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College of Business
Administration



Department of
Management and
Marketing

Leader-Member Exchange and Organizational Justice in Bahraini Workgroups

**A Thesis Submitted in Partial Fulfillment of the Requirements for the
Master's Degree in Business Administration**

Submitted by
Elham Hasan Ebrahim Hasan Ahmed
Bachelor of Science in Computer Science, University of
Bahrain, Kingdom of Bahrain, 2006

Supervised by
Prof. Minwir Al Shammari
Professor of Management and Marketing
University of Bahrain

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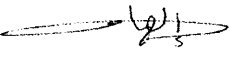
Submitted by
ELHAM HASSAN EBRAHIM

Under the Supervision of
Prof. Minwir Al Shammari

2013

DECLARATION

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Signed: 
.....
E. Ebrahim (Candidate)

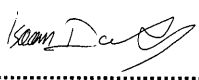
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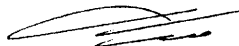
Thesis Defense Committee:


.....
Prof. Minwir Al Shammari
Supervisor 

Department of Management and Marketing
College of Business Administration
University of Bahrain

Prof. Isaam Dawood
Member 
.....

Department of Management and Marketing
College of Business Administration
University of Bahrain

Prof. Karim Saeed
Member 
.....

French Arabian School of Business
Gulf Arab University

Prof. Minwir Al Shammari
Chairman

Department of Management and Marketing
College of Business Administration
University of Bahrain

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Abstract

Leader-Member Exchange (LMX) and Organizational Justice (OJ) are two organizational phenomena that have gained much interest over the past decades. LMX refers to the relationship between a leader and his/her followers while OJ refers to fairness at the workplace. OJ was subdivided into three dimensions: Distributive, Procedural, and Interactional Justice. Distributive Justice (DJ) describes the fairness of physical/non physical rewards distribution, Procedural Justice (PJ) refers to the fairness of procedures implementation, and Interactional Justice (IJ) to the fairness of interpersonal treatment.

Many researchers proposed that the quality of leaders and subordinates' exchanges are likely to promote followers' perceptions of fairness and that differentiation in leader-follower exchanges among subordinates may evoke feelings of unfairness and resentment. Nevertheless, the arguments on which dimensions of OJ should be related to LMX were not settled. Furthermore, some researchers suggested that differentiation among employees in the quality of their exchanges with their leaders was unlikely to affect justice perceptions. Additionally, it has been noticed that most of the existing LMX and OJ research was focusing on individuals' perceptions of these phenomena. Only a few studies examined LMX and OJ as group-level phenomena. At the group-level, OJ was called Organizational Justice Climate (OJ Climate) and it was subdivided into three climates: DJ Climate, PJ Climate, and IJ Climate. OJ Climates describe the average of workgroup members' perceptions of OJ with each of its subdivisions referring to the corresponding workgroup average perceptions of DJ, PJ, and IJ. On the other hand, at the group-level, LMX was described using two measures: LMX Level and LMX Differentiation. LMX Level refers to a workgroup average scores of LMX while LMX Differentiation describes variance in workgroup scores of LMX.

This research aimed to achieve several objectives. First, the relationships between individuals' and workgroups' perceptions of LMX and dimensions of OJ were to be investigated. Second, the relationships between LMX Differentiation and the three OJ Climates were to be

examined. Third, the research was focusing on investigating the impact of workgroup size and heterogeneity on how differentiation may relate to DJ, PJ, and IJ Climates perceptions.

To achieve the objectives of the study, a survey was developed and used. A purposive non-probability sampling method was followed to collect data from 173 employees working in different workgroups belonging to five economic sectors in Bahrain. The individual-level data on LMX and DJ, PJ, and IJ, which were collected via the survey, were used to examine the relationship between individuals' perceptions of LMX and dimensions of OJ. Later, the individual-level data on LMX and OJ dimensions were aggregated to the group-level of analysis in order to reflect workgroups' perceptions. The aggregated data were used to study the relationship between workgroups' perceptions of LMX and OJ Climates. Spearman's rank order correlation was used to verify the relationships between LMX and OJ dimensions at the individual-level of analysis and between LMX Level, LMX Differentiation, and all OJ Climates at the group-level of analysis. Furthermore, Partial Spearman's rank order correlation was used to examine the potential role of workgroup size and heterogeneity on the relationship between LMX differentiation and all OJ Climates.

Key findings of the research indicated that individuals' and workgroups' perceptions of OJ were positively related to their perceptions of the level of exchange exerted by a leader toward his/her subordinates. Furthermore, support for the relationships between LMX Differentiation and OJ Climates was not verified. Additionally, no impact of workgroup size and diversity on the relationships between OJ Climates and LMX Differentiation was found. To be more precise, no significant relations were reported between workgroup size and heterogeneity, OJ Climates, and LMX Differentiation, except for the association between IJ Climate and workgroup size.

Based on the research findings, leaders in Bahraini organizations are advised to develop high quality exchanges with their subordinates in order to increase their subordinates' perceptions of OJ dimensions which probably lead to organizational prosperity, create a healthy work environment, enhance task performance, and promote employees' welfare and peace of mind. Additionally, those leaders should be cautious of the potential negative relation of LMX Differentiation to their subordinates' OJ perceptions. Although the current study did not support this claim, care is still warranted.

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Nomenclature

α	Cronbach's alpha/Significance level
$r_{s\,xyz}$	Partial Spearman's rank order correlation coefficient for variables x and y adjusted for variable z
r	Pearson's correlation coefficient
p	Probability value
r_s	Spearman's rank order correlation coefficient
$r_{wg(j)}$	Within-group agreement index

Abbreviations

AD _{M(j)}	Absolute Deviation Index
DJ	Distributive Justice
ICC	Intra-class Correlation Coefficient
IJ	Interactional Justice
IQV	Index of Qualitative Variation
IRA	Interrater Agreement
IRR	Interrater Reliability
LMX	Leader-Member Exchange
OJ	Organizational Justice
PJ	Procedural Justice
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
WABA	Within And Between Analysis

Chapter 1

Introduction

Overview

Leader-Member Exchange (LMX) and Organizational Justice (OJ) are two well known and widely inspected research areas in the field of Organizational Behavior (OB) (Cropanzano & Greenberg, 1997; Greenberg & Baron, 2008). A considerable amount of attention has been devoted to the study of both phenomena (Adams, 1965; Bies, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Dansereau, Graen, & Haga, 1975; Graen & Uhl-Bien, 1995; Greenberg, 1987; Leventhal, 1980; Pillai, Scandura, & Williams, 1999; Scandura, 1999; Sparrowe & Liden, 1997; Van Breukelen, Schyns, & Le Blanc, 2006). This research focuses on examining LMX and OJ dimensions and integrating them in a model that investigates their association at the individual- and group-levels of analysis.

Leaders and followers are two cornerstones in the life of any organization (Erdogan & Bauer, 2010). Promoting the relationship between both entities is essential for organizational survival (Graen, Liden, & Hoel, 1982; Harris, Harris, & Eplion, 2007; Schyns, 2006; Stringer, 2006). It helps in creating a healthy work environment (Lau, 2008), enhancing performance and promoting employees' welfare and peace of mind (Chang & Johnson, 2010; Graen et al., 1982). For many years, efforts were pursued to understand leaders' and members' exchanges; subsequently, these efforts resulted in the development of the LMX theory, which has been one of the prominent theories in examining leader and follower exchanges from a relationship standpoint (Graen & Uhl-Bien, 1995).

Based on LMX, it is assumed that leaders are bounded, by the scarcity of their time and resources, to form relationships of different qualities with their subordinates (Van Breukelen et al., 2006). Unfortunately, discrimination in the treatment of subordinates was anticipated to

provoke feelings of resentment and unfairness between employees (El Akremi, Vandenberghe, & Camerman, 2010; Lau, 2008). Nevertheless, other researchers suggested that differentiation, i.e., work-related differentiation, does not necessarily link to injustice (Scandura, 1999).

Researchers identified three justice dimensions that individuals care about in any organizational setting, i.e., Procedural Justice (PJ), Interactional Justice (IJ), and Distributive Justice (DJ) (Colquitt, Greenberg, & Zapata-Phelan, 2005). These three dimensions were used by employees to judge the fairness of organizational procedure implementation, interpersonal treatment, and reward distribution, e.g., payment, respectively (Colquitt, 2001).

With the increasing dependency on team structure in today's organizations (Mayer, 2004), it was necessary to understand how these justice dimensions were to affect a group's behavior (Colquitt, 2004). When studying groups, OJ is called OJ Climate and the three justice dimensions are extended to three justice climates, each referring to the same type of justice but focusing on evaluating whole workgroup perceptions, where a workgroup refers to social systems composed of individuals that perform tasks within an organization (Hackman, 1990). These climates are called DJ Climate, PJ Climate, and IJ Climate (Lau, 2008). Equally importantly, two dimensions of LMX, i.e., LMX Level and LMX Differentiation, are identified at the group-level of analysis (Maa & Qu, 2010; Mayer, 2004). LMX Level refers to workgroup average perceptions of LMX while LMX Differentiation refers to variance in workgroup's members perceptions of LMX.

Previous organizational research covered multiple aspects related to LMX and OJ, including their antecedents and consequences (Colquitt et al., 2001; Dulebohn, Bommer, Liden, Brouer, & Ferris, 2011). In addition, different industries were examined, e.g., automobile and textile (Colquitt, Noe, & Jackson, 2002; Mayer, 2004). Research has demonstrated that there was no absolute agreement on the nature of the relationship between OJ and LMX. However, a relationship between the two constructs was reported by different scholars (e.g., Erdogan & Liden, 2006; Pillai et al., 1999; Roch & Shanock, 2006).

Unfortunately, most of the conducted research was concerned with individuals' perceptions rather than groups' perceptions of the investigated subjects (Lau, 2008). Additionally, these

studies were mostly targeted at individualistic Western cultures rather than collectivistic non-Western ones (Bolat, 2010). Conducting this study in the Kingdom of Bahrain, i.e., one of the non-Western cultures, was an attempt to bridge the existing gaps.

In the following sections, an introduction about the current research is provided. This chapter provides information on the context of the study, followed by the problem statement, objectives of the study, and an overview of leadership and justice in Islamic and Arab Culturess. In addition, significance of the study, definitions of the terms used, assumptions, delimitations, limitations, study contributions, and structure of the study are outlined.

Context of the Study

The Kingdom of Bahrain is a small island in the Arabian Gulf with few natural resources, e.g., oil, at its disposal compared to other parts of the Gulf region (Country Report: Bahrain, 2012). This lack of natural resources was a source of encouragement for the Bahraini government to engage in diverse economic activities separate from the oil industry, as indicated by the previous report. Aluminum production, construction, tourism, and finance were some of the sectors that had been reported as gaining wide-spread interest from Bahraini authorities. This interest successfully turned banking and finance, public administration and defense, insurance and pension, education, nonferrous metals, construction, retail-wholesale trade, and communication sectors to be the largest value-adding sectors in Bahrain, just behind the oil and gas industry.

Shifting the economy toward non-oil industries and increasing the role of its private sector, in order to build on the country's competitive and sustainable economic power, along with promoting its justice system are the core guiding principles of Bahrain's economic vision, an economic vision that is targeted toward enhancing the quality of Bahrainis' lives and jobs where Bahrainis are "given the opportunity to play an active role in" the kingdom's economic future (About the Bahrain Vision 2030, 2010).

The Kingdom's deep commitment to development, prosperity, and interest in developing its labor force is no secret; it is plainly evident in the various strategies that the Bahraini government has adopted to strengthen its economic situation (About the Bahrain Vision 2030,

2010). In 2010, its labor force increased to a total of 511,559 people, most of them (92%) were members of the private sector (Country Report: Bahrain, 2012). Moreover, it was reported that the majority of the Bahraini workforce (76%) was composed of nationals, while the remaining (24%) were expatriates. Additionally, in 2009, the Bahraini public sector had a minor increase in its labor force (1%), whereas the private sector labor force grew by a higher percentage (3%). However, on the wage scale, growth in wages in the public sector exceeded that of the private sector by a small amount (1%). With the inspiration of Bahrain's 2030 vision, more achievements are anticipated.

On a cultural perspective, O'Regan and Alturkman (2010) described the Kingdom as being a collective culture where people adopt a neighborly approach by watching out for each other and forming close ties with one another. In addition, the Bahraini culture was distinguished by the previous researchers for its low power distance, low uncertainty avoidance, and feminine culture compared to other cultures in the Arab world, e.g. Saudi Arabia.

The current study was conducted on workgroup members of organizations belonging to five Bahraini economic sectors: banking and finance, industrial production, real estate - renting and business services, education, and telecommunication. Table 1 briefly describes the services provided by each sector along with its labor force size and contribution to the national GDP, measured in millions of Bahraini Dinars, for the year of 2007.

Data presented in Table 1 were based on information provided by Bahrain's Central Informatics Organization (CIO) and a research study conducted about Bahrain by the Allen Consulting Group (Kingdom of Bahrain statistics - First decade of the 3rd millennium (2000 - 2009), 2010; National accounts 2010, 2010; Sectoral and skills gaps analysis - Skill Gaps Research Study: Report 2, 2009).

Table 1

Profile of the economic sectors investigated in the study

Sector	Description	Contribution to GDP^a	No. of employees
Banking and Finance	-	1,576.39	11,960
Industrial Production	Oil, gas, and aluminum	1,748.95	8,881
Real estate - renting, and business services	-	516.12	26,946
Education	Public and private education and training institutes	179.82	19,683
Telecommunication	Providers of fixed and mobile telephone lines and tele-communication services (may overlap with the IT sector)	216.60	2,412
Totals	-	4,237.88	69,882

Note. Data Source: Kingdom of Bahrain Statistics - First Decade of the 3rd Millennium (2000 - 2009), 2010; National accounts 2010, 2010; Sectoral and skills gaps analysis - Skill Gaps Research Study: Report 2, 2009.

^a Measured in million Bahraini Dinars.

Problem Statement

This research attempted to assess the association between employees' perceptions of fairness at work and the quality of their relationships with their leaders in Bahraini workgroups. In addition, it was attempted to demonstrate how this presumed association may be bounded by some conditions, i.e., number of employees and demographic similarities between them in each workgroup. In order to achieve this purpose, a model was used to integrate LMX and OJ dimensions. The first level of the model related individuals' perceptions of LMX quality to all dimensions of OJ, while the second related two group-level LMX constructs, i.e., LMX Level and LMX Differentiation, to justice climates in workgroups. Two group characteristics, i.e., workgroup size and heterogeneity, were tested as moderators of the relationship between LMX and OJ Climates at the second level.

Objectives of the Study

The specific objectives of the study were as follows:

- To measure individuals' perceptions of the quality of leader and follower relationships.
- To measure individuals' perceptions of OJ with regards to reward distribution, procedure implementation, and interpersonal treatment, i.e., DJ, PJ, and IJ respectively.
- To discover workgroups' perceptions of LMX Level and LMX Differentiation.
- To measure workgroups' perceptions of OJ Climates, i.e., DJ Climate, PJ Climate, and IJ Climate.
- To investigate the relationship between individuals' perceptions of LMX quality and OJ dimensions, i.e., DJ, PJ, and IJ.
- To study the relationship between workgroups' perceptions of LMX *Level* and OJ Climates, i.e., DJ Climate, PJ Climate, and IJ Climate.
- To examine the relationship between workgroup's perceptions of LMX *Differentiation* and OJ Climates, i.e., DJ Climate, PJ Climate, and IJ Climate.
- To ascertain that differences in the relationship between workgroup's perceptions of LMX Differentiation and OJ Climates, i.e., DJ Climate, PJ Climate, and IJ Climate, vary according to heterogeneity among workgroup members in gender, educational level, and religion both separately and collectively as well as workgroup size.

Leadership and Justice in the Arab Cultures

Interest in leadership and justice is an integral part of Islamic thinking (Ali, 2009). The previous researcher stresses that, in Islam, the realization of an ideal world is heavily built on the quality of leadership, which in turn is based on justice and compassion. The researcher further explains that at the early stage of Islam, leaders were more morally guided, fair, and responsible, and the Islamic world was more ideal than ever. Leaders were viewed as visionary people rather than ordinary people. Leadership was a shared process between leaders and followers. Contributions of both parties were mandatory to ensure solidity and efficiency among people. Leaders were expected to demonstrate compassion and care for their followers and to listen to their needs, while followers were expected to be courageous enough to raise their voice and provide advice to their leaders.

At the same time, Islam emphasized the importance of justice both socially and economically (Syed & Ali, 2010). As quoted by Ali (2009, p. 163) Imam Ali, i.e., the fourth Caliph, once said “justice is the mainstay of a nation”. In Islam, the responsibility of maintaining justice is placed on leaders’ shoulders as indicated by the previous researcher. Additionally, Muslims are ordered not to discriminate between people according to race, ethnicity, gender, and so on (Syed & Ali, 2010).

To achieve harmony, Islam extended its concern for justice and leadership practices beyond the political and social systems to the implementation of both phenomena in organizational life as well. Looking at employment relations from an Islamic point of view, it becomes obvious that fair distribution of resources and wealth, making and implementation of work rules and regulations, consideration of workers’ needs, and integrity of followers and leaders, are of great concern (Syed & Ali, 2010). As an example, rewarding in Islam must be based on employees’ performance and targeted toward reinforcing employees’ efforts, quality of job, and ethical behavior (Ali, 2010). The previous researcher further explains that rewards in Islam should not trigger feelings of resentment or dissatisfaction among workers.

Unfortunately, the Islamic idealistic view of a world of justice and perfect leadership did not last for a long time. Islamic world is no longer as it was before. Nowadays, Islamic guidelines are moderately applied in different parts of the Islamic world and their interpretation is

affected by different contextual, cultural, and historical factors (Syed & Ali, 2010). The rise and fall of ideology, rulers, dynasties, powers, and openness to non-Islamic cultures has had a tremendous impact on the Islamic world (Ali, 2009). Nevertheless, recent research has demonstrated that Muslim individuals are still highly committed to work ethics and viewed work as a virtue rather than an obligation (Ali & Al-Owaihian, 2008). Those individuals viewed justice and generosity as cornerstones in the workplace, to the limit that managers were advised to be socially skilled and to demonstrate concern for their employees' needs and welfare.

Looking at the Arab world, Ali (1998) noticed a tendency among Arabs to commit themselves to goals that enhance performance, organizational positions, and self growth and development. Moreover, he found that many of them were people of principle. In addition, they did not fear change. Contrary to that, they viewed change as a natural process that can refine culture and maximize rewards. Furthermore, Arab employees were found to be strongly loyal to their supervisors and focused on the development of strong ties with their workmates (Ali, 1998; Atiyyah, 1992).

A review of management processes followed in the Arab cultures revealed that Arab managers were drawn to adopt two management styles: consultative and authoritative, with culture being reported to affect the selection of each (Atiyyah, 1992). Managers who deploy the consultative approach were assumed to be influenced by the Islamic culture emphasizing the leader-follower relationship and instructing leaders to be of trustworthiness and integrity (Witzel, 2007; Yousef, 1998), while those who follow the authoritative approach were expected to be affected by the power of tribal traditions and were concerned with employees from their family and tribe more than others (Dorfman, 1996). Ali and Al-Shakis (1985) noticed a declining effect for the power of tribes on business life in the Arab region. Still, many of the Arab executives live in cultures that value and nurture friendship and family ties (Muna, 1980).

Moreover, male and female managers in the Arab world were reported to follow different styles while leading their employees (Yaseen, 2010). The previous researcher found that women exhibited higher levels of contingent rewarding, inspirational motivation, intellectual stimulation, and individualized consideration than the ones reported by men. On the other

hand, he found that men usually followed a corrective approach and were more prone to leave their employees to do their jobs on their own while closely supervising them. Arab managers were further described of over-complying with rules and regulations (Al-Kazemi & Ali, 2002; Atiyyah, 1992).

Moving to the Gulf Arab cultures, a group of changing circumstances were reported to affect work conditions in those cultures. Cultures in this region became distinguished for their bureaucratic open systemic nature, usage of social networks and *wasta*, dominance of religion and family, difficult working conditions for women, increasing percentage of expatriates in the working force, and insufficient number of jobs for local citizens (Forstenlechner, 2010; Neal, 2010).

Researchers found that leaders in UAE were characterized as being people oriented, and having confidence in their teams. Trust among team members was also reported (Randeree & Ninan, 2011). Yousef (1998) and Ali, Azim, and Krishnan (1995) reported that the consultative style was the mostly adopted in UAE. Furthermore, Ali et al. (1995) found that an increasing number of those executives were drawn to adopt a participative management style and to depend on their employees' extensive participation rather than just consulting them and leaving final decisions to management, i.e., consultative style. The selection of the management style was found to be affected by the leaders' traits, e.g., experience, age, and education; followers' traits, e.g., tenure in the organization, gender, and age; and organization's ownership (Yousef, 1998). It was revealed that managers working in UAE's public sector were more manipulative, sociocentric, conformist, and existential than their counterparts in other sectors (Ali et al., 1995). Moreover, subordinates' traits were not found to affect leaders' capabilities in understanding their employees' needs (Butler, 2009).

In Kuwait, leaders' traits and their organizational practices were found to affect their levels of success (Al-Mutairi, 2009). The researcher found that self-confident, stress-tolerant, and well educated leaders were more likely to excel than others, especially with the presence of strong family ties and links to the business world. However, the Kuwaiti economy has suffered from multiple problems such as: primacy of personal relations, personal loyalty, multiplicity of rules, lack of objectivity in promotion and evaluation, irresponsibility, and bureaucracy (Al-Kazemi & Ali, 2002).

In addition to the discrepancy between Islamic guidelines and the status-quo of the Arab cultures, it seems that Arab managerial behavior and thinking is dominated by different qualities that distinguish it from other non-Arab cultures (Yousef, 1998). Ali and Camp (1995) compared the Arab culture to its American counterpart. The researchers noticed that the Arab culture was characterized for its focus on building family-type organizations that contribute to the people's welfare. Groups are considered the basic units of interest in such cultures. Face-to-face interaction and maintaining the group's unity are important. Leaders are looked at as father figures that should protect their group members and consult them before making any decisions. Efforts are targeted toward improving organizational reputation and growth. Actions that strengthen loyalty and have practical and moral consequences are valued, while those that do the opposite are considered shameful. On the contrary, the American culture stresses on market processes and considers individuals, especially managers, as the most important element. Individual achievements are highly rewarded and results are more important than means.

Researchers have long recognized the impact of culture on the managerial practices applied worldwide (Ali & Camp, 1995; Erdogan, Liden, & Kraimer, 2006; Pillai et al., 1999; Shahin & Wright, 2004; Yousef, 1998). It was indicated that although similarities may exist between cultures of the same region, still differences exist between them as well (Shahin & Wright, 2004). Hence, whatever applies in one part of the Arab region may not be applicable in another.

At the end, it should be noted that some of the previous research, related to Islamic and Arabic views of OJ and leadership, cannot be taken for granted. Apparently, there is an inclination of some Arab and Muslim researchers to adopt Western approaches to research on leadership and OJ without further consideration of any required adjustments to those approaches.

For example, the classification of management styles in the Arab cultures into consultative and authoritative (e.g., Atiyyah, 1992) cannot be justified without giving a clear definition of what constitutes a tribe. Another example, related to the Islamic view of OJ, would be based on the fact that Islam existed prior to the development of OJ theory; hence, an Islamic view of

OJ needs further examinations. In summary, views of anthropologists and historians should be incorporated in both aspects before reaching any conclusions.

Significance of the Study

LMX and OJ deal with a crucial part of the work environment, i.e., employees or human resources. Humans are valuable assets that contribute to the wellbeing of any people-based system. Their perceptions of fairness and satisfaction with their leaders probably lead to organizational prosperity, while the opposite may create an unhealthy work environment and lead to unwelcomed consequences, e.g., conflict (Lau, 2008). This research seeks to contribute to employees' welfare and peace of mind by striving to fill the gap in LMX and OJ literature through the integration of both phenomena both at the individual- and group- levels of analysis.

It is hoped that this research will provide some guidance for management scholars and practitioners on the application of one of the most important leadership approaches, i.e., LMX, and its role in promoting the quality of work relationships and spreading a sense of fairness and trust among employees, especially in Bahrain, as the Kingdom is currently implementing its 2030 vision. With almost all of its population (98%) being Muslim (People, 2012), Bahrain probably offers good potential for the success of LMX implementation, especially since managers in Islamic world tend to be governed by tribal traditions that force them to pursue the concerns of their in-team members over outsiders (Pillai et al., 1999).

Definition of Terms

In this section, a definition of the main terms which will be used in the research is provided. Additional information is provided in Chapter 3.

LMX

According to Graen and Uhl-Bien (1995), LMX refers to the exchange of psychological benefits or favors between leaders and followers in a social setting. The previous researchers explain that followers are classified by their leaders into "in-group" and "out-group"

members. Furthermore, they stress that higher levels of respect, obligation, and trust are developed with "in-group" members than with "out-group" members, i.e., the quality of the leader and follower relationship is determined by the amount of respect and trust shared.

LMX Level

LMX Level is a group perception of leader-member relationship; it refers to "within-group average of LMX quality" (Lau, 2008, p. 79).

LMX Differentiation

Erdogan and Bauer (2010) defined LMX Differentiation as "the degree of within-group variation that exists regarding the quality of relationships that a leader forms with different members" (p. 1104).

OJ

OJ refers to fairness perceptions in the workplace (Greenberg, 1987). There are three dimensions for OJ:

DJ: concerned with the fairness in outcome distribution (Adams, 1965).

PJ: focuses on the fairness of the procedures, methods, mechanisms, and rules that leaders follow during decision making (Thibaut & Walker, 1975).

IJ: concerns the fairness of the interpersonal treatment received by an individual from others (Bies & Moag, 1986).

OJ Climate

OJ Climate is defined as "group-level cognition about how a work group as a whole is treated" (Naumann & Bennett, 2000, p. 882), i.e., it explains how justice perceptions are subjected to the influences of those with whom people interact.

Workgroup

Guzzo and Dickson (1996) defined a workgroup of being “made up of individuals who see themselves and are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g., community, organization), and who perform tasks that affect others (such as customers or coworkers)” (p. 308).

Workgroup size

Workgroup size refers to the number of employees in a workgroup (Greenberg, Wang, & Dossett, 1982).

Workgroup heterogeneity

Workgroup heterogeneity refers to demographic diversity among workgroup members (Colquitt et al., 2002).

Assumptions

In the following lines, the assumptions that were followed while conducting the research are listed:

- The terms "workgroup", "group", and "team" refer to the smallest unit in a department to which a group of members, at least two, and a designated leader are assigned. For example, a department divided into five sections each with its own leader, who has control over rewards and procedures, would consist of five workgroups.
- No distinction is made between different types of teams, e.g., permanent and non-permanent teams are treated equally in the study.

