. For instance, ELMX could be positive in independent sales positions, for individuals that prefer financial returns over long-term benefits (e.g., career development). Drawing from this, important moderators would be employee characteristics and job types (Jiwen Song et al., 2009).

Furthermore, as SLMX seems to increase the knowledge sharing in an organization, and as research has struggled to find relationships between ELMX and knowledge sharing (Dysvik et al., 2015), it would be interesting to explore if ELMX relationships increase the knowledge *hiding* within an organization. Knowledge hiding differs from knowledge sharing in that it refers to an intentional attempt to conceal or to hold back knowledge that others have requested (Connelly, Zweig, Webster, & Trougakos, 2012). This is somewhat speculative, but because of the transactional nature of ELMX relationships, with an emphasis on discrete agreements (Kuvaas et al., 2012) and its calculus-based trust (Kuvaas et al., 2012; Uhl-Bien, George, & Scandura, 2000), there may exist a relationship there. Moreover, considering that previous research has found that distrust is positively related to knowledge hiding (Connelly et al., 2012), we find the relationship between ELMX and knowledge hiding important to explore.

Another call for future research is what concerns the trickle-down effect (Jiwen Song et al., 2009). Our study revealed that exchange relationships at higher levels does not influence other exchange relationships at lower levels. It would have been interesting to explore how organizational structure relates to this. More specifically, in our study, the exchange relationships between the line managers and their supervisors are likely to be affected by having less frequent interactions, compared to as if they were to share the same office. Thus, an interesting call for research is to explore if exchange relationships at different levels, but in the same office space, affect each other. In a similar vein, it would be interesting to explore

the difference between flat and steep structures. For instance, in organizations where the structure is flat, and there is a higher level of interaction with the top management (e.g., in small organizations where all employees independent of position, and share office in an open landscape), these relationships may have a more significant impact on employee outcomes. Furthermore, as we found that there was a better fit when we controlled for department ($p < 0.10$), this is suggestive of a significant effect that warrants further study.

In relation to our limitations, future research should conduct a multilevel regression analysis in order to capture the impact of hierarchical levels. It would also be interesting to explore the effect of hierarchical levels with a moderating model. Hence, this model would estimate if the degree of higher hierarchical levels of SLMX or ELMX has a positive or negative association with the relationship between lower hierarchical levels of SLMX or ELMX on knowledge sharing.

Furthermore, future research should use a longitudinal research design, so that the relationships between different variables can be more firmly established over a more extended period. Experiments are also encouraged so that causal conclusions can be made. Additionally, future research should measure SLMX and ELMX from both the employees' and the managers' point of view. Our study only measured the perceptions from employees, and if the measures would had gone both ways, the results could have looked different. A final call for future research is to have a more comprehensive sample size, more specifically; a large enough sample within each level of the organization so that the hierarchical structure of the organization can be measured.

8. Theoretical Implications

The research of ELMX relationships is still underdeveloped compared to SLMX relationships; thus, we would like to highlight the importance of continuing the theoretical discussion between ELMX relationships and its implications. As we found no relationship between ELMX and knowledge sharing, our study continues to prove that ELMX is not related to positive employee outcomes. However, as this study was conducted in one Norwegian retail organization, there might be other industries where ELMX relationships relate to positive outcomes. In addition, our study contributes to the LMX theory, by replicating findings of previous research

that has established a positive relationship between high quality LMX and knowledge sharing, by explicitly test the relationship between SLMX and knowledge sharing. Furthermore, our study expands the research that views leaders as agents who execute power and use different tactics to facilitate knowledge sharing, by going beyond structural elements and instead emphasize exchange relationships (Grant, 1996).

This study also shed light on how the social structure within an organization can relate to implications for employee outcomes, such as knowledge sharing. More specifically, our study contributes to the trickle-down theory, in that neither SLMX nor ELMX had a trickle-down effect from higher to lower levels in the organization. Additionally, our findings revealed that higher-level SLMX had no indirect relationship with employee outcomes, i.e., knowledge sharing, challenging the research stating that the higher-level leaders have more influence on lower-level employees than immediate supervisors have (Ruiz et al., 2011). Thus, our study indicates that immediate leaders play a more critical role in developing exchange relationships with their employees than higher-level leaders does.

9. Practical Implications

The results of our study may hold some important practical implications, despite the limitations. First, organizations, and leaders should be aware of that SLMX relationships is positively related to knowledge sharing. Even though knowledge sharing may be considered as challenging to facilitate (Cabrera & Cabrera, 2002), our study indicates that it is possible based on the social exchange theory, through SLMX relationships. More specifically, if knowledge sharing is vital for the organization, leaders should emphasize the development of SLMX, as there is a strong relationship between SLMX and knowledge sharing. In line with other studies that have investigated relationships between SLMX and knowledge sharing, our study strengthens the evidence that when individuals receive necessary resources and support from their leaders, they are more likely to engage in knowledge sharing (Kim et al., 2017; Dysvik et al., 2015).

Furthermore, as suggested by Carmeli and colleagues (2011), these exchange relationships may be more important than others, depending on what type of organization it is. For instance, one could argue that in high-tech environments,

where the employees are highly competent and independent, and where leaders are becoming more and more remote, it may be easy to forget about the relationship you have with your immediate leader. However, SLMX relationships may be of particular importance in these environments, to secure the competitiveness of the organization, through knowledge sharing.

Our findings suggest that in organizations where there are higher levels of ELMX, leaders need to be aware of that knowledge sharing in these exchange relationships are not likely to occur automatically. Thus, leaders have to facilitate knowledge sharing by other means, for instance, by focusing on context, e.g., by putting together work groups with the aim of sharing knowledge. However, considering that there was no support for the relationship between ELMX and knowledge sharing, and reviewing previous research that has discovered negative outcomes of ELMX relationships, one can argue that ELMX relationship should not be deliberately developed for most followers (Kuvaas et al., 2012).

Furthermore, the lack of support in hypothesis three and four suggest that the exchange relationships in the higher levels are not related to the relationships lower in the organization. This means that even though there are high levels of SLMX relationships higher in the hierarchy, the line managers should have in mind that it is their responsibility to foster these kinds of exchange relationships with their employees, not the leaders above them in the hierarchy. Thus, in a practical sense, organizations should facilitate the development of constructive leadership behaviors that will be able to build SLMX relationships. As transformational leadership is seen as an antecedent of LMX (Dulebohn et al., 2012), leadership training programs that focus on the development of transformational leadership behaviors could serve as significant leadership development that can enhance the fostering of SLMX relationships.

A final implication for practice concerns the recruitment process. We have already emphasized how leaders should be aware of the importance of fostering SLMX relationships, but it is also vital that the employee will acknowledge this form of relationship, for it to result in the positive implications that already are established through research. This could, for instance, be emphasized already in a recruitment process. Thus, recruiters should try to identify if the candidates are open to engage in a relationship based on trust and long-term commitment with their leader. As pointed out by Kim and colleagues (2017), individuals that have weak

exchange ideology are more likely to be able to build stronger LMX relationships, which is one individual characteristic that could be worth assessing in a recruitment process. This way, the fostering and nurturing of SLMX relationships may come more naturally.

