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Transformational
leadership and
organizational
commitment: mediating
role of leader-member
exchange

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Transformational
leadership and
organizational
commitment: mediating
role of leader-member
exchange

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*In the name of God, the infinitely Compassionate and Merciful,
For my parents Mohamed and Nedra,
For my husband Hamdi, and my children Maryam, Melek and Malek,
Keep all of us in your loving care and guide us to the straight path*

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Contents

List of Tables	8
List of Figures	12
1 Introduction	15
1.1 Overview	15
1.2 Outline	17
2 Leadership styles and organizational commitment: review and future directions	19
2.1 Introduction	21
2.2 Styles of leadership	22
2.2.1 Transformational leadership	23
2.2.2 Transactional leadership	25
2.2.3 The relationship between transactional and transformational leadership	27
2.2.4 Impact of transformational leadership on followers	28
2.3 Organizational Commitment	30
2.3.1 Components of organizational commitment	31

2.3.2	Outcomes of organizational commitment	33
2.4	Leadership styles and organizational commitment	34
2.5	Discussion	35
2.6	Conclusions	37
3	Validation of the French version of the transformational leadership questionnaire	40
3.1	Introduction	41
3.2	Method	42
3.2.1	Measures	42
3.2.2	Translation of the questionnaire	42
3.2.3	Questionnaire design	43
3.2.4	Data analyses	43
3.3	Study 1	44
3.3.1	Sample	44
3.3.2	Results	46
3.3.3	Discussion	49
3.4	Study 2	51
3.4.1	Sample	51
3.4.2	Results	52
3.4.3	Discussion	55
3.5	Conclusions	56

4	Validation of the French version of the organizational commitment questionnaire	60
4.1	Introduction	61
4.2	Method	62
4.2.1	Measures	62
4.2.2	Translation of the questionnaire	62
4.2.3	Questionnaire design	62
4.2.4	Data analyses	63
4.3	Study 1	64
4.3.1	Sample	64
4.3.2	Results	64
4.3.3	Discussion	67
4.4	Study 2	68
4.4.1	Sample	69
4.4.2	Results	69
4.4.3	Discussion	71
4.5	Conclusions	72
5	Study of the leader member exchange as a mediator of the relationship between transformational leadership and followers' organizational commitment	81
5.1	Introduction	83
5.2	Theoretical framework	85

5.2.1	Transformational leadership and organizational commitment	85
5.2.2	Leader-Member Exchange	86
5.2.3	Transformational leadership and LMX	87
5.2.4	LMX and organizational commitment	88
5.2.5	The Mediating Role of LMX	90
5.3	Hypothesis	90
5.3.1	Model for AC	91
5.3.2	Model for CCHiSac	93
5.3.3	Model for NC	94
5.4	Method	96
5.4.1	Sample and data collection	96
5.4.2	Measures	97
5.5	Results	98
5.5.1	Validity analyses	98
5.5.2	Descriptive Statistics	102
5.5.3	Hypothesis Tests	104
5.6	Discussion	110
5.7	Conclusion	114
6	Conclusions and future research	117
	Nomenclature	122

Appendix

124

List of Tables

3.1	Statistics about demographic variables of the sample (Study1).	45
3.2	Cronbach's alpha values for TLQ (Study1).	46
3.3	KMO and bartlett test of sphericity (Study1).	47
3.4	Principal-component analysis for TLQ (Study1).	47
3.5	Principal-component method with Varimax rotation for TLQ (Study1).	49
3.6	Item-total correlation for TLQ (Study1).	50
3.7	Confirmatory factor analysis for TLQ (Study1).	51
3.8	Statistics about demographic variables of the sample (Study2).	53
3.9	Cronbach's alpha values for TLQ (Study2).	54
3.10	KMO and Bartlett test of sphericity (Study2).	54
3.11	Principal-component analysis for TLQ (Study2).	55
3.12	Principal-component method with Varimax rotation for TLQ (Study2).	57
3.13	Item-total correlation for TLQ (Study2).	58
3.14	Confirmatory factor analysis for TLQ (Study2).	59
4.1	Cronbach's alpha values for OCQ (Study1).	64

4.2	KMO and Bartlett test of sphericity (Study1).	65
4.3	Principal-component analysis for OCQ (Study1).	65
4.4	Principal-component method with Varimax rotation for OCQ (Study1).	74
4.5	Item-total correlation for OCQ (Study1).	75
4.6	Confirmatory factor analysis for OCQ (Study1).	76
4.7	Changes in the items between Study 1 and Study 2.	76
4.8	Cronbach's alpha values for OCQ (Study2).	77
4.9	KMO and bartlett test of sphericity (Study2).	77
4.10	Principal-component analysis for OCQ (Study2).	77
4.11	Principal-component method with Varimax rotation for TLQ (Study2).	78
4.12	Item-total correlation for OCQ (Study2).	79
4.13	Confirmatory factor analysis for OCQ (Study2).	80
5.1	Convergent validity of model AC.	99
5.2	Discriminant validity of model AC.	100
5.3	Convergent validity of model CCHiSac.	101
5.4	Discriminant validity of model CCHiSac.	101
5.5	Convergent validity of model NC.	101
5.6	Discriminant validity of model NC.	102
5.7	Results of Pearson's correlation coefficient, means and standard deviations.	103
5.8	Regression results to test the mediating role of PROF on the Relationship between INT, VIS and AC.	105

5.9	Regression results to test the mediating role of LOY on the Relationship between PER and CCHiSac.	106
5.10	Regression results to test the mediating role of AFF on the Relationship between SUP and NC.	107
5.11	Comparison of Structural Equation Models.	108
6.1	Questionnaire	124

List of Figures

3.1	Scree plot for TLQ (Study1)	48
3.2	Scree plot for TLQ (Study2)	56
4.1	Scree plot for OCQ (Study1)	66
4.2	Scree plot for OCQ (Study2)	70
5.1	Model TL-LMX-AC	93
5.2	Model TL-LMX-CC	94
5.3	Model TL-LMX-NC	96
5.4	Results of Structural Equation Modeling on the Mediating Effect of PROF	109
5.5	Results of Structural Equation Modeling on the Mediating Effect of LOY	109
5.6	Results of Structural Equation Modeling on the Mediating Effect of AFF	110

Abstract

In the present thesis a theoretical and empirical study of the relationship between transformational leadership (TL) and organizational commitment (OC) is performed. These two concepts are examined as multidimensional constructs and are empirically tested within a French speaking population. The main objective of this study is to examine the mechanisms through which dimensions of TL influence different forms of OC by testing the possible mediating role of leader member exchange (LMX). The present thesis consists of six chapters and a brief summary of each one is given below:

The first chapter is introductory in nature. It introduces the concepts of TL, OC and LMX and the motivation for this research. It provides a brief summary of previous scientific work on the topic and it outlines the purpose and specific objectives of each chapter.