Delimitations

In this section, a definition of the research scope will be provided by specifying the study delimitations, i.e., areas not intended to be covered.

- Purposive non-probability sampling was used to set the sample which restrains the possibility of generalizing the results.
- The examination of the study variables was based on data collected from a single source, i.e., workgroup members. The research did not incorporate leaders' perspectives in the study but was dependent on data gathered from employees in the investigated workgroups (Erdogan & Bauer, 2010).
- Some of the original questionnaire items used to evaluate justice perceptions had to be omitted in this research. However, this was to ensure that respondents would evaluate their direct supervisors based on actual actions, e.g., not all leaders control payment issue but a higher percentage of them would be in charge of distributing work load.
- Bliese (2000) recommended that better group-level constructs can be generated from groups of at least four members. However, some of the participating workgroups were of two to three members, the choice of including these groups in the study was made to avoid a further degradation in the sample size.

Limitations

Although patience, dedication, care, and hard work were pursued during the conduct of this study, still like any other research, not all of the surrounding conditions could have been controlled. Actually, there were a number of issues that partially affected the research results.

- Lack of cooperation from some of the Bahraini organizations that were initially contacted to collect the required data. Some of them were reluctant to participate in the research, claiming that participation in the study was a waste of their employees' time, thereby overlooking the potential benefits of this study on their work. Unfortunately, this lack of cooperation imposed a limiting effect on the study by creating a sample smaller in size than was originally anticipated.
- In some of the workgroups, only a single valid questionnaire was returned by the group. Unfortunately these responses had to be excluded, which ultimately decreased the sample size.
- Data on LMX and OJ were collected from the same source, i.e., workgroup members. Having employees reporting on both, suggests that employees with high LMX quality with their leaders are more biased to report higher perceptions of justice and vice versa. Furthermore, members may have a potential overlap between the two concepts.

Contributions of the Study

This research makes different contributions to the existing literature on LMX and OJ. First, it examines LMX and OJ in a new cultural setting that has rarely been examined by researchers interested in both fields, i.e., Kingdom of Bahrain. Through this research, means will be provided to test whether the methods and findings associated with the relationship between OJ dimensions and LMX can still be upheld in a context other than Western cultures, i.e., Kingdom of Bahrain. This kind of examination is quite important given the common existing belief that leadership practices cannot be readily transferred between different cultures (Pillai et al., 1999; Shahin & Wright, 2004). Examining justice perceptions in group-oriented cultures, e.g., Asian, rather than individualistic ones is important (Hayashi & Sekiguchi, 2006), especially since the number of studies which have integrated LMX and OJ among groups in non-Western cultures is limited (Bolat, 2010). Moreover, interest in research on LMX and OJ was more prevalent in neighboring Gulf Arab Cultures such as UAE and Kuwait, compared to Bahrain (e.g., Al-Dosary, 2012).

Second, this research integrates LMX and OJ, not only at the individual-level of analysis, but also at the group-level; an area which has not been extensively covered by previous studies (Henderson, Liden, Glibkowski, & Chaudhry, 2009). Additionally, with the exception of the study conducted by Suliman and Al Obaidli (2011), there was a lack of studies that examined LMX and OJ as group-level phenomena in the Arab region. This research makes one of its important contributions by incorporating LMX and OJ dimensions at the individual- and group-levels of analysis, allowing readers to compare results at both levels of analysis, and giving them an insight into the consistency/inconsistency of the claimed relationships across different levels of analysis.

Third, only a few studies have combined all OJ Climates, i.e., PJ Climate, DJ Climate, and IJ Climate and LMX in one setting (Lau, 2008). Hayashi and Sekiguchi (2006) suggested that combining all dimensions of justice climate is necessary to develop a comprehensive understanding of justice perceptions among groups/teams.

Fourth, this research attempts to answer the calls for more investigation on the importance of group constructs in relation to OJ Climates (Colquitt et al., 2002; Naumann & Bennett, 2000).

The research focuses on examining the impact of different moderators, i.e., workgroup heterogeneity and size, on the claimed relationships between LMX and OJ Climates. It opens doors for understanding what conditions might affect those possible relationships, especially since research in the Arab region has failed to consider this aspect. Moreover, although some Western researchers (e.g., Lau, 2008) have examined the impact of heterogeneity on the claimed relationships between LMX and OJ Climates, still the combined effect of different heterogeneity indexes was not examined.

Structure of the Study

The research has been divided into six chapters; an overview of the content of each chapter is discussed in this section.

Chapter 1 introduces some background information about the research topic and context. The research problem, objectives, significance, assumptions, delimitations, limitations, contributions, and structure have also been explained.

Chapter 2 summarizes some of the empirical findings and conceptual information about LMX and OJ available in previous research, examining research that integrated LMX and OJ at the individual- and group-levels of analysis while highlighting research limitations in both areas. Moreover, previous research on LMX and OJ in the Arab Cultures is investigated.

Chapter 3 provides a description of the implemented conceptual model and the methodology selected to conduct this study. Population, sample, sampling method, data collection procedure, construct measurement issues, and data analysis tools and techniques selected are described and justified. Moreover, the reliability of the deployed instrument is discussed.

Chapter 4 presents and explains the descriptive statistics and results of statistical analysis.

Chapter 5 discusses the results obtained in Chapter 4.

Chapter 6 gives final conclusions on the work done and lessons learned from the study. It provides a set of recommendations to Bahraini organizations and future researchers.

Summary

LMX refers to the relationship between leaders and followers, whereas OJ refers to the perceptions of fairness in an organization. This research has attempted to integrate both concepts and to examine the effect of differentiation in leader and follower relationships on a workgroup's perception of justice. LMX and OJ were previously examined in literature. However, plenty of room is still available for significant additional contributions, especially when focusing on group perceptions in non-Western cultures, where much of the research is yet to be done. The research was conducted in the Kingdom of Bahrain, where access to information and time constraints impose great challenges. In the following chapter, previous research on LMX and OJ will be explored in more detail.

Chapter 2

Literature Review

Overview

In this chapter, an examination of LMX and OJ theories and research is provided. The chapter begins with an overview of the LMX theory, supplemented with samples of the empirical research applied. Following this, an investigation of OJ and OJ Climate theories and research is provided. Additionally, research that integrated LMX and OJ at the individual- and group-levels of analysis is explored. Moreover, previous research on LMX and justice perceptions in the Arab Cultures is highlighted. Furthermore, the chapter discusses some of the limitations within these research areas.

Leader-Member Exchange

Leadership is one of the most investigated areas in the field of Organizational Science (Chang & Johnson, 2010). House and Javidan (2004) defined leadership as “the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organizations of which they are members” (p. 14). Different approaches were developed to examine leadership; including leader traits, transformational leadership, shared leadership, behavioral leadership and contingency approaches, strategic leadership, and LMX theory (DeChurch, Hiller, Murase, Doty, & Salas, 2010).

Researchers classified leadership theories into three categories based on three components or domains that they defined to comprise the essence of leadership, i.e., leader, follower, and leader-follower relationship (Graen & Uhl-Bien, 1995). Theories that focused on the specific traits and behaviors that increase or decrease a leader's effectiveness were classified as leader-oriented theories, whereas theories that focused on the followers' characteristics and

behaviors were follower-oriented, and those that focused on the characteristics of the dyadic relationship between the leader and the follower were leader-follower relationship-oriented, an approach that could be described as “departure from traditional leadership approaches” (Dulebohn et al., 2011, p. 4).

Focusing the attention on the last category of the previously mentioned leadership theories, it is contended that the formation of a leader-follower linkage is vital for leadership existence (Yammarino & Dansereau, 2008). The previous researchers recognize that a leader-follower linkage can be classified into three types; they further give an example of each. Sometimes a leader may follow a “one-to-one” approach, depending on the characteristics of each follower, and form a dyadic linkage with some or all of the followers. Alternatively, a leader may form a group by exhibiting consistent personal behaviors toward a set of individuals “leader-group linkage”. Finally, a leader may distinguish between individuals by comparing the differences among them, and forms relationships with only some individuals “leader within-group linkage”.

An example of the first approach would be the individualized leadership model, where attention is focused on dyads independent of groups and self-worth, satisfaction, and performance are of great importance (Schriesheim, Castro, & Cogliser, 1999). The average leadership style is an example of the second approach. According to this theory it is assumed that leaders tend to form similar working relationships and follow a consistent approach with their subordinates (Dansereau et al., 1975; Graen & Uhl-Bien, 1995). Finally, the vertical dyad linkage theory can serve as an example of the third approach by focusing on dyads in groups and using negotiating latitude as its key variable (Schriesheim et al., 1999).

Literature on leadership is filled with different theories, other than those mentioned above, that adopt a leader-follower approach. An example of the leadership theories that focus on the relationship between leaders and followers at work would be the LMX theory (Graen & Uhl-Bien, 1995), where the quality of the exchange relationship between a leader and a follower is the basic unit of analysis (Van Breukelen et al., 2006), a quality that is based on six different components, namely: mutual support, trust, liking, latitude, attention, and loyalty (Schriesheim et al., 1999). According to LMX theory, “a leader and individual follower develop a relationship as they influence each other and negotiate the follower’s role”,

(Yammarino, Dionne, Uk Chun, & Dansereau 2005, p. 898). This definition emphasizes the importance of the leader-follower interaction and active participation in developing high quality exchanges with each other (Van Breukelen et al., 2006).

The LMX theory was originally developed to challenge the average leadership style theory (Dansereau et al., 1975; Graen & Uhl-Bien, 1995). In addition, it is inherited from the vertical dyad linkage approach to leadership which was the first theory “to recognize that leaders treat subordinates within the same work group differently” (Yammarino et al., 2005, p. 896). Schriesheim et al. (1999) mentioned that the potential overlap between LMX and other approaches to leadership, e.g., vertical dyad linkage and individualized leadership theory, can be easily resolved once a clear comprehension of each was developed.

Kim and Taylor (2001) indicated that there were two theories which made great contributions to the development of the LMX theory, the role theory and the social exchange theory. The role theory describes the development of a leader-follower relationship, where an individual is involved in a number of role episodes with role information being exchanged between him/her and others, including his/her leader (Sparrowe & Liden, 1997). On the other hand, the social exchange theory suggests that members involved in a relationship must exchange things with each other. The exchange, however, is not limited to physical resources. On the contrary, it can include non-physical ones (Kim & Taylor, 2001). Strong relations are based on generalized reciprocity where the equivalences and timing of returns, i.e., exchanged items, are indefinite, and where parties have cooperative interest in the exchange (Sparrowe & Liden, 1997). According to previous literature, the perceived value of the exchanged items is expected to have a positive effect on the quality of the LMX relationship (Kim & Taylor, 2001). The higher the perceived value, the more reciprocal behavior will be exhibited between leaders and followers.

Graen and Uhl-Bien (1995) explicated that leaders are often confronted by the limitation of their resources, e.g., time and energy, making it more likely for them to follow a selective approach while distributing such resources, thereby creating different levels of exchange and trust with different individuals (Greenberg, Ashton-James, & Ashkanasy, 2007), and ultimately separating subordinates into inhomogeneous groups of two categories, "in-group" and "out-group". "In-group" members enjoy respect and mutual trust, whereas "out-group"

members are treated with lower degrees of both (Dansereau et al., 1975; Graen & Uhl-Bien, 1995). Furthermore, relationships with "out-group" members tend to be contractual, failing to progress beyond the requirements of the employment contract (Sparrowe & Liden, 1997). According to Maa and Qu (2010) and Van Breukelen et al. (2006), the distinction between "in-group" and "out-group" members may vary in its level of transparency. While some leaders may distinguish very clearly between their members, others may follow an approach that is not quite salient, making LMX Differentiation invisible for others.

Variations in the quality of LMX relationships were supported by Graen and Uhl-Bien's (1995) "life cycle of leadership making model", which describes how a leader-follower relationship evolves over time. The model consists of three stages, namely: the "stranger", "acquaintance" and "mature". When a leader and a follower indulge in a relationship for the first time, they appear strangers to one another. They both focus on evaluating each other's motives and resources, and their exchanges tend to be formal or contractual in nature, i.e., economic exchange. In the previous stage, subordinates are classified as "out-group". As the relationship progresses and reaches the "acquaintance" stage, more respect and trust are formulated between the leader and the subordinate, and the level of social exchange increases. Finally, when the relationship starts to involve considerable social exchanges between the two parties and the levels of commitment and dependence increase, the quality of the relationship is high and members are classified as "in-group", i.e., "mature stage". Chang and Johnson (2010) suggested that leaders with relational identities are more capable of constructing high quality LMX at the beginning of LMX development because they are more prone to trust their partners, i.e., subordinates, and to fulfill their expectations.

Leader-Member Exchange Research

Since its inception about four decades ago, LMX has been empirically examined from different angles (Chang & Johnson, 2010; Dulebohn et al., 2011; Mayer, 2004; Schriesheim et al., 1999; Van Breukelen et al., 2006). According to Mayer (2004), research on LMX included differential LMX relationships, "in-groups" and "out-groups", as well as the characteristics of the resources exchanged. This significant amount of attention may be partially related to LMX focus on the dyadic relationship between leaders and followers

(Sparrowe & Liden, 1997), and its support of leaders' differentiation between subordinates in the type of relationship (Dulebohn et al., 2011).

Graen and Uhl-Bien (1995) posited that LMX theory has gone through four evolutionary stages, which are as follows:

Stage 1 (Vertical dyad linkage): this stage focused on the dyadic relationship between leaders and their subordinates. Contrary to what was suggested by the average leadership style theory, it was found that leaders sometimes differentiate in their working relationship with their subordinates (Dansereau et al., 1975). While some subordinates may have high levels of mutual trust and respect, other members may report the lack of such trust and respect with the same leaders (Graen et al., 1982). This stage witnessed a departure from the initial focus on the leaders' behavior to focusing on the leader-follower dyads relationship, with the dyads as the unit of analysis.

Stage 2 (LMX): scholars at this stage were involved in two primary activities, investigating LMX characteristics and relating LMX to organizational outcomes. It was at this stage also that LMX, rather than vertical dyad linkage, was used as a term to express the exchange relationship between leaders and followers.

Stage 3 (Leadership-making): essentially this stage focused on the formation of “high-quality” LMX relationships between leaders and subordinates, rather than on discriminating LMX relationships into “high-quality” and “low-quality”, thereby increasing leadership effectiveness. The leadership making model was developed at this stage to prescribe how “high-quality” relationships can be produced in real life.

Stage 4 (Team-making competence network): previously, LMX was examined in term of isolated dyads with little attention to the collective nature of communication between leaders and multiple subordinates in the workplace. However, it was at this stage that analysis shifted from dyads to workgroups and organizations, i.e., aggregation of dyads, in order to examine the predictability of important group and organizational outcomes (Mayer, 2004).

Recently, DeChurch et al. (2010) investigated empirical research on leadership by looking at 2,031 articles published in 11 journals, covering a time span of 25 years. Their study included articles that linked leadership to outcomes residing at the individual, team, unit, and organizational levels of analysis. It was found that LMX research was mainly concerned with managers at lower hierarchical levels (32%), where leadership is mostly composed of tasks such as hiring, firing, and task allocation. This was followed by studies at the middle and top levels of management.

Moreover, a considerable amount of empirical research has been conducted to identify antecedents of LMX (Dulebohn et al., 2011; Van Breukelen et al., 2006). According to those studies, it was found that leaders' behaviors and characteristics had a greater influence on the quality of LMX than those of the followers (Dulebohn et al., 2011). In addition, the previous researchers suggested that the quality of LMX could be further enhanced with the application of contingent rewards and transformational leadership; since such behaviors usually indicate the leaders' commitment to their followers, as well as their genuine wish to focus on relationship development, which encourages followers to respond back with additional effort in order for the relationship to flourish.

Additionally, Dulebohn et al. (2011) found that LMX was positively related to followers' competence and positive affectivity, i.e., enthusiasm and optimism, agreeableness, extraversion, i.e., sociability and ambition, conscientiousness, i.e., achievement and dependability, and locus of control, i.e., control over outcomes, and negatively to followers' negative affectivity, i.e., hostility and negativism. These scholars also found that LMX was positively related to a leader's extraversion, agreeableness, and expectations of followers. Furthermore, they found that the leader-follower relationship may be affected by interpersonal relationship variables, i.e., variables beyond the leaders and followers characteristics. For example, the follower's perceived similarity, the leader's liking and trust, the follower's ingratiation, i.e., tactics followed to be liked, and self promotion influence tactics, i.e., tactics to be viewed as competent, were found to be positively related to LMX. Moreover, it was found that similar leader and follower characteristics generated LMX relationships of different qualities based on individuals' actions and reactions. "Results indicate that it is the quality of the relationship that determines key outcomes, not the follower or leader behaviors" (p. 25).

LMX was also examined in terms of its outcomes or consequences. It was found that LMX was positively related to attitudinal outcomes, e.g., organizational commitment, as well as behavioral outcomes such as turnover intention and organizational citizenship (Dulebohn et al., 2011). The association between LMX and organizational citizenship was supported by Chang and Johnson (2010), who also found that LMX was positively related to task performance.

Besides, testing for moderation had been an important part of research on LMX. Dulebohn et al. (2011) examined a group of moderators during their investigation of LMX antecedents and consequences. LMX measures, industry, and country were some of the examined moderators. The results revealed that none of the previous variables did moderate the association between LMX antecedents and outcomes. Moreover, leader relational identity moderated the relationship between LMX and subordinate performance (Chang & Johnson, 2010).

Recently, interest in research examining the applicability of LMX in different cultural contexts and studying the relationship between LMX and national culture dimensions began to spread (Anand, Hu, Liden, & Vidyarthi, 2011). National culture is defined as “the collective programming of the mind distinguishing the members of one group or category of people from another” with the word category referring to nation in this particular case (Hofstede & Hofstede, 2012). Four dimensions of national culture were identified. The first one was called “power distance” and it dealt with how less powerful members cope with unequal distribution of power, the second one was called “uncertainty avoidance” and it focused on coping with uncertainty and ambiguity, while the third and the fourth dimensions were called “masculinity versus femininity” and “individualism versus collectivism” and they were concerned with the relationship of an individual with his/her primary group, and the emotional implications of having been born as a male/female respectively (Hofstede & Hofstede, 2012). The previous researchers further explained that two more dimensions, i.e. long-term orientation and indulgence versus restrain, were added by other researchers to this cluster of dimensions.

Power distance and individualism versus collectivism were identified as the two dimensions of national culture that seem to be mostly relevant to LMX and may have systematic effects on its relationship to its antecedents and consequences (Erdogan & Liden, 2002). The

previous researchers proposed that collective leaders highly relate the quality of their exchanges with their subordinates to an individual-group fit, whereas individualized leaders highly associate LMX with an individual-leader fit. Furthermore, it was proposed that collectivism is likely to attenuate the relationship between LMX and its consequences. On the other hand, the two researchers proposed that behaviors and characteristics that preserve leaders power and subordinates low-power status are likely to positively affect LMX in cultures with high power distance. Furthermore, it was suggested that cultures where employees hold higher levels of power distance, the relationship between LMX and organizational outcomes will be stronger. In such cultures, powerful leaders would have more say on organizational outcomes and their subordinates would have an easier access to organizational rewards compared to cultures with low power distance.

Grodzicki and Varma (2011) compared two culturally different samples from U.S.A and Poland in terms of LMX, leader trust, and performance rating. The researchers found that cultures with high power distance, i.e., Poland, had its leaders reporting higher ratings of LMX than their subordinates. However, when it comes to the relationship between LMX and performance ratings, it was independent of any cultural differences. Additionally, Dulebohn et al. (2011) found that individualism and power distance moderated the association between LMX and leader trust.

Multilevel Leader-Member Exchange Research

Originally, the LMX model was developed to explore how differentiation in relationships among team members would influence group outcomes and attitudes. Unfortunately, LMX scholars often failed to address this issue properly, limiting most of their efforts to studying individual-level outcomes and consequences (DeChurch et al., 2010; Kim & Taylor, 2001; Lau, 2008; Le Blanc & González-Romá, 2012; Mayer, 2004; Van Breukelen et al., 2006). The importance of specifying the desired level of analysis was emphasized by Schriesheim et al. (1999) during their review of previous LMX research. Empirically, it was found that studies relating LMX to outcomes at the individual-level of analysis had a dominating power (87 %) over those relating LMX to team (10%), unit (2%), and organizational (1%) outcomes (DeChurch et al., 2010). Furthermore, Yammarino et al. (2005) identified that nearly a third (31%) of the conceptual articles included in their review explicated the appropriate level of

analysis, while empirically only a fifth of them (20%) did so when developing their hypothesis.

Henderson et al. (2009) developed a preliminary meso-model of leadership by reviewing literature on LMX Differentiation antecedents and outcomes at various analytical levels. At the individual-level, the proposed antecedents of LMX Differentiation included leadership styles, i.e., transformational and servant, the amount of information and resources available to individuals from their own supervisors and social networks, whereas anticipated outcomes included subordinate turnover, commitment, job satisfaction, psychological contract fulfillment, and performance, as well as leader career success, performance, and influence.

At the group-level, group size, culture, and task interdependence were suggested as potential antecedents by the previous researchers, so that the greater the group size, the less time and resources leaders have to spend on their followers, and the more LMX Differentiation is likely to occur. Additionally, cultures characterized by respect for people, collectivism, and team orientation were presumed to exhibit lower levels of differentiation, contrary to aggressive cultures, i.e., cultures where members are self-interested and competitive. Indeed, cultures with team orientation and a high degree of task interdependence were expected to have higher levels of differentiation. It was assumed that in order to increase efficiency, leaders need to differentiate between team members' roles. On the other hand, the previous researchers proposed that group performance and group member relationships would constitute group-level outcomes of LMX Differentiation. In term of the organization itself, organizational culture, structure, and human resource practices were expected to cause differentiation in LMX quality, whereas labor costs, reputation, and turnover were proposed as outcomes. Finally, the previous organizational levels were suggested to be highly interdependent.

Another conceptual model was developed by Kim and Taylor (2001). This model was relating LMX to organizational citizenship and two group characteristics, i.e., group cohesion and group task type and characteristics. The scholars presumed that highly-coherent groups would perceive attempts to differentiate between group members as threatening to group unity. Furthermore, members of these groups may find it favorable not to develop high LMX relationships with their leaders, eventually leading to a reduction in LMX and the amount of exhibited organizational citizenship. In terms of job and task characteristics, the afore-

mentioned model proposed that certain job characteristics, e.g., skill variety and task significance and identity, may be related to LMX. Skill variety was argued to put larger demands on subordinates to develop higher exchange relationships with their leaders in order to secure a sufficient amount of resources to fulfill their tasks, ultimately providing an opportunity for both leader and follower to nurture their relationship. On the other hand, the dearth of resources available for leaders to distribute was projected to force them to focus on individuals whose tasks are highly significant or identifiable. This focus was assumed to be reciprocated by members, who would be drawn by the recognition of their task worth, to excel at work and to engage in more interaction with their leaders, in order to obtain the resources necessary to function correctly. Additionally, the model proposed that tasks with high autonomy and feedback would provide members with the resources and information needed, thereby limiting the opportunities for leader and member exchange, i.e., task autonomy and feedback were proposed to be negatively associated to LMX.

Although the previous models were of great value, Henderson et al. (2009) and Kim and Taylor (2001) did not supplement their theoretical work with empirical examination. Rather, their effort was limited to the projection of a set of non-tested propositions.

On the other hand, Maa and Qu (2010) investigated the antecedents of LMX Differentiation by collecting data from leaders and members of various groups belonging to six Chinese companies. They were able to discover that leaders with universalistic values, i.e., leaders who solely constructed judgment by following rules, demonstrated lower levels of LMX Differentiation. Moreover, they found that groups with higher degrees of differentiation, i.e., discrimination between “in-group” members and “out-group” members being more visible, had leaders with a tendency to inflate “in-group” members' performance evaluation.

Other studies that examined group-level outcomes of LMX found that LMX quality was positively related to team performance and effective team commitment, team functionality, workplace friendship, and team-member exchange, i.e., the relationship between an individual and his/her teammates (Le Blanc & González-Romá, 2012; Tse, Dasborough, & Ashkanasy, 2008). Furthermore, LMX-quality median was found to moderate the relation between LMX Differentiation and commitment and performance in teams (Le Blanc & González-Romá, 2012).

Additional to the aforementioned research, other LMX studies have examined the association between LMX and other organizational constructs, i.e., OJ. Later on, a sample of this research will be provided in more detail. However, it is now time to move on and discuss another organizational construct which is equally as important as LMX, i.e., OJ. In the following section, this construct will be examined more closely.

Organizational Justice

For centuries, justice has won the interest of people all over the world (Colquitt et al., 2005). The belief that an association between perceived fair treatment and organizational attitudes and individual outcomes had a tremendous impact on the field of OJ, so much so that it became the subject of various research and investigations (Colquitt et al., 2001; Mayer, 2004; Roch & Shanock, 2006). Unfortunately, it is often contended that OJ tends to be subjective, due to the fact that it focuses on an individual's perception of fairness in the workplace (Greenberg, 1987; Li & Cropanzano, 2009).

Rupp (2011) reviewed justice literature to identify justice motives. Historically, it was assumed that the pursuit of personal interest was the key drive behind justice, i.e. instrumental model. The need for “belongingness”, i.e., relational model, was also perceived as a motivational force for justice, to such an extent that leaders who were neutral, trustworthy, and capable of demonstrating respect were considered fair. Finally, the denotoc model was used to explain that justice should be valued for its own sake, making it an end in itself.

OJ is a multi-dimensional construct that consists of the following dimensions:

DJ: According to Andrews and Kacmar (2001), DJ can be defined as “the perceived fairness of the allocation of resources by the organization” (p. 349). Preliminary research on OJ was largely concerned with its distributive facet (Colquitt et al., 2001; Mayer, 2004).

Mayer (2004) contended that people may use different rules to determine the fairness of resource allocation, i.e., level of DJ. Adams (1965) proposed that an equity rule can be used to determine whether distributed outcomes are fair or not. According to his equity theory, perceptions of fairness can be formulated by comparing one's output-input ratio

with the output-input ratio of others, where input may consist of an individual's level of education, experience, and intelligence (Colquitt et al., 2001) and output may include payment, performance ratings, promotions (Andrews & Kacmar, 2001; Scandura, 1999), and challenging work assignments (Scandura, 1999).

Other researchers proposed different allocation rules, such as rules of equality, i.e., parity, and needs, i.e., Marxian justice, as principles that people may follow when evaluating fairness regarding outcome distribution. Contrary to the equity rule, the equality rule suggests that outcomes should be distributed in the same manner for all individuals regardless of circumstance, whereas the need rule implied that peoples' needs determine the level of outcomes they receive (Greenberg, 1987; Mayer, 2004). Greenberg (1987) contended that sometimes only a recipient's performance outcomes are used to determine resource allocation, i.e., competition. He asserted that preferences between rules could vary depending on the situation at hand.