10. Conclusion

In this study, we attempted to explore hierarchical levels of social- and economic leader-member exchange, and how they relate to knowledge sharing. We found that social-leader member exchange is positively related to knowledge sharing, whereas economic leader-member exchange is not related to knowledge sharing. Further, we found that higher-level social and economic leader-member exchange is not related to lower-level leader-member exchange, implying that the trickle-down effect does not exist for leader-member exchange relationships. Considering the positive relationship between lower-level social leader-member exchange and knowledge sharing, our finding suggests that this relationship is not dependent on higher level social leader-member exchange.

References

- Abdi, H. (2007). Bonferroni and Šidák corrections for multiple comparisons. *Encyclopedia of measurement and statistics, 3*, 103-107.
- Akhavan, P., Hosseini, S. M., Abbasi, M., & Manteghi, M. (2015). Knowledge sharing determinants, behaviors, and innovative work behaviors: an integrated theoretical view and empirical examination. *Aslib Journal of Information Management, 67*(5), 562-591.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-hall.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-hall.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: John Wiley & Sons.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology, 51*(6), 1173.
- Bass, B. M., Waldman, D. A., Avolio, B. J., & Bebb, M. (1987). Transformational leadership and the falling dominoes effect. *Group & Organization Studies, 12*(1), 73-87.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social psychological factors, and organizational climate. *MIS quarterly, 29*(1), 87-111.
- Buch, R., Kuvaas, B., Dysvik, A., & Schyns, B. (2014). If and when social and economic leader-member exchange relationships predict follower work effort: The moderating role of work motivation. *Leadership & Organization Development Journal, 35*(8), 725-739.
- Buch, R., Martinsen, Ø. L., & Kuvaas, B. (2015). The destructiveness of laissez faire leadership behavior: The mediating role of economic leader–member exchange relationships. *Journal of Leadership & Organizational Studies, 22*(1), 115-124.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and

-
- testing. *Organizational behavior and human decision processes*, 97(2), 117-134.
- Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford: Oxford University Press.
- Cabrera, A., & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization studies*, 23(5), 687-710.
- Carmeli, A., Atwater, L., & Levi, A. (2011). How leadership enhances employees' knowledge sharing: the intervening roles of relational and organizational identification. *The Journal of Technology Transfer*, 36(3), 257-274.
- Černe, M., Nerstad, C. G., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Academy of Management Journal*, 57(1), 172-192.
- Chan, S. C., & Mak, W. M. (2012). Benevolent leadership and follower performance: The mediating role of leader–member exchange (LMX). *Asia Pacific Journal of Management*, 29(2), 285-301.
- Chiaburu, D. S., & Byrne, Z. S. (2009). Predicting OCB role definitions: Exchanges with the organization and psychological attachment. *Journal of Business and Psychology*, 24(2), 201-214.
- Chiu, C. M., Hsu, M. H., & Wang, E. T. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision support systems*, 42(3), 1872-1888.
- Coakes, E. W., Coakes, J. M., & Rosenberg, D. (2008). Co-operative work practices and knowledge sharing issues: A comparison of viewpoints. *International Journal of Information Management*, 28(1), 12-25.
- Cohen, P., West, S. G., & Aiken, L. S. (2014). *Applied multiple regression/correlation analysis for the behavioral sciences*: Psychology Press.
- Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of management Journal*, 49(3), 544-560.
- Connelly, C. E., & Kevin Kelloway, E. (2003). Predictors of employees'

-
- perceptions of knowledge sharing cultures. *Leadership & Organization Development Journal*, 24(5), 294-301.
- Connelly, C. E., Zweig, D., Webster, J., & Trougakos, J. P. (2012). Knowledge hiding in organizations. *Journal of organizational behavior*, 33(1), 64-88.
- Constant, D., Kiesler, S., & Sproull, L. (1994). What's mine is ours, or is it? A study of attitudes about information sharing. *Information systems research*, 5(4), 400-421.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, 31(6), 874-900.
- Daellenbach, U. S., & Davenport, S. J. (2004). Establishing trust during the formation of technology alliances. *The Journal of technology transfer*, 29(2), 187-202.
- Davenport, T. H. (1997). *Information ecology*. Oxford, UK: Oxford University Press.
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business Press.
- De Vries, R. E., Van den Hooff, B., & de Ridder, J. A. (2006). Explaining knowledge sharing: The role of team communication styles, job satisfaction, and performance beliefs. *Communication research*, 33(2), 115-135.
- Doane, D. P., & Seward, L. E. (2011). Measuring skewness: a forgotten statistic? *Journal of statistics education*, 19(2).
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader member exchange: Integrating the past with an eye toward the future. *Journal of management*, 38(6), 1715-1759.
- Dysvik, A., Buch, R., & Kuvaas, B. (2015). Knowledge donating and knowledge collecting: The moderating roles of social and economic LMX. *Leadership & Organization Development Journal*, 36(1), 35-53.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of applied psychology*, 86(1), 42.
-

-
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500.
- Emerson, R. M. (1976). Social exchange theory. *Annual review of sociology, 2*(1), 335-362.
- Erdogan, B., & Enders, J. (2007). Support from the top: Supervisors' perceived organizational support as a moderator of leader-member exchange to satisfaction and performance relationships. *Journal of applied psychology, 92*(2), 321.
- Fernet, C., Gagné, M., & Austin, S. (2010). When does quality of relationships with coworkers predict burnout over time? The moderating role of work motivation. *Journal of Organizational Behavior, 31*(8), 1163-1180.
- Foss, N. J., Minbaeva, D. B., Pedersen, T., & Reinholt, M. (2009). Encouraging knowledge sharing among employees: How job design matters. *Human resource management, 48*(6), 871-893.
- Gerstner, C. R., & Day, D. V. (1997). Meta-Analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*(6), 827.
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.
- Goodwin, V. L., Bowler, W. M., & Whittington, J. L. (2009). A social network perspective on LMX relationships: Accounting for the instrumental value of leader and follower networks. *Journal of management, 35*(4), 954-980.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*(2), 219-247.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic management journal, 17*(S2), 109-122.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication monographs, 76*(4), 408-420.
- Heck, R. H., Thomas, S. L., & Tabata, L. N. (2013). *Multilevel and longitudinal modeling with IBM SPSS*: Routledge.
- Hirst, G., Walumbwa, F., Aryee, S., Butarbutar, I., & Chen, C. J. H. (2016). A multi-level investigation of authentic leadership as an antecedent of
-