In the second chapter, a study and discussion of the relationship between leadership styles and OC dimensions is carried out. An extensive literature research is performed in order to understand leadership and OC as well as the relationship between these two concepts. Although there is considerable research which suggest that TL is positively associated with OC in a variety of organizational settings and cultures, there is little empirical research focusing on the precise ways in which style of leadership impacts employee OC. Some critics about previous empirical and theoretical studies are presented and a number of areas for future research are developed.

In the third chapter, the English TL Questionnaire (TLQ) (Rafferty and Griffin, 2004) is translated into French using a back-translation technique. The validity and reliability of this instrument within two samples of French speaking populations is tested (Tunisia and France). Internal consistency is assessed using Cronbach alpha

coefficient. The construct validity is verified using the exploratory and confirmatory factor analysis. The results support a four-factor model of TLQ which consists of vision, supportive leadership, intellectual stimulation and personal recognition. These findings have shown adequate psychometric properties and have provided preliminary support for the construct validity of the proposed French version of the TLQ.

In the fourth chapter, the English OC Questionnaire (OCQ) (Meyer et al, 1993; Powell and Meyer, 2004) is translated into French and the validity and reliability of this instrument within the two samples of French speaking population is tested. The results have supported a 4-factor model of OCQ of the original questionnaire. These findings have shown adequate psychometric properties and have provided preliminary support for the construct validity of the proposed French version of the OCQ.

In the fifth chapter, some models that take into account the diverse dimensions of TL and the different forms of OC are proposed and tested by examining the role of LMX as a mediator between them. To verify the models, two types of validity tests are considered: the convergent validity and the discriminant validity. To test the direct hypothesis, Pearson's correlation and Betas in structural model are used. To test the mediation hypothesis, two methods are used: Baron and Kenny method and a series of nested model method. The results revealed that the proposed models are confirmed. These findings are important since previous research did not test these variables together.

Finally, the last chapter summarizes the contribution of this thesis. The possible directions of further research work are also discussed in brief.

Introduction

1.1 Overview

Today's, firms face with substantial changes in business environment because of globalism and radical changes and developments in the information processing, communication and logistics industries, and try to gain competitive advantage in such a competitive business environment. According to the literature superior performance of firms mostly depend on work outcomes of their employees that are strongly committed to their organizations. Those employees who have commitment to their organization are addicted to the organization's objectives and organization itself. Thus, the concept of organizational commitment (OC) is still attracting considerable attention both from academics and professionals.

Despite the extensive research done in the field, OC still draws a high level of attention due to its association with such preferred work attitudes as increased job satisfaction, higher performance, lower absenteeism and turnover intentions (Yousef, 2000). It has been generally recognized that OC is one of the major factors determining organizational performance and effectiveness (Lok and Crawford, 1999, 2004). Highly committed employees are expected to perform better than less committed ones (Mowday et al., 1974). Individuals who have low OC are often just waiting for the first good opportunity to quit their jobs (Joo, 2010).

It has become clear that OC has important implications for employees and or-

ganizations through various studies by researchers. Then, it is important for the company to know what are the aspects that play important role or have big impact in boosting the commitment of the employees. One organizational factor that is considered a key determinant of OC is leadership (Mowday et al., 1982). By definition, a leader is a person that possesses some powerful and dynamic traits that lead a nation and that such traits affect the management of an organization (Bono and Anderson, 2005) and is considered as driving agent in determining an organizational competitiveness (Bass and Avolio, 1993).

The leadership literature considers two styles of leadership: transformational and transactional. Although some studies suggest that outstanding leaders display both transformational and transactional styles, it seems that transformational leadership can be more effective than transactional leadership in many cases (Limsila and Ogunlana, 2008; Judge and Piccolo, 2004; Lowe et al., 1996). Transformational leadership (TL) has been considered as the most prominent topic in the research and theories of leadership (Bass, 1998; Pawar and Eastman, 1997). TL is one management practice that has increasingly become dominant in both private and public sectors (Bass, 1998; Judge and Piccolo, 2004; Lowe, 2000).

TL is important in so far it has a significant influence on the work attitudes and behaviors of followers. There is substantial evidence that TL is positively related to indicators of leadership effectiveness such as the satisfaction, motivation, and performance of followers (Barling et al., 1996; Lowe et al., 1996; DeGroot et al., 2000; Dvir et al., 2002; Dumdum et al., 2002). Especially, there is considerable available research suggesting that TL is positively associated with OC in a variety of organizational settings and cultures (Clinebell et al., 2013; Joo et al., 2012; Lo et al., 2010; Limsila and Ogunlana, 2008; Rafferty and Griffin, 2004; Avolio et al., 2004; Lee, 2005; Walumbwa et al., 2005; Bono and Judge, 2003; Walumbwa and Lawler, 2003; Dumdum et al., 2002).

While a great deal of research has studied the link between TL and OC, few researches have examined the relationship between these two concepts as multidimensional constructs which generate the interest in performing this work. Likewise, the mechanisms by which transformational leaders influence their followers have not been studied in a systematic manner (Barroso Castro et al., 2008; Avolio et al.,

2004), and several authors have suggested that greater attention should be paid to understand how these influential processes operate in TL (Kark and Shamir, 2002; Conger et al., 2000; Bass, 1998; Yukl, 1999). As there is lack of systematic research in this area, the research presented in the present thesis focus too on the possible mediating role of leader member exchange (LMX) in the relationship between dimensions of TL and different forms of OC.