PJ: This dimension focuses on the fairness of the procedures, methods, mechanisms, and rules that leaders follow during decision making (Thibaut & Walker, 1975). During the previous researchers' study of conflict resolution, they identified two stages for third-party dispute resolution: a process stage and a decision stage. Additionally, five procedures possibly applied by disputants were recognized, of which two were very important, autocratic and arbitration procedures. In autocratic procedures, control over procedures and outcomes was granted to disputants, whereas in arbitration procedures only decision-control was allowed. It was found that procedures which provide control over the processes of decision making, i.e., process stage, are considered fairer than those procedures which lack this type of control, thereby suggesting that PJ emerges when people are not only concerned about outcome distribution but rather about the procedures employed in order to derive those outcomes. An example would be questioning "how" a raise was determined rather than the "quantity" of the raise itself (Andrews & Kacmar, 2001).

Leventhal (1980) developed a list of principles that could determine employees' justice perceptions of the procedures applied. They are: representativeness of important group members' concerns and values, if not all groups' concerns and values; consistency across

people and over time; ethicality and morality; bias freedom; accuracy of information on which decisions are based; and flexibility in modifying and reversing inaccurate decisions previously made, i.e., correctability. A major difference between Thibaut and Walker's (1975) and Leventhal's (1980) view of PJ is that while the former "equated PJ with control", the latter proposed promoting PJ by "adhering to six rules of fair treatment" (Colquitt, 2004, p. 634).

IJ: This dimension of OJ is concerned with the fairness of the interpersonal treatment received by an individual from others (Bies & Moag, 1986). Prior to the introduction of IJ, research on formal decision-making procedures focused on the "structural characteristics" of those procedures (Colquitt et al., 2005, p. 29). Bies and Moag (1986) introduced another dimension of OJ, i.e., IJ to emphasize that, in addition to structural aspects, interpersonal aspects of decision making are equally important, where justice is determined by the quality of treatment received during the enactment of procedures (Colquitt et al., 2001).

Bies and Moag (1986) used four rules to determine the quality of IJ: truthfulness, justification, respect, and propriety. According to the truthfulness rule, only truthful information should be provided to individuals, whereas the justification rule requires that individuals be provided with an explanation of organizational processes. On the other hand, the respect rule explicates that people should be treated with dignity, while the propriety rule indicates that only appropriate questions should be asked (Mayer, 2004). Colquitt and his associates (Colquitt, 2001; Colquitt et al., 2001) supported that IJ should be separated into two sub-dimensions: Interpersonal and Informational Justice. Interpersonal Justice refers to the propriety and respect rules, while Informational Justice concerns the justification and truthfulness rules.

Although a debate on the classification of OJ dimensions was present for a long period of time, the separation of OJ to multiple dimensions was justified by looking at the distinctive relationships that each of these dimensions had with different organizational attitudes (Colquitt, 2001; Colquitt et al., 2001; Roch & Shanock, 2006).

Scholars have widely indicated that justice is a social construct heavily built on the results of social comparison (Colquitt et al., 2001; Roch & Shanock, 2006). Colquitt et al., (2001) contended that “an act can be defined as just through comparison with a prevailing philosophical system” (p. 425). Social comparisons, i.e., the processes people follow in comparing themselves to one another, were assumed to stem from different referent resources, most importantly external resources, e.g., industrial standards, and internal resources, i.e., colleagues in the same organization (Greenberg et al., 2007). Adams (1965) specified that social comparisons are an indispensable part of the DJ formulation process, where people determine the fairness of resource allocation by comparing their output-input ratio with the output-input ratios of others to whom they may be related, e.g., people may compare their wages with those of their co-workers within the organization or with the industry average for their job. Furthermore, people tend to compare themselves socially to others in terms of the procedures used to distribute the organizational outcomes and the treatment they receive during the implementation of those procedures, so much so that “unfavorable procedures” may demote justice perceptions (Greenberg et al., 2007, p. 25).

The previous researchers continued to reason that social comparisons can be used to form perceptions of IJ. They contended that in the absence of an agreement on the apposite levels of dignity and respect, individuals may find themselves obligated to turn to social comparisons in the hope of gaining the information required. In terms of PJ, the previous researchers utilized Folger's (1986) referent cognitions theory to promote individuals' understanding of OJ. Folger's theory argues that individuals compare actual events with expected events and develop mental simulations, i.e., referent cognitions, as they assess various situations at hand. This implies that procedures affecting others and oneself are equally referred to during the assessment of procedure fairness.

Greenberg (1987) investigated research on OJ and developed a taxonomy of OJ theories based on two dimensions. The first dimension was concerned with process versus content approaches to justice. Theories focusing on the fairness of procedures designed to specify and distribute organizational outcomes were classified as following a process approach to justice, whereas theories concerned with the fairness of the distributed outcomes were classified as content approaches. The second dimension, i.e., reactive versus proactive dimension, was

concerned with behaviors designed to avoid injustice, i.e., reactions to injustice, as well as behaviors designed to promote fairness, i.e., proactive approach.

Four classes of justice theories were identified by Greenberg (1987), namely: reactive-content, reactive-process, proactive-content, and proactive-process. Reactive-content theories were concerned with employee reactions, usually negative emotions, toward unfair reward distribution, e.g., Adam's inequity theory and Crosby's relative deprivation theory. Adams (1965) viewed inequality between each person's outcome and contribution as unjust regardless of whether one is overpaid or underpaid. On the other hand, proactive-content theories were concerned with the application of the most appropriate allocation rules for the distributed outcomes to be viewed as fair. Examples of these theories included the justice motive theory and justice judgment theory. Both theories argued that outcomes could be distributed based on different rules, i.e., equity, equality, needs, and competition.

The remaining two classes in Greenberg's (1987) taxonomy were concerned with fairness of procedures designed to distribute outcomes, i.e., process. Reactive-process theories investigated reactions to the different procedures used to distribute outcomes, whereas proactive-process theories focused on procedures selected to promote fairness rather than to merely resolve disputes, i.e., reactive-process. Leventhal (1980) asserted that procedures which offer the highest potential for assisting individuals in fulfilling their goals will be the ones most often selected by those individuals.

Organizational Justice Research

Like any other construct, research on OJ has evolved over time. One of the investigated aspects of OJ was concerned with issues related to discriminant validity. Different researchers investigated the dependency/independency among OJ dimensions (e.g., Andrews & Kacmar, 2001; Colquitt et al., 2001; Roch & Shanock, 2006). Andrews and Kacmar (2001) reported low correlations between PJ and DJ, while Colquitt et al. (2001) indicated the opposite, nevertheless their estimated correlation was dependent on the operationalization of PJ, such that lower correlations were observed when Leventhal's (1980) criterion for PJ was used. Additionally, different variables were found to predict PJ and DJ differently. For example,

locus of control was differently related to DJ and PJ, while role conflict had similar relations with both (Andrews & Kacmar, 2001).

Moving to IJ, Bies (2001) revised his own conceptualization of this dimension, and developed a new perspective which was no longer limited to reward distribution or procedure implementation, i.e., decision making context. Bies suggested the use of several rules to judge the fairness of the re-conceptualized IJ, e.g., invasion of privacy, derogatory judgments, abusive actions, and deception. Some of these rules replaced the ones originally developed by Bies and Moag's (1986), e.g., the truthfulness rule was replaced with the deception rule, while others were entirely new rules, e.g., the abusive action rule. Furthermore, Roch and Shanock (2006) recommended that a distinction between IJ and its subdimensions, i.e., Informational and Interpersonal Justice, should be made. They proposed that Interpersonal Justice should be used to describe interpersonal treatment during decision making, while IJ should refer to Bies' (2001) general definition of fair interpersonal treatment. However, it was revealed from their findings that a distinction between Interpersonal Justice and IJ was not entirely clear.

In addition to the previous studies, many researchers examined the relationship between the dimensions of OJ and various emotional and behavioral outcomes. Colquitt et al. (2001) showed that DJ, PJ, and IJ were positively related to job satisfaction and organizational citizenship. Furthermore, Niehoff and Moorman (1993) supported that fairness of formal procedures was positively related to sportsmanship, courtesy, and conscientiousness dimensions of organizational citizenship, while IJ was negatively related to the sportsmanship dimension. Andrews and Kacmar (2001) found that PJ and DJ were positively related to organizational politics and organizational support. They also found that PJ was not significantly related to external locus of control, while it was positively related to formalization and negatively to centralization and role conflict. Additionally, DJ was negatively related to role conflict and locus of control.

Lam, Schaubroeck, and Aryee (2002) examined how justice perceptions, i.e., DJ and PJ, job satisfaction, performance, and absenteeism are related. Their sample consisted of American and Hong Kong Chinese tellers of a multi-national banking and financial services company. Their findings indicated a negative association between fairness perceptions and absenteeism on one hand, and a positive association between justice perceptions, performance, and job

satisfaction on the other. These relationships were moderated by the presence of power distance rather than individualism, such that individuals with low power distance had stronger relations between their justice perceptions and the measured work outcomes, due to their disapproval of subjective treatment and absence of information.

On the contrary, Shao, Rupp, Skarlicki, and Jones (2013) reported that individualism moderated the relationships between organizationally focused justice and supervisory focused justice and job performance targeted toward the organization and supervisor, while power distance moderated the relationship between justice and job performance at the supervisory level alone. Additionally, both individualism and power distance moderated the relationship between organizationally targeted justice and work satisfaction.

In addition, the previous researchers examined the four dimensions of national culture as moderators between both organizationally and supervisory focused justice and different organizationally and supervisory targeted outcomes. Individualism was found to moderate the relationships between organizationally focused justice and negative behaviors toward the organization and organizational identification and trust. However, when it comes to the second type of justice, individualism moderated its relationships to perceived supervisor support and negative behavior toward supervisor. Furthermore, masculinity was found to moderate the associations between job performance and both types of justice, and between supervisory focused justice and citizenship behavior, as well as negative behavior exhibited toward supervisors. Uncertainty avoidance, on the other hand, moderated the associations between both types of justice and citizenship behavior exhibited toward the two examined sources of justice, and between supervisory focused justice and trust, perceived support, and negative behaviors exhibited toward leaders. Finally, the associations between organizational trust and identification and justice, as well as between supervisory targeted negative behavior and trust were affected by the presence of power distance.

Shao et al. (2013) concluded that the effects of justice on the above organizational outcomes were higher in cultures with higher levels of uncertainty avoidance, feminism, and individualism, and weaker on cultures with higher power distance.

Research also found that DJ tended to predict personal outcomes, i.e., pay and job satisfaction, stronger than PJ did. However, organizational outcomes, i.e., organizational commitment and evaluation of supervisors, were found to be more closely-related to the procedural facet of justice than to the distributive one (McFarlin & Sweeney, 1992). Results for pay satisfaction and DJ were supported by Roch and Shanock (2006). Affective commitment, i.e., involvement and emotional attachment to the organization, was examined in relation to the four dimensions of OJ by Andrews, Kacmar, Blakely, and Bucklew (2008). It was shown that all dimensions of OJ were positively related to affective commitment. Additionally, workgroup cohesion was found to moderate the associations between all OJ dimensions and affective commitment, except for PJ.

Furthermore, the moderating role of gender differences on the relationship between DJ and PJ on one hand, and pay satisfaction, trust in the supervisor, and organizational commitment on the other, was investigated (Lee & Farh, 1999). Results revealed that such differences did not moderate any of the aforementioned relationships with the exception of the relationship between DJ and trust in the supervisor. The association between IJ, DJ, and PJ and perceived organizational and supervisor support, performance, and employee turnover among sales people in a business-to-business context was examined by DeConinck and Johnson (2009). It was shown that PJ was positively related to perceived organizational support, IJ to perceived supervisor support, and DJ to organizational commitment. PJ was directly and positively related to performance. Moreover, all OJ dimensions were reported as indirect predictors of turnover through other variables. Additional to PJ, Informational Justice was also related to perceived organizational support (Roch & Shanock, 2006).

Beside the previously mentioned studies, the impact of leader monitoring on justice perceptions was examined (Niehoff & Moorman, 1993). Three approaches to leader monitoring were investigated in this study, i.e., observation, formal meetings, and informal discussion. The two scholars argued that decisions based on accurately-collected information would be most often perceived as a sign of fair outcome distribution, i.e., DJ. In addition, leaders' genuine concern to collect accurate information was expected to satisfy the accuracy, bias suppression, and consistency rules of Leventhal's (1980) guidelines to PJ. The argument was based on the likelihood that the information collected on followers' performance would be accurate, without any bias across persons and over time. Both DJ and PJ were examined in

this study. However, the measure developed for PJ entailed items for both IJ and formal procedures' justice perceptions. The study revealed that among the examined monitoring methods, observation was the one that had positive relation with the investigated justice perceptions.

Recently, Patel, Budhwar, and Varma (2012) maintained that OJ dimensions could be used to predict overall justice or holistic justice judgements, i.e., general feelings of fairness experienced by employees (Rupp, 2011). Patel et al. (2012) tested their hypothesis on a sample of Indian call center employees. Their results supported this assumption and revealed a significant positive relationship between overall justice and the dimensions of OJ.

For many years, research on OJ has been overwhelmed by investigations of individual justice perceptions; recently it was proposed that individuals' justice perceptions regarding their context have an important role to play (Lau, 2008). In the following pages this issue will be discussed in further detail.

Organizational Justice Climate

Schneider and Reichers (1983) defined organizational climates as the sum or average of perceptions formed by individuals when referring to a specific event. According to these scholars, research based on climate constructs is important because it focuses on different analytical levels, e.g., groups, thus allowing people to extend their understanding of the relationship between organizational outcomes and aggregated perceptions of different organizational phenomena. They further indicated that this would ultimately provide an additional opportunity to explain behavioral attitudes at work. Despite advancements in OJ research and scholars' genuine interest in identifying the impact of perceived justice on team processes, a point to be raised is that OJ research failed to investigate fairness at levels other than the individual-level of analysis (Li & Cropanzano, 2009). The previous researchers defined OJ Climate as "the degree of fairness perceived by the team as a whole" (p. 565).

Research on OJ Climate was highly influenced by a set of theories that were developed to facilitate the emergence of organizational climates (Lau, 2008; Li & Cropanzano, 2009; Mayer, 2004; Schneider & Reichers, 1983). Schneider and Reichers (1983) identified three

approaches to climate emergence. The first approach was based on an organization's structural characteristics, e.g., size, technology, and hierarchical levels, which were presumed to jointly and ultimately affect individual attitudes. This approach was criticized for lacking the ability to demonstrate a consistency of relationship between climates and organizational structure. In addition, it was not able to justify the emergence of unit-level climates, i.e., it failed to explain why groups affected by the same structural elements reported different climates.

Another approach identified by the previous researchers was the selection attraction attrition/attraction selection attrition. This approach suggested that over time and as result of the selection attraction attrition process, organizations tend to be made up of people with similar attitudes and behaviors. It was argued that individuals choose to join organizations that fit their personalities, whilst at the same time organizations recruit resources to attract individuals whose values are consistent with their own. However, if a fit between an organization and an individual does not hold, the individual would have to leave the organization, i.e., attrition. The previous researchers specified that the limitations of this approach included the assumption that individuals have little control over decision making, suggesting that agreement among team members on certain events was merely the result of similarities in values between them. In addition, it failed to explain the occurrence of differences in climates between various groups.

Schneider and Reichers's (1983) third approach to the etiology of climates was the social interaction approach, which was initially based on the process through which newcomers become familiarized with work attitudes and behaviors, i.e., socialization. Climates were assumed to emerge from the interaction between an individual and his/her group members, thereby promoting shared perceptions of different organizational events and procedures. Unlike the previous approaches, this approach accounted for differences in climate among groups. Consistent with the socialization theory, Salancik and Pfeffer's (1978) "social information processing" theory was proposed by Li and Cropanzano (2009) to explain the emergence of climates in organizations. According to this theory, people in organizations are not isolated from one another. Instead, they collect and process information from their social environment, using this information to judge different events within the organization.

Li and Cropanzano (2009) extended Schneider and Reichers's (1983) efforts by examining justice research in search of an explanation of OJ Climate emergence. They discovered that social context plays a crucial role in the development of OJ Climate. They actually summarized how third party perceptions, justice contagion, and the heuristic justice model can be related to OJ Climate formation.

The third party perceptions approach was based on the deontic justice theory where an individual's own justice orientation plays an important role in OJ Climate formation. According to this theory, justice is held high for its own sake, such that whenever a co-worker is subjected to injustice, third party employees often respond negatively to the injustice regardless of the personality of the victim, thereby causing members of a group to hold similar perceptions of fairness/unfairness. The justice contagion approach was based on the assumption that fairness perceptions spread between group members like a contamination. Justice contagion could be cognitive, i.e., the exchange of information related to justice perceptions, or emotional, i.e., the exchange of reactions toward injustice influencing others' emotional reactions. Finally, the heuristic justice model suggested that individuals can turn to their social context and use other people's earlier experiences as a guideline in shaping their own perceptions of the fairness and trustworthiness of an authoritative figure. In such cases, it would be rational to expect that members of a group who were subjected to the same event and who shared common heuristics would hold similar views of justice.

In the light of the preceding discussion, OJ dimensions can be redefined to reflect the impact of organizational context on each (Hayashi & Sekiguchi, 2006). These new definitions would be called OJ Climates. Lau (2008) cited (Colquitt et al., 2002; Mossholder, Bennett & Martin, 1998; Naumann & Bennett, 2000) that shared perceptions about how fairly/unfairly a whole group is being treated distributively, procedurally, and interactionally refer to DJ Climate, PJ Climate, and IJ Climate respectively.

Recently, it was proposed that all the dimensions of OJ Climate, i.e., DJ Climate, PJ Climate, and IJ Climate, should be combined under one term called "collective justice" (Hayashi and Sekiguchi, 2006). The development of this construct was initially targeted toward group-oriented cultures, i.e., cultures where members are identified by their collective personality. However, it has been suggested that this construct could be equally well applied in

individualistic cultures as well. Collective justice is a distinct group-level cognition describing whether a group as a whole is treated fairly within the organization, i.e., the goals and objectives of the group being the center of attention. Unfortunately, it has not been empirically tested yet.

Organizational Justice Climate Research

Researchers have recently begun to examine OJ Climates and to relate them to objective unit-level criteria (Colquitt et al., 2002; Naumann & Bennett, 2000). Li and Cropanzano (2009) noticed that two directions were followed during the operationalization of OJ Climates, i.e., OJ Climate strength and OJ Climate level. OJ Climate strength referred to dispersion in fairness perceptions within a group, whereas OJ Climate level described “the extent to which a group views itself as having been treated fairly or unfairly” (p. 578).

Mossholder et al. (1998) provided the initial work on OJ Climates (Liao & Rupp, 2005). They used aggregated individual-level perceptions and found that PJ Climate explained a variation in employee job satisfaction over and above the effects of individual-level justice perceptions. Naumann and Bennett (2000) deployed the method of Mossholder et al. (1998) while exploring antecedents and consequences of the PJ Climate. They found that group cohesion and supervisor’s visibility, i.e., the extent that supervisors were seen during the enactment of organizational procedures in real life, were positively related to PJ Climate. However, group heterogeneity was not significantly related to PJ Climate. Furthermore, PJ Climate level was found to be positively related to workers’ demonstration of helpful behavior and non-significantly to organizational commitment. These findings were moderated by PJ Climate strength. Interestingly, Simons and Roberson (2003) supported PJ Climate’s positive and direct relationship to employee commitment and indirect relationship to employee turnover and customer satisfaction. PJ Climate’s association with employee turnover was negative, while with customer satisfaction it was positive. Additionally, Interpersonal Justice was indirectly related to commitment through satisfaction with the supervisor.

The antecedents and consequences of PJ Climate were also investigated by Colquitt et al. (2002). Two measures of OJ Climate were used, i.e., climate level and climate strength. It was attained that climate level was significantly related to team performance and absenteeism.

This relationship was moderated by high climate strength. Moreover, group size was found to be a significant antecedent of climate level and strength, collectivism was of climate level only, and group heterogeneity of climate strength alone. Colquitt (2004) examined reactions to PJ in team settings. He found that an individual's OJ perceptions are affected by his/her team mates' perceptions of workplace justice. In addition, this relationship was high in interdependent teams.

Although the previous research was beneficial, it was concentrated on PJ Climate. Li and Cropanzano (2009) claimed that PJ Climate was the most widely investigated in OJ Climate research. More recent studies examined not only PJ Climate but also other dimensions of OJ Climate. Spell and Arnold (2007) studied the relationships between OJ Climate and employee mental health, discovering that the interactive effects of DJ Climate and PJ Climate, rather than IJ Climate and DJ Climate, significantly and negatively influenced an individual's feelings of both anxiety and depression.

Liao and Rupp (2005) developed a cross-level multi-foci model of workplace justice. A multi-foci model organizes information around the sources of treatment that employees receive and parties with whom they interact during their work, e.g., the supervisor and the organization (Rupp, 2011). They tested three types of justice, i.e. PJ, Informational Justice, and Interpersonal Justice, with two foci, i.e., organization and supervisor, by creating six distinct OJ Climate variables. They found that PJ Climate was related to commitment, i.e., supervisor and organization focused and satisfaction with the supervisor and organizational citizenship. Interpersonal Justice Climate was related to supervisory satisfaction and commitment, whereas organizational-focused Informational Justice Climate was related to organizational-focused citizenship. Moreover, their research highlighted the role of individually-oriented justice in perceiving fairness.

Finally, it is worth mentioning, that care should be taken when aggregating justice perceptions. Simons and Roberson (2003) reported that the correlation between Interpersonal Justice and PJ increased when data were aggregated to the group-level ($r = .87$) rather than when they were calculated at the individual-level ($r = .69$), raising a concern of the “viability of the conceptual distinction” between OJ dimensions at the aggregate level of analysis (p. 440).

Leader-Member Exchange and Organizational Justice Research

Bridging the literature on leadership and justice had attracted the interest of different scholars for many years; leaders were recognized as a significant source of justice in organizations and hence their impact on fairness perceptions had to be examined in more detail (Erdogan & Liden, 2006). Several studies investigated which leaders' characteristics were likely to trigger fairness perceptions; agreeableness, neuroticism, and conscientiousness were some of the characteristics found to affect justice perceptions (Mayer, Nishii, Schneider, & Goldstein, 2007). On the other hand, an increasing amount of research focused on determining which aspects of OJ, i.e., DJ, PJ, or IJ extensively interacted with leadership styles, e.g., paternalistic, transformational, and transactional, in the prediction of work outcomes (Çalışkan, 2010).

LMX is one of the leadership approaches that has been examined in relation to OJ. According to Mayer (2004), justice perceptions are built on two bases, leaders' actual actions and the quality of the exchanges between followers and their leaders. Graen and Uhl-Bien (1995) contended that high quality LMXs are characterized by the followers' genuine anticipation of fairness and equity. These expectations were assumed to make subordinates more sensitive to the interpersonal and procedural treatment which they receive at work (Piccolo, Bardes, Mayer, & Judge, 2008). Additionally, the previous researchers argued that in high quality exchanges, followers are more likely to trust their leaders and give them the "benefit of the doubt" when injustice occurs (p. 292).

On the other hand, Dulebohn et al. (2011) asserted that "in-group" members are more likely to receive better treatment, resource allocation, and an explanation of the processes and procedures than "out-group" members usually would. Members with low quality LMX are expected to perceive this discrepancy in outcome distribution, "especially concrete non-monetary resources", insensitive treatment, and unequally-implemented procedures as unfair (Lau, 2008, p. 34). Lau suggested that during the development of justice perceptions, low LMX members are likely to go through three counterfactual stages. The first stage begins with a "would have been" situation questioning oneself if the state of being would have been better if high quality relationship had been developed with one's own supervisor. Later, a "could have" situation develops as members begin to wonder if their leader could have treated them

like those in the high quality LMX group. The last stage involves a “should have” argument, questioning if a member should have been treated differently, i.e., equivalent to high LMX group members.

Aside from that, literature on OJ and trust revealed that justice perceptions are likely to increase trust in authority figures (Frazier, Johnson, Gavin, Gooty, & Snow, 2010). Given that trust is one of the LMX quality dimensions (Schriesheim et al., 1999), it is anticipated that justice perceptions would eventually affect the quality of the exchange.

Researchers proposed that "in-group/out-group" membership can affect which of the three justice dimensions, i.e., DJ, PJ, and IJ, prevails for an individual (Jackson, 2008; Scandura, 1999). The previous researchers suggested that in low quality LMXs, individuals are characterized by a concern for oneself and an immediacy of outcomes which increases their apprehension for DJ. On the other hand, in high quality exchanges, dignity and respect are crucial, individuals become more sensitive to the interpersonal treatment they receive from their leaders and the fairness of the procedures implemented, IJ and PJ are held up high and their effect on work outcomes is magnified.

To be more precise, Scandura (1999) proposed that at the beginning of an exchange relationship, leaders are expected to determine role specifications for their followers. Followers, on the other hand, are expected to use DJ in determining the fairness of the outcomes they receive in return for their performance. Later, followers are expected to send their feedback on task assignments to their supervisors and use the fairness of the outcomes they received in judging the procedures applied, i.e., a violation of PJ. As the exchange between leaders and followers continues, the honesty, consistency, and communicative abilities of a leader, i.e., IJ, are projected to play an important role in promoting the quality of the leader and follower exchange. At this stage, a decision should be reached regarding followers' "in-group/out-group" membership. Based on this decision, individual performance is likely to be affected. The model suggested that "out-group" members' performance is likely to be driven by outcome fairness, whereas "in-group" members' performance will be more sensitive to a leader's treatment and implementation of procedures, i.e., IJ and PJ.

Interestingly, scholars often disagreed on which aspects of justice should be related to LMX. Some scholars argued that for justice to have an impact on LMX it has to be accredited to leaders (Masterson, Lewis, Goldman, & Taylor, 2000). This was supported by Andrews and Kacmar (2001), who examined the association between LMX and DJ on a sample from a government organization and found a non-significant association between the two. Their justification was that assigning the power of reward distribution to top management rather than to first line managers jeopardizes the impact of justice perceptions on LMX. Furthermore, Erdogan et al. (2006) argued that relating LMX to PJ is only possible when leaders are authorized to design those procedures. They suggested that the conceptual overlap between IJ and PJ makes it difficult to integrate both OJ dimensions in a single research.

In the same vein, Roch and Shanock (2006) claimed that only IJ should be related to LMX. They argued that when referring to the exchange theory, IJ, i.e., Informational and Interpersonal, and PJ can be considered as a social exchange, whereas DJ can be regarded as an economic exchange, i.e., agreement on the exchange obligations is warranted in advance. In addition, they argued that PJ is more concerned with the evaluation of organizational procedures, whereas IJ is more related to supervisors' attitudes; hence, the essence of this distinction would be better captured if only IJ was related to LMX, whereas PJ and DJ were related to perceived organizational support and pay satisfaction respectively. El Akremi et al. (2010) suggested that Informational and Interpersonal Justice must be related to LMX, whereas perceived organizational support should be related to all OJ dimensions.