-
- helping behavior. *Journal of Business Ethics*, 139(3), 485-499.
- Ilies, R., Nahrgang, J. D., & Morgeson, F. P. (2007). Leader-member exchange and citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 92(1), 269.
- Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human resource development review*, 2(4), 337-359.
- Jarvenpaa, S. L., & Staples, D. S. (2000). The use of collaborative electronic media for information sharing: an exploratory study of determinants. *The Journal of Strategic Information Systems*, 9(2-3), 129-154.
- Jiwen Song, L., Tsui, A. S., & Law, K. S. (2009). Unpacking employee responses to organizational exchange mechanisms: The role of social and economic exchange perceptions. *Journal of management*, 35(1), 56-93.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, 89(5), 755.
- Kiffin-Petersen, S., & Cordery, J. (2003). Trust, individualism and job characteristics as predictors of employee preference for teamwork. *International Journal of Human Resource Management*, 14(1), 93-116.
- Kim, S. L., Han, S., Son, S. Y., & Yun, S. (2017). Exchange ideology in supervisor-subordinate dyads, LMX, and knowledge sharing: A social exchange perspective. *Asia Pacific Journal of Management*, 34(1), 147-172.
- Kim, S. L., Kim, M., & Yun, S. (2015). Knowledge sharing, abusive supervision, and support: A social exchange perspective. *Group & Organization Management*, 40(5), 599-624.
- Kuvaas, B., & Dysvik, A. (2009). Perceived investment in employee development, intrinsic motivation and work performance. *Human resource management journal*, 19(3), 217-236.
- Kuvaas, B., & Dysvik, A. (2011). Permanent employee investment and social exchange and psychological cooperative climate among temporary employees. *Economic and Industrial Democracy*, 32(2), 261-283.
- Kuvaas, B., Buch, R., Dysvik, A., & Haerem, T. (2012). Economic and social
-

-
- leader–member exchange relationships and follower performance. *The Leadership Quarterly*, 23(5), 756-765.
- Lu, L., Leung, K., & Koch, P. T. (2006). Managerial knowledge sharing: The role of individual, interpersonal, and organizational factors. *Management and Organization Review*, 2(1), 15-41.
- Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J., & Marinova, S. V. (2012). A trickle-down model of abusive supervision. *Personnel Psychology*, 65(2), 325-357.
- Merton, R. K. (1957). The role-set: Problems in sociological theory. *The British Journal of Sociology*, 8(2), 106-120.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization science*, 5(1), 14-37.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford university press.
- Ojha, A. K. (2005). Impact of team demography on knowledge sharing in software project teams. *South Asian Journal of Management*, 12(3), 67.
- Pallant, J. (2013). *SPSS survival manual*: McGraw-Hill Education (UK).
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 36(4), 717-731.
- Quigley, N. R., Tesluk, P. E., Locke, E. A., & Bartol, K. M. (2007). A multilevel investigation of the motivational mechanisms underlying knowledge-sharing and performance. *Organization science*, 18(1), 71-88.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of applied psychology*, 87(4), 698.
- Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal of knowledge management*, 9(3), 18-35.
- Ruiz, P., Ruiz, C., & Martínez, R. (2011). Improving the “leader–follower” relationship: Top manager or supervisor? The ethical leadership trickle
-

-
- down effect on follower job response. *Journal of Business Ethics*, 99(4), 587-608.
- Schaubroeck, J. M., Hannah, S. T., Avolio, B. J., Kozlowski, S. W., Lord, R. G., Treviño, L. K., Peng, A. C. (2012). Embedding ethical leadership within and across organization levels. *Academy of management Journal*, 55(5), 1053-1078.
- Schein, E. H., (1992). *Organisational Culture and Leadership*. (2nd edition). San Francisco, CA: Jossey Bass.
- Schyns, B., & Day, D. (2010). Critique and review of leader–member exchange theory: Issues of agreement, consensus, and excellence. *European journal of work and organizational psychology*, 19(1), 1-29.
- Schyns, B., & Wolfram, H. J. (2008). The relationship between leader-member exchange and outcomes as rated by leaders and followers. *Leadership & Organization Development Journal*, 29(7), 631-646.
- Shore, L. M., Tetrick, L. E., Lynch, P., & Barksdale, K. (2006). Social and economic exchange: Construct development and validation. *Journal of applied social psychology*, 36(4), 837-867.
- Sparrowe, R. T., & Liden, R. C. (1997). Process and structure in leader-member exchange. *Academy of management Review*, 22(2), 522-552.
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of management journal*, 49(6), 1239-1251.
- Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics* (6th ed., International ed., Always learning). Boston: Pearson.
- Uhl-Bien, M., George, G. and Scandura, T.A. (2000), “Implications of leader member exchange (LMX) for strategic human resource management systems: relationships as social capital for competitive advantage”, in Ferris, G.R. (Ed.), *Research in Personnel and Human Resource Management*, JAI Press, Greenwich, CT, pp. 137-185
- Van Wijk, R., Jansen, J. J., & Lyles, M. A. (2008). Inter-and intra-organizational knowledge transfer: a meta-analytic review and assessment of its antecedents and consequences. *Journal of management studies*, 45(4), 830-853.
- Walumbwa, F. O., Cropanzano, R., & Goldman, B. M. (2011). How leader
-

-
- member exchange influences effective work behaviors: Social exchange and internal–external efficacy perspectives. *Personnel Psychology*, 64(3), 739-770.
- Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human resource management review*, 20(2), 115-131.
- Weaver, G. R., Treviño, L. K., & Agle, B. (2005). “Somebody I Look Up To:”: Ethical Role Models in Organizations. *Organizational Dynamics*, 34(4), 313-330.
- Wo, D. X., Schminke, M., & Ambrose, M. L. (2019). Trickle-Down, Trickle-Out, Trickle-Up, Trickle-In, and Trickle-Around Effects: An Integrative Perspective on Indirect Social Influence Phenomena. *Journal of management*, 0149206318812951.
- Wu, J. B., Hom, P. W., Tetrick, L. E., Shore, L. M., Jia, L., Li, C., & Song, L. J. (2006). The norm of reciprocity: Scale development and validation in the Chinese context. *Management and Organization Review*, 2(3), 377-402.

Appendices

Appendix A – Measurements

Principal component analysis with varimax rotation

Items	SLMX	ELMX	KS
Kuvaas et al., (2012)			
SLMX_1: Mitt forhold til min nærmeste leder er basert på gjensidig tillit.	<u>.83</u>		
SLMX_2: Min nærmeste leder har investert mye i meg.	<u>.86</u>		
SLMX_3: Jeg forsøker å bidra til å ivareta min nærmeste leders interesse fordi jeg stoler på at han eller hun vil ta godt var på meg.	<u>.89</u>		
SLMX_4: Jeg tror at den innsatsen jeg legger ned i jobben i dag vil være fordelaktig for min relasjon til min nærmeste leder.	<u>.77</u>		
ELMX_1: Den beste beskrivelsen av relasjonen til min nærmeste leder er at jeg gjør det jeg får beskjed om å gjøre.		<u>.78</u>	
ELMX_2: Jeg gjør det min nærmeste leder krever av meg, hovedsakelig fordi han eller hun er min formelle sjef.		<u>.89</u>	
ELMX_3: Mitt forhold til min nærmeste leder er hovedsakelig basert på autoritet, han eller hun har myndighet til å bestemme.		<u>.86</u>	
ELMX_4: Det eneste jeg egentlig forventer av min nærmeste leder er at han eller hun oppfyller sin formelle rolle som overordnet eller sjef.		<u>.72</u>	
De Vries et al., (2006)			
KS_1: Når vi har lært noe nytt forteller vi hverandre om det.			<u>.80</u>
KS_2: Vi liker å bli oppdatert på hva kolleger vet/har kunnskap om.			<u>.87</u>
KS_3: Når vi har behov for spesifikk kunnskap, spør vi hverandre.			<u>.79</u>
KS_4: Vi informerer hverandre jevnlig om hva vi arbeider med.			<u>.80</u>
KS_5: Vi deler informasjon med hverandre			<u>.84</u>
KS_6: Vi søker kunnskap hos kolleger når vi ønsker å lære noe			<u>.85</u>
KS_7: Vi anser det som viktig at vi vet hva hver enkelt jobber med.			<u>.74</u>
KS_8: Når vi vet at en kollega er flink til noe, ber vi han/henne om å lære oss hvordan det gjøres.			<u>.78</u>

SLMX = Social leader member exchange;

ELMX =Economical leader member exchange; KS = Knowledge sharing.