LMX theory, which is built on the social exchange and role theory, is an important factor when analyzing the relationship between TL and OC. LMX represents a theoretical approach to understand leadership at work (Gerstner and Day, 1997; Graen and Uhl-Bien, 1995; Liden et al., 1997; Schriesheim et al., 1999), and it has evolved into one of the more useful approaches for studying employee-supervisor relationships and how they affect employee outcomes.

1.2 Outline

The present thesis consists of five chapters structured as follows:

1. In the present chapter, a literature survey is carried out in order to introduces the concepts of this research (TL, OC and LMX) and the motivation for this work.
2. In the second chapter, an extensive bibliographic research about leadership and OC has been done. The definition of TL and OC, its dimensions and its outcomes were given in details. The relationships between leadership styles and OC has shown how leadership dimensions can influence employee OC. Some critics about previous empirical studies are presented and a number of areas for future research will highlight.
3. As no French validated version of TL questionnaire in the scientific literature, the aim of the third chapter is to examine and to expand the evidence of validity of the TL questionnaire in the French-speaking population. The construct validity is verified using the exploratory and confirmatory factor analyses.
4. The fourth chapter is devoted to examine and expand the evidence of validity

of the OC questionnaire in the French-speaking population. The construct validity is verified using the exploratory and confirmatory factor analyses.

5. The fifth chapter is dedicated to propose and test some models that relate the diverse dimensions of TL to the different forms of OC. These models are proposed in order to examine and acquire a better understanding of the mechanisms through which dimensions of TL influence different forms of OC. To verify that the studied models present an adequate construct validity, two types of validity are considered: the convergent validity and the discriminant validity. To examine the relationship between dimensions of TL, LMX and OC, Pearson's correlation coefficient was used. The direct hypothesis are confirmed by Pearson's correlation and Betas in Structural model. The mediation hypothesis are tested through two methods: Baron and Kenny Method and a series of nested model method.
6. In the last chapter, a summary of the contribution of this thesis is presented and possible directions for future research work are discussed in brief.

Leadership styles and organizational commitment: review and future directions

Abstract

The aim of the work presented in this chapter is the study and the discussion of the relationship between leadership styles and organizational commitment dimensions. Both styles of leadership known as transformational and transactional styles differ in the process by which the leader motivates his subordinates. Organizational commitment defined by its three types (Affective, Normative and Continuance) measures the strength of an individual identification with and involvement in the organization. An extensive literature research has been done in order to increase our understanding of leadership and organizational commitment as well as the relationship between these two concepts. The present study of the relationships between leadership styles and organizational commitment has shown how leadership dimensions can influence employee organizational commitment. Although there is considerable research available suggesting that transformational leadership is positively associated with organizational commitment in a variety of organizational settings and cultures, there has been little empirical research focusing on the precise ways in which style of leadership impacts employee organizational commitment. Some critics about previous empirical and theoretical stud-

ies will present and a number of areas for future research will highlight. In this sense, various areas that require additional research are developed and possible incorporation of some mediation variables are proposed in order to gather a better understanding about the mechanism that links leadership styles and followers organizational commitment.

2.1 Introduction

Leadership has been always a crucial issue since organizations and companies are permanently in a constant struggle to be increasingly competitive. Leadership is an important function of management which helps to maximize efficiency and to achieve organizational goals. The word leadership has been described in terms of the position, personality, responsibility, influence process; instrument to achieve a goal, behaviors (Limsila and Ogunlana, 2008). Most definitions have a common theme of directing a group towards a goal. Therefore, the leadership can be broadly defined as the relationship between an individual and a group built around some common interest wherein the group behaves in a manner directed or determined by the leader (Shastri et al., 2010). Leaders can influence the behavior of their followers through the use of different styles, or approaches, to managing others. For the past three decades, a pair of predominant leadership styles (transactional and transformational leadership) has received a significant amount of attention.

On the other hand, employee commitment has long been a topic of interest to organizational researchers (Meyer et al., 1993; Meyer and Allen, 1991, 1984; Mathieu and Zajac, 1990; Mowday et al., 1982). One of the main reasons for its popularity is that organisations have continued to find and sustain competitive advantage through teams of committed employees. Many researchers found that an organization's success is determined, in part, by having a high degree of organizational commitment (Jassawalla and Sashittal, 2003; Brooks, 2002; McElroy, 2001). Organizational commitment has attracted considerable attention in theory and research because of its attempt to understand and clarify the intensity and stability of employee dedication to work organizations (Eisenberger et al., 1990). Research literature states that organizational commitment is defined as a subordinate's identification with the mission, goals, and vision of the organization. According to Eisenberg et al. (1983), organizational commitment has been defined in a variety of ways. Most theorists, however, include one or more of the following three attitudinal elements as an integral part of their definition: (1) a strong belief in and acceptance of the organizations goals and values; (2) a willingness to exert considerable effort on behalf of the organization, and (3) a strong desire to maintain membership in the organization.

Generally, higher or lower levels of commitment have been shown to be a major driver of employees staying with or leaving an organization (Shaw et al., 1998).

Employee commitment reflects the quality of the leadership in an organization (Stum, 1999). Organizational commitment provides a broad measure of the effectiveness of leadership which offers a way to further explore the subject of the relationship between leadership and commitment. However, organizations are always looking for the committed human resources in order to achieve its strategic objectives. Specifically, supervisors have the responsibility to emphasize to their subordinates their link and contribution to the success of the organization and to understand the significance of building a positive relationship with their respective subordinates to enhancing the subordinate's commitment to the organization (Truckenbrodt, 2000).

In the present chapter, an extensive bibliographic research about leadership and organizational commitment has been done. The main objective is to study and discuss the relationship between leadership styles and dimensions of organizational commitment. This study has allowed to highlight and propose some areas for future research.

2.2 Styles of leadership

The leadership literature considers two styles of leadership: transformational and transactional. To motivate employees, the transactional leader uses tangible rewards (e.g., money and status) while the transformational uses intangible rewards (e.g., personal growth, self-esteem, and professional values). Burns (1978) first introduced the concepts of transformational and transactional leadership in his treatment of political leadership, but this term is now used in organizational psychology as well. Bass (1985) extended the work of Burns (1978) by explaining the psychological mechanisms that underlie transformational and transactional leadership.