Empirically, all OJ dimensions have been studied with respect to LMX (Erdogan et al., 2006). While some researchers presumed that OJ is an antecedent of LMX (Dulebohn et al., 2011), others assumed the opposite, i.e., OJ is an outcome of LMX, due to their belief that implementing fair procedures and receiving fair outcomes may enhance the leader-follower relationship. Proponents of the first avenue supported their proposition with two reasons. First, being consistent with previous literature and largely assuming that DJ and PJ are consequences of LMX, e.g., Adam's equity theory. Second, Dansereau's et al., (1975) proposition that LMX forms quicker than OJ dimensions, i.e., PJ and DJ.

Prior to exploring studies which integrated LMX and OJ dimensions, it is necessary to take a look at one study that examined both constructs for discriminant validity. The study was

conducted by Kumar and Singh (2011) on a sample of Indian respondents. The two scholars used Colquitt's (2001) measure for OJ and Liden and Maslyn's (1998) measure for LMX. Results revealed that dimensions of LMX were differently related to those of OJ. LMX was found to explain (17%), (22%), and (26%) of the variance in DJ, IJ, and PJ respectively. To be more precise, out of the four LMX dimensions examined, i.e., loyalty, contribution, respect, and affect, non-significant associations were reported between DJ and IJ with contribution, and PJ and DJ with loyalty. Kumar and Singh stressed that individual dimensions of both measures should be taken into consideration when interpreting any study results.

Moving to some of the studies that investigated the association between LMX and OJ, Dulebohn et al. (2011) found that both PJ ($r = .48$) and DJ ($r = .38$) were significantly and positively related to LMX. Lau (2008) examined the relationship between LMX and the three dimensions of OJ, i.e., PJ, DJ, and IJ. Results revealed that LMX was positively related to all of them, with correlations ranging between .42 and .47. Additionally, Bolat (2010) reported significant correlations between LMX and IJ ($r = .35$), DJ ($r = .31$), and PJ ($r = .20$). On the other hand, Roch and Shanock (2006) indicated that LMX formed distinct relationships with Interpersonal Justice, i.e., interpersonal treatment in a decision-making context, Informational Justice, and IJ, i.e., overall interpersonal treatment. Informational Justice and IJ were positively related to LMX, whereas Interpersonal Justice reported an insignificant relationship with LMX.

It should be mentioned that most of the studies which examined the relationship between LMX and OJ were originally aimed at inspecting the interactive effect of both constructs on work-related outcomes (e.g., El Akremi et al., 2010; Lau, 2008; Mayer, 2004). Lau (2008) revealed that justice perceptions played a mediating role between LMX and a group of constructs to which LMX was positively related. IJ played a mediating role between LMX and commitment to the leader, DJ between LMX and job performance, IJ and DJ between LMX and organizational citizenship, and finally LMX relationship to satisfaction with the leader was mediated by the three dimensions of OJ.

On the other hand, El Akremi et al. (2010) tested how justice and LMX can be used to predict workplace deviance, i.e., deliberate acts that deviate from the organization's norms and

values. The previous researchers proposed a model in which Interpersonal Injustice was suggested to lead to the deterioration of leader and member exchanges and, eventually, end with supervisor-targeted deviance. Likewise, organization-targeted deviance was expected to result from lower levels of PJ, DJ, and Informational Justice that would reduce perceived organizational support. The model suggested that unfairness encourages individuals to respond with negative behavior, e.g., theft and late arrival, rather than exhibiting a positive reciprocity.

Another study which examined the joint effect of OJ and LMX was conducted in Malaysia. This time, however, the study focused on investigating the interactive impact of justice perceptions with LMX dimensions, e.g., loyalty, contribution, and reciprocity, on organizational commitment (Leow & Khong, 2009). Results revealed that DJ interacted with all of the previously mentioned LMX dimensions in increasing affective-normative commitment. Additionally, affective-normative commitment was enhanced through the combined effect of PJ and LMX-contribution dimension. The study confirmed the fundamental role of LMX and OJ in enhancing organizational outcomes and attitudes, e.g., commitment, in a non-Western context, i.e., Asian.

Masterson et al. (2000) investigated the impact of PJ and IJ on work outcomes through social exchanges. Results showed that LMX mediated the effect of IJ perceptions on supervisor-related outcomes, i.e., performance, supervisor targeted citizenship, and job satisfaction, while PJ affected organization-related outcomes, i.e., organization-targeted citizenship, job satisfaction, commitment, and turnover intention, through the mediating role of perceived organizational support.

Moreover, Piccolo et al. (2008) tested the moderating role of LMX in the association between PJ and Interpersonal Justice and a group of outcomes, i.e., citizenship, felt obligation, and withdrawal. It was found that justice perceptions were positively related to citizenship and felt obligation and negatively to withdrawal. Furthermore, the links between justice and the examined outcomes were accentuated by the presence of high quality exchanges. Finally, Walumbwa, Cropanzano, and Hartnell (2009) studied the relationships between LMX quality and Interpersonal and Informational Justice as part of their research on voluntary learning behavior. The scholars also claimed that fairness perceptions, i.e., PJ and DJ, increase

organizational identification. The results supported these hypotheses and OJ perceptions were found to be significantly related to LMX and organizational identification.

Leader-Member Exchange and Organizational Justice Climate Research

As mentioned previously, organizational literature has been characterized by a dearth of research that has examined the relationship between LMX and OJ Climates among groups (Ansari, Hung, & Aafaqi, 2007; Dulebohn et al., 2011; Erdogan & Bauer, 2010; Lau, 2008; Mayer, 2004). Recently, interest in this field has increased, in line with a growing concern for research integrating leadership and OJ Climates (Li & Cropanzano, 2009).

Mayer (2004) suggested that it is reasonable to believe that the relationship between the quality of LMX and justice found at the individual-level will also hold true at the group-level of analysis, especially since it was found that an individual's perceptions of justice were promoted by his workmates' justice perceptions (e.g., Colquitt, 2004).

However, one of the initial groundings in LMX theory is that leaders' resources are so scarce that it would be more beneficial for the whole group if those limited resources were given to individuals who are expected to contribute the most to the group wellbeing rather than to those whose contributions are likely to be of less value (Graen & Uhl-Bien, 1995). Lau (2008) argued that differentiation between employees working in the same group exposes them to different policies, practices, rewards, treatment, and information. This kind of discrimination is expected to end with an eventual violation of the rules followed during the determination of the fairness of the treatment received from supervisors (Mayer, 2004). Subordinates are likely to develop different OJ Climates perceptions based on the quality of their exchanges with their leaders (Lau, 2008).

To illustrate this, members with high quality LMX are likely to receive better rewards, treatment, and respect (Graen & Uhl-Bien, 1995). Hence, their perceptions of DJ, IJ, and PJ are expected to be high. On the other hand, members with low quality LMX are destined to receive lower amounts of what has been mentioned previously. Mayer (2004) proposed that low LMX individuals tend to make comparisons between what they receive and what others with high quality LMX receive. Furthermore, he argued that low quality LMX members may

feel that the distinguished distribution of outcomes, treatment, and the implementation of procedures violates justice rules such as Adams' equity rule (1965), Bies and Moag's (1986) respect rule, and Leventhal's (1980) consistency rule respectively. As a result, Mayer (2004) suggested that group members are likely to perceive lower degrees of justice perceptions in the group, and OJ Climates, i.e., workgroups' perceptions of fair treatment, is likely to decrease.

Mayer (2004) listed a number of reasons warranting the need for this type of research. Those reasons included studying the impact of increased high quality exchanges on OJ Climates, testing the various models developed for research at higher levels of analysis, and consistency with the initial theorization of LMX, i.e., differentiation between group members increases group performance. Additionally, it was argued that positive OJ Climates allow managers to develop differentiated exchanges with their subordinates without triggering negative member attitudes (Erdogan & Bauer, 2010). Research contended that individuals use the quality of their daily interpersonal exchanges with their leaders to develop a group-level cognition that judges the procedures applied on group members (Ansari et al., 2007). There follows a discussion of the studies that have integrated LMX and OJ Climates.

Starting with the work conducted by Ansari et al. (2007), who examined the mediating role of PJ Climate in the association between LMX, turnover intentions, and organizational commitment, the study was conducted on nine multinational companies located in Malaysia, and achieved an average response rate (51%).

Ansari et al. (2007) used Liden and Maslyn's (1998) scale for measuring LMX and Naumann and Bennett's (2000) scale for PJ Climate. It was found that PJ Climate was positively related to all types of organizational commitment, and that normative and affective commitment were negatively related to turnover intention. Additionally, PJ Climate was found to be related to the respect dimension of LMX alone. The previous researchers were not able to fully support their mediation hypotheses, i.e., only LMX-respect was related to PJ Climate, which was in turn related to all components of commitment. Although the study conceptualized PJ Climate as a group-level cognition, it actually analyzed the data at the individual-level. Moreover, the study was based on self-reported data, which was likely to limit its external validity. Finally,

the previous researchers failed to assess the role of other justice facets on LMX by eliminating them from the study.

Furthermore, Erdogan and Bauer (2010) examined the moderating impact of PJ Climate and DJ Climate on the relationships between LMX and a group of outcomes, e.g., job satisfaction, by collecting data from 25 stores belonging to clothing chain in Istanbul, Turkey. They found that LMX Differentiation had a negative relationship with organizational commitment and satisfaction with co-workers when both PJ Climate and DJ Climate were low. They also discovered that PJ Climate moderated the relationship between LMX Differentiation and job satisfaction, while DJ Climate moderated the relationship between LMX Differentiation and helpful behavior exhibited toward co-workers. Limitations of this study included collecting data from a single source, as well as having a small number of groups to analyze.

Lau (2008) also examined LMX Differentiation and OJ Climates in her study. She found that groups with high LMX Differentiation tended to report lower IJ and PJ perceptions than groups with low LMX Differentiation. Additionally, DJ was not found to be related to LMX Differentiation. Those findings suggest that OJ perceptions are still hindered when LMX Differentiation is high. This could be attributed to subordinates' worry about their future treatment. Subordinates tend to view a leader's behavior as violating human rights in decent treatment, ultimately lowering their justice perceptions under a high LMX Differentiation. In summary, LMX Differentiation was found to have a significant negative impact on OJ Climate strength. The study also focused on the effects of OJ Climate on group outcomes, i.e., group commitment and satisfaction. Unlike the previously-mentioned studies, Lau collected data from leaders and subordinates to test her model. Additionally, she focused on examining a different aspect of group-level justice perception, i.e., OJ Climate strength.

Moreover, Mayer (2004) examined the effects of LMX on OJ Climates by studying the impact of LMX Level and LMX Differentiation on group performance in terms of customer satisfaction and groups' fairness perceptions, i.e., Informational Justice Climate, Interpersonal Justice Climate, and PJ Climate. His findings demonstrated that while LMX Level was positively related to OJ Climates, LMX Differentiation was negatively related to them. Additionally, the relationship between LMX Level, LMX Differentiation, and customer satisfaction was not significant. Collectively, the results suggested that a variance in the

quality of relationships in a workgroup may pose negative effects on OJ Climates. Unfortunately, Mayer excluded DJ Climate from his research. As a justification for this exclusion, he argued that research examining OJ and LMX often assumed that DJ was not related to LMX; an additional justification was the lack of research on DJ Climate.

Moderators of the Relationship between Leader-Member Exchange and Organizational Justice

Another stream of LMX and OJ research focused on studying the moderating conditions between LMX and fairness perceptions. Lau (2008) emphasized the need to investigate the role played by moderators in the relationship between LMX and justice. She argued that in order to extend the present knowledge on LMX and justice theories it is necessary to conduct this type of research, particularly since knowledge on how individual and contextual characteristics may affect justice perceptions is limited and that individual differences and task characteristics were suggested to impact the relationship between LMX and various constructs.

At the individual-level of analysis, Erdogan and her colleagues (Erdogan & Liden, 2006; Erdogan et al., 2006) examined cultural characteristics, i.e., collectivism, respect for people, team orientation, and aggressiveness, as moderators between LMX and IJ and DJ perceptions. Erdogan et al. (2006) tested culture as a moderator of the proposed relationships. Their study was conducted on a sample of high school teachers in Turkey. The results concurred that cultures with aggressiveness and respect for people's rights strengthened the relationship between LMX and DJ and IJ. On the other hand, the association between justice and LMX was weakened by team orientation, although highly team-oriented schools reported higher levels of LMX. Additionally, Erdogan and Liden (2006) asserted that the collective nature, i.e., interdependency in group, of the Turkish culture played a moderating role in the relationship between IJ and DJ and LMX. Collectivists' pursuit of fine relationships with everyone was claimed to mandate their tolerance of unfairness. Contrary, other researchers found that individualism and power distance moderated the relationship between LMX and supervisory focused justice (Shao et al., 2013).

Additionally, Lau (2008) suggested that role-breadth self-efficacy, LMX Differentiation, and intra-group communication could serve as moderators for the LMX quality and justice perceptions relationship. It was found that LMX Differentiation moderated the relationship with PJ and IJ alone, whereas intra-group communication and role-breadth self-efficacy did not moderate any of the relationships LMX Level and OJ dimensions.

At the group-level of analysis, Mayer (2004) examined group size and task interdependence as boundary conditions on the association between LMX Differentiation and OJ Climates. Results revealed that task interdependence moderated LMX Differentiation relationship with Informational and Interpersonal Justice Climates and partially with PJ Climate, whereas the notion of group size moderating role was not supported.

Leader-Member Exchange, Organizational Justice Climate, and Workgroup Size and Heterogeneity

It was previously mentioned that group size and heterogeneity were examined in relation to LMX and OJ Climates in previous research. OJ Climate research examined group size and heterogeneity as precursors of PJ Climate level and strength, both constructs being expected to affect team communication levels in a way that was likely to decrease justice perceptions. It was found that group size predicted climate strength and level, whereas heterogeneity predicted climate strength alone (Colquitt et al., 2002; Naumann & Bennett, 2000). Additionally, group size was proposed to be an antecedent of LMX (Henderson et al., 2009). The previous researchers claimed that the greater the group size, the less time and resources leaders have, and the more leaders are likely to differentiate between their subordinates. In the following lines, a closer look will be taken at each.

Workgroup Size

Workgroup size is a critical element in increasing/decreasing group development and productivity; research showed that smaller groups were more productive and developmentally advanced than larger ones (Wheelan, 2009). Moreover, Mayer (2004) pointed out that large groups were likely to have lower levels of communication. Referring to the social comparison referents' theory, he argued that in smaller groups, the sharing of information is more easily

done. Members are likely to possess valuable information about the strength/weakness of group ties. When a leader differentiates between employees, knowledge about this differentiation is likely to spread rapidly and OJ Climates become less favorable. Additionally, the previous researcher suggested that smaller groups make it easier to observe patterns of communication, making a leader's intensive interactions with certain individuals in the group more prevalent.

Colquitt et al. (2002) argued that low levels of participation, information-seeking, and decisions questioning in large groups are likely to hinder Leventhal's (1980) representativeness, correctability, and bias-suppression rules. Hence, PJ Climate's perceptions are likely to be affected by group size. Interestingly, Cummings, Huber, and Arendt (1974) reported no significant impact of group size on group consensus.

Workgroup Heterogeneity

Diversity within a group can either refer to variety, separation, or disparity (Harrison & Klein, 2007). These three types refer to differences in category, opinion, and concentration of resources respectively (Biemann & Kearney, 2009). In this research, variety in workgroups is referred to as group heterogeneity. Diversity in workforce demography has increased during the last decade (Colquitt et al., 2002). With teams being "marked by demographic diversity" (p. 91), the previous researchers expected that the impact of group diversity would be similar to the one exerted by group size. They argued that Leventhal's (1980) rules of consistency, accuracy, and representativeness are some of the rules likely to be hindered in highly diverse groups.

On the other hand, Schneider & Reichers (1983) proposed that workgroups are destined to be homogeneous; over time and as a result of the selection attraction attrition process, similar individuals are attracted toward similar types of organizations. This homogeneity is likely to encourage an individual to sacrifice his/her own interests for that of the group (Naumann & Bennett, 2000). Demographically-similar groups are likely to agree on OJ Climates perceptions. The previous researchers argued that similar group members are expected to perceive injustice against one of them as a potential threat that could extend beyond the individual effect to hurt them all; the opposite was assumed to be true as well.

Leader-Member Exchange and Organizational Justice in the Arab Cultures

In this section, previous research on LMX and OJ in the Arab part of the world is to be examined. Researchers in the Gulf Arab found that the development of high quality LMXs is initiated by leaders who trust their employees and use this trust as a foundation of the strong relationship (Butler, 2009). It was also demonstrated that LMX perceptions were affected by leaders' exhibition of emotional intelligence (Zahran, 2011) and employees' work experience (Butler, 2009). However, contrary to what has been reported by Butler, Al-Dosary (2012) found no relationship between LMX and work experience. Moreover, her findings supported the lack of significant association between LMX and employees' demographic characteristics, i.e., nationality, gender, age, education, income, and employment sector. However, the researcher found that LMX perceptions were affected by the employee's position; higher positions received better exchanges and care. In addition, it was found that LMX was positively related to organizational commitment (Butler, 2009) and job satisfaction (Al-Dosary, 2012; Pillai et al., 1999).

On the other hand, research on justice perceptions in the same region revealed that OJ perceptions were affected by employees' gender, age, education, work experience, income, employment sector (Al-Dosary, 2012; Elamin, 2012). However, nationality was found to impact perceptions of PJ and IJ alone, with national citizens reporting lower levels on these two dimensions compared to expatriate workers (Al-Dosary, 2012). Furthermore, PJ alone was found to be affected positively by the implementation of transformational leadership practices (Pillai et al., 1999). Additionally, researchers reported that positive relationships existed between OJ and organizational commitment (Abu Elanain, 2010; Elamin, 2012; Suliman & Al Kathairi, 2013), job satisfaction (Al-Dosary, 2012; Elamin, 2012; Fernandes & Awamleh, 2006; Suliman, 2007; Pillai et al., 1999), and performance (Fernandes & Awamleh, 2006; Suliman, 2007; Suliman & Al Kathairi, 2013), and negative relationship with turnover intention (Abu Elanain, 2010).

In addition to what has been discussed above, there was one study that examined the relationship between OJ Climate and employees' turnover (Suliman & Al Obaidli, 2011). A negative association between these two variables was found. Furthermore, the study revealed that OJ Climate had the most impact on turnover among elements of corporate climate.

Interestingly, Suliman and Al Kathairi's (2013) findings only included PJ and IJ, whereas those reported by Fernandes and Awamleh (2006) included all justice dimensions for expatriate workers and only DJ and PJ for national workers. Abu Elanain (2010) and Pillai et al. (1999) also examined PJ and DJ alone. Moreover, the results reported by Al-Dosary (2012), Elamin (2012), Suliman (2007), and Suliman and Al Obaidli (2011) included all OJ dimensions. It should be noted that Fernandes and Awamleh (2006) and Suliman and Al Kathairi's (2013) findings were only applicable to national citizens, as no significant association was found between the examined justice dimensions and performance among expatriate workers, thereby supporting the impact of nationality on justice perceptions, as reported by previous studies (Al-Dosary, 2012). Finally, arguments on which of OJ dimensions had the most influential effect on job satisfaction were not settled. Al-Dosary's (2012) findings supported that DJ was the most influential dimension on job satisfaction, while Abu Elanain (2010) concluded that it was PJ that had the most dominant power. Abu Elanain also reported that organizational commitment was mostly influenced by PJ.

Looking at the research that integrated LMX and OJ in the Arab Cultures, Pillai et al. (1999) examined the association between LMX and OJ dimensions during their cross-cultural investigation of the relationship between DJ, PJ, job satisfaction, transformational leadership, and LMX. Their results revealed that LMX was positively related to PJ and DJ in K.S.A and Jordan. Additionally, there was a moderate fit between their proposed model and the data collected in the investigated cultures. Moreover, it was found that demographic variables, e.g., age and gender, had no significant effect on the relationship between LMX and OJ. Finally, their results proved a consistency of the relationship between LMX and justice across the cultures involved in their sample, i.e., U.S.A, Colombia, Australia, Jordan, and Saudi Arabia, except for India where LMX was not related to PJ.

Another study that integrated both phenomena was conducted by Al-Dosary (2012). The previous researcher revealed that LMX was positively related to all OJ dimensions. In addition, her sample consisted of both private and public organizations.

Out of the research investigated in the current section, UAE was the mostly investigated Arab Gulf culture (Abu Elanain, 2010; Butler, 2009; Fernandes & Awamleh, 2006; Suliman, 2007; Suliman & Al Kathairi, 2013; Suliman & Al Obaidli, 2011), followed by Kuwait (Zahran,

2011; Al-Dosary, 2012), and Saudi Arabia (Elamin, 2012; Pillai et al., 1999). It should be mentioned that Pillai's et al. findings, concerning the Middle East, included workers from Jordan and Saudi Arabia.

Last but not least, on a measurement perspective, OJ perceptions were mostly based on the measure developed by Niehoff and Moorman (1993) (Abu Elanain, 2010; Al-Dosary, 2012; Elamin, 2012; Fernandes & Awamleh, 2006; Pillai et al., 1999). On the other hand, Scandura and Graen's (1984) measure for LMX was used by two of the examined studies (Al-Dosary, 2012; Pillai et al., 1999). Finally, correlations between the investigated justice dimensions were reported by all of the previous studies.

Limitations in Leader-Member Exchange and Organizational Justice Research

Before concluding this investigation of LMX and OJ theories and research, it is commendable to pinpoint some of the limitations existing in LMX and OJ literature, as well as on literature integrating them.

Limitations in Leader-Member Exchange Research

Starting with limitations in LMX research, it was previously indicated that LMX still needs to be explored at higher levels of analysis. A plethora of studies examined the impact of differentiated relationships between a leader and his/her subordinates. However, the impact of this differentiation on the group as a whole still needs to be further investigated. According to Kim and Taylor (2001), LMX research has often focused on the dyadic relationship between leaders and followers, where dyadic relationships refer to relationships as described by organizational charts, neglecting the complex interactions that individuals usually have with other group mates, through horizontal exchanges and informal social networks (Sparrowe & Liden, 1997). Because these group interactions may affect the quality of the LMX relationship, LMX outcomes at levels other than the individual-level need to be highlighted (Graen & Uhl-Bien, 1995; DeChurch et al., 2010).

Another limitation in the currently available LMX studies was posited by Yammarino et al. (2005), who found that only some of empirical LMX research (14%) had their investigated level of analysis appropriate to their theoretical and hypothetical development. This certainly adds another dimension to the problem of the level of analysis described earlier, i.e., the incompatibility between what should have been proposed and what was actually proposed.

Furthermore, a considerable amount of the currently-investigated LMX studies was derived from a single point, i.e., subordinates (Dulebohn et al., 2011). Neglecting leaders' points of view regarding LMX relationships, shapes a one-sided solution to problems arising from differentiation whenever the need calls for such solutions. Additionally, DeChurch et al. (2010) pointed out that top management level, where strategy setting takes place, was the least empirically-examined hierarchical level in LMX research.

Moreover, given the diversity of LMX measures presently applied, calls for consistency in measurement were rising, although the work done by Dulebohn et al. (2011) revealed non-significant statistical differences between at least four of those measures. Relative to that, the scales used to measure LMX were criticized for not measuring exchange or reciprocity between leaders and followers. Finally, a dearth of research that investigated LMX in non-Western cultures was noticed (Bolat, 2010).

Limitations in Organizational Justice Research

Similar to LMX, Li and Cropanzano (2009) attained that research on OJ is governed by a lack of emphasis on levels other than the individual-level of analysis. Despite the increasing attention to group-level analysis, the amount of research conducted at this level is still limited. Another concern raised by these two scholars refers to the use of non-validated scales to measure OJ Climates, as this may involve some implications on outcome integrity and integrate-ability across studies. Additionally, OJ Climate research has been focusing on the use of Chan's (1998) models, i.e., direct consensus, referent shift, and dispersion, to measure OJ Climate level and strength. However, Li and Cropanzano stress that Chan's additive model could make considerable contributions to justice research in the future. These models will be discussed in following chapters.

Furthermore, while Li and Cropanzano (2009) acknowledged the privileges brought by research on OJ Climates, they still believe that justice research should be expanded to reflect the impact of sources of justice on justice perceptions, i.e., Multi-foci Justice Climate research. Rupp (2011) pointed out the importance of this new trend in OJ research, where the deployment of the traditional three or four OJ Climate facets, i.e., DJ Climate, PJ Climate, and IJ Climate or the subdivision of IJ Climate into Informational and Interpersonal Justice Climates, is replaced with a Multi-foci Justice Climate. Moreover, Li and Cropanzano (2009) proposed that another justice construct, Intra-unit Justice Climate, i.e., the fairness of treatment between group members, is worth investigating.

Moreover, Hayashi and Sekiguchi (2006) noticed that research on OJ Climate, i.e., PJ Climate, had devoted itself to examining Western cultures, such that it made little progress in investigating OJ in group-oriented cultures, e.g., Eastern.

Finally, research on OJ Climates needs to investigate the importance of group constructs in relation to OJ Climates (Colquitt et al., 2002; Naumann & Bennett, 2000). The impact of different moderators, on the relationships between OJ Climates and other constructs needs to be elaborated in search of the conditions that might affect those relationships.

Limitations in Leader-Member Exchange and Organizational Justice Research

While the previously examined studies on the relationship between LMX and OJ has enriched the reader's knowledge with additional information about the association between LMX and OJ, additional work is still required.

First, many of those studies were conducted in individualistic Western cultures; few of them were conducted in Asia (Erdogan & Liden, 2006). Moreover, interest in research on LMX and OJ was more prevalent in Gulf Arab Cultures such as Kuwait compared to Bahrain (e.g., Al-Dosary, 2012). It is widely accepted that leadership theories cannot be assumed to work successfully when they are readily transferred between cultures; differences may arise between different contexts (Pillai et al., 1999). Hence, the previous researchers find it necessary to test any organizational phenomenon in multiple contexts before drawing any conclusions.

Second, the number of studies which examined LMX and OJ at the group-level of analysis is very limited (Lau, 2008; Mayer, 2004), not only in the Western culture, but also in the Arab world. With the exception of the study conducted by Suliman and Al Obaidli (2011), research on LMX and OJ in the Arab Culture was mostly focused on the individual-level of analysis. Moreover, although Suliman and Al Obaidli (2011) examined OJ as a group-level phenomenon, their investigation did not follow any of the common statistical approaches, discussed in Chapter 3, to construct OJ as a group-level variable, and to ensure agreement among group members. Actually, the previous researchers used individuals' responses to measure OJ Climate, thereby overlooking the different statistical procedures that were recommended by different scholars (e.g., Klein & Kozlowski, 2000) to ensure consistency and reliability of group-level measures.