KMO and Bartlett's Test = .86, p<.0001

Preliminary Thesis Report

“Performance-contingent HR practices and
performance climate”

Program:
Master of Science in
Leadership and Organizational Psychology

Date of submission:
15.01.2019

Content

<u>CONTENT.....</u>	<u>1</u>
<u>SUMMARY.....</u>	<u>3</u>
<u>INTRODUCTION</u>	<u>1</u>
<u>THEORY AND HYPOTHESIS</u>	<u>3</u>
SOCIAL COGNITIVE THEORY.....	3
ACHIEVEMENT GOAL THEORY	3
PERCEIVED ORGANIZATIONAL CLIMATE.....	5
MOTIVATIONAL CLIMATE.....	5
LEADER- MEMBER EXCHANGE THEORY.....	6
SLMX, ELMX AND CLIMATE.....	7
REWARD AND COMPENSATION PRACTICES.....	9
PERFORMANCE CONTINGENT HR PRACTICES AND SOCIAL EXCHANGE THEORY.....	11
<u>PLAN FOR DATA COLLECTION AND THESIS PROGRESSION</u>	<u>12</u>
MOTIVATIONAL CLIMATE.....	13
SLMX AND ELMX	13
<u>PLAN FOR FURTHER PROGRESSION</u>	<u>14</u>
<u>REFERENCES</u>	<u>15</u>

Summary

The aim of this master thesis is to better understand the sources fostering performance climate. The underlying factors of motivational climates, leader-member exchange relationships, and performance contingent HR practices will be explained and particularly investigated in relation to this type of climate. We propose that economic leader-member exchange relationships are related to performance climate, and furthermore, that performance contingent HR practices, such as variable pay (e.g. bonuses) and “employee of the month”, are the sources that creates variance in a perceived performance climate.

Relevant theories and research will be addressed and outlined, before a tentative plan for data collection, methods and further progression will be presented.

Introduction

The resource based view and Barney (1991) suggests that organizations only will gain long-term success by acquiring sustainable competitive advantage through their employees (e.g., human resources). In relation to this, human resource management (HRM) have become more strategic, and practices such as reward and compensation systems have received attention because of its relevance in recruiting, motivating and retaining key employees (Schuler & MacMillan, 1984; Wright, Dunford, & Snell, 2001). However, Purcell (2003) emphasize that high levels of organizational performance are not achieved simply by having a range of well-conceived HR policies and practices in place. It is the line managers capability to implement and act policies, and to exert leadership when dealing with employees that is a major issue for organizational performance (Armstrong & Murlis, 2007). Hence, leadership plays an important role in the area of HR practices' success.

Furthermore, a study conducted by Nerstad, Dysvik, Kuvaas, & Buch (2018) found evidences of the contextual contingencies (motivational climate) having an impact on how employees perceive and value HR practices. Thus, the motivational climate and the HR practices should be aligned in order for them to be valued by the employees (Nerstad, Dysvik, et al., 2018). In relation to this, Ames & Archer (1988) emphasize that there exists two types of motivational climates; namely mastery climate and performance climate. These climates are said to differ in qualities and goal orientations, which indicates that they influence employee work attitude such as satisfaction, commitment and turnover intentions (Kuenzi & Schminke, 2009). Furthermore, research indicates that a mastery climate is more preferable than a performance climate, as the latter often is related to negative outcomes, such as lower degree of performance and higher turnover intention (Nerstad, Roberts, & Richardsen, 2013).

In addition, leaders are argued to be the main architects of work climates (Ames, 1992b; Kuenzi & Schminke, 2009), suggesting that leadership and climate also are related. Moreover, research also indicates that the relationship between leader and follower is related to climate (Kozlowski & Doherty, 1989). According to leader-member exchange theory, leaders and members develop different types of relationships with different levels of qualities, that is, social LMX (SLMX) and

economic LMX (ELMX) relationships. Research in this area argues that social exchange relationships may bring more benefits than economic exchange relationships, in fact, research has to date not observed any positive implications of higher levels of economic exchange relationships (Kuvaas, Shore, Buch, & Dysvik, 2017), and in general, ELMX relationships are less investigated than SLMX relationships (Kuvaas, Buch, Dysvik, & Haerem, 2012).

In relation to this, research suggests that some of the widely used performance contingent HR practices, for example employee of the month, actually have negative consequences on individual and organizational outcomes (Johnson & Dickinson, 2010). Hence, organizations should be careful in the use of substantial performance contingent HR practices, as research reviewed by Kuvaas and colleagues (2017) found that these types of practices may have negative consequences through enhancing economic exchange relationships.

Based on the information above, we assume in this paper the following:

Specific performance contingent HR practices implemented by the leader will lead to a higher degree of performance climate in an organization.

In this paper the underlying factors of motivational climates and leader-member exchange relationship will be explained, with the emphasis on performance climate and economical leader-member exchange. As the leader is said to be the architect of climate, and the nature of interaction between leader and follower is said to have an effect on employers perception of organizational climate (Kozlowski & Doherty, 1989), we propose that specific performance contingent HR practices implemented through an economical leader-member exchange relationship will be the source of variance in a perceived performance climate. Our research have both theoretical and practical contributions; theoretical contributions because the research on sources of performance climate is lacking, and practical contributions because research has do date found that performance climate often are associated with negative organizational outcomes (Nerstad (Nerstad et al., 2013)

Theory and hypothesis

Social cognitive theory

Bandura (1986) emphasizes through the social cognitive theory that human functioning is based on a triadic reciprocally model, which explains behavior, cognitive and other personal factors, and situational/environmental events as interacting determinants of each other. Reciprocally in this setting refers to the mutual action between personal and environmental factors. However, both environmental and personal determinants are inoperative as influencers unless they are activated. Thus, Bandura (1986) emphasize that both the environment and behavior is part of a two-way influence process.