2.2.1 Transformational leadership

Transformational leadership has been considered as the most prominent topic in the research and theories of leadership (Bass, 1998; Pawar and Eastman, 1997). Burns (1978) defined transformational leadership as the process of pursuing collective goals through the mutual tapping of leaders' and followers' motive bases toward the achievement of the intended change. Transformational leadership can be seen when "leaders and followers make each other to advance to a higher level of moral and motivation" (Burns, 1978). Bass (1985) built on Burns (1978) work and described transformational leadership as a style of leadership that transforms followers to rise above their self-interest by altering their morale, ideals, interests, and values, motivating them to perform better than initially expected. (Bass et al., 1990, p. 21) asserted that transformational leadership "occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group".

Bass (1985) depicted transformational leadership as comprising four distinct factors: charisma, inspiration, individualized consideration and intellectual stimulation. Charisma is shown by leaders who act as role models, create a sense of identification with a shared vision, and instill pride and faith in followers by overcoming obstacles. This dimension is also known as idealized influence and could be further divided into two sub-factors –idealized influence attributed and idealized influence behavior. Inspiration is defined as inspiring and empowering followers to enthusiastically accept and pursue challenging goals and a mission. Individualized consideration consists of behaviors such as communicating personal respect to followers by giving them specialized attention, by treating each one individually, and by recognizing each one's unique needs. Finally, leaders who consider old problems in new ways, articulate these new ideas, and encourage followers to rethink their conventional practice and ideas are said to be intellectually stimulating. Later, Rafferty and Griffin (2004) re-examine the theoretical model developed by Bass (1985) to identify five dimensions of transformational leadership: vision, inspirational communication, supportive leadership, intellectual stimulation and personal recognition.

Vision

Vision is one of the five elements that contribute to charisma (Weber, 1968). As opposed to the broader construct of charisma or idealized influence proposed by Bass and his colleagues, vision is the expression of an idealized picture of the future based around organizational values. Vision results in the internalization of organizational values and goals that encourages individuals to adopt desired behaviors (McClelland, 1975). House (1977) defined vision as a transcendent ideal that represents shared values and argued that charismatic leaders demonstrate a number of behaviors, including articulating an ideology that enhances goal clarity, task focus, and value congruence.

Inspirational communication

Inspirational communication is the expression of positive and encouraging messages about the organization and statements that build motivation and confidence. Inspiration refers to “the extent to which a leader stimulates enthusiasm among subordinates for the work of the group and says things to build subordinate confidence in their ability to perform assignments successfully and attain group objectives” (Yukl, 1981, p. 121). Inspirational leaders use appeals and emotion laden statements to arouse followers’ emotions and motivation.

Supportive leadership

Supportive leadership is a component of individualized consideration leadership construct. Individualized consideration occurs when a leader has a developmental orientation towards staff and displays individualized attention to followers and responds appropriately to their personal needs (Bass, 1985). As opposed to broader construct of individualized consideration, supportive leadership means expressing concern for followers and taking account of their individual needs. Supportive leaders direct their behavior toward the satisfaction of subordinates’ needs and preferences, display concern for subordinates’ welfare, and create a friendly and psychologically supportive work environment (House, 1996).

Intellectual stimulation

Intellectual stimulation is enhancing employees' interest in and awareness of problems and increasing their ability to think about problems in new ways (Bass, 1985). Intellectual stimulation increases followers' abilities to conceptualize, comprehend, and analyze problems and improve quality of solutions (Bass, 1990). Personal recognition is the provision of rewards such as praise and acknowledgement of effort for achievement of specified goals. Personal recognition occurs when a leader indicates that he or she values individuals' efforts and rewards the achievement of outcomes consistent with the vision through praise and acknowledgment of followers' efforts.

2.2.2 Transactional leadership

Transactional leadership is the second style identified in the literature. Transactional leadership (Bass, 1985; Burns, 1978) refers to a dynamic exchange between leaders and their subordinates, in which the leader establishes specific goals, monitors progress, and identifies rewards that can be expected upon goal achievement. It involves an exchange process between the leader and the followers, intended to increase followers' compliance to the leader and to the organizational rules (Yukl, 1998). Bass (1985) characterized the transactional leader as one who operates within the existing system or culture, has a preference for risk avoidance, pays attention to time constraints and efficiency, and generally prefers process over substance as a means for maintaining control. Bass (1990) model of leadership includes three dimensions: contingent reward, management-by-exception, and laissez-faire, or non-leadership behavior.

Contingent reward

Contingent reward relates back to earlier work conducted by Burns (1978) where the leader assigns work and then rewards the follower for carrying out the assignment. Leaders transact with followers by rewarding effort contractually, telling them what to do to gain rewards, punishing undesired action, and giving extra feedback and promotions for good work (Bass, 1985). Bass (1985) emphasized that by provid-

ing contingent rewards, a transactional leader might inspire a reasonable degree of involvement, loyalty, commitment and performance from subordinates.

Management-by exception

Management-by exception (MBE) is the degree to which the leader takes corrective action on the basis of results of leader–follower transactions (Judge and Piccolo, 2004). It is when the leader monitors the follower, and then corrects him/her if necessary. Leaders transact with followers by intervening only when followers deviate from expectations, giving negative feedback for failure to meet standards. Based on the timing of the leader’s interventions a distinction is often made between active and passive management-by-exception (Bass and Avolio, 1993; Hater and Bass, 1988). MBE-P includes waiting passively for errors to occur and then taking corrective action. The leader relies heavily on passive management-by-exception, intervenes with his or her group only when procedures and standards for accomplishing tasks are not being met (Bass, 1990). MBE-A may be necessary when safety is an issue. The leader watches and searches for deviations from rules and standards, takes corrective action (Bass, 1990). In the more active form of management-by-exception leaders try to anticipate mistakes or problems.

Laissez-faire

Laissez-faire leadership is a contrast to the active leadership styles of transformational and transactional leadership. It is virtually an avoidance of leadership behaviors, when an individual avoids making decisions and demonstrates a passive indifference to both tasks and followers. Leadership behaviors are ignored and no transactions are carried out. Leaders who score high on laissez-faire leadership avoid making decisions, hesitate in taking action, and are absent when needed (Judge and Piccolo, 2004).