Integrating LMX and OJ at higher levels is essential since it would be consistent with Graen and Uhl-Bien's (1995) recommendation of exploring LMX at higher levels of analysis. In addition, it provides an opportunity to investigate the effects of differentiation on OJ Climates, especially since an increasing number of organizations are using team-based structures (Mayer, 2004).

Third, only a few studies have combined all OJ Climates and LMX in one setting (Lau, 2008). Hayashi and Sekiguchi (2006) suggested that combining all dimensions of justice climate is necessary to develop a comprehensive understanding of justice perceptions among groups/teams. Additionally, OJ Climate research has been overwhelmed by investigations of PJ Climate, with DJ Climate and IJ Climate receiving lower degrees of attention (Li & Cropanzano, 2009).

Fourth, research on LMX and OJ Climates in the Arab region has failed to consider the impact of workgroup moderators, e.g., workgroup heterogeneity, on the relationships between these constructs. Moreover, researchers interested in the impact of workgroup heterogeneity on the relationships between LMX and OJ Climates (e.g., Lau, 2008) were mostly focused on examining the independent effect of different types of heterogeneity indexes on those relationships. Still, the combined effect of those heterogeneity indexes was not examined.

Regardless of those limitations, LMX and OJ research has enriched organizational literature with plenty of propositions and empirical evidence on those phenomena.

Summary

LMX and OJ are two important areas in organizational research. LMX is used to describe the relationship between a leader and his/her subordinates while OJ reflects perceptions of fairness at work. OJ was sub-divided into three facets, i.e., DJ, PJ, and IJ. Furthermore, IJ was sub-divided into Informational and Interpersonal Justice. Each of the justice dimensions had its own set of rules to determine the level of fairness achieved. OJ and LMX were found to be influenced by social theories and to be related to different organizational attitudes and outcomes.

Research on LMX and OJ was mostly targeted at the individual-level of analysis. At this level, LMX was found to be influenced by the method of supervision, the leader's characteristics and, to a lesser extent, the followers' characteristics. LMX was also related to organizational commitment, satisfaction with the supervisor, intention to leave, citizenship, and many other outcomes. On the other hand, OJ dimensions were related to overall justice and, to varying extents, to job satisfaction, performance, absenteeism, pay satisfaction, turnover, perceived organizational, and supervisor support, organizational citizenship, politics, and support. Additionally, the method of supervision was found to influence justice perception.

At the group-level, group size, culture, cohesion, task type, and task interdependence were projected to affect LMX. Empirical investigations showed that leaders' universalistic values affect LMX. Outcomes of LMX at this level included inflating "in-group" members' performance evaluation, team performance, and affective commitment, workplace friendship, and team-member exchange. OJ Climate was used to describe OJ at the group-level. Three types of climates were identified, each corresponding to one of justice dimensions. Several theories were used to justify the convergence of OJ Climate, e.g., selection attraction attrition and justice contagion. Additionally, OJ Climates were reported to be related to group cohesion, customer satisfaction, turnover, anxiety, organizational and supervisor commitment,

supervisor's visibility, heterogeneity and collectivism, organizational citizenship, and depression.

Despite the previously-mentioned advances, areas for improvement in both fields are still available. To begin with, both concepts still need to be further investigated at higher levels of analysis. The accuracy and consistency of the applied measures are another concern that should be examined. Additionally, compatibility between the investigated levels of analysis and the purpose of any study is warranted while conducting LMX research. Moreover, previous LMX studies focused on data gathered from subordinates alone rather than both leaders and followers. Furthermore, research on OJ had been concentrating on PJ more than on DJ or IJ, both at individual- and group-levels. Additionally, it was more focused on Western cultures. Finally, it has been proposed that OJ research can be enhanced by using Chan's (1998) additive model, as well as considering the effect of intra-unit justice and justice sources on justice perceptions. Still, all credit should be given to OJ and LMX scholars for enriching organizational literature with a variety of theories and empirical examinations.

Looking at organizational research that integrated leadership and OJ, it has been generally attained that OJ was related to LMX at the individual- and group-levels of analysis (e.g., Lau, 2008; Roch & Shanock, 2006). However, disagreement on which aspects of justice should be related to LMX was not resolved (Masterson et al., 2000). Furthermore, Arab researchers reported that LMX and OJ were related to each other, at least at the individual-level of analysis (e.g., Al-Dosary, 2012). Unsurprisingly, research integrating LMX and justice perceptions was characterized by a number of limitations. First, only a few studies examined LMX and OJ at the group-level of analysis. Second, most of the research integrating both constructs was focusing on examining their interactive effect on work-related outcomes, rather than the direct association between them. Third, most of those studies were conducted in Western cultures. Finally, there was a lack of studies examining the impact of workgroup moderators on the relationships between LMX and OJ Climates. All in all, it can be said that there is a need for a research integrating LMX and OJ at the individual- and group-levels of analysis in a non-Western context.

In the following chapter, the implemented research methodology including the adapted model will be described in detail.

Chapter 3

Methodology

Overview

This Chapter looks at the adapted model, as well as the research methodology and measures that were used for evaluating the variables of interest. The study population, sample, and procedures followed during sample construction and data collection are discussed. Finally, the techniques and the software tools that were used to conduct the analysis are presented at the end of the chapter.

The Adapted Model

The adapted model of this study is based on the work done by Lau (2008) and Mayer (2004). Lau (2008) developed two models to study the relationships between LMX and OJ dimensions at the individual- and group-levels of analysis, while Mayer (2004) examined the relationships between LMX and OJ Climates at the group-level of analysis. Fig. 2.1 illustrates the adapted model.

Scandura (1999) indicated that previous research on LMX was mainly descriptive in nature, and that for LMX research to be capable of guiding managers' actions in real life, it needs to be focused on aspects of OJ. He emphasized the need to relate LMX to OJ perceptions in order to extend the development of LMX literature. Based on this, a model, illustrated in Fig. 2.1, which examines the relationships between LMX and OJ dimensions in Bahraini workgroups at both the individual- and group-levels of analysis, was developed. In the following pages, the model will be explained and a discussion on the relationship between LMX and OJ will be held at both levels of analysis.

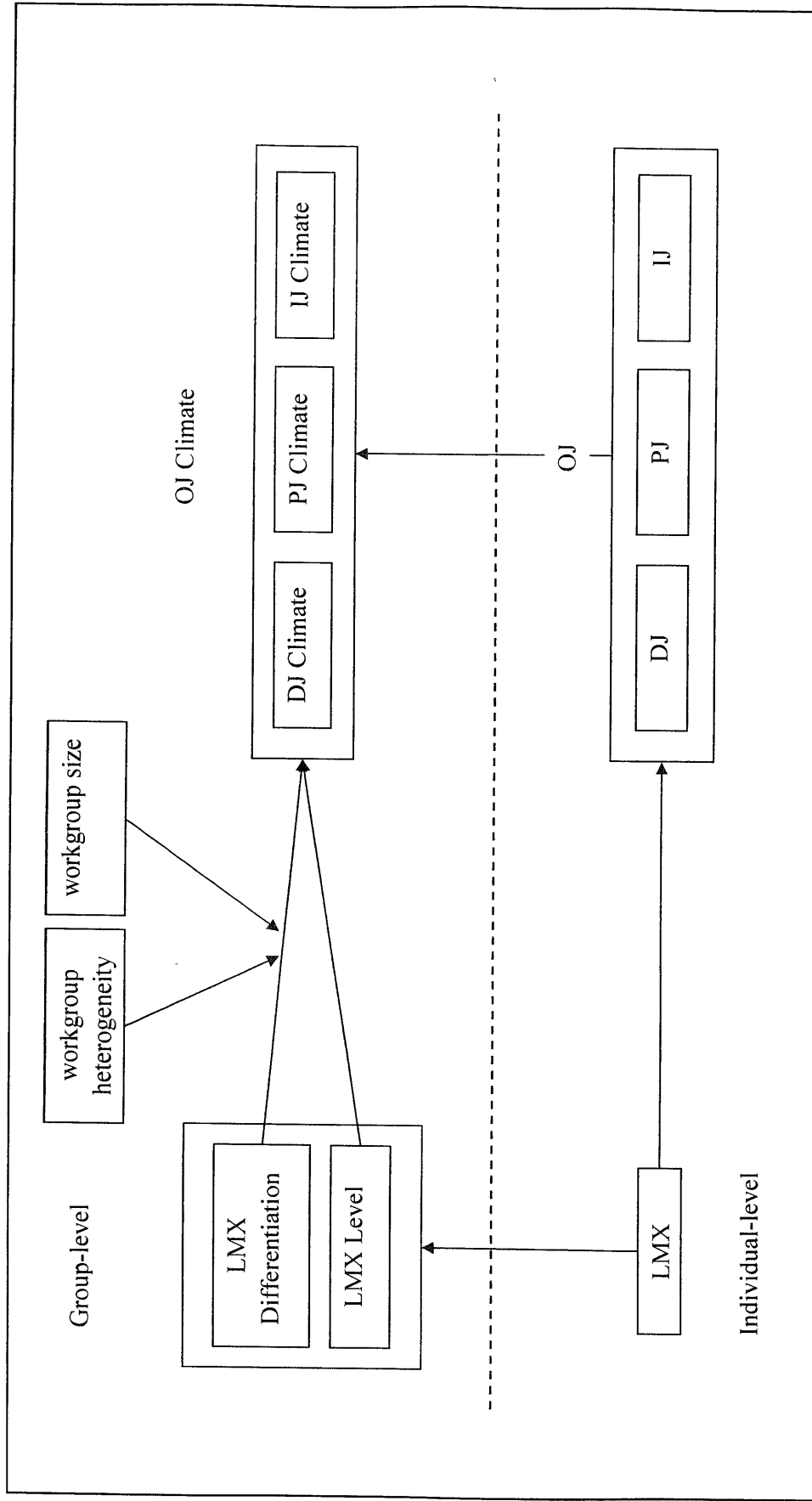


Fig. 2.1. A model for LMX and OJ dimensions association at the individual- and group-levels of analysis.

Leader-Member Exchange and Organizational Justice Dimensions at the Individual-level of Analysis

Given the amount of studies that suggested the existence of a positive association between LMX and DJ, PJ, and IJ at the individual-level of analysis (e.g., Bolat, 2010; Lau, 2008), the association between these constructs was investigated. In the current model, LMX was assumed to be positively related to DJ, PJ, and IJ. The higher that followers will be treated with respect by their leaders, the more that they will perceive those leaders of being fair when distributing work outcomes, implementing work-related procedures, and treating them.

Leader-Member Exchange and Organizational Justice Climates at the Group-level of Analysis

In the current study, OJ Climates were all examined in relation to LMX Level and LMX Differentiation. In addition, it was proposed that workgroup size and heterogeneity can affect the associations between LMX Differentiation and OJ Climates.

LMX Level and OJ Climates

The current model suggests that as leaders provide their group members with higher levels of support, keep them aware of work-related information, and allow them to express their concerns regarding the procedures applied; this will increase the group's perceptions of IJ Climate and PJ Climate. This is similar to what has been proposed by Mayer (2004). In addition, it is proposed that the same theorizing is applicable to DJ Climate, i.e., the more that followers perceive the tangible/intangible rewards they receive as proportional to their efforts, the higher their DJ Climate perception will be. Thus, the higher the number of high quality LMXs in a group, i.e., LMX Level, the higher its members' perception of OJ Climates will be.

LMX Differentiation, OJ Climates, and workgroup size and heterogeneity

Mayer (2004) argued that distinguishing between group members during the distribution of outcomes, treatment, and the implementation of procedures may violates justice rules such as Adams' equity rule (1965). In consistency with what has been proposed by Mayer (2004), this

research suggests that as LMX Differentiation increases in a group, group members are likely to perceive lower degrees of justice perceptions, and OJ Climates, i.e., workgroups' perceptions of fair treatment, is likely to decrease.

Additionally, the current study investigates workgroup size and heterogeneity as two group characteristics that may have an effect on the relationship between LMX Differentiation and OJ Climates. In the following lines an explanation of this role is provided.

Workgroup size: the current study supports Mayer's (2004) claim, and proposes that workgroup size will have a moderating impact on the association between LMX Differentiation and OJ Climates such that the smaller the group is, the stronger the association between LMX Differentiation and OJ Climates will be. Smaller groups make differentiation between employees more prevalent.

Workgroup heterogeneity: the previous point of view is adopted in this research, predicting that the higher the group homogeneity, i.e., lower heterogeneity, the stronger the associations between LMX Differentiation and OJ Climates should be. Demographically-similar groups are likely to agree on OJ Climates perceptions, injustice against one of the group members is perceived as a threat toward all group members (Naumann & Bennett, 2000).

Research Methodology

Saunders, Thornhill, and Lewis (2009) specified that when conducting business research, three methodologies may be used: quantitative, qualitative, and mixed methods, i.e., a combination of the two. A major source for distinction between these approaches is based on the researcher's philosophical assumptions of what to be learned and how to learn it, i.e., knowledge claims or paradigms (Creswell, 2003). Knowledge claims can be made about different aspects such as the ontology, epistemology, axiology, rhetoric, and methodology of gaining knowledge. Ontology is concerned with what is knowledge, epistemology with how we know it, axiology with the values that go into it, while rhetoric and methodology are concerned with the processes of writing about it and studying it respectively (Creswell, 1994). Different schools of thinking were identified with regards to those knowledge claims (Creswell, 2003). Among those schools, the post-positivism was the one followed during the

conduct of this research. According to the previous researcher, this school recognizes that in terms of ontology, absolute truth can never be found and research evidences are imperfect, i.e., researchers are critical realists, whereas in terms of epistemology being objective is an essential aspect of the inquiry process. Post-positivism reflects a deterministic philosophy in a sense that researchers tend to focus on problems in which outcomes are determined by certain causes. Post-positivists begin their investigation of problems with certain ideas that are eventually reduced for the sake of a smaller more refined set of ideas. They are described of being reductionists. They are concerned with empirical observation and measurement as well as theory verification. In terms of the axiological assumptions, post-positivists must examine the methods deployed and conclusions reached for biases, a researcher's values should not influence his/her inquiry. The words "validity" and "reliability" are widely used by those researchers to reflect their objectivity and are considered to be part of their rhetorical philosophy.

Carr (1994) specified that each of these approaches has its own strengths and weaknesses, exclusively valuing one method over the other is likely to jeopardize researchers' ability to utilize their power while conducting research. In this study, data was gathered and analyzed using the quantitative approach which was selected because of its consistency with the nature of the investigation. The current study was primarily developed to test a theory that examined a human-based problem related to two well defined constructs or variables, namely LMX and OJ dimensions. The previous description is based on Creswell's (1994) definition of quantative research, which also suggested that with quantitative approaches a generalization of findings is more possible.

However, one of the major shortfalls of quantitative methods is that they tend to be pre-structured, leaving little room for respondents to truly express their feelings and elaborate on the subject matter (McBride & Schostak, 1995). Nevertheless, the use of structured methods can be justified by their capabilities to facilitate comparison processes through the collection of standarized data, as well as the ability to strengthen the research reliability through the replication of the study instrument (Saunders et al., 2009). Another key feature of quantitative methods is that they enable researchers to remain independent of the research and to develop their understanding and comprehension of the investigated subject while preventing their values and beliefs from interfering with it, i.e., the assumption of objectivity of reality

(Quantitative and qualitative research, 2009). This is an essential part of the current research as no personal interest in any of the investigated subjects, i.e., organizations, was present. In this study, data was collected using a survey in which participants were asked to respond to a number of closed questions that provided them with a set of alternative answers to select from, thus making the questions easier and quicker to answer (Saunders et al., 2009).

The current research was conducted using a primary form where self-administered questionnaires were designed to collect quantitative data. Questionnaires were filled by employees in a selected sample of workgroups across different organizations belonging to a number of different economic sectors in the Kingdom of Bahrain. All data was collected via the survey except for the number of employees within each workgroup which had to be collected from two different sources, further detail is provided in the Instrumentation Section in this chapter.

The selection of survey as the primary, and perhaps the only, tool for gathering data was based on the advantages offered by this tool. To name a few; surveys are quick and inexpensive, can be easily used to collect large amount of data, and to produce relational models (Saunders et al., 2009). On the other hand, the previous researchers suggested that it would be wise if surveys were only used when a valid interpretation of the questionnaire items was guaranteed; after all, most questionnaires, especially self-administered ones, tend to be standardized in a way that would make it difficult to explain questions that were misinterpreted by participants. Furthermore, questionnaires' credibility may be affected by the deliberate falsification and unconscious misinterpretation of respondents (Zikmund, 2002).

A correlational approach was followed to investigate the associations between LMX and OJ dimensions among individuals and between LMX Level, LMX Differentiation, and OJ Climates among workgroups. The role of workgroup characteristics on the association between LMX Differentiation and OJ Climates was examined using the same approach.

Population, Sample, and Sampling Procedure

Data from individuals working in twelve organizations belonging to five Bahraini economic sectors were collected. A purposive non-probability sampling was used to construct the study

sample. Given that the survey was in English, only respondents who were capable of reading and comprehending English text were selected. In addition, participants had to be working in groups consisting of at least two members. The use of the purposive non-probability sampling was supported by the need to reach the targeted sample quickly without concern for proportionality (Trochim, 2006).

Out of 372 employees comprising the total number of subordinates in the targeted groups¹, 173² employees responded to the questionnaires with useable answers, i.e., an average participation rate (47%). The average participation rate per group was relatively high (70%) and the lowest response rate (11%) was reported only by one workgroup. Furthermore, only fifteen workgroups (36%) achieved a response rate of 100% per group. Table 2 lists the examined sectors along with the number of organizations per sector and employees that were contacted.

¹ Figures were based on data collected from the organizations and the workgroup size field in the returned questionnaires

² Some of the returned questionnaires were excluded from the study for having missing data that could not be completed, while others for having a workgroup size of one or only one response from the whole group which contradicts the basic assumptions of LMX theory.

Table 2

Distribution of organizations, groups, and employees in the sample

Sector	No. of organizations	No. of approached groups	Total no. of employees in the approached groups	Total no. of groups with valid participants	Total no. of valid participants
Banking and Finance	4	8	99	5	25
Industrial Production	1	20	101	20	81
Real estate, renting, and business services	3	8	48	6	19
Education	3	10	117	9	42
Telecommunication	1	2	7	2	6
Totals	12	48	372	42	173

Data Collection Procedure

In order to collect the data required for conducting the research, two versions of the survey were developed: online and offline. Prior to data collection, a preliminary investigation of the most appropriate level for collecting workgroup data in each organization, the number of workgroups' members who agreed to participate in the survey, and the most appropriate method to distribute the survey for each group, was held. This investigation stage, ended up with most of the questionnaires being printed and kept in separate envelopes before distributing them to the participants.

Regardless of the distribution method that was followed, all the distributed questionnaires had attached an invitation letter or invitation e-mail explaining the purpose of the questionnaire, asking prospective candidates to participate and stressing the confidentiality of their answers. The invitations are provided in Appendix A and Appendix B. When the online survey was used, the survey link was part of the invitation e-mail. Alternatively, the survey itself was attached to the invitation e-mail when the soft rather than the online copy was preferred.

Workgroups who preferred to receive printed questionnaires were handed a certain number of questionnaires equivalent to the number of the participants who agreed to participate in the survey. Once the necessary time to fill the survey had elapsed, the questionnaires belonging to each group were kept in a separate batch upon receipt until all participants submitted the filled questionnaires; this step was necessary to ensure that each response could be easily collected in the correct group.

On the other hand, some of the workgroups indicated that it would be more effective if the survey was sent via e-mail or if the online version of the survey was distributed instead of the hard copy. In both cases, participants were e-mailed a soft copy of the survey or a link to the online version of the questionnaire. Additionally, for the e-mailed version of the survey, participants were asked to send their responses via e-mail.

Only one workgroup preferred to use the online version of the survey. Assembling the online responses was not that difficult since respondents were required to indicate their workgroup and organization titles. Indeed, the online questionnaire was designed in a way to ensure that

no survey would be accepted for submission unless all fields were filled in by the respondent, i.e., all fields were mandatory.

All the respondents were asked to complete the questionnaires outside their working hours, e.g., during their break/leisure time. Instructing the participants to fill the questionnaire in their leisure time, as well as the use of an online vehicle to distribute the questionnaire helped in ensuring that answers given by participants were not affected by the presence of their superiors. A two-week time frame was given to the participants to finish the questionnaire. Additionally, all of them were frequently reminded to fill in the questionnaires. The reminding method was based on the participants own preference.

Upon data receipt, the collected questionnaires were examined for any missing data or inconsistencies. Although most of the participants were kind enough to provide all the information required, some of them failed to answer the questions related to their organization and workgroup titles and size, or provided answers that were not consistent with those provided by other group members. Other respondents left some questions unanswered. To resolve this discrepancy, participants were re-contacted to further check the number of members in each workgroup, along with the name of their workgroups and organizations.

The last step was trouble-free for those who filled in an e-mailed questionnaire since their e-mail addresses were easily revealed from previous e-mails, i.e., the submitted responses. However, it was difficult to identify those who filled in the printed version since no contact details were given by the respondents. This problem could have been overcome if participants were asked to reveal their contact details, e.g., e-mail, name, or mobile, or if the questionnaires' copies were serialized prior to distribution and each serial-respondent association was kept private, i.e., which participant received which copy. However, doing so could have raised some suspicions regarding the true purpose of the research and the intention of the researcher on the respondents' side. Therefore, the questionnaires were not serialized nor were the respondents asked about their contact details. Rather, the research relied on the participants' honest cooperation. However, respondents were frequently reminded to fill the whole questionnaire and responses were immediately checked upon receipt of each batch for missing data, so that they could be returned to the right respondent to fill missing data or

resolve any discrepancy. Fortunately, the number of questionnaires with missing data that could not be completed was limited to three.

Instrumentation

A questionnaire was developed to measure the targeted variables. Unless otherwise noted, demographic data was collected using list questions, e.g., religion. LMX and OJ variables were measured using the measures developed by Scandura and Graen (1984) and Niehoff and Moorman (1993) respectively. Some of the scale items were slightly modified and submitted to a native English speaker to judge those modifications. The changes included transferring some of the statements from a positive form into a negative one and using the word “direct supervisor” wherever applicable to ensure that participants would evaluate their relationships with their immediate leaders, i.e., to avoid overlap between authoritative figures. Participants were asked to respond to a number of rating statements using a five point Likert-type scale to indicate the extent to which they agreed with each one. Possible responses ranged from 1 (Not at all) to 5 (To a great extent). In the following paragraphs, an elaborated discussion on the measurements of the study variables will be provided. The discussion begins by examining the individual-level measures, followed by the group-level constructs and moderators. Additional information on each measure is provided in Appendix C.

Individual-level Variables

Individual-level scores for each participant were calculated by taking the average of his/her responses for the items within each scale (Mossholder et al., 1998). Higher scores in LMX and OJ dimensions indicated higher levels of quality in leader and member relationship and higher perceptions of fairness respectively.

LMX

Scandura and Graen’s (1984) LMX-7 measure was used for measuring the quality of LMXs. Various researchers have used this measure or one of its variations while conducting their investigations (e.g., Al-Dosary, 2012; Bolat, 2010; Erdogan & Bauer, 2010; Jackson, 2008; Lau, 2008; Maa & Qu, 2010; Pillai et al., 1999; Roch & Shanock, 2006). This measure was

identified as the most widely used LMX measure (Dulebohn et al., 2011; Graen & Uhl-Bien, 1995). Moreover, Dulebohn et al. (2011) revealed that LMX measures had no moderating effect on the relationships between LMX and its consequences; hence it was reasonable to choose the LMX-7 measure in this study. The seven-item measure was adopted from the dissertation by Mayer (2004) and slightly customized; some items were rephrased into a negative-stated form that reflected the same positively-stated meaning. A sample item converted the statement “I feel that my manager recognizes my potential” to “I don’t feel that my direct supervisor doesn't recognize my potential”. Other items were kept as they were, except for replacing the word "manager" with "direct supervisor", for example “I can count on my direct supervisor to support me even when I’m in a tough situation at work”.

OJ

The three justice dimensions were measured using Niehoff and Moorman’s (1993) measure. The primary reason for selecting this measure was to add to the empirical validity of justice measures by deploying a measure other than Colquitt’s (2001) measure for OJ, which was extensively used and empirically validated by researchers (Li & Cropanzano, 2009). Although the current measure was not used as far as Colquitt’s (2001) still it had been previously employed in LMX and OJ research (e.g., Abu Elanain, 2010; Al-Dosary, 2012; Elamin, 2012; Erdogan & Bauer, 2010; Fernandes & Awamleh, 2006; Lau, 2008).

Originally, the scale was developed to measure DJ, PJ, and IJ using five and fifteen items respectively; i.e., PJ and IJ were combined in a single measure with six-items for PJ and nine-items for IJ. Out of those measures, only the items that were adopted by Lau (2008) were used, i.e., three items for DJ and five for IJ and PJ. The elimination of some of the items that were originally included in Niehoff and Moorman’s (1993) measure was driven by the desire to include only those items that were mostly controlled by direct supervisors, especially since a portion of the targeted sample consisted of members working in public organizations, i.e., managers in these organizations had little control over issues such as payment and financial reward distribution. Items for DJ were designed to assess the fairness of task responsibilities, work schedule, and work load. Items for PJ were used to evaluate information accuracy, bias suppression, consistency, correctability, and representativeness of concerns, whereas items for IJ measured sensitivity to employees’ needs, respect, truthfulness of information, and

justifications for decisions made. Again, some of the items were rephrased into a negative form while others were kept as they were. Sample items included “My direct supervisor has given me equitable task responsibilities” for DJ, “My direct supervisor doesn’t make task decisions for me in a biased manner” for PJ, and “My personal needs are well concerned by my direct supervisor” for IJ.

Group-level Variables

This section begins by taking a look at the different methods developed to aggregate individual responses to reflect group perceptions (Li & Cropanzano, 2009). Chan (1998) identified five composition models to capture group perceptions on any given phenomenon. They are process composition, additive, referent shift, direct consensus, and dispersion.

The process composition method is not widely discussed in the justice literature as it was not found to be related to unit-level justice research compared to the other methods (Li & Cropanzano, 2009). According to the previous researchers, the additive model measures collective constructs as the summation or the average of individual responses, agreements among unit members is not considered to be an issue. On the contrary, the previous researchers assert that referent shift and direct consensus models require a certain level of agreement of individuals’ perceptions, a cut-off limit, to be exceeded prior to any data aggregation. However, the previous two models are quite different from each other; the referent model requires individuals to be asked about their unit/group as a whole, i.e., referent is the unit. The direct consensus model requires individuals to be asked about themselves, i.e., referent is the respondent. Finally, the dispersion model focuses on the level of agreement/disagreement among unit members, i.e., within-unit variability or strength of the climate.