Furthermore, Bandura (1986) suggests that individuals' thoughts and actions are affected by goal-oriented rules, where these goals stem from how a person perceive and interpret with the social environment. She suggests that individuals have a certain belief about how particular actions will produce certain outcomes, and that these outcome expectations again is affected by the self-efficacy concept. The concept of self-efficacy relates to self-preservation and how individuals judge their capabilities in relation to the required situational skills. Several researchers have found that self-efficacy have an impact on individual's performance level and the final outcome (Bandura, 1986). Thus, the social cognitive theories have been a cornerstone for psychology of behavior and performance, and theories such as achievement goal theory have emerged. Furthermore, based on the social cognitive theory and AGT, research on how contextual factors in organizations relates to organizational and individual outcomes have been emphasized. One of these contextual factors is organizational climate (Anderson & West, 1998; Colquitt, Noe, & Jackson, 2002; Dietz, Pugh, & Wiley, 2004; Ehrhart, 2004; Martin & Cullen, 2006; McKay, Avery, & Morris, 2008)

Achievement goal theory

Lewin (1951) emphasized that climate is a functional link between people and the environment, and that salient environmental stimuli is determinant of motivation and behavior (Kozlowski & Doherty, 1989). This view can be supported by the achievement goal theory (AGT). The AGT incorporates both

personal and environmental determinants of achievement behavior, and suggest that motivational processes result from how employees evaluate their capabilities in relation to the achievement situation (Nerstad et al., 2013). The individual/person-centered perspective suggests that individuals have a tendency to adapt goals based on inherent and stable personality traits, whereas the situational/environmental perspective suggest that goals emerges from situations or the interaction between person and situation (Nerstad et al., 2013).

In relation to this, Dweck (1986) suggests that individuals evaluate their intelligence in two ways. On the one hand, intelligence is a malleable quality (e.g. learning goals), whereas on the other hand, intelligence is a fixed and stable quality (e.g. performance goals). This has shown to have an impact on how individuals behave in relation to their environment. Dweck (1986) explains that individuals with learning goals are concerned with how to increase their competence and seeks to master new tasks, whereas individuals with performance goals are concerned with how to gain favorable approval of their existing competence.

Several studies support the findings about goal orientation and its relation to motivational processes (Ames, 1984; Dweck, 1986; Nicholls, 1979). Since all of these findings are convergent, they have been integrated into two constructs; mastery goals and performance goals (Ames & Archer, 1988). It can be argued that mastery goals and performance goals are antecedent of the motivational climate literature. This is because research evidence shows that situational demands have an effect on achievement goal orientation (Ames, 1984; Ames & Archer, 1988). Furthermore, according to AGT, individuals interprets the organizational criteria for success and failure and then perceive the behavior necessary to achieve success or to avoid/prevent failure (Roberts, 2012). Several studies support this, where they found that employee perception of the environmental context (e.g. motivational climate) have a significant impact on employees' behavior and attitudes (Nerstad, Dysvik, et al., 2018; Nerstad et al., 2013; Nerstad, Searle, et al., 2018). Thus, individual goal orientation and perception of situational context have an impact on achievement behavior.

Perceived organizational climate

Work climates are shown to have implications for several outcomes, such as job attitudes (Colquitt et al., 2002), organizational citizenship behavior (Ehrhart, 2004), ethics (Martin & Cullen, 2006), safety (Clarke, 2006), innovation (Anderson & West, 1998), individual performance (McKay et al., 2008), customer attitudes (Dietz et al., 2004) and team performance (Colquitt (Colquitt et al., 2002). Furthermore, meta-analytical findings indicate that how individuals perceive their work environment, that is, the psychological climate, have a significant relationship with individual's work attitude such as satisfaction, commitment and turnover intentions and behaviors such as absenteeism and OCB (organizational citizenship behavior) (Kuenzi & Schminke, 2009; Parker et al., 2003). This makes perception of climate important to investigate (Kuenzi & Schminke, 2009).

The organizational climate is defined as the shared perceptions of and the meaning attached to the organizations policies, practices and procedures. Moreover, behaviors and attitudes that are rewarded, supported and expected by the organization is also part of the climate (Schneider & Reichers, 1983). Therefore, perceived organizational climate can also be understood as the perception of "how things are done" in the organization. A study conducted by Nerstad and colleagues (2018) found evidences of the motivational climate having an impact on how employees perceive and value HR practices. Thus, based on this finding and that perceived practices is part of the organizational climate, we assume that perceived HR practices, such as rewards and compensations practices, might have an influence on the organizational climate.

Motivational climate

When motivational research started to focus on the sources of motivation, Ames (1984) suggested that an organization consists of different goal-rewarded structures that influence cognitive and motivational factors and individual achievement behavior (Nerstad et al., 2013). Goal-rewarded structures can be explained as achievement settings in the organization that influences the individual's achievement related cognitive and affective response that also can be known as individuals' motivational processes. A motivational climate sends clear messages regarding what is considered of high value in the organization, and

hence, it represent important contextual influences (Nerstad, Dysvik, et al., 2018). It is the perception of the criteria for success and failure, communicated through policies, procedures and practices for the work environment (Ames, 1984, 1992a, 1992b; Schneider, Ehrhart, & Macey, 2013; Schneider & Reichers, 1983). More specifically, Nerstad and her colleagues (2013) argue that individuals within an organization may have two different perceptions of the motivational climate, namely perceived mastery and performance climate. However, as motivational climate is based on individual perceptions, it is important to be aware of that performance and mastery climate may exist simultaneously.

A mastery climate defines success based on learning, growth, and effort, where collaboration is a natural choice of the work. This type of climate supports effort and cooperation, and emphasizes learning and the mastery of skills. There is no social comparison, and the individuals evaluate themselves based on previous performance. Thus, internal competition is not encouraged. A mastery climate is through research associated with higher levels of job engagement, higher in-role performance, more creativity, less knowledge hiding and lower turnover intention ((Nerstad, Dysvik, et al., 2018; Nerstad et al., 2013).

A performance climate on the other hand, defines success based on social comparison and normative ability. This type of climate emphasizes intra team competition, and normative and social comparison. Thus, external control over employee behavior and the use of incentive programs, competition, measurement and tracking is often present; hence, it encourages opportunistic and self-interested behavior. Research have found that performance climates often are associated with negative outcomes, such as lower degree of performance and higher turnover intention (Nerstad, Dysvik, et al., 2018; Nerstad et al., 2013).

Leader- member exchange theory

The leader-member exchange (LMX) domain of leadership is a relationship-based approach to leadership (Graen & Uhl-Bien, 1995). LMX theory is based on the premise that different types of relationships, with different levels of quality, develop between leaders and followers in organizations (Sparrowe & Liden, 1997) Benefits, such as effective leadership, from these relationships may occur when mature relationships are developed (Graen & Uhl-Bien, 1995). Traditionally, LMX theory has argued that leaders develop high or low- quality

relationships with their subordinates (Yukl, 2010). Relationships that are economic, transactional, impersonal and out-group have been characterized as low-quality relationships. On the contrary, relationships that are social, relational and in-group have been associated with high-quality relationships (Goodwin, Bowler, & Whittington, 2009; Sparrowe & Liden, 1997).