2.2.3 The relationship between transactional and transformational leadership

According to Burns (1978), the difference between transformational and transactional leadership is what leaders and followers offer one another. Transactional leadership occurs when one person takes the initiative in making contact with other for the purpose of an exchange of valued things. Both parties acknowledge the power relationships of the other and together they continue to pursue their respective purposes. The people are not bound together by a mutually similar purpose. In contrast, transformational leadership occurs when one or more persons engage with one another and they increase their levels of motivation and morality. The power base, in this instance, mutually supports a common purpose. This latter form of leadership seeks to “raise the level of human conduct and ethical aspiration of both the leader and led, and thus it has a transforming effect on both” Burns (1978, p. 20).

Burns’ view is that transformational leadership is more effective than transactional leadership, where the appeal of the latter is to more selfish concerns. An appeal to social values thus encourages people to collaborate, rather than working as individuals (and potentially compete with one another). He also views transformational leadership as an ongoing process rather than the discrete exchanges of the transactional approach. Burns contrasted transactional and transformational leadership, believing that they lie at opposite ends of a continuum (Bass, 1990; Yukl, 1989). Burns theorized that transforming and transactional leadership were mutually exclusive styles, an individual can display transformational leadership or transactional leadership, but not both.

Other leadership scholars (e.g., Avolio et al. (1999); Bass (2000, 1998, 1985); Bycio et al. (1995); Bass and Avolio (1993); Waldman et al. (1990); Conger and Kanungo (1988)) hold a different view, arguing that these styles are not competing, but complementary. For example, Conger and Kanungo (1988) suggested that leaders who rely on contingent rewards (a dimension of transactional leadership) and charisma (a dimension of transformational leadership) may be most successful in empowering their subordinates. Avolio et al. (1999) believe, and have empirically

supported the contention, that effective leaders engage in both transformational and transactional behaviors. Similarly Bass (1985) argued that transformational leadership enhances or augments the effects of transactional leadership and that all leaders display leadership styles though to different degrees. Leaders are capable of being both transformational and transactional. In this sense, both styles are regarded as integrated by recognizing that both may be linked to the achievement of desired goals and objectives; their primary difference resides in the process by which the leader motivates subordinates and the types of goals set (Hater and Bass, 1988). Bass (1985) has depicted transactional leadership as being based on material/economic exchange and transformational leadership as being based on social exchange. Bass believes that every leader displays each of the aforementioned styles to some extent; he calls this the “Full Range of Leadership Model” Bass (1998, p. 7).

Although some studies suggest that outstanding leaders display both transformational and transactional styles, it seems that transformational leadership can be more effective than transactional leadership in many cases (for a review, see Limsila and Ogunlana (2008); Judge and Piccolo (2004); Lowe et al. (1996).

2.2.4 Impact of transformational leadership on followers

After more than 20 years of accumulated research evidence, there is little doubt that transformational leadership behaviour is related to a wide variety of positive individual and organizational outcomes (Bommer et al., 2004). However transformational leadership is important since it has a significant influence on the work attitudes and behaviours of followers. Among the principal outcomes of the transformational leadership on follower found in the literature we can mention the followings.

Follower job satisfaction

Job satisfaction was defined by Locke (1976) as “a pleasure or positive emotional state resulting from the appraisal of one’s job or job experience” (Locke, 1976, p. 1297). Transformational leadership is positively associated with follower job satisfaction. In fact, it has been established that job satisfaction is higher among employ-

ees whose leaders emphasize consideration, support, and concern for their followers (Rafferty and Griffin, 2006; Walumbwa and Lawler, 2003; Allen and Meyer, 1990).

Follower job performance

Transformational leadership is positively associated with job performance (Bono and Judge, 2003). Walumbwa and his colleagues (Walumbwa et al., 2008) found that supervisor-rated task performance was higher when leaders demonstrate transformational leadership behaviours more frequently as evaluated by their respective followers. However, transformational leadership theory suggests that transformational leadership is related not only to individual follower performance but also to performance at the group and organization levels. DeGroot et al. (2000) suggest that charismatic leadership is more effective at increasing group performance than at increasing individual performance.

Follower creativity

Preliminary field studies have found significant relationships between transformational leadership and subordinate creativity in Korean research and development departments (Shin and Zhou, 2007, 2003). Wang and Rode's results from multi-level linear modeling analyses indicated that transformational leadership is not directly related with employee creativity. However the three-way interaction between transformational leadership, employee identification with leader and innovative climate is associated with employee creativity (Wang and Rode, 2010).

Follower Organizational citizenship behavior

Charismatic leadership has been conceptually and empirically linked to organizational citizenship behavior (Deluga, 1995; Koh et al., 1995). Charismatic leaders are thought to appeal to followers' higher order needs, foster follower dedication to organizational goals, and increase follower self-confidence and self-expectations. These behaviors cause followers to, "do more than they are expected to do" (Yukl, 1989), "perform above and beyond the call of duty" (Bass, 1985), take on greater re-

sponsibility, perform beyond expectations, and assume leadership roles themselves (Bass and Avolio, 1998). The individualized consideration (dimension of transformational leadership) was studied as a possible antecedent of change-oriented and altruist organizational citizenship behaviors (López-Domínguez and Enache, 2009).

Follower organizational commitment

There is considerable available research suggesting that transformational leadership is positively associated with organizational commitment in a variety of organizational settings and cultures (Walumbwa et al., 2005; Avolio et al., 2004; Bono and Judge, 2003; Walumbwa and Lawler, 2003; Dumdum et al., 2002). However, prior research suggests that organizational commitment was higher for employees whose leaders encouraged participation in decision-making (Jermier and Berkes, 1979; Rhodes and Steers, 1981), emphasized consideration (Bycio et al., 1995), and were supportive and concerned for their followers' development (Allen and Meyer, 1996, 1990).