Despite focusing on examining group perceptions of LMX and fairness, the survey items, deployed in the current research, were designed using the direct consensus model with the individual as the point of reference, i.e., referent, rather than the workgroup when judging perceptions of OJ and LMX. Two reasons were behind this decision. The first one was that LMX and OJ integration at both the individual- and group-levels was one of the research objectives, hence measurement of individual perceptions of justice conditions and LMX

quality had to be done. Asking individuals about the fairness of their treatment and then aggregating each group responses to make conclusions about the whole group made more sense than asking them about the group treatment and trying to conclude what their individual perceptions of justice were. Second, although it was possible to develop two measures, one for the individual-level and the other for the group-level, doing so would have made the survey lengthy to complete. Therefore, the direct consensus method was selected for aggregating individual-level responses to the group-level, especially since other researchers have also done the same (e.g., Liao & Rupp, 2005; Mayer, 2004).

LMX Level

This variable was measured by aggregating individual employees' perceptions of their relationships with their managers to create a mean score for each workgroup (e.g., Lau, 2008). A high mean score reflected higher levels of "in-group" membership, i.e., more employees had high quality exchanges with their leaders and the whole group was treated with higher quality.

LMX Differentiation

LMX Differentiation refers to variation in LMX perceptions within a group. This construct was calculated as the standard deviation from LMX Level for all the members in a group such that each group had a single value for LMX Differentiation. This operationalization of LMX Differentiation is consistent with recent work on climate strength (e.g., Erdogan & Bauer, 2010; Lau, 2008; Le Blanc & González-Romá, 2012; Maa & Qu, 2010). Higher variances in LMX score meant less strength, i.e., the more the differences, the higher the discrimination among group members and the lower their agreement on the group-leader exchange.

OJ Climates

In this study, the three OJ Climates were measured by aggregating the data collected from individual employees, regarding their OJ perceptions, to the group-level of analysis and creating a mean score for each workgroup, i.e., OJ Climate level. This approach was selected

because it had been successfully deployed by previous OJ Climate researchers (e.g., Colquitt et al., 2002; Mossholder et al., 1998; Liao & Rupp, 2005).

Workgroup size

This variable refers to the number of employees in each group (Greenberg et al., 1982) provided by the respondents or the investigated organizations whenever possible.

Workgroup heterogeneity

Consistent with previous research on workgroup heterogeneity (Lau, 2008), this variable was measured by collecting data on gender, religion, and education from the respondents and then computing Blau's (1977) index of heterogeneity and Agresti and Agresti's (1977) Index of Qualitative Variation (IQV). Blau's index was identified as the measure mostly used for capturing categorical diversity (Harrison & Klein, 2007). The index is defined as:

$$\text{Blau} = 1 - \sum_{i=1}^k p_i^2$$

p_i is the proportion of category i in the group and k is the maximum number of categories. Values for this index typically range from zero to $(k-1)/k$ where the maximum value is dependent on the number of categories defined. Blau's index was criticized by the previous researchers who developed a modified version of the index to overcome its group size bias, i.e., better results were reported for Blau's index for groups of 2-20 members. Nevertheless, the original index was applied in this research because most of the workgroups involved in the study sample had a group size that did not exceed the 20 members' threshold. Furthermore, variations were reported between the new index and the original one (Biemann & Kearney, 2009). Three instances of Blau's index were computed, one for each demographic variable, i.e., gender, religion, and education. Each workgroup had its own value for each type.

To calculate overall diversity, the three previous versions of Blau's index were to be averaged. However, given that each of these indexes is based on a different number of categories (k), each had to be multiplied by its corresponding $k/(k-1)$ to generate Agresti and Agresti's (1977)

IQV, resulting in a standardized range of indexes that enables comparability between them (Lewis, Kaufmana, Gonzaleza, Wimmerb, & Christakis, 2008). The formula below describes how this index can be calculated:

$$IQV = \frac{K}{K-1} * \text{Blau's index}$$

Three instances of Agresti and Agresti's (1977) IQV were generated for each workgroup. Each instance corresponded to a different demographic variable, i.e., gender, education, and religion. To calculate overall diversity, i.e., Workgroup Heterogeneity_{overall}, the three instances were averaged, for each workgroup, as follows:

$$\text{workgroup heterogeneity}_{\text{overall}} = \text{Average of IQVs for Background Variables} = \\ (IQV_{\text{gender}} + IQV_{\text{education}} + IQV_{\text{religion}})/3$$

It should be mentioned that overall diversity was calculated to measure the intensity of workgroup diversity without any attempt to draw conclusions on how internal decompositions of group members may pause different impact on each workgroup or to mask the effect of any variable on each group (Harrison & Klein, 2007). Appendix D lists the values of Blau's indexes for gender, education, and religion, as well as IQV for overall group heterogeneity for all workgroups.

Data Analysis Techniques

To begin with, it is important to shed some light on the survey's reliability. Reliability refers to the consistency of the results obtained from a measure regardless of the time and situation in which it was applied, i.e., error freedom (Zikmund, 2002). Cronbach's alpha test was used to measure the reliability of the research instrument. Additionally, the analysis stage provided frequency distribution for demographic data and descriptive statistics, e.g., mean, median, and standard deviation (SD), for the variables of interest at both levels of analysis. Later, the research objectives were pursued. An alpha level (α) of .05 was set to test the significance of the obtained results. Furthermore, all significance tests were two tailed.

At the individual-level of analysis, correlational statistics were used to describe the relationships between LMX and OJ dimensions. Each of the variables was measured using Likert-type scales. Given the persistent debate on which statistical methods to be applied on data generated by this kind of scales (Harwell & Gatti, 2001; Jamieson, 2004; Knapp, 1990), Spearman's rank order correlation was selected to measure the correlations. The use of parametric statistics with Likert-type scales was not supported by different researchers (Jamieson, 2004; Stevens, 1946). Harwell and Gatti (2001) specified that in the absence of valid assumptions for transforming ordinal data to interval one, only non-parametric tests, e.g., Spearman's rank order correlation, should be applied.

Data at the group-level of analysis were also based on the same Likert-type scales used for individual-level data. Hence, correlations between LMX Level and OJ Climates on one hand, and LMX Differentiation and OJ Climates on the other, were calculated using the Spearman's rank order correlation. However, before conducting any group-level analysis, aggregation statistics had to be calculated to justify the aggregation of individual measures to the group-level (Biemann, Cole, & Voelpel, 2012; Bliese, 2000; Cohen, Doveh, & Shani, 2007; Dansereau, Cho, & Yammarino, 2006; Klein & Kozlowski, 2000; Mierlo, Vermunt, & Rutte, 2009; Wagner, Rau, & Lindemann, 2010). It is widely accepted in higher level research to justify the aggregation of lower level data to higher levels before testing the hypothesized models (Biemann et al., 2012).

Aggregation statistics describe how far lower level data represents homogeneous/shared views within groups, a similarity that could be attributed to group membership more than to chance (Bliese, 2000; Klein & Kozlowski, 2000). Researchers specify two types of aggregation statistics to be calculated, namely: Interrater Agreement (IRA) and Interrater Reliability (IRR) (Biemann et al., 2012; Bliese, 2000; Klein & Kozlowski, 2000; Mierlo et al., 2009). According to the previous researchers, the first type of aggregation statistics refers to the interchangeability of individuals' responses, i.e., "group members provision of identical ratings of the subject of interest" (Mierlo et al., 2009, p. 375), whereas the second one refers to consistency of responses. In justifying data aggregation, Mierlo et al. (2009) developed a five-steps framework to be used for such purpose. Two of these steps were designed to calculate IRA and IRR indexes, i.e., steps three and four. The other steps were used to ensure constructs validity at the individual- and group-levels of analysis.

In this research, Klein and Kozlowski's (2000) approach for justifying data aggregation was adopted for its clear, easy, and straightforward implementation. The researchers specify that both IRA and IRR are necessary to be computed as both types provide complementary types of data (Cohen et al., 2007). For measuring IRA, James, Demaree, and Wolf's (1984) index of within-group agreement for multiple items scales, i.e., $r_{wg(j)}$, was selected for being the most widely used index on Likert-type scales (Biemann et al., 2012; Cohen et al., 2007; Klein & Kozlowski, 2000). Klein and Kozlowski (2000) describe $r_{wg(j)}$ as following a construct by group approach that assesses the extent of agreement within a single unit for a single measure to justify aggregation, i.e., a group has to achieve a certain $r_{wg(j)}$ cut-off to justify aggregation. IRR was calculated using Intra-class Correlations Coefficients (ICCs) for measuring within-group reliability, i.e., ICC(1) and ICC(2). ICC(1) estimates how much of a measure's total variance can be attributed to group membership (Bliese, 2000). ICC(2) provides information about the reliability and stability of the aggregated group constructs, i.e., mean (Cohen et al., 2007).

Furthermore, non-parametric partial correlation based on Spearman's coefficient, i.e., Partial Spearman's rank order correlation, was deployed to study the impact of the moderators, i.e., workgroup size and heterogeneity, on the associations between LMX Differentiation and OJ Climates. Partial correlation examines the association between two or more variables after adjusting for other variables (Schemper, 1991). Hierarchical multiple regression recommended by Mayer (2004) could have been used for the same purpose, since it allows individuals to examine the incremental effects of certain variables independent of the influence of others by controlling their entry sequence (Hierarchical multiple regression in SPSS; Hox, 2002). However, hierarchical multiple regression was not used because identifying the incremental effect of the moderating variables was beyond the study purpose.

Data Analysis Software

A combination of software programs and tools was used to conduct the analysis. The Statistical Package for the Social Sciences (SPSS) was used to compute descriptive statistics and to calculate correlations, i.e., Spearman's rank order correlation. Microsoft Excel 2007 ® was used to calculate averages, generate values for aggregated constructs, and to draw tables. Finally, the R statistical software was used to generate aggregation statistics and Partial

Spearman's rank order correlations. Each of the previously specified tools had its own strengths and offered a different set of facilities and features for its users. While using any of these tools may seem to be enough to meet the research objectives, combining them made this process easier.

SPSS was selected because of its coverage of a broad range of statistical procedures that allows a researcher to summarize data, examine relationships among variables, and determine whether there are significant differences between groups (Kirkpatrick & Feeney, 2003). On the other hand, Microsoft Excel 2007 ® was selected for its easy to use friendly interface with many built-in functions that can be applied on large amounts of data.

Finally, R is a free open source software. The R language which was developed by AT&T Bell Labs in the 1980's is "an integrated suite of software facilities for data manipulation, calculation and graphical display" (Venables, Smith, & Team, 2012, p. 8). It has a built-in package called "multilevel" that was designed to be used in the analysis of multilevel data. The package includes functions for estimating different IRA and IRR indexes and to analyze multilevel and longitudinal data (Bliese, 2012). "ppcor" is another useful package in R used for calculating parametric and non-parametric partial correlations (Kim, 2012). The previous tools offered different types of help for users including online tutorials and documentation resources.

Summary

In this chapter, an overall explanation of the model, procedures, methods, and instrument used in the research was provided. The model investigated the relationship between LMX OJ at the individual- and group-levels of analysis. At the individual-level, individuals' perceptions of OJ dimensions and LMX were linked. At the group-level however, two constructs were used to measure groups' perceptions of LMX, i.e., LMX Differentiation and LMX Level. The model suggested that OJ Climates are affected by a group's average LMX rating and the visibility of differentiation between group members in the quality of LMX. Furthermore, it was proposed that when differentiation between group members is low, the smaller the group size and greater its homogeneity, the stronger the agreement on justice perceptions will be.

Niehoff and Moorman's (1993) and Scandura and Graen's (1984) measures were used for measuring OJ and LMX respectively. Online and offline structured and close-ended surveys were constructed to collect data. The deployment of questionnaires to collect data was driven by the researcher's convenience and lack of resources, e.g., time. Unfortunately, surveys tend to leave little room for participants to express their true feelings. In addition, when using questionnaires, there is little opportunity to reveal any ambiguity faced by the participants.

Spearman's rank order correlation was used to examine the association between LMX and DJ, PJ, and IJ at the individual- and group-levels of analysis. Aggregation statistics were generated to justify the aggregation of lower level data and use of group-level constructs. In addition, Partial Spearman's rank order correlation was used to study the impact of group size and heterogeneity on the relationships between LMX Differentiation and OJ Climates. SPSS, Microsoft Excel 2007 ®, and the R statistical software were used to conduct the analysis.

In the following chapter, results of the analysis stage will be discussed in more detail.

Chapter 4

Results

Overview

In the following pages, the results collected from each of the applied analytical procedures are discussed in more detail. The chapter begins by looking at the scale reliability, data aggregation, and frequency distribution results. Following them, the descriptive statistics and individual-level results, and end with results of the group-level of analysis.

Scale Reliability

The scales deployed in this research were tested for their reliability by calculating the Cronbach's alpha coefficient (α) for each and for the overall questionnaire. Results of reliability test are listed in Table 3. The overall reliability of the model was estimated with $\alpha = .94$. In addition, each of the measures used reported a high reliability (LMX, $\alpha = .86$; DJ, $\alpha = .71$; PJ and IJ, $\alpha = .81$ for each).

Table 3

Results of Cronbach's alpha scale reliability test

Scale	Cronbach's alpha	No. of items
LMX	.86	7
DJ	.71	3
PJ	.81	5
IJ	.81	5
Overall Survey	.94	20

Justification for Aggregation of Group-level Variables

To justify the aggregation of individual-level variables and to ensure sufficient levels of agreement among workgroup members IRA and IRR indexes were generated. For IRA, the $r_{wg(j)}$ index for within-group agreement was calculated, while for IRR test both ICC(1) and ICC(2) for within-group reliability were calculated. Table 4 summarizes the findings. Moreover, the values of aggregation statistics for all workgroups are listed in Appendix E.

Table 4

IRA ($r_{wg(j)}$) and IRR (ICC(1) and ICC(2)) indexes for LMX, DJ, PJ, and IJ

	Mean $r_{wg(j)}$	Median $r_{wg(j)}$	ICC(1)	ICC(2)
LMX	.76	.86	.27***	.60
DJ	.61	.67	.36***	.69
PJ	.74	.84	.27***	.60
IJ	.57	.71	.27***	.60
<i>Note.</i> n = 42 at the group-level, n = 173 at the individual-level.				
*** $p < .001$.				

Results revealed that both LMX and PJ had mean $r_{wg(j)}$ values of .76 and .74 respectively. These values clearly exceed the .70 threshold widely accepted for justifying aggregation (Klein & Kozlowski, 2000). On the other hand, both DJ and IJ had mean $r_{wg(j)}$ below the .70 cut-off. The IRA score achieved by DJ was enough to exceed the .60 cut-off set to justify weak aggregation. However, for IJ the value generated falls below the acceptable level for justifying aggregation (Brown & Hauenstein, 2005). Nevertheless, all the values for the median $r_{wg(j)}$ exceeded the .60 cut-off for aggregation (LMX, .86; DJ, .67; PJ, .84; IJ, .71).

Additionally, all variables had an equivalent set of values for ICC(1) and ICC(2) of .27 and .60 respectively, except for DJ (ICC(1) = .36; ICC(2) = .69). By examining the ICC(1) values, it was found that significant amounts (36%) and (27%) of the variation in individuals rating of DJ and the remaining variables can be attributed to workgroup membership (e.g., LMX, $F(41,131) = 2.52$, $p < .001$; DJ, $F(41,131) = 3.28$, $p < .001$). Furthermore, all of the generated ICC(1) values were within the .00 to .50 range and above

the .12 median level for ICC(1) values found in many studies (James, 1982). They actually exceeded the .20 cut-off for high levels of ICC(1) (Bliese, 2000).

Finally, all ICC(2) values were within or above the .60 cut-off level (Glick, 1985) indicating the reliability of differentiating groups on each of the group-level constructs. In summary, not all of the aggregation statistics were consistent in their support for data aggregation, i.e. mean $r_{wg(j)}$. However, it has been previously accepted that either mean $r_{wg(j)}$ or median $r_{wg(j)}$ values may be used to justify aggregation (Biemann et al., 2012). Taken all together, there was an adequate justification for aggregating the individual-level data collected on each construct to the group-level of analysis (Mayer, 2004).

Frequency Distribution of the Demographic Variables

Looking at the investigated sample, Table 5 shows the demographic characteristics of the respondents. More than half of the participants (58%) were males. Additionally, the majority were college or university graduates, with bachelor degree holders comprising (64%). In terms of religion, most of the respondents were Muslims (84%), while the remaining were Christians (7%), Hindus (8%), and only two respondents (1%) chose "others" as an answer to this question. Nearly half of the respondents were working in the industrial sector (47%) followed by those in the education sector (24%). Moreover, the respondents were distributed across different professions. Teaching and engineering are some of the professions in which the participated employees were working.

Alternatively, Table 6 shows some of the characteristics of the investigated workgroups based on the existing participants' profile. The sample consisted of 42 workgroups distributed across five economic sectors. It was dominated by groups of ten or less members (80.95%). Additionally, more than one fifth of these workgroups were involved in the teaching profession (21.43%), followed by processing and operation teams (16.67%). The lowest contribution in the sample was made by IT groups and sales and marketing groups, each consisted (9.52%) of the sample workgroups. Most of the teams were composed of males (59.53%) with a small percentage having an equal number of participants from both genders (9.52%). Moreover, more than half of the workgroups had the majority of their participants holding Bachelor degrees (61.90%). Finally, Islam was

dominating the religious background of the workgroups, 36 workgroups had the majority of their participants being Muslims.

Table 5

Demographic distribution of participants with respect to gender, education, religion, and profession

Category	Description	No.	%
Gender			
	Males	101	58.40%
	Females	72	41.60%
	Totals	173	100%
Education			
	Diploma or below	40	23.10%
	Bachelor	110	63.60%
	Master and above	23	13.30%
	Totals	173	100%
Religion			
	Muslims	146	84.40%
	Christians	12	6.90%
	Hindus	13	7.50%
	Others	2	1.20%
	Totals	173	100%
Profession			
	Accounting and Finance	19	10.98%
	HR and Administration	23	13.29%
	Teaching	42	24.28%
	IT Professionals	12	6.94%
	Sales and Marketing	24	13.87%
	Engineering	27	15.61%
	Processing and Operation	26	15.03%
	Totals	173	100%

Table 6

Distribution of workgroups according to group size and participants' profession, gender, education, and religion

Category	Description	No.	%
Workgroup size			
	2 – 5	20	47.62%
	6 – 10	14	33.33%
	11 – 15	5	11.91%
	> 15	3	7.14%
	Totals	42	100%
Participants' Profession			
	Accounting and Finance	6	14.29%
	HR and Administration	6	14.29%
	Teaching	9	21.43%
	IT Professionals	4	9.52%
	Sales and Marketing	4	9.52%
	Engineering	6	14.29%
	Processing and Operation	7	16.66%
	Totals	42	100%
Participants' Gender			
	Majority are Males	25	59.53%
	Majority are Females	13	30.95%
	Others	4	9.52%
	Totals	42	100%
Participants' Education			
	Majority hold a Diploma or below degrees	7	16.67%
	Majority hold a Bachelor degree	26	61.90%
	Majority hold a Master and above degrees	3	7.14%
	Others	6	14.29%
	Totals	42	100%
Participants' Religion			
	Majority are Muslims	36	85.72%
	Majority are Christians	1	2.38%
	Majority are Hindus	2	4.76%
	Others	3	7.14%
	Totals	42	100%

Descriptive Statistics of the Study Variables

Investigating individuals' and workgroups' perceptions of LMX and OJ were some of the main objectives in the current study. Table 7 provides a description of these variables at the individual- and group-levels of analysis. Additionally, information on workgroup size and heterogeneity are provided. The statistics listed in this table were based on Neill's (2009) description of the most appropriate descriptive statistics for different levels of measurement.

Starting with perceptions of LMX and OJ at the individual-level of analysis, Table 7 illustrates that the participants reported average to high levels of LMX (Mean = 3.71, Mode = 4.14, SD = .86) and justice perceptions (DJ, Mean = 3.51, SD = 1.00; PJ, Mean = 3.61, SD = .89; IJ, Mean = 3.66, SD = 1.02).

The above high levels of individuals' justice perceptions and quality of leaders and followers exchanges extended to the group-level of analysis. As listed in Table 7, the investigated workgroups had average to high levels of LMX (Mean = 3.66, Mode = 4.00, SD = .61). Furthermore, leaders did not differentiate aggressively between members within those groups. Low levels of LMX Differentiation were identified in the current study (Mean = .68, SD = .29). OJ Climates were also above the average (DJ Climate, M = 3.46, SD = .76; PJ Climate, Mean = 3.56, SD = .64; IJ Climate, Mean = 3.59, SD = .71).

Furthermore, Table 7 shows that the participating workgroups had an average size of 8 members and were considerably variant in this term (Mean = 7.74, Median = 6, SD = 6.31). The maximum group size was 29 members and the minimum was 2. Moreover, they were overall moderately homogeneous (workgroup heterogeneity_{overall}, Mean = .24, Mode = .00, SD = .27). The greatest diversity stemmed from educational background (Mean = .24, SD = .24), while more homogeneity was observed in terms of gender and religion (workgroup heterogeneity_{gender}, Mean = .14, SD = .21; workgroup heterogeneity_{religion}, Mean = .15, SD = .22).

Table 7

Descriptive statistics for the variables at the individual- and group-levels of analysis

Variable	Mean	Median	Mode	Max	Min	Range	SD
LMX	3.71	3.86	4.14	5.00	1.29	3.71	.86
DJ	3.51	3.67	4.00	5.00	1.33	3.67	1.00
PJ	3.61	3.60	3.60	5.00	1.00	4.00	.89
IJ	3.66	3.80	5.00	5.00	1.40	3.60	1.02
LMX Level	3.66	3.76	4.00	4.63	1.79	2.85	.61
LMX Differentiation	.68	.65	.49	1.21	.10	1.11	.29
DJ Climate	3.46	3.65	4.00	4.67	1.42	3.25	.76
PJ Climate	3.56	3.69	3.33	4.51	1.70	2.81	.64
IJ Climate	3.59	3.77	3.87	4.86	1.70	3.16	.71
workgroup heterogeneity _{education}	.24	.30	.00	.64	.00	.64	.24
workgroup heterogeneity _{gender}	.14	.00	.00	.50	.00	.50	.21
workgroup heterogeneity _{religion}	.15	.00	.00	.67	.00	.67	.22
workgroup heterogeneity _{overall}	.28	.22	.00	.78	.00	.78	.27
workgroup size	7.74	6.00	4.00	29.00	2.00	27.00	6.31

Relationships between Leader-Member Exchange and Organizational Justice Dimensions at the Individual-level of Analysis

At the individual-level of analysis, the research was focusing on examining the relationship between LMX and all justice dimensions, i.e., DJ, PJ, and IJ. Spearman's rank order correlation was calculated to examine the relationship between these variables. Table 8 lists the correlations coefficients for these relationships.

By examining Table 8 it can be revealed that LMX was strongly and positively related to all justice dimensions. The lowest correlation coefficient was reported for the relationship between LMX and DJ ($r_s(171) = .65, p < .001$), whereas the highest coefficient was for the relationship between PJ and LMX ($r_s(171) = .75, p < .001$). In addition, for LMX and IJ, the variables were positively and strongly related ($r_s(171) = .71, p < .001$). Overall, increases in the quality of LMX were found to be correlated with increases in DJ, PJ, and IJ, i.e., positive association between the variables were supported.

Table 8

Spearman's rank order correlations between variables at the individual-level of analysis

	LMX	DJ	PJ	IJ
LMX	1			
DJ	.65***	1		
PJ	.75***	.69***	1	
IJ	.71***	.62***	.79***	1
Note. *** $p < .001$.				
n = 173.				

Relationships between Leader-Member Exchange Differentiation and Level and Organizational Justice Climates at the Group-level of Analysis

At the group-level of analysis, examining the direct relationships between LMX Level and LMX Differentiation and OJ Climates on one hand, and the moderating role of workgroup size and heterogeneity on the association between LMX Differentiation and OJ Climates on the other hand, were main concerns of the research. To meet the first objective, Spearman's rank order correlation coefficients between the variables were calculated at the group-level of analysis. Table 9 shows the correlation coefficients for all the group-level constructs.

Table 9

Spearman's rank order correlations for variables at the group-level of analysis

	LMX Level	DJ Climate	PJ Climate	IJ Climate	LMX Differentiation	group size	heterogeneity gender	heterogeneity education	heterogeneity religion	heterogeneity overall
LMX Level	1									
DJ Climate	.66***	1								
PJ Climate	.77***	.73***	1							
IJ Climate	.79***	.65***	.86***	1						
LMX Differentiation	-.27	-.14	-.21	-.06	1					
group size	.28	.13	.15	.35*	.11	1				
heterogeneity gender	-.13	-.18	.08	-.17	-.02	-.12	1			
heterogeneity education	.13	.09	.10	.09	-.04	-.15	.39*	1		
heterogeneity religion	-.14	-.02	-.15	-.25	-.07	-.17	.21	.38*	1	
heterogeneity overall	-.05	-.05	-.05	-.14	-.07	-.22	.77***	.80***	.62***	1

Note. n = 42. *** $p < .001$, * $p < .05$.

Investigating the association between LMX Level and OJ Climates, as listed in Table 9, revealed that those constructs were positively and significantly related to each other (LMX Level-DJ Climate, $r_s(40) = .66, p < .001$; LMX Level-PJ Climate, $r_s(40) = .77, p < .001$; LMX Level-IJ Climate, $r_s(40) = .79, p < .001$). Moving to the relationship between LMX Differentiation and OJ Climate, it was revealed that the associations between these constructs were relatively small and non significant (DJ Climate, $r_s(40) = -.14, p = .38$; PJ Climate, $r_s(40) = -.21, p = .17$; IJ Climate, $r_s(40) = -.06, p = .70$).

Additional to the previous correlations, Table 9 demonstrated that workgroup heterogeneity was non-significantly related to LMX Level. Negative weak correlations were reported between LMX Level and three of the investigated workgroup heterogeneity indexes (workgroup heterogeneity_{gender}, $r_s(40) = -.13, p = .41$; workgroup heterogeneity_{religion}, $r_s(40) = -.14, p = .37$; workgroup heterogeneity_{overall}, $r_s(40) = -.05, p = .74$). Furthermore, weak non-significant but positive relation was reported between LMX Level and workgroup heterogeneity_{education} ($r_s(40) = .13, p = .41$). Finally, in terms of workgroup size, weak non-significant correlation was identified between workgroup size and LMX Level ($r_s(40) = .28, p = .07$).