Kuvaas and colleagues suggest that LMX relationships may be represented by both social leader-member exchange (SLMX) and economic leader-member exchange (ELMX) (Kuvaas et al., 2012). Furthermore, they consider that these relationships have different qualities, rather than different levels of qualities. Arguably, they represent two separate dimensions of a LMX relationship (Kuvaas et al., 2012). SLMX relationships is characterized by diffuse obligations where there is expectations about future return, however, the time of the return is rather unclear and arguably less important (Shore, Tetrick, Lynch, & Barksdale, 2006). Thus, SLMX relationships have an ongoing, long-term orientation. These relationships consist of exchanges of support, investment and resources. Hence, the relationships are dependent on trust in that the other party will reciprocate at some point in the future (Shore et al., 2006).

ELMX relationships on the other hand, are characterized by more short-term, discrete and financially oriented exchanges (Shore et al., 2006). ELMX relationships are impersonal, formal and transactional. These relationships often consist of economic agreements, such as for instance pay for performance, leading to a relationship where trust and support is less important (Shore et al., 2006). Employees in ELMX relationships may feel that their leader favors other than themselves, arguably leading to perceptions of injustice and internal competition (Ferris, Perrewé, & Douglas, 2002, cited in (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). Thus, an ELMX relationship distinguishes from SLMX relationships by emphasizing pay and benefits (financial exchanges) over care, support and “give and take” (socioemotional exchanges) (Shore et al., 2006).

SLMX, ELMX and climate

We have not to date found any studies with evidences of a direct relationship between SLMX and mastery climate, or ELMX and performance climate. However, there may exist an indirect relationship between leader-member relations and climate perceptions. Some of the literatures we have reviewed have

focused on social and economic exchange relationships and their relation to climate. Considering that social and economic exchange theory provide the basis for LMX theory (Sparrowe & Liden, 1997), we assume that the research investigating social/economic exchange relationships are transferable to LMX relationships.

Research from quite early on found a positive relationship between high-quality relationships (SLMX) and positive climate perceptions amongst the members of an organization (Kozlowski & Doherty, 1989). Moreover, both social exchange relationships and mastery climate have a long-term commitment (Nerstad et al., 2013; Shore et al., 2006). A study conducted by Kuvaas and Dysvik (2009) replicated the findings of Shore and colleagues (2006), as they found that there was a positive relationship between social exchange relationship and OCB and task performance. Furthermore, Kuvaas and Dysvik (2009), points to the fact that investing in employees' development can serve as a proxy for an organizational climate characterized by trust, cooperation, and long-term orientation, which is central elements within a mastery climate. They further propose that this type of climate will foster social exchange relationships and that it may lead to higher levels of OCB and task performance (Kuvaas & Dysvik, 2009)

Additionally, Nerstad and colleagues (2018) found in their study that a perceived mastery climate drives employees' knowledge sharing through the felt supervisor trust, at the individual level. As trust is something that is present in a SLMX relationship, one can argue that the two constructs are related. At group level, mastery climate was shown to be an important direct predictor of collective felt supervisor trust (Nerstad, Searle, et al., 2018)

Furthermore, research suggests that features of the organizational climate can trigger different types of achievement goals (Poortvliet & Giebels, 2012). In short, research reviewed by Poortvliet and Giebels (2012) shows that having mastery goals bring more benefits than having performance goals, such as increased performance. A study looking at how mastery and performance goals may affect social exchange relationships within an organization found that having a mastery approach lead to better exchange relationships and more cooperative choices, compared to having a more performance oriented approach (Poortvliet & Giebels, 2012)

Research have also shown that having performance goals are negatively related to the perceived quality of the exchange relationships between supervisors and subordinates, whereas having mastery goals is positively related to the perceived quality of this exchange relationship (Janssen & Van Yperen, 2004). Thus, employees that have a stronger mastery orientation tend to emphasize high-quality exchanges with their leaders. Moreover, mastery goals provides for a stronger reciprocity orientation than performance goals (Marijn Poortvliet, Janssen, Van Yperen, & Van de Vliert, 2007), providing evidence that mastery goals are related to features within a SLMX relationship, that is, reciprocity.

In this study we are interested in the sources that fosters motivational climate. Research indicates that leaders' behavior influences how employees perceive the climate, and moreover, these influences are likely to be created in the interaction between leader and follower (Cogliser & Schriesheim, 2000). More specifically, the relationship between leader and member is likely to influence the achievement focus in the climate (Dragoni, 2005). Based on this, we hypothesize the following:

H1: SLMX will positively relate to a perceived mastery climate

H2: SLMX will negatively relate to performance climate

H3: ELMX will positively relate to a perceived performance climate

H4: ELMX will negatively relate to a mastery climate

Reward and compensation practices

Reward systems and practices are used in organizations in order to recruit, motivate and retain their workforce (Armstrong & Murlis, 2007), and how employees are rewarded and compensated within an organization varies to a great extent (Kuvaas et al., 2017). The concept of total reward emphasizes the importance of considering all aspects of rewards as a strategic and integrated part of the organization. Reward systems refer to processes, practices, structures and procedures that concern providing and maintain appropriate types and level of pay, benefits and rewards (Armstrong, 1993). Several organizational studies shows that how organizations decide to integrate their reward system has an effect

on employees' motivation, commitment and job engagement (Armstrong & Murlis, 2007).

The handbook of reward management explains that the total reward concepts include elements such as, base pay, variable pay based on performance, competence or contribution, employee benefits and non-financial rewards, and intrinsic rewards from the work environment and the work itself (Armstrong & Murlis, 2007). However, we will in this study emphasize reward and compensation practices that are likely to foster competition amongst the employees, for example contingent and variable pay (e.g. bonuses) practices. Variable pay is the opposite of base pay, as they differ with regard to performance contingency. Base pay represents a low performance contingency, as the amount of pay is indirectly tied to performance (Cerasoli, Nicklin, & Ford, 2014; Pazy & Ganzach, 2009). Contingent pay refers to "pay for individuals that is related to performance, competence, contribution or service" (Armstrong & Murlis, 2007, p. 8), whereas variable pay refers to "pay in the form of bonuses or cash that will be contingent on individual, team or company performance" (Armstrong & Murlis, 2007, p. 8). Thus, contingent and variable pay is directly tied to performance, meaning that payment is based on performance or results, and hence, it represents high performance contingency.

Furthermore, research has shown that this performance contingency of pay affect employees in different ways. Firstly, as variable pay is contingent on performance, the pay is more at risk for the employees' (Rousseau & Ho, 2000, cited in (Kuvaas et al., 2017, p. 1) Secondly, the performance contingency affect motivation, need satisfaction and performance. More specifically, the relations between intrinsic motivation, need satisfaction and performance have shown to be stronger when pay is only indirectly tied to performance, e.g. base pay (Cerasoli et al., 2014; Cerasoli, Nicklin, & Nassrelgrawi, 2016). Thirdly, performance contingent pay are positively related to performance quantity and work effort (Cerasoli et al., 2014; (Jenkins Jr, Mitra, Gupta, & Shaw, 1998; Kuvaas, Buch, Gagné, Dysvik, & Forest, 2016), and pay with low performance contingency on the other hand, is positively related to intrinsic motivation, affective commitment, and work performance (Gardner, Van Dyne, & Pierce, 2004; Judge, Piccolo, Podsakoff, Shaw, & Rich, 2010; Kuvaas et al., 2016; Kuvaas & Dysvik, 2009; Tekleab, Bartol, & Liu, 2005).