2.3 Organizational Commitment

Commitment is a force that binds an individual to a course of action that is of relevance to a particular target (Meyer and Herscovitch, 2001). Although various definitions have emerged in the literature, the most common approach has defined organizational commitment as “the strength of an individual’s identification with and involvement in a particular organization” (Porter et al., 1974, p. 604). Organizational commitment has an important place in the study of organizational behaviour. This is partly due to the large number of works that have found relationships between organizational commitment and attitudes and behaviours in the workplace. Bateman and Strasser (1984) state that the reasons for studying organizational commitment are related to “(a) employee behaviours and performance effectiveness, (b) attitudinal, affective, and cognitive constructs such as job satisfaction, (c) characteristics of the employee’s job and role, such as responsibility and (d) personal characteristics of the employee such as age, job tenure” (Bateman and Strasser, 1984, p. 95-96).

2.3.1 Components of organizational commitment

Meyer and Allen (1991); Meyer et al. (1990) identified three separable components reflecting (a) a desire (affective commitment), (b) a need (continuance commitment), and (c) an obligation (normative commitment) to maintain employment in an organization. The three-component model developed by Meyer and Allen has been subjected to the greatest empirical scrutiny and has arguably received the greatest support (For a review, see Meyer et al. (2002); Meyer and Allen (1997)). Meyer and Allen (1991) argued that one of the most important reasons for distinguishing among the different forms of organizational commitment was that they have very different implications for behaviour. Although all three forms tend to bind employees to the organization, and therefore relate negatively to turnover, their relations with other types of work behaviour can be quite different (Meyer et al., 2002).

Affective commitment

Affective commitment (AC) entails an acceptance and internalization of the other party's goals and values, a willingness to exert effort on their behalf and a strong emotional attachment to them (Allen and Meyer, 1990; Mowday et al., 1979). Employees who are affectively committed to the organisation will probably carry on working for it because they want to (Meyer and Allen, 1991).

Normative commitment

Normative commitment (NC) entails perceived obligations to maintain employment memberships and relationships. In exchange for employment, employees feel compelled to reciprocate with loyalty and commitment that derive from morality and value-driven principles based on reciprocity norms and socialization practices (Meyer and Herscovitch, 2001). "Employees with a high level of normative commitment feel that they ought to remain with the organization" (Meyer and Allen, 1991, p. 67).

Continuance commitment

Continuance commitment (CC) involves appraisals of personal investments tied to one's current employment and the availability of employment alternatives (Meyer and Allen, 1984). Continuance commitment "refers to the awareness of the costs associated with leaving the organization" (Meyer and Allen, 1991, p. 67). Individuals with high continuance commitment remain with their organizations because they perceive the costs of leaving to be too great. This type of commitment indicates that employees remain because they have too much time invested (Meyer and Allen, 1991).

Becker (1960) originally proposed that people engage in consistent lines of behaviour because of the inducements (side bets) to do so. Employers offer a variety of such inducements to retain employees, including job status, seniority and benefits. Further, employees often desire to avoid the social and economic costs of leaving (e.g., relocation costs, disrupted social networks). CC strengthens as these side bets accumulate, rendering employees more likely to stay with the organization. Meyer and Allen (1991) also indicate that individuals whose most important connection to the organisation is based on continuance commitment stay because they need to.

It has been recognized two sub-dimensions of continuance commitment held in various empirical studies (Vandenberghe et al., 2007; Bentein et al., 2005; Powell and Meyer, 2004; Meyer et al., 1990; McGee and Ford, 1987).

- Commitment due to a lack of alternative employment opportunities (CC:LoAlt) reflected commitment based on few existing employment alternatives. This commitment refrains the individual from leaving the organization, due to the perceived lack of more desirable employment opportunities.
- Perceived sacrifice of investments associated with leaving the organization (CC:HiSac) related to fear of losing benefits acquired by the organization during the years of work. This commitment is driven by the perception of losing the investments done in the targeted organization if it is abandoned by the individual.

2.3.2 Outcomes of organizational commitment

The interest of researchers in the construct of organizational commitment can be understood in relation to its links with desirable work outcomes. There seems to be a consensus that employees' organizational commitment influences their work attitudes and behaviors. Several decades of research demonstrate that organizational commitment can have positive consequences for the organization and the individual employee (O'driscoll et al., 2006; Riketta and Dick, 2005; Meyer et al., 2002; Mathieu and Zajac, 1990).

Organizational commitment is important for organizational effectiveness in that it enhances employees' desire to remain in an organization, improves their performance (Mowday et al., 1979), and stimulates their utmost efforts to accomplish the organization's goals (Schaubroeck and Ganster, 1991; Meyer et al., 1989). It is also related to numerous work-related attitudes and behaviors, including satisfaction, involvement with one's job and work motivation (Markovits et al., 2007; Chughtai and Zafar, 2006; Cooper-Hakim and Viswesvaran, 2005; Meyer et al., 2002; Allen and Meyer, 1996; Mowday et al., 1982). Moreover, organizational commitment has been linked to increased knowledge sharing (Alvesson, 2001), increased organizational citizenship behaviours (Meyer et al., 2002; Riketta, 2002), better organizational performance (Riketta, 2002; Meyer et al., 1989), reduced absenteeism (Eby et al., 1999) and reduced turnover (Chughtai and Zafar, 2006; Cooper-Hakim and Viswesvaran, 2005; Mathieu and Zajac, 1990). Employee turnover is very costly as organizations have to spend money on exit interviews, severance pay, hiring costs, and lost productivity while training the new hires. Bergmann et al. (2000) conclude that getting the best workers and keeping them committed to the organization can help organizations survive and also increase their competitiveness.

2.4 Leadership styles and organizational commitment

Prior research suggests that work experiences, personal and organizational factors serve as antecedents to organizational commitment (Eby et al., 1999; Meyer and Allen, 1997; Allen and Meyer, 1996, 1990). One organizational factor that is considered a key determinant of organizational commitment is leadership (Mowday et al., 1982).

Lee (2005) found out that transformational leadership correlates significantly with organizational commitment with samples of research and development professional in Singapore. Contrary, transactional leadership does not have significant relationship with organizational commitment. Hayward et al. (2004) findings have further indicated that no correlation was found between transactional leadership and affective, normative and continuance commitment. Limsila and Ogunlana (2008) found that the leadership style mostly adopted and proving to be most suitable for Thai people is the transformational leadership. In addition, their result reveals that transformational leadership style is likely to generate commitment from subordinates while transactional and laissez-faire are not.