Table 9 also illustrated that workgroup heterogeneity was non-significantly related to OJ Climates and LMX Differentiation. Negative weak correlations were reported between workgroup heterogeneity_{gender} and the main variables of interest (DJ Climate, $r_s(40) = -.18, p = .26$; PJ Climate, $r_s(40) = -.08, p = .60$; IJ Climate, $r_s(40) = -.17, p = .28$; LMX Differentiation, $r_s(40) = -.02, p = .89$). Workgroup heterogeneity_{education} had positive weak relations with OJ Climates (DJ Climate, $r_s(40) = .09, p = .57$; PJ Climate, $r_s(40) = .10, p = .55$; IJ Climate, $r_s(40) = .09, p = .56$) and negative one with LMX Differentiation ($r_s(40) = -.04, p = .81$). Religious heterogeneity was also negatively and weakly related to DJ Climate ($r_s(40) = -.02, p = .91$), PJ Climate ($r_s(40) = -.15, p = .34$), IJ Climate ($r_s(40) = -.25, p = .11$), and LMX Differentiation ($r_s(40) = -.07, p = .68$). Results of workgroup heterogeneity_{overall} were consistent with individual correlations previously listed (DJ Climate, $r_s(40) = -.05, p = .73$; PJ Climate, $r_s(40) = -.05, p = .77$; IJ Climate, $r_s(40) = -.14, p = .40$; LMX Differentiation, $r_s(40) = -.07, p = .68$).

Moving to group size, positive significant correlation was reported between workgroup size and IJ Climate alone ($r_s(40) = .21, p = .18$). Positive but weak non-significant correlations were found between workgroup size and the remaining OJ Climates (DJ Climate, $r_s(40) = .13, p = .43$; PJ Climate, $r_s(40) = .15, p = .33$) and between workgroup size and LMX Differentiation ($r_s(40) = .11, p = .49$). Additional information on the correlations between the remaining variables is shown in Table 9 above.

Next, the potential impact of workgroup size and heterogeneity, i.e., gender, education, religion, and overall heterogeneity, on LMX Differentiation's relation to OJ Climate was to be inspected. Table 10 summarizes the findings. First, the relationship between LMX Differentiation and DJ Climate while adjusting for the role of workgroup size and heterogeneity was explored. LMX Differentiation and DJ Climate were negatively but non-significantly partially correlated when adjusting for those variables (r_s LMX Differentiation DJ Climate. workgroup heterogeneity gender (39) = $-.15, p = .35$; r_s LMX Differentiation DJ Climate. workgroup heterogeneity education (39) = $-.14, p = .39$; r_s LMX Differentiation DJ Climate. workgroup heterogeneity religion (39) = $-.14, p = .37$; r_s LMX Differentiation DJ Climate. workgroup heterogeneity overall (39) = $-.14, p = .36$; r_s LMX Differentiation DJ Climate. workgroup size (39) = $-.16, p = .32$). Furthermore, inspecting the values of the associated Spearman's correlations revealed that each of the adjusted-for variables had no or limited impact on the strength of the association between LMX Differentiation and DJ Climate ($r_s(40) = -.14$).

Later, the Partial Spearman's rank order correlation between LMX Differentiation and PJ Climate while adjusting for each of the previously specified moderators was examined. A negative non-significant partial correlation was found between the two constructs (r_s LMX Differentiation PJ Climate. workgroup heterogeneity gender (39) = $-.22, p = .17$; r_s LMX Differentiation PJ Climate. workgroup heterogeneity education (39) = $-.21, p = .18$; r_s LMX Differentiation PJ Climate. workgroup heterogeneity religion (39) = $-.23, p = .16$; r_s LMX Differentiation PJ Climate. workgroup heterogeneity overall (39) = $-.22, p = .16$; r_s LMX Differentiation PJ Climate. workgroup size (39) = $-.24, p = .13$).

Table 10

Spearman's rank order correlations and Partial Spearman's rank order correlations among LMX Differentiation and OJ Climates adjusted for workgroup size and heterogeneity

	None ^a	LMX Differentiation				
		Adjusted for workgroup heterogeneity ^b gender	Adjusted for workgroup heterogeneity ^b education	Adjusted for workgroup heterogeneity ^b religion	Adjusted for workgroup heterogeneity ^b overall	Adjusted for workgroup size ^b
DJ Climate	-.14	-.15	-.14	-.14	-.14	-.16
PJ Climate	-.21	-.22	-.21	-.23	-.22	-.24
IJ Climate	-.06	-.07	-.06	-.08	-.07	-.11

Note. n = 24.

All correlations were non-significant ($\alpha = .05$).

^a = Spearman's Rank Order Correlation Coefficient, ^b = Partial Spearman's Rank Order Correlation Coefficient

Finally, IJ Climate was tested for partial correlation with LMX Differentiation and the moderating variables. Again negative non-significant partial correlations were reported (r_s LMX Differentiation IJ Climate. workgroup heterogeneity gender (39) = $-.07$, $p = .68$; r_s LMX Differentiation IJ Climate. workgroup heterogeneity education (39) = $-.06$, $p = .71$; r_s LMX Differentiation IJ Climate. workgroup heterogeneity religion (39) = $-.08$, $p = .61$; r_s LMX Differentiation IJ Climate. workgroup heterogeneity overall (39) = $-.07$, $p = .65$; r_s LMX Differentiation IJ Climate. workgroup size (39) = $-.11$, $p = .50$). The values of the associated Spearman's correlations revealed that each of the adjusted-for variables had no or limited impact on the strength of the association between LMX Differentiation and PJ Climate and IJ Climate (LMX Differentiation and PJ Climate, r_s (40) = $-.21$; LMX Differentiation and IJ Climate, r_s (40) = $-.06$).

Summary

Correlational analysis was conducted to achieve the research objectives. At the individual-level of analysis positive significant relationships were identified between LMX and OJ dimensions. At the group-level those positive significant relationships continued to exist, i.e., LMX Level and OJ Climates. However, at that level, it was revealed that when LMX was measured as a dispersion construct, i.e., LMX Differentiation, those relationships with OJ Climates did not hold anymore. Additionally, workgroup heterogeneity was not related to LMX Differentiation and OJ Climates, neither it did moderate the relationships between them. Furthermore, workgroup size was related to IJ Climate alone. However, it did not moderate LMX Differentiation's relation to any of the specified OJ Climates. Finally, aggregation analysis revealed that it was adequate to aggregate data on LMX and OJ to the group-level and represent shared group constructs.

In the following chapter a discussion on the previous relationships will be conducted.

Chapter 5

Discussion

Overview

In this chapter, results of the statistical analysis are elaborated in more detail. The discussion process is conducted in four phases. The first elaborates on the descriptive results generated at the individual- and group-levels of analysis, while the second phase is dedicated to the individual- and group-level results of the relationship between LMX quality and OJ. The third phase will focus on the relationships between LMX Differentiation and OJ Climates, examining the moderating role of some group-level constructs on the OJ-LMX association. Finally, a comparison is made between the current research findings and findings in other Arab and non-Arab Culturess.

Perceptions of Leader-Member Exchange and Organizational Justice in Bahraini Workgroups

In the Results Chapter, workgroups' perceptions on the quality of employees' exchanges with their leaders and the level of OJ they received were identified both individually and workgroup-wide. The means of LMX, OJ dimensions, and OJ Climates were all higher than the scales midpoint. At the same time, low levels of discrimination, i.e., LMX Differentiation, were reported by the study sample. These obtained levels of LMX, OJ, and OJ Climates indicate that leaders in Bahraini workgroups can be distinguished for caring for their relationships with their workgroup members and of being fair with them.

Those levels may be further examined in the light of cultural impact. Collective and Islamic cultures, e.g., Bahrain, are known for encouraging people to watch for each other (Ali, 2009; O'Regan & Alturkman, 2010; Syed & Ali, 2010). Managers tend to care for their employees

concerns and look out for their benefits, thereby forming high quality exchanges with them (Ali, 2009; Erdogan & Liden, 2006; Witzel, 2007). An alternative perspective of these results could be attributed to employees' tendency to be loyal to their supervisors (Ali, 1998; Atiyyah, 1992) and hence to overestimate the quality of their treatment and fairness.

Furthermore, the fact that the examined sample reported above average levels of PJ and PJ Climate suggests that managers in the investigated organizations were actually accredited the control over the design and implementation of the applied organizational procedures (Masterson et al., 2000). Alternatively, it could be attributed to a potential overlap, among individuals and workgroups, concerning PJ and IJ (Erdogan et al., 2006), especially since a significant positive relation was reported between these justice dimensions at both levels of analysis. Information is provided in Table 8 and Table 9 in Chapter 4.

Additionally, when it comes to DJ and DJ Climate, those high scores could be attributed to two primary reasons. First, in the current study, both government and non-government organizations were investigated, while in other studies, e.g., Andrews and Kacmar (2001), only government organizations, where the power of reward distribution was not handed to first line managers, were approached. Second, not all of the items in the original DJ measure were used in the present research; rather only three of the original items developed by Niehoff and Moorman (1993) were included to ensure that employees would evaluate their leaders based on the outcomes they actually controlled, ultimately affecting respondents' perceptions of this justice dimension.

Looking at the group-level findings alone, the aggregation statistics results, e.g., median $r_{wg(j)}$, concerning LMX, PJ, DJ, and IJ supports the impact of group membership on developing shared group cognition based on individual observations. Furthermore, the values generated from the ICC(1) statistical procedure indicated that more than a quarter (27%) of individuals' perceptions of LMX, PJ, and IJ could be attributed to group membership, while more than third (36%) of DJ perceptions are affected by workmates. This is consistent with Colquitt's (2004) findings regarding PJ, when he contended that individual justice perceptions are affected by group membership. Furthermore, the current results extend Colquitt's findings beyond PJ to include LMX and the remaining OJ Climates.

The group level results support social theories that suggest the important role played by group membership in shaping individuals' perceptions regarding their work environment. Such theories include: justice contagion, heuristic model, social information processing, and socialization theories (Li & Cropanzano, 2009; Salancik & Pfeffer, 1978; Schneider & Reichers, 1983).

The higher the number of high quality exchanges in a given workgroup, the more that members would share positive views of their leaders' treatment with each other, spreading a sense of having the whole group being treated with high quality (Mayer, 2004). Furthermore, when members of a workgroup perceive their leaders to be equally just while implementing procedures, treating them, and distributing information and resources, they are likely to share these perceptions with each other and a common belief of the leaders' fairness is likely to overwhelm the group (Colquitt, 2004; Colquitt et al., 2002; Lau, 2008; Mayer, 2004). Given that the participating workgroups were relatively small in size and demographically homogeneous, as illustrated in Table 6 and Table 7 of Chapter 4, it is no wonder that the impact of socialization processes was augmented, and that members of the workgroup tended to share similar points of view regarding the study variable as supported by the Selection Attraction Attrition theory (Schneider & Reichers, 1983).

Finally, the reported low levels of LMX Differentiation suggested that leaders did not differentiate aggressively between their workgroup members. They actually tended to focus on the development of high quality exchanges while at the same time exhibiting a certain level of consistency in treatment to the limit that differentiation would not be encountered as being persuasive, but perceived as minor, or as a legitimate act based on individual differences in capabilities. Additionally, having the research being conducted in a collective Islamic culture imposes that managers tend to care for their employees and to form high quality exchanges with them while demonstrating the lowest levels of discrimination (Ali, 2009; Erdogan & Liden, 2006; O'Regan & Alturkman, 2010; Syed & Ali, 2010; Witzel, 2007).

Relationships between the Quality of Leader-Member Exchange and Organizational Justice at the Individual and Group-levels of Analysis

One of the main objectives in this research was to examine the relationship between the quality of LMX and the fairness at the workplace with regard to the distribution of work rewards and outcomes, and the personal and procedural treatments received by workgroups and individuals from their leaders compared to their counterparts. Results of the statistical analysis revealed that unlike what has been argued by other researchers (El Akremi et al., 2010; Masterson et al., 2000; Mayer, 2004; Roch & Shanock, 2006) concerning what dimensions of justice should be related to LMX, all OJ dimensions were positively and significantly related to LMX quality at the individual- and group-levels of analysis. This is consistent with what has been reported by other researchers (e.g., Al-Dosary, 2012; Bolat, 2010; Lau, 2008; Mayer, 2004), who supported the positive associations between those constructs.

Looking closely at the current findings, PJ and PJ Climate were found to be related to LMX and LMX Level. Given the significant positive association between PJ and IJ in the investigated sample, this positive association could be attributed to the potential overlap between these justice dimensions (Erdogan et al., 2006). Moreover, IJ was related to LMX and IJ Climate to LMX Level, contending that when work-related interpersonal treatment is concerned (Interpersonal Justice, Roch & Shanock, 2006); employees perceive leaders with high exchanges as being fair. However, when it comes to DJ and DJ Climate, results were quite contradictory to Andrews and Kacmar's (2001) findings and Mayer's (2004) expectations, concerning the presence of insignificant relation between LMX and DJ. Furthermore, they were counter to Mayer's (2004) belief and expectation that DJ is unlikely to be related to LMX even at the group-level. This difference could be attributed to the fact that in the current study, both government and non-government organizations were investigated, while in the other study only government organizations were examined. Furthermore, it could be attributed to the reduction in the number of items included in the adapted DJ measure.

Overall, the positive association between LMX and OJ could be explained in different ways. Starting with the quality of the leader and follower exchanges, results suggest that when

leaders form high quality relationships with their subordinates, they are likely to affect their employees' perception of the fairness of outcomes distribution and personal and procedural treatment they receive. Employees become more inclined to perceive their leaders of being organizationally fair. Argument could be made that employees with high quality LMX are likely to give their leaders the "benefit of the doubt" when injustice occurs (Piccolo et al., 2008), thereby selectively comprehending unjust conditions as being fair when they are actually not.

Alternatively, El Akremi et al. (2010) contended that injustice leads to the deterioration of LMX. Elaborating on this, it makes perfect sense to believe that when leaders treat their employees fairly, employees will perceive this fair treatment as an evidence of leaders' care for them, which would increase their trust in their leaders and ultimately encourage them to involve in higher quality exchanges with those leaders (Frazier et al., 2010).

Additionally, the relationship between LMX and justice dimensions maybe accredited to cultural impact. Collective Islamic cultures encourage people to watch for each other (O'Regan & Alturkman, 2010). People in both cultures tend to focus on maintaining good relations with the individuals surrounding them, which makes them more tolerant of unfairness, as part of their pursuit of good relationships with everyone surrounding them (Ali, 2009; Erdogan & Liden, 2006; Witzel, 2007; Atiyyah, 1992), even their leaders.

Moreover, this positive relationship could be attributed to employees' loyalty to their leaders (Ali, 1998; Atiyyah, 1992), and their tendency to overestimate the quality of their leaders' fairness and their exchanges with them, especially since data on LMX and OJ were collected from the same participants. For example, employees with low LMX quality with their leaders are more likely to report lower perceptions of justice, while the opposite is true.

Furthermore, the group-level results concerning the association between OJ Climate and LMX Level can be examined by referring to social theories, e.g., Li and Cropanzano (2009). Higher numbers of high LMXs in a given workgroup spread a sense of high quality exchanges between the whole group and its leader, thereby increasing trust in the group's leader and eventually causing group members to be more tolerant to an unfair leader's acts.

Alternatively, when leaders are perceived of being fair procedurally, distributively, and interactionally, subordinates are likely to identify this as a sign of leaders' care for them and evidence of being members of the "in-group" rather than the "out-group". A sense of "in-group" membership is likely to spread through social interaction processes, causing the number of high quality exchanges, i.e., the average LMX Level, in the group to increase. Moreover, all of the correlation coefficients at the group-level were higher than the ones obtained at the individual-level of analysis, which could be attributed to the tendency of individuals in collective cultures to be affected by the views of their workmates and to adopt the opinions of the majority while shaping their personal identity (Erdogan & Liden, 2006), an effect that can be augmented when group members indulge in group-related social interaction.

Relationships between Leader-Member Exchange Differentiation and Organizational Justice Climates at the Group-level of Analysis

Moving to the relationship between LMX Differentiation and OJ Climate, no significant associations were detected between these constructs. This contradicts what was expected to be found in the current research as well as what was reported by other researchers (Mayer, 2004). However, it is still consistent with other researchers' expectations (Scandura, 1999).

A plausible explanation of this discrepancy would be related to the fact that in the examined sample, the LMX Level reported was high, while the amount of LMX Differentiation was low with a small standard deviation. This suggests that leaders were possibly cautious while discriminating between their workgroup members. The degree to which differentiation is visible in a group affects members' behavior and perceptions (Maa & Qu, 2010).

Additionally, it is possible that subordinates in the investigated sample deliberately overlooked the unfairness of their leaders for the sake of maintaining good relations with them and with others (Erdogan & Liden, 2006). This is consistent with the tendency of members in the Arab Cultures to focus on group cohesiveness and unity (Ali & Camp, 1995). One of the main responsibilities of a group member is to maintain the group cohesiveness. Challenging the majority of a group may bring shame and guilt to an individual, as stated by the previous researchers. Therefore, it is much easier for an individual to go along with the

stream than to oppose others, especially if his/her opposition is going to threaten harmony in the group.

Moreover, given that the group-level analysis was based on a small sample size (42 Workgroups), it is likely that the insignificance of the results may be affected by this issue (Lau, 2008).

On the other hand, results of the partial correlations between LMX Differentiation and OJ Climate, when adjusted for workgroup size and heterogeneity, support the lack of such an effect. This was quite expected, as no significant correlations were reported between workgroup heterogeneity and size, LMX Differentiation, and OJ Climates, except for workgroup size and IJ Climate. Although these findings were against what has been proposed in the research, still they were consistent with the ones reported by other researchers, i.e., workgroup size (Mayer, 2004).

The fact that no significant impact was exerted by workgroup heterogeneity on the relationship between LMX Differentiation and OJ Climates could be credited to the homogeneity of the contacted workgroups making it reasonable that no significant moderating role was reported by this construct. This can be revealed from the low values of Blau's indexes generated for each of the variables, e.g., gender. A significant amount of the sample consisted of public school teachers and workers at an industrial organization. Members in such groups tend to be of homogeneous sex. Academic and administrative staffs in Bahraini public schools are usually distributed according to the gender and age of their students, while in the investigated industrial organization most of the employees were males, whereas females were mainly working in the administrative teams and laboratories alone. In terms of religion, the majority of the respondents were Muslims, hence religious diversification was limited. Additionally, most of the teams consisted of members with a similar educational background. Overall, workgroup heterogeneity was limited and groups were homogeneous as revealed by the values of the IQV index.

Homogeneity in Bahraini workgroups could be accredited to the Selection Attraction Attrition theory (Schneider & Reichers, 1983), indicating that Bahraini organizations indeed tend to

attract similar individuals to join their establishments. Another possible reason would be the small sample size (Lau, 2008).

Furthermore, when examining the moderating role of workgroup size, it is possible that those insignificant relationships were due to the small sample and groups' size. Researchers have noticed that in small groups, the significance of the results is likely to be affected (i.e., Cummings et al., 1974). Moreover, it should be mentioned that the significant association between workgroup size and IJ Climate did not extend to the partial association between LMX Differentiation and IJ Climate with respect to workgroup size, as no significant relationship was reported between LMX Differentiation and workgroup size in the first place. In addition, the association between the previous two variables was positive. This is counter to the researcher's and Mayer's (2004) expectations. It suggests that in large groups, news of leaders' fair treatment spreads easily.

Finally, it is possible that leaders in the sample were affected by the impact of their Islamic collective culture and were drawn to develop good quality relations with most if not all their group members (Ali, 2009; Witzel, 2007), thereby minimizing the level of discrimination among their subordinates regardless of their gender, education, religion, or group size.

Leader-Member Exchange and Organizational Justice in Bahrain Compared to Previous Research Findings in the Arab Cultures

A look at the research findings indicates that subordinates in Bahrain greatly associate the quality of their relationships with their leaders with their perceptions of fairness at work. This is similar to what has been reported in other parts of the world. Many researchers in both Western (e.g., Andrews & Kacmar, 2001; Dulebohn et al., 2011; El Akremi et al., 2010; Lau, 2008; Mayer, 2004; Piccolo et al., 2008) and non-Western (e.g., Al-Dosary, 2012; Ansari et al., 2007; Erdogan et al., 2006; Pillai et al., 1999) cultures have reached the same conclusion on the presence of a significant relationship between LMX and OJ, although minor disagreements on which dimensions of OJ are related to LMX did exist.

The similarities between Bahrain and the other cultures support the impact of cross-cultural interaction (Pillai et al., 1999) on individuals in the Bahraini culture and their exposure to

other cultures as suggested by Ali (2009) when discussing the impact of non-Islamic cultures on the Islamic world. It further suggests that employees worldwide consider fair treatment, care, trust, and good relationships as universal values that should be applied everywhere. This indicates that although differences may occur between different cultures (Ali & Camp, 1995; Pillai et al., 1999; Zahran, 2011), still there are some universal values that all humans share.

The conclusions related to the Arab region may be partially due to the fact that all of the previously examined studies that were conducted in that part of the world have used the same measures that were applied in the current study (i.e., Al-Dosary, 2012; Pillai et al., 1999).

Previous research on Arab individuals indicated that they are people of principle who hold a great commitment to goals that enhance organizational performance and position while at the same time maintain people's welfare (Ali, 1998). Additionally, leaders in the Arab region were reported as being people oriented (Randeree & Ninan, 2011) and acting like a father figure, focusing on the group cohesion and consulting with their co-workers (Ali & Camp, 1995; Atiyyah, 1992). Furthermore, the consultative leadership style was reported as the one most applied in the Arab region (Ali et al., 1995; Atiyyah, 1992; Yousef, 1998). Together with the current research results, the previous findings support that members of the Arab Cultures share a similar grounding in their perceptions of life and its behavioral aspects (Shahin & Wright, 2004).

The fact that participants in the current study had high levels of LMX and OJ and that they strongly associated these two variables together supports the similarity between the Bahraini environment and its Arab neighbors. Developing high quality exchanges requires intensive communication and consultation between leaders and followers. This suggests that Bahraini leaders tend to follow a consultative style like other Arab leaders (Ali et al., 1995; Atiyyah, 1992; Yousef, 1998). Each party has to look for the concerns of each other, i.e., to be people oriented (Randeree & Ninan, 2011).

Furthermore, workgroup results indicate that members of Bahraini organizations share a high sense of group membership that focus on group cohesiveness and consultation with groupmates (Ali & Camp, 1995; Atiyyah, 1992).

Furthermore, promoting justice and LMX perceptions increases job satisfaction (Al-Dosary, 2012; Elamin, 2012; Fernandes & Awamleh, 2006; Suliman, 2007; Pillai et al., 1999) which could ultimately improve organizational performance (Kim, 2005). Hence, it seems that Bahrainis are similar to Arab citizens in their commitment to organizational performance (Ali, 1998). The low levels of LMX differentiation also suggest that leaders in Bahrain may hold universalistic values that reflect their adherence to the rules, as suggested by Maa and Qu (2010). This is similar to what has been reported about Arab leaders' emphasis on rules and regulations (Al-Kazemi & Ali, 2002; Atiyyah, 1992).

Another resemblance between Bahrain and its neighbor cultures stems from the insignificance of workgroup heterogeneity on workgroups' members exchange of information and from their view of their workmates as equal, regardless of any demographic differences or consideration for the number of their teammates. This supports that although differences may exist between locals and expatriates in the workplace, still a positive work environment can be sustained and differences can be neutralized (Neal, 2010).

Nevertheless, unlike what has been reported about the multiplicity of rules and subjectivity in rewarding in Kuwait (Al-Kazemi & Ali, 2002), the findings indicate that Bahraini workers do not suffer from such problems, as high levels of justice were reported in the current research. Interestingly, although the above-mentioned problems were noticed in Kuwait, still Al-Dosary (2012) reported high levels of justice in the Kuwaiti work environment. This suggests that Bahrainis', as well as Kuwaitis', positive perceptions of DJ, PJ, and IJ may be influenced by the high quality of LMXs reported in both studies.

On the other hand, given that the majority of the respondents were Muslims, the results confirm the impact of the Islamic traditions and guidelines on Muslim people. In the Islamic culture people tend to care for one another, justice and compassion are held up high, and ethical behavior is encouraged (Ali, 2009; Syed & Ali, 2010; Ali & Al-Owaidan, 2008). Leaders are instructed to distribute rewards fairly, to apply equal procedures, and to treat their subordinates with care (Ali, 2010; Ali, 2009; Syed & Ali, 2010; Witzel, 2007). All of the previous characteristics were found in the current sample.

Moving on, the low levels of LMX Differentiation and its insignificant association with OJ Climate suggest that, unlike some Western (Henderson et al., 2009; Lau, 2008; Mayer, 2004) and non-Western (Erdogan & Bauer, 2010; Maa & Qu, 2010) cultures, leaders in this region tend to form high quality exchanges with most of their followers. This could be partially attributed to the impact of the collective Islamic culture that encourages people to care for one another and to be fair with everyone (Ali, 2010; Ali, 2009; O'Regan & Alturkman, 2010; Syed & Ali, 2010; Witzel, 2007). The results also support the differences listed by Ali and Camp (1995) between Arab and non-Arab, i.e., American, cultures. Western cultures are known for encouraging individualized behavior more than group-oriented behavior (Ali & Camp, 1995; Erdogan & Bauer, 2010; Erdogan et al., 2006; Hayashi & Sekiguchi, 2006). However, the high reported levels of agreement between workgroups' members on the study variables and the low levels of LMX differentiation reported, support the dissimilarity between both cultures, i.e., Arab and Western, on their emphasis on the importance of workgroups in organizational life.

Moreover, given the dissimilarity in findings regarding LMX Differentiation, it appears that leadership practices differ around the world such that what is applicable in one of its parts may not be applicable in the other (Pillai et al., 1999; Zahran, 2011). Nevertheless, the resemblance in other findings regarding OJ and LMX quality perceptions across different cultures and cultures suggests that these two phenomena are truly important aspects of organizational life.

Summary

The research at hand was primarily conducted to inspect the quality of leaders and followers' exchanges, employees' justice perceptions, and how they relate to each other in Bahraini workgroups. Above-average levels of LMX/LMX Level, OJ, and OJ Climate perceptions and low levels of LMX Differentiation were identified in the examined sample. Results indicated that all justice facades were positively and significantly related to LMX quality at the individual- and group-levels, indicating that the more the group members are being treated with high quality, i.e., LMX/LMX Level is high, the higher its members will perceive distribution of resources, implementation of procedures, and whole-group treatment as being fair, i.e., OJ/OJ Climate is high.

Additionally, it was revealed that differentiation between group members is unlikely to affect group perceptions of justice. This was opposite to what has been proposed by the LMX original theorization; possibly because of the low level of LMX Differentiation found in the sample. Moreover, workgroup size and heterogeneity were not found to attenuate the impact of differentiation on group justice perception. As a matter of fact, although these findings contradict what has been proposed in the current study, they make perfect sense, since no correlations between LMX Differentiation, OJ Climate, workgroup size and heterogeneity were brought forward, except for workgroup size and IJ Climate. The discrepancy between what was expected and what was reported could be attributed to small sample and group size, homogeneity of the groups investigated, and the impact of collective and Islamic cultures on managers' acts and level of differentiation.