Performance contingent HR practices and social exchange theory

As mentioned above, research indicates that performance based pay affects the employees in several ways (Armstrong & Murlis, 2007; Kuvaas et al., 2017). Research also indicates that variable pay affects the employees' social and economic relationships with the organization (Kuvaas et al., 2017). As previously elaborated in this paper, social exchange relationships are characterized by trust, long-term orientation and the exchange of socio-emotional resources. Economic exchange relationships on the other hand, are characterized by the exchange of tangible resources over a specified period of time (Shore et al., 2006).

Kuvaas and his colleagues (2017) found in their research that the higher accumulated base pay, the stronger the social exchange relationship, and more importantly for our study, they found that the higher the accumulated amount of variable pay received, the stronger the economic exchange relationship. Arguably, the use of variable pay may therefore be a part of the development of economic exchange relationships. Shore and colleagues (2006) argues that there are to date no observations of positive implications of higher levels of economic exchange relationships. On the contrary, and as mentioned earlier in this paper, economic exchange relationships have been associated with lower degrees of OCB, affective commitment and higher turnover intention (e.g. (Kuvaas & Dysvik, 2009; Shore, Bommer, Rao, & Seo, 2009; Shore et al., 2006).

Furthermore, we assume that other performance contingent HR practices, such as forced-rankings, winner-takes-all awards, and employee of the month will be interesting to investigate as they are seen as HR practices that may foster internal competition. For instance, employee of the month is a widely used practice in organizations, however, research indicates that this type of practice do not lead to increased performance (Johnson & Dickinson, 2010). In fact, it is regarded as an inefficient motivational tool that may have destructive effects, such as sabotage and unhealthy competition (Johnson & Dickinson, 2010). With regards to these findings, the extensive use of performance related rewards in organizations, such as for example variable pay and employee of the month, should therefore be questioned.

Even though Kuvaas and colleagues (2017) found that there was a relationship between economic exchange relationships and variable pay, we have no evidence showing the relationship between ELMX and variable pay, neither

the relationship between ELMX and other competitive HR practices. However, as ELMX is based on economic exchange theory (Sparrowe & Liden, 1997), we assume that ELMX and performance contingent reward HR practices are related. Furthermore, variable pay and employee of the month is related to increased internal competition in the organization, and as previously elaborated in this paper, internal competition may also be present in a performance climate (Nerstad et al., 2013). We therefore argue that competitive HR practices and performance climate are related, and thus, we hypothesize the following:

H5: ELMX will positively relate to competitive HR practices

H6: Performance contingent practices are the sources of variance in a perceived performance climate

In our study performance contingent HR practices will represent variable pay, forced-rankings, winner-takes-all awards, and employee of the month.

Plan for data collection and thesis progression

In order to answer our research question we will conduct a study with a quantitative method. The data collection will happen in one point of time, and it will be collected and analyzed at group-level. So far, we have two different opportunities for the data collect:

- a. Surveys delivered to one or two organizations with a minimum staff of 600 employees. The organizations need to be using practices that we assume will be related to performance climate (e.g variable pay, bonuses, employee of the month). The questionnaires will be distributed to different work groups within the organizations, and a cluster analysis will be conducted in order to capture individuals who share similar perceptions of practices and motivational climate.
- b. Use new measurement/questionnaire tool that can measure our model with a random collection of employees.

-
- This tool is developed so that we can measure the construct climate without going into an organization and measure at group-level. However, we are not sure if the measurement tool will be available for us.

When developing the survey we will use three different questionnaires. The questions will be of original English versions with a translated Norwegian explanation underneath each question in case of misunderstanding. Most of the questionnaires will use Likert-scale that range from strongly disagree (1) to strongly agree (5) and each question will have a “I don't know” option (6). Others questions, such as reward and compensation practices within the organization will be simple “yes/no” questions, such as “do you have employee of the month rewards?”. The Norwegian Social Science Data Service (NSD) will be contacted before distributing the questionnaires in order to secure permission of our survey.

Motivational climate

The motivational climate at work questionnaire (MCWQ) developed by Nerstad, Roberts and Richardsen (2012) will be used. This 14-item questionnaire measure one's perception of how their work place defines success (i.e, motivational climate) (Nerstad et al., 2013). Six of the items measure employees' perception of a mastery climate (e.g., “In my department/work group, each individual's learning and development is emphasized”). The rest of the items measure employees' perception of a performance climate (e.g., “In my department/work group, individual's accomplishments are compared with those of other colleagues”).

SLMX and ELMX

We do not currently have a questionnaire developed for measuring social and economic LMX. If we do not get a hold of such a questionnaire, we can do as Kuvaas and colleagues (2012), and base our measures of SLMX and ELMX on the 16-item scale developed by Shore and colleagues (2006). This measure was originally developed to measure perceptions of social and economic exchange relationships with organizations. Kuvaas and colleagues (2012) replaced items containing “organization” with “my manager”, which may be a possible solution for us as well.

Plan for further progression

Date	Activity
January 2019	Preliminary Thesis Report Send emails to organizations
February 2019	Confirm organizations for data collection Adjustments and corrections after preliminary thesis feedback
March 2019	Send questionnaires to employees
April 2019	Data collection and analysis
May-June 2019	Discussion and final adjustments
July 1st 2019	Master thesis submission

References

- Ames, C. (1984). Achievement attributions and self-instructions under competitive and individualistic goal structures. *Journal of educational psychology, 76*(3), 478.
- Ames, C. (1992a). Achievement goals and the classroom motivational climate. *Student perceptions in the classroom, 1*, 327-348.
- Ames, C. (1992b). Classrooms: Goals, structures, and student motivation. *Journal of educational psychology, 84*(3), 261.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of educational psychology, 80*(3), 260.
- Anderson, N. R., & West, M. A. (1998). Measuring climate for work group innovation: development and validation of the team climate inventory. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 19*(3), 235-258.
- Armstrong, M. (1993). *Managing reward systems*. Buckingham: Open University Press.
- Armstrong, M., & Murlis, H. (2007). *Reward management: A handbook of remuneration strategy and practice*: Kogan Page Publishers.
- Bandura, A. (1986). *Social foundations of thought and action : a social cognitive theory*. Englewood Cliffs, N.J: Prentice-Hall.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management, 17*(1), 99-120.
- Cerasoli, C. P., Nicklin, J. M., & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychological bulletin, 140*(4), 980.
- Cerasoli, C. P., Nicklin, J. M., & Nassrelrgawi, A. S. (2016). Performance, incentives, and needs for autonomy, competence, and relatedness: a meta-analysis. *Motivation and Emotion, 40*(6), 781-813.
- Clarke, S. (2006). The relationship between safety climate and safety performance: a meta-analytic review. *Journal of occupational health psychology, 11*(4), 315.
- Cogliser, C. C., & Schriesheim, C. A. (2000). Exploring work unit context and leader-member exchange: A multi-level perspective. *Journal of Organizational Behavior, 21*(5), 487-511.
- Colquitt, J. A., Noe, R. A., & Jackson, C. L. (2002). Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel psychology, 55*(1), 83-109.
- Dietz, J., Pugh, S. D., & Wiley, J. W. (2004). Service climate effects on customer attitudes: An examination of boundary conditions. *Academy of management journal, 47*(1), 81-92.
- Dragoni, L. (2005). Understanding the emergence of state goal orientation in organizational work groups: the role of leadership and multilevel climate perceptions. *Journal of applied psychology, 90*(6), 1084.
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-