The links between transformational leadership and organizational commitment are well established (Walumbwa et al., 2005; Avolio et al., 2004; Walumbwa and Lawler, 2003; Dvir et al., 2002; Howell and Hall-Merenda, 1999; Kirkpatrick and Locke, 1996). Essentially, the empirical and meta-analytic studies suggest that followers working with transformational leaders are more committed to their organizations and demonstrate fewer withdrawal behaviors (Walumbwa et al., 2004; Bono and Judge, 2003; Walumbwa and Lawler, 2003; Barling et al., 1996). Transformational leaders have great ability to influence organizational commitment by promoting the values which are related to the goal accomplishment, by emphasizing the relation between the employees efforts and goal achievement and by creating a greater degree of personal commitment on part of both follower's as well as leaders for the achievement of ultimate common vision, mission and goals of the organization

(Shamir et al., 1998). Transformational leaders influence followers' organizational commitment by encouraging followers to think critically by using novel approaches, involving followers in decision-making processes, inspiring loyalty, while recognizing and appreciating the different needs of each follower to develop his or her personal potential (Avolio et al., 1999; Bass and Avolio, 1998; Yammarino et al., 1993). This is further supported by Walumbwa and Lawler (2003) that transformational leaders can motivate and increase followers' motivation and organizational commitment by getting them to solve problems creatively and also understanding their needs.

Transformational leadership behaviour may encourage employees in both regular and irregular ways to develop stronger employee commitment (Bass, 1985). Although transformational leadership has been conceptually and empirically linked to organizational commitment, there has been little empirical research focusing on the precise ways in which style of leadership impacts employee organizational commitment.

2.5 Discussion

A multitude of studies have substantiated empirical results about leadership styles and the dimensions of organizational commitment. Hayward et al. (2004) noted that transformational leadership has moderate positive correlation with affective commitment. Low correlation coefficients between transformational leadership and normative and continuance commitment were also found. Other researchers such as Kent and Chelladurai (2001) posited that individualized consideration has positive relationship with both affective commitment and normative commitment. Similarly, positive correlations was found between intellectual stimulation and both affective commitment and normative commitment. Contrary to their hypotheses, Simosi and Xenikou (2010) found that transformational leadership did not explain how continuance commitment develops. Only the subscale of personal sacrifices was linked to transactional contingent reward.

Rafferty and Griffin (2004) found conflicting empirical results in relation with continuance commitment. They hypothesized that personal recognition has a unique positive relationship with CC. Contrary to their expectations; personal recognition was significantly negatively associated with CC. Moreover, they found that vision displayed a unique negative association with CC (not hypothesized in their work). These results may be explained by focusing on the composition of the CC scale, which contains items measuring individuals' perceptions of their investments in the organization and the availability of alternative employment possibilities. When the only rewards that are available for use by leaders are verbal encouragement or rewards of a personal nature, this may result in follower frustration as people do not feel that they are being adequately rewarded for performance. Increased frustration may lead individuals to evaluate alternative opportunities more positively, reducing CC to the organization (Rafferty and Griffin, 2004). Regarding the relationship between vision and CC, alternate expectations were consequently proposed: on the one hand, vision can be positively associated with continuance commitment as articulating an idealized picture of the future increases people's investment in the future of an organization. On the other hand, vision may be associated with a decrease in CC by empowering people and positively influencing their perceptions of the opportunities available to them (Rafferty and Griffin, 2004).

Most previous studies have been focused on the affective commitment dimension of organizational commitment. While a relationship between transformational leadership and affective organizational commitment has been empirically established (e.g. Barroso Castro et al. (2008); Felfe et al. (2008); Lowe (2005); Walumbwa et al. (2005, 2004); Dvir et al. (2004); Bono and Judge (2003); Meyer et al. (2002); Lowe (2000); Bycio et al. (1995)), the relationship between transformational leadership and employees' normative commitment has only been theoretically supported (Simosi and Xenikou, 2010). This may be explained by the extensive literature on the determinants of affective commitment, while there have been relatively few empirical investigations examining the antecedents of normative and continuance commitment. Despite the difficulties associated with the measurement of their antecedents, it is important to continue to investigate how continuance and normative commitment develop (Meyer et al., 2002).

Within a transformational leadership framework, the ability of leaders to properly implement transformational processes, such as intellectual stimulation, individualized consideration, individualized influenced attributed and individualized influence behavior in managing organization functions may lead to an increased organizational commitment (Simon, 1994). Although direct effects model based study has provided significant findings, it does not sufficiently explain how and why transformational leadership style affect organizational commitment in dynamic organizations (Avolio et al., 2004; Bycio et al., 1995).

2.6 Conclusions

The aim of this work was to study of the relationship between leadership styles and organizational commitment dimensions. Firstly, the contemporary leadership literature was studied and the two styles: transformational and transactional were detailed. Secondly, our literature study focused on organizational commitment identified with its three components affective commitment, continuance commitment, and normative commitment. The attention was focused then on showing the importance of the leadership behaviours in influencing employee commitment by different ways. Finally, some critics about previous empirical and theoretical studies will present and a number of areas for future research will highlight.

In order to revise and to generalize the results of the previous studies, the relationship between leadership styles and components of organizational commitment should be conducted in various cities, different cultures and at different organizational levels. This study can further be enhanced by considering the three dimensions of organizational commitment while considering the two sub-dimensions of continuance commitment and the dimensions of leadership styles.

There is substantial evidence that transformational leadership is positively related to employee organizational commitment. This was demonstrated in numerous studies which have applied a direct effect approach to examine the effect of transformational leadership on organizational commitment. However, the mechanisms

by which transformational leaders influence their followers have not been studied in a systematic manner (Avolio et al., 2004), and several authors have suggested that greater attention should be paid to understand how these influential processes operate in transformational leadership (Kark and Shamir, 2004; Conger et al., 2000; Bass, 2000; Yukl, 1999). Despite the lack of systematic research in this area, the future study will may focus on the possible mediating role of LMX, procedural justice, employee positive mood. . .

In the majority of reported studies, transformational leadership has been considered as a single construct (Simosi and Xenikou, 2010; Barroso Castro et al., 2008; Walumbwa et al., 2005; Avolio et al., 2004). Defining and testing models that take into account the diverse dimensions of transformational and transactional leadership can allow us to gain a more precise understanding about how leadership enhances employee commitment.