In summary, it could be contended that developing high quality exchanges between leaders and followers promotes fairness perceptions in organizations with respect to reward distribution, decision making and implementation of procedures, and interpersonal treatment, while differentiation in treatment does not necessarily trigger injustice perceptions. In addition, the results support that although many similarities may exist between different parts of the world, e.g., Western and non-Western, still managerial practices have to be adapted before implementing them worldwide.

In the following chapter conclusions, lessons, and recommendations based on the study results will be given.

Chapter 6

Conclusions and Recommendations

Overview

Imagining a world where injustice, prejudice, and discrimination dominate makes it inevitable to acknowledge the importance of this research. Although the relationship between LMX and OJ was examined previously, still great contributions have been made by the current study.

Investigation of LMX and OJ in a new cultural context was one of the interesting aspects of this research. Moving nearly half the globe to verify what has been considered almost a fact, in other cultural settings, is a beauty in itself. Interestingly, while most of the current findings supported what others have found, the remaining ones proved to be against what has been suggested. The role played by LMX Differentiation, workgroup size and heterogeneity on OJ Climates, open the doors for researchers to question the exact nature of LMX Differentiation and its relationship to OJ Climate. Suggesting that culture may have a role to play in how the previous constructs are related to each other.

Additionally, this study has contributed in shifting research on LMX and OJ one step ahead by attempting to respond to existing calls for a group rather than only an individual-level examination of both constructs. Looking at the previously investigated Arab world research, this research is possibly the first one to follow the statistical approaches widely used worldwide, e.g., $r_{wg(j)}$, to ensure the consistency and reliability of the construction of group-level measures before conducting any further statistical analysis. Moreover, this research examined the impact of workgroup heterogeneity and size as moderating conditions of the claimed relationship between LMX and OJ Climates. Providing an opportunity to understand what conditions might affect this relationship. It further examined the combined effect of

different heterogeneity indexes rather than investigating the potential impact of each of those indexes in isolation.

Furthermore, the current research has made one of its greatest contributions by integrating the three justice dimensions in one research. Doing so provided an opportunity for comparison to be made between all justice dimensions and for readers to enrich their comprehension of the relations between them.

This chapter represents the last episode in the current research. It emphasizes the plethora of knowledge gained from months of hard work and dedication. In the following pages a final conclusion about the results generated from the study is provided, followed by the lessons learned, and recommendations for Bahraini organizations and future research.

Concluding Remarks

Coming one step closer to the end of the research, conclusions can be derived from the work done. First, leadership practices have a valuable impact on individuals and workgroups perceptions of workplace. Hence, leaders and followers need to focus on nurturing the quality of their relationships to further promote employees' perceptions of fair distribution of resources, interpersonal treatment, and enactment of procedures both at the individual- and group-level.

Second, workgroups are an important part of the work environment, focusing on group related issues and dynamics is necessary to promote organizational life. Differentiation in treatment between workgroup members does not necessarily provoke feelings of injustice, especially if care was taken while doing so, and only limited levels of differentiation were exhibited.

Third, large group size and diversity do not necessitate that leaders are incapable of developing high quality relations with their group members or to treat them in a fair manner. Contrarily, the role of LMX on Justice Climates' perceptions was not proven to be moderated by these two group characteristics.

Finally, leadership practices cannot be exactly replicated from one cultural setting to the other, although a consistency of results has been found by Arab world cultures, i.e. Bahrain, with regards to LMX quality and OJ both individually and group wide. However, this similarity still did not extend to LMX Differentiation, suggesting that other aspects, e.g., culture, may play an important role in shaping groups perceptions of justice.

Lessons Learned

Now that the conclusions reached from conducting this study were discussed, it is time to emphasize on the lessons learned from using a cross-sectors sample.

First, since this study is one of few studies, if not the first, to investigate the association between LMX and OJ in the Bahraini culture, the use of a sample from different economical sectors can be considered as a way to gain a broad idea of how these phenomena operate in the Bahraini culture.

Second, using this kind of samples, researchers can evaluate the perspectives of employees working in different sectors and to hold comparisons between the data collected from each sector in order to identify if the results found can be actually attributed to the phenomena of interest or are they affected by the specific context of each sector. This ultimately would help the researchers in tailoring their recommendations according to the specific needs of each sector.

Recommendations

In this section a number of recommendations are provided based on the research findings. First recommendations for Bahraini organizations are listed, followed by recommendations for future research.

Recommendations for Bahraini Organizations

As with previous studies in this field, the current research demonstrated that developing high quality exchanges between leaders and followers working in different organizational settings

in Bahrain has the ability to enhance individuals' and workgroups' perceptions of justice in the workplace. Management practitioners in Bahrain can benefit a lot from these findings in creating healthier work environments, especially since it has been demonstrated previously that injustice perceptions can lead to workplace deviance (El Akremi et al., 2010).

Furthermore, another practical implication of this research arises from how differentiation in treatments between workgroup members can promote feelings of unfairness (Lau, 2008; Mayer, 2004). Although, the current research was not capable of proving the previous claim, still Bahraini managers have to be fully aware of the potential impact of severe differentiated LMXs on workgroup members and their justice perceptions, especially since other researchers have demonstrated so. The absence of an association between perceptions of LMX Differentiation and OJ does not eliminate the threatening power of discrimination on organizations.

Bahraini managers are further advised not to overlook the role of contextual and other factors, e.g., group size, on workgroup dynamics. These management practitioners need to pay some attention to workgroup diversity and size for their possible impact on workgroups' justice perceptions, although no direct, except for IJ Climate and group size, or indirect significant effect has been demonstrated by this research, still previous research warrants that caution needs to be taken.

Given that many similarities were reported between the Bahraini organizations examined in the current research and other organizations worldwide. All the recommendations that were given above are applicable to different organizations worldwide.

Recommendations for Future Research

It has been previously suggested and approved by many researchers that differentiation in relationships imposes an impact on individuals in groups (Lau, 2008; Mayer, 2004). However, the current research did not find any significant association between the two. Therefore, it is recommended that further research be focused on examining the impact of differentiation on workgroups especially in the Arab Cultures.

Additionally, the impact of workgroup size and heterogeneity needs to be re-examined, focusing on groups of larger sizes and greater heterogeneity. Furthermore, other moderators should be verified for their potential role on LMX and justice perceptions association, especially culture, given that others have suggested the important role of this construct (Erdogan & Liden, 2006; Erdogan et al., 2006). Moreover, future research should examine individual-level moderators for their potential impact and to study the cross-level interaction of both individual- and group-level variables (Lau, 2008). For example, researchers can examine how LMX Differentiation (group-level construct) may affect individuals' perceptions of DJ (individual-level construct).

Furthermore, other constructs should be examined in relation to LMX and OJ. For example, the role of trust on the reciprocal relationship between leaders and followers has been recognized by previous researchers (e.g., Drucker, 2005). Moreover, the role of employees' motivation to work needs to be examined since it could potentially relates employees' perceptions of LMX and OJ. Theories X and Y of McGregor (1960) can be addressed in this term as well as the impact of employee segmentation, i.e., offering employees customized treatment based on their personal concerns, (Peltier, Dahl, & Mulhern, 2009).

In addition, future researchers can re-conduct the current study using the referent-shift method rather than the direct consensus, applied in this research, and comparison between the two can be made (Mierlo et al., 2009). Furthermore, it is recommend that other measures be used, especially since newer refined measures perhaps encompass more reliability and better capture the essence of constructs than the ones currently deployed (Li & Cropanzano, 2009). Moreover, researchers are instructed to use the model developed by Cole, Bedeian, Hirschfeld, and Vogel (2011) for measuring, designing, and analyzing dispersion constructs, e.g., LMX Differentiation.

Additionally, the current research has employed a number of aggregation statistics to further support the construct of shared group-level variables. However, it would be interesting if future research focused on the usage of other tests such as $AD_{M(j)}$, and WABA, to compare the results generated from these tests to the ones obtained from the current research, especially since these tests complement the findings of each other. WABA for example can be used to verify the most appropriate level of analysis based on the gathered data (Dansereau et

al., 2006). In the same light, other guidelines should be followed for selecting respondents who are qualified to participate in the validation of group-level constructs like the one developed by Wagner et al. (2010).

Moreover, future researchers can implement this study on specific economic sectors, rather than on a cross-sectors sample, thereby allowing generalizability of results to the examined sector. Finally, it is also recommended that researchers collect data from both leaders and followers to avoid any prejudice by one party over the other (Erdogan & Bauer, 2010).

Summary

To conclude, great contributions have been made by the current research to both fields of LMX and OJ. First, the research asserted that leaders and followers relationships are important for promoting feelings of fairness and justice in the workplace. Furthermore, it has been demonstrated that differentiation in treatment does not necessarily hurt justice perceptions. Given the last finding, further research needs to be conducted to reveal more of the ambiguity of the OJ Climate and LMX Differentiation association, and to overcome any of the shortcomings found in the current research. Finally, it should be mentioned that this research offers great potential for management practitioners and interested parties to implement its findings practically, in real life.

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Appendix A

Invitation for the Survey's E-mailed and Offline Versions A Survey on Leader-Member Exchange and Organizational Justice

Dear Sir/Madam,

My name is Elham Hassan Ebrahim. I'm a post-graduate student, preparing my Master degree in Business Administration at the University of Bahrain. As a part of my graduation requirements, I've been asked to present a thesis regarding "Leader Member Exchange and Organizational Justice Climate in Bahraini Workgroups". Therefore, you are kindly invited to participate in a survey designed to achieve this purpose. Participation in this survey is voluntary and you are free to withdraw at anytime.

Please read carefully the instructions at the beginning of each section and answer all questions as accurately as possible. To protect your identity, please do not share this survey with anyone. **All information you provide will be used for academic purposes, kept strictly confidential, and no names will be disclosed.**

If you have any questions about this survey, please do not hesitate to contact me at 36661009 or via email elhamhassan83@yahoo.com/ehassan@asc.uob.bh.

Thank you very much for your time and participation.

Sincerely

Elham Hassan Ebrahim
University of Bahrain

Appendix B

Invitation for the Survey's Online Version A Survey on Leader-Member Exchange and Organizational Justice

Dear Sir/Madam,

My name is Elham Hassan Ebrahim. I'm a post-graduate student, preparing my Master degree in Business Administration at the University of Bahrain. As a part of my graduation requirements, I've been asked to present a thesis regarding "Leader Member Exchange and Organizational Justice Climate in Bahraini Workgroups". Therefore, you are kindly invited to participate in a survey designed to achieve this purpose. Participation in this survey is voluntary and you are free to withdraw at anytime.

Please read carefully the instructions at the beginning of each section and answer all questions as accurately as possible. To protect your identity, please do not share or forward this email to anyone. **All information you provide will be used for academic purposes, kept strictly confidential, and no names will be disclosed.**

If you have any questions about this survey, please do not hesitate to contact me at 36661009 or via email elhamhassan83@yahoo.com/ehassan@asc.uob.bh.

Please Follow the Link Below:

<https://docs.google.com/spreadsheet/viewform?formkey=dGJ0NkxENlVJZnRjb09TdGsxcldpVFE6MQ>

Thank you very much for your time and participation.

Sincerely

Elham Hassan Ebrahim
University of Bahrain

Appendix C

A Survey on Leader-Member Exchange and Organizational Justice

Dear Sir/Madam, you are cordially invited to participate in this survey which aims to understand the leader-member relationships and justice perceptions in your Section/Workgroup/Team. Participation in this survey is voluntary. All information you provide will be kept confidential. The questionnaire is divided into five parts, Background, Leader-Member Exchange, Distributive Justice, Procedural Justice and Interactional Justice. Please fill the whole questionnaire, your cooperation is highly appreciated.

Background

Gender:	☐ Male	☐ Female
Education:	☐ Diploma or below	☐ Bachelor ☐ Master or above
Religion:	☐ Muslim	☐ Christian ☐ Hindu
	☐ Other	Specify:
Organization:	Workgroup/Team:	
Number of Members in your Workgroup/Team (including yourself):		

Leader-Member Exchange

Respond to statements about your relationship with your immediate Workgroup/Team supervisor. Please only think about your present direct supervisor when you respond. Read each description and tell us the extent to which it describes your relationship with your direct supervisor using the 5 points scale: Not at all, To a limited extent, To some extent, To a considerable extent, To a great extent.

No.	Item	Not at all	To a limited extent	To some extent	To a considerable extent	To a great extent
1	I usually know how satisfied my direct supervisor is with what I do.	☐	☐	☐	☐	☐
2	I feel that my direct supervisor understands my problems and needs.	☐	☐	☐	☐	☐
3	I don't feel that my direct supervisor doesn't recognize my potential.	☐	☐	☐	☐	☐
4	If necessary, my direct supervisor would use his/her power and influence to help me.	☐	☐	☐	☐	☐
5	I can count on my direct supervisor to support me even when I'm in a tough situation at work.	☐	☐	☐	☐	☐
6	I wouldn't stop supporting my direct supervisor's decisions even if he/she was not present.	☐	☐	☐	☐	☐
7	I have an effective working relationship with my direct supervisor.	☐	☐	☐	☐	☐

Distributive Justice

In this part of the survey you are asked to provide details about the outcomes you receive from working in your specific Workgroup/Team. We are interested in the outcomes that were distributed by your immediate direct supervisor only. Please respond to each of the descriptions using the 5 points scale: Not at all, To a limited extent, To some extent, To a considerable extent, To a great extent. For the following statements, think about what you receive from your supervisor compared to what you have put into your tasks.

No.	Item	Not at all	To a limited extent	To some extent	To a considerable extent	To a great extent
1	My direct supervisor has given me fair work schedule.	☐	☐	☐	☐	☐
2	My direct supervisor has given me equitable task responsibilities.	☐	☐	☐	☐	☐
3	My direct supervisor hasn't given me unfair work load.	☐	☐	☐	☐	☐

Procedural Justice

In this part of the survey we are interested in details about your experiences working in your specific Workgroup/Team (i.e., what happens and not how you feel about what happens or think things should happen). Please respond to each of descriptions using the 5 points scale: Not at all, To a limited extent, To some extent, To a considerable extent, To a great extent. For the following items, think about the many decisions that have to be made in your Workgroup/Team. Think about the procedures used to make those daily decisions.

No.	Item	Not at all	To a limited extent	To some extent	To a considerable extent	To a great extent
1	If I have any concerns about some task decisions, my direct supervisor ensures that my concerns are heard.	☐	☐	☐	☐	☐
2	My direct supervisor collects complete and accurate information to make decisions for me.	☐	☐	☐	☐	☐
3	I'm allowed to appeal the job decisions made by direct supervisor to him.	☐	☐	☐	☐	☐
4	My direct supervisor applies consistent task decisions across all affected workgroup/team members.	☐	☐	☐	☐	☐
5	My direct supervisor doesn't make task decisions for me in a biased manner.	☐	☐	☐	☐	☐

Interactional Justice

You will be asked to respond to statements about your relationship with your immediate Workgroup/Team supervisor. Please only think about your present direct supervisor when you respond. Please read each description and tell us the extent to which it describes your relationship with your direct supervisor using the 5 points Likert-scale: Not at all, To a limited extent, To some extent, To a considerable extent, To a great extent. For the following items, think about the fact that your direct supervisor has to make lots of decisions on a daily basis; with regard to the procedures that your direct supervisor uses to make those decisions.

No.	Item	Not at all	To a limited extent	To some extent	To a considerable extent	To a great extent
1	I have a direct supervisor who is willing to clearly explain the decisions made about me.	☐	☐	☐	☐	☐
2	My direct supervisor has been willing to discuss the implications of task decisions with me.	☐	☐	☐	☐	☐
3	My personal needs are well concerned by my direct supervisor.	☐	☐	☐	☐	☐
4	I'm not treated with disrespect or indignity by my direct supervisor.	☐	☐	☐	☐	☐
5	My direct supervisor doesn't deal with me in a dishonest manner.	☐	☐	☐	☐	☐

Thank you for your precious time and cooperation.

Appendix D

Values of Blau's Indexes and Index of Qualitative Variation in the sample

GroupID	workgroup heterogeneity	workgroup heterogeneity	workgroup heterogeneity	workgroup heterogeneity
	gender	education	religion	overall
1	.50	.44	.00	.56
3	.00	.00	.00	.00
4	.44	.00	.00	.30
5	.50	.63	.00	.65
6	.44	.44	.44	.72
9	.00	.00	.00	.00
10	.00	.22	.00	.11
11	.00	.00	.00	.00
12	.00	.00	.00	.00
13	.00	.00	.00	.00
14	.00	.00	.00	.00
15	.00	.00	.00	.00
16	.00	.00	.00	.00
17	.00	.00	.00	.00
19	.00	.50	.50	.47
20	.38	.38	.00	.44
21	.44	.44	.44	.72
22	.00	.00	.00	.00
25	.50	.00	.50	.56
26	.50	.50	.00	.58
27	.00	.44	.00	.22
28	.00	.44	.00	.22
29	.49	.41	.24	.64
30	.44	.44	.00	.52
31	.00	.50	.00	.25
32	.00	.00	.00	.00
33	.00	.00	.00	.00
34	.00	.44	.44	.42
35	.00	.00	.00	.00
36	.00	.61	.41	.49
37	.00	.44	.67	.52
38	.24	.41	.24	.48
39	.00	.00	.00	.00
40	.48	.64	.32	.78
41	.00	.00	.00	.00
42	.00	.38	.00	.19
43	.00	.00	.44	.20
44	.00	.00	.00	.00
45	.00	.48	.00	.24

GroupID	workgroup heterogeneity	workgroup heterogeneity	workgroup heterogeneity	workgroup heterogeneity
	gender	education	religion	overall
46	.44	.44	.44	.72
47	.00	.00	.38	.17
48	.00	.50	.63	.53

Appendix E

Values of $R_{wg(j)}$ in the sample

GroupID	LMX	DJ	PJ	IJ
1	.94	.61	.88	.84
3	.58	.15	.00	.74
4	.91	.64	.79	.44
5	.90	.95	.86	.89
6	.80	.96	.68	.00
9	.95	.93	.84	.97
10	.90	.61	.87	.26
11	.89	.58	.86	.89
12	.83	.55	.65	.65
13	.84	.38	.81	.91
14	.68	.68	.78	.88
15	.78	.43	.78	.00
16	.89	.52	.83	.71
17	.88	.60	.36	.00
19	.00	.00	.80	.75
20	.79	.99	.00	.00
21	.00	.00	.00	.00
22	.86	.94	.97	.99
25	.90	.94	.97	.83
26	.00	.00	.00	.68
27	.98	.15	.96	.97
28	.69	.00	.77	.15
29	.73	.89	.91	.00
30	.89	.66	.85	.50
31	.93	.94	.94	.95
32	.88	.94	.68	.73
33	.00	.00	.96	.85
34	.97	.96	.97	.85
35	.99	1.00	1.00	.68
36	.96	.77	.90	.87
37	.95	.75	.74	.00
38	.86	.66	.87	.18
39	.96	.89	.93	.00
40	.85	.76	.86	.91
41	.66	.48	.76	.38
42	.81	.75	.93	.85

GroupID	LMX	DJ	PJ	IJ
43	.84	.86	.83	.93
44	.58	.00	.88	.71
45	.49	.56	.00	.43
46	.86	.86	.73	.00
47	.94	.68	.82	.71
48	.95	.73	.91	.98

ملخص الدراسة

تعتبر علاقة الرئيس بالمروؤوس (LMX) والعدالة التنظيمية (OJ) من الظواهر التنظيمية التي اكتسبت الكثير من الاهتمام على مدى العقود الماضية. تتناول علاقة الرئيس بالمروؤوس العلاقة بين القائد ومروؤوسيه في العمل، في حين تشير العدالة التنظيمية إلى مدى احساس الموظفين بالإنصاف في نفس النطاق. هذا وتنقسم العدالة التنظيمية إلى ثلاثة أبعاد هي العدالة التوزيعية، والعدالة الإجرائية، والعدالة التفاعلية. تركز العدالة التوزيعية على التوزيع العادل للمكافآت المادية وغير المادية، بينما تشير العدالة الإجرائية إلى النزاهة في اصدار القرارات وتنفيذها، في حين تبحث العدالة التفاعلية مدى عدالة المعاملة الشخصية.

لقد قام العديد من الباحثين بدراسة العلاقة بين علاقة الرئيس بمروؤوسيه ومدى احساسهم بالعدالة التنظيمية في جميع أبعادها، أي كل من العدالة التوزيعية والإجرائية والتفاعلية. وقد توصل الكثير منهم إلى نتيجة مفادها أن من شأن مستوى العلاقة بين الرئيس والمروؤوس أن يعزز من مستوى العدالة في العمل، في حين أن التمايز في مستوى علاقة الرئيس بموظفيه في العمل قد يؤدي إلى استياء الموظفين واحساسهم بالظلم. على الرغم من هذه الاستنتاجات؛ فإن الكثير من الباحثين قد اختلفوا في تحديد أي بعد من أبعاد العدالة التنظيمية هو الأكثر ارتباطاً بمستوى العلاقة المتبادلة بين الموظف ورئيسه. علاوة على ذلك، فإن بعض الباحثين قد أشاروا إلى أن التفرقة بين الموظفين في علاقتهم برئيسهم ليس له تأثير على مدى احساسهم بالانصاف في العمل. كما أنه من الملاحظ أن معظم الدراسات السابقة في هذا المجال قد ركزت على دراسة هاتين الظاهرتين على مستوى الأفراد بالدرجة الأولى ومن ثم على مستوى المجموعات.

ويطلق اسم "مناخ العدالة التنظيمية" على الجهود التي تقوم بدراسة العدالة التنظيمية على مستوى المجموعات. ويصف مناخ العدالة التنظيمية متوسط تصورات أعضاء كل مجموعة عمل فيما يتعلق بكل من أقسام العدالة التنظيمية الأنفة الذكر. أي أن مناخ العدالة التنظيمية ينقسم إلى ثلاثة مناخات: مناخ العدالة التوزيعية، مناخ العدالة الإجرائية، ومناخ العدالة التفاعلية. كما أن علاقة الرئيس بموظفيه على مستوى المجموعات تقاس عادة بمقياسين؛ الأول هو مستوى علاقة الرئيس بالمروؤوسين في المجموعة أي المتوسط الحسابي والآخر هو مدى التباين في علاقة الرئيس بمروؤوسيه بين أفراد المجموعة أي الانحراف المعياري.

بناءً على ما سبق، فإن جهود الباحثين في الدراسة الحالية قد ارتكزت على البحث في العلاقة بين علاقة الرئيس بموظفيه والعدالة التنظيمية على المستويين الفردي والجمعي في مجموعات العمل. ومن أجل تحقيق الأهداف المرجوة من الدراسة فقد

تم جمع البيانات المتعلقة بعلاقة الرئيس بالموظفين، وكل من العدالة التوزيعية والإجرائية والتفاعلية على مستوى الأفراد. أما على مستوى المجموعات فقد تم استخدام بيانات المستوى الفردي وتحويلها إلى متغيرات تعكس تصورات مجموعات العمل في ما يتعلق بهاتين الظاهرتين. حيث تم فحص العلاقة بين مستوى علاقة الرئيس بموظفيه وكل من مناخات العدالة الثلاثة. كما تم بحث العلاقة بين التمايز في معاملة الأفراد من قبل رئيسهم بالرجوع إلى هذه المناخات. بالإضافة إلى ذلك، فإن الدراسة شملت البحث في تأثير حجم مجموعة العمل وعدم التجانس بين أعضاء المجموعة على العلاقة بين التمايز في العلاقة بين الرئيس والمرؤوسين و مناخات العدالة.

وقد اشتملت العينة التي تمت دراستها على 173 موظفاً ينتمون إلى مجموعات عمل مختلفة في خمسة قطاعات اقتصادية بحرينية تم اختيارها بطريقة متعمدة غير اعتباطية. وباستخدام ارتباط سبيرمان للمجموعات المرتبة تم التحقق من العلاقات بين علاقة الرئيس بالمرؤوس وأبعاد العدالة المنظماتية على مستوى الأفراد وبين العلاقة بين مستوى علاقة الرئيس بمرؤوسيه والتباين في هذه العلاقة وبين مناخات العدالة المنظماتية على مستوى المجموعات. كما تم استخدام ارتباط سبيرمان الجزئي للمجموعات المرتبة لدراسة الدور المحتمل لحجم مجموعة العمل وعدم التجانس بين أعضاء المجموعة على العلاقة بين التباين في علاقة الرئيس بمرؤوسيه في المجموعة ومناخات العدالة المنظماتية.

وأشارت النتائج الرئيسية للبحث إلى ارتباط وجهات نظر الأفراد ومجموعات العمل في تصوراتهم لمستوى التبادل بين الرئيس و مرؤوسيه والعدالة المنظماتية. كما أن النتائج لم تثبت وجود علاقة بين التمايز في مستوى علاقة الرئيس بمرؤوسيه ومناخات العدالة. بالإضافة إلى ذلك، لم يعثر على أي أثر لحجم وتنوع المجموعة على العلاقات بين هذه المناخات والتمايز في مستوى علاقة الرئيس بمرؤوسيه. كما أن النتائج لم تثبت وجود علاقة ذات دلالة إحصائية بين حجم مجموعة العمل وعدم التجانس في المجموعة، ومناخات العدالة، والتمايز في مستوى علاقة الرئيس بمرؤوسيه، باستثناء العلاقة بين مناخ العدالة التفاعلية و حجم مجموعة العمل.

ختاماً، استناداً إلى نتائج البحث، فإن على قادة المجموعات الوظيفية في البحرين بذل الجهود لتطوير علاقاتهم بمرؤوسيه من أجل زيادة احساس هؤلاء المرؤوسين بالعدالة المنظماتية، الأمر الذي قد يسهم في خلق بيئة عمل أكثر صحةً وازدهاراً ويعزز من مستوى الأداء الوظيفي، الرفاهية، والطمأنينة لدى الموظفين . بالإضافة إلى ذلك، فإن على هؤلاء الرؤساء توخي الحذر من العلاقة السلبية المحتملة للتمايز في علاقاتهم بمرؤوسيه و إحساسهم بالإنصاف في العمل. حتى وإن لم يتم إثبات هذا الادعاء - من خلال نتائج الدراسة الحالية- فإن ذلك لا ينفي الحاجة لاتخاذ الاحتياطات اللازمة لتفادي أي عواقب سلبية لهذه العلاقة المحتملة.



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كلية إدارة الأعمال
برنامج الدراسات العليا

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تم تقديم هذه الرسالة كجزء من إتمام متطلبات شهادة

ماجستير إدارة الأعمال

بقلم

إلهام حسن إبراهيم

تحت إشراف

الأستاذ الدكتور منور الشمري

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