-
- member exchange: Integrating the past with an eye toward the future. *Journal of management*, 38(6), 1715-1759.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, 41(10), 1040.
- Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel psychology*, 57(1), 61-94.
- Gardner, D. G., Van Dyne, L., & Pierce, J. L. (2004). The effects of pay level on organization-based self-esteem and performance: A field study. *Journal of Occupational and Organizational Psychology*, 77(3), 307-322.
- Goodwin, V. L., Bowler, W. M., & Whittington, J. L. (2009). A social network perspective on LMX relationships: Accounting for the instrumental value of leader and follower networks. *Journal of management*, 35(4), 954-980.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The leadership quarterly*, 6(2), 219-247.
- Janssen, O., & Van Yperen, N. W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of management journal*, 47(3), 368-384.
- Jenkins Jr, G. D., Mitra, A., Gupta, N., & Shaw, J. D. (1998). Are financial incentives related to performance? A meta-analytic review of empirical research. *Journal of applied psychology*, 83(5), 777.
- Johnson, D. A., & Dickinson, A. M. (2010). Employee-of-the-month programs: Do they really work? *Journal of Organizational Behavior Management*, 30(4), 308-324.
- Judge, T. A., Piccolo, R. F., Podsakoff, N. P., Shaw, J. C., & Rich, B. L. (2010). The relationship between pay and job satisfaction: A meta-analysis of the literature. *Journal of Vocational Behavior*, 77(2), 157-167.
- Kozlowski, S. W., & Doherty, M. L. (1989). Integration of climate and leadership: Examination of a neglected issue. *Journal of applied psychology*, 74(4), 546.
- Kuenzi, M., & Schminke, M. (2009). Assembling fragments into a lens: A review, critique, and proposed research agenda for the organizational work climate literature. *Journal of management*, 35(3), 634-717.
- Kuvaas, B., Buch, R., Dysvik, A., & Haerem, T. (2012). Economic and social leader-member exchange relationships and follower performance. *The leadership quarterly*, 23(5), 756-765.
- Kuvaas, B., Buch, R., Gagné, M., Dysvik, A., & Forest, J. (2016). Do you get what you pay for? Sales incentives and implications for motivation and changes in turnover intention and work effort. *Motivation and Emotion*, 40(5), 667-680.
- Kuvaas, B., & Dysvik, A. (2009). Perceived investment in permanent employee development and social and economic exchange perceptions among temporary employees. *Journal of Applied Social Psychology*, 39(10), 2499-2524.
- Kuvaas, B., Shore, L. M., Buch, R., & Dysvik, A. (2017). Social and economic exchange relationships and performance contingency: differential effects of variable pay and base pay. *The International Journal of Human Resource Management*, 1-24.
-

-
- Marijn Poortvliet, P., Janssen, O., Van Yperen, N. W., & Van de Vliert, E. (2007). Achievement goals and interpersonal behavior: How mastery and performance goals shape information exchange. *Personality and Social Psychology Bulletin*, 33(10), 1435-1447.
- Martin, K. D., & Cullen, J. B. (2006). Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of business ethics*, 69(2), 175-194.
- McKay, P. F., Avery, D. R., & Morris, M. A. (2008). Mean racial-ethnic differences in employee sales performance: The moderating role of diversity climate. *Personnel psychology*, 61(2), 349-374.
- Nerstad, C. G., Dysvik, A., Kuvaas, B., & Buch, R. (2018). Negative and positive synergies: On employee development practices, motivational climate, and employee outcomes. *Human Resource Management*, 57(5), 1285-1302.
- Nerstad, C. G., Roberts, G. C., & Richardsen, A. M. (2013). Achieving success at work: development and validation of the Motivational Climate at Work Questionnaire (MCWQ). *Journal of Applied Social Psychology*, 43(11), 2231-2250.
- Nerstad, C. G., Searle, R., Černe, M., Dysvik, A., Škerlavaj, M., & Scherer, R. (2018). Perceived mastery climate, felt trust, and knowledge sharing. *Journal of Organizational Behavior*, 39(4), 429-447.
- Nicholls, J. G. (1979). Quality and equality in intellectual development: The role of motivation in education. *American psychologist*, 34(11), 1071.
- Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacost, H. A., & Roberts, J. E. (2003). Relationships between psychological climate perceptions and work outcomes: a meta-analytic review. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 24(4), 389-416.
- Pazy, A., & Ganzach, Y. (2009). Pay contingency and the effects of perceived organizational and supervisor support on performance and commitment. *Journal of management*, 35(4), 1007-1025.
- Poortvliet, P. M., & Giebels, E. (2012). Self-improvement and cooperation: How exchange relationships promote mastery-approach driven individuals' job outcomes. *European journal of work and organizational psychology*, 21(3), 392-425.
- Purcell, J. (2003). *Understanding the people and performance link: Unlocking the black box*: CIPD Publishing.
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational Climate and Culture. *Annu. Rev. Psychol.*, 64(1), 361-388. doi:10.1146/annurev-psych-113011-143809
- Schneider, B., & Reichers, A. E. (1983). On the etiology of climates. *Personnel psychology*, 36(1), 19-39.
- Schuler, R. S., & MacMillan, I. C. (1984). Gaining competitive advantage through human resource management practices. *Human Resource Management*, 23(3), 241-255.
- Shore, L. M., Bommer, W. H., Rao, A. N., & Seo, J. (2009). Social and economic exchange in the employee-organization relationship: The moderating role of reciprocity awareness. *Journal of Managerial Psychology*, 24(8), 701-721.
-

-
- Shore, L. M., Tetrick, L. E., Lynch, P., & Barksdale, K. (2006). Social and economic exchange: Construct development and validation. *Journal of Applied Social Psychology, 36*(4), 837-867.
- Sparrowe, R. T., & Liden, R. C. (1997). Process and structure in leader-member exchange. *Academy of management Review, 22*(2), 522-552.
- Tekleab, A. G., Bartol, K. M., & Liu, W. (2005). Is it pay levels or pay raises that matter to fairness and turnover? *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 26*(8), 899-921.
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource based view of the firm. *Journal of management, 27*(6), 701-721.
- Yukl, G. (2010). *Leadership in Organizations* (7th ed. ed.). New Jersey: NJ. Pearson.