Previous research has found contradictory findings about the relationship between transformational leadership and continuance commitment (Simosi and Xenikou, 2010; Rafferty and Griffin, 2004). Taking into account the two subdimensions of continuance commitment can allow us to test how does it relate to transformational leadership, and the relationship between transactional leadership and employee commitment.

One area that clearly requires additional research is the influence of vision on employees. However, as Rafferty and Griffin (2004) mentioned, there is a clear need to more understand the theoretical nature of the relationship between vision and continuance commitment. Taking into account the two subdimensions of continuance commitment can allow us to test how it relate to vision.

The literature about the relationship between leadership and commitment has tested direct relationships between these two constructs. However, some studies draw on social exchange theory to define more elaborated models of the relationship between leadership and attitudinal outcomes (Asgari et al., 2008; Ngodo, 2008; Wang

et al., 2005; Pillai et al., 1999b). In those models, constructs such as leader-member exchange (LMX), perceived organizational support and organizational justice act as mediating variables. Incorporating these variables in future research can allow us to gather a better understanding about the social of psychological mechanism that link leadership styles and followers organizational commitment.

Validation of the French version of the transformational leadership questionnaire

Abstract

The aim of this chapter is to translate the English transformational leadership questionnaire (TLQ) (Rafferty and Griffin, 2004) into French and to test the validity and reliability of this instrument within a French speaking population. The instrument is translated using a back-translation technique. Two studies have been conducted in which 163 and 427 participants from Tunisian and French organisations, respectively, have formed the samples. Internal consistency of the TLQ is assessed using Cronbach alpha coefficient. The construct validity is verified using the exploratory and confirmatory factor analyses. The results arising from in this work support a four-factor model of TLQ which consists of vision, supportive leadership, intellectual stimulation and personal recognition. Good internal consistency is found. These findings have shown adequate psychometric properties and have provided preliminary support for the construct validity of the French translation of the TLQ.

3.1 Introduction

TL is considered as the most prominent topic in the current research on leadership because of its qualitatively different approach for motivating followers (Bass, 1998; Howell and Avolio, 1993). The theory was originally introduced by Burns (1978) and Bass (1985) to describe the impact that exceptional leaders have on subordinates' reactions and to describe the process by which leaders create a connection with followers, attend to their individual needs, and help followers reach their potential. TL theory rests on the idea that certain leader behaviors not only influence subordinate attitudes and behaviors, but also inspire them to perform beyond the expectations specified in the implicit or explicit exchange agreement.

The definition of the TL, its dimensions and its outcomes on followers were given in details in the first chapter of this thesis. In brief, respecting to the dimensions and according to Bass (1985), transformational leaders exhibit four primary behaviors: Charisma (act as role model), inspirational motivation (develop a shared vision and high expectations that are motivating, inspiring, and challenging), intellectual stimulation (challenge existing assumptions and solicit followers' suggestions and ideas) and individualized consideration (communicate personal respect to followers). Later, Rafferty and Griffin (2004) re-examine the theoretical model developed by Bass (1985) to identify five dimensions of transformational leadership: vision (is the expression of an idealized picture of the future based around organizational values), inspirational communication (is the expression of positive and encouraging messages about the organization and statements that build motivation and confidence), supportive leadership (expressing concern for followers and taking account of their individual needs), intellectual stimulation (is enhancing employees' interest in and awareness of problems and increasing their ability to think about problems in new ways) and finally personal recognition (is the provision of rewards such as praise and acknowledgement of effort for achievement of specified goals).

Some studies have been conducted to examine the validity of measures of transformational leadership questionnaire (TLQ) (e.g. Carless (1998); Rafferty and Griffin (2004)). These authors used principally English questionnaires in their studies. To the author's knowledge, there is no French validated version in the scientific

literature. This has generated the interest in performing the present study. Therefore, the goal of this work is to examine and expand the evidence of validity of the TLQ in the French-speaking population. Confirmation of the psychometric properties in the French language would provide evidence of the suitability of the scale in cultural groups other than the English. Likewise, the validation of this scale for French-speaking groups would help cross-cultural research on TL, particularly, to determine the cultural differences assigned to the meaning and the differential antecedents associated.

3.2 Method

3.2.1 Measures

TL was assessed by five leadership sub-dimensions scale that were given by Rafferty and Griffin (2004). The sub-dimensions were based on vision, inspirational communication, intellectual stimulation, supportive leadership and personal recognition. Each sub-dimension scale comprised three items. To assess the constructs of vision, inspirational communication and supportive leadership, the items developed by House (1998) were adapted. These scales had values of Cronbach's alpha of 0.82, 0.84, 0.95, respectively. For assessing intellectual stimulation and personal recognition, the items developed by Podsakoff et al. (1990) were adopted and these scales had values of Cronbach's alpha of 0.84 and 0.96, respectively.

3.2.2 Translation of the questionnaire

To translate TLQ from English to French, the back-translation method proposed by Nunnally and Bernstein (1994) has been followed. By means of this procedure, the original version is translated into the target language (from English to French) and then is translated back to the original language (from French to English) by different translators. Finally, both versions are compared to the same original language to check whether they exactly say the same and to make the necessary corrections. This method is considered particularly appropriated for identifying translation errors

and achieving concept equivalence. We intentionally did not use any reverse-scored items because reverse-scoring of items has been shown to reduce the validity of questionnaire responses (Schriesheim and Hill, 1981) and may introduce systematic error to a scale (Jackson et al., 1993).

3.2.3 Questionnaire design

The questionnaire design consist of two main sections. The first section includes the demographic variables and the second section incorporates TLQ. Items were measured on a seven-point Likert-type scale on which respondents were asked to indicate the extent of their agreement with each item (1 = strongly disagree, 7 = strongly agree).

3.2.4 Data analyses

- **Reliability:** Although reliability may be calculated in a number of ways, the most commonly accepted measure is internal consistency reliability using Cronbach's Alpha (Price and Mueller, 1986). Nunnally (1998) suggest that an alpha of 0.70 is the minimum acceptable standard for demonstrating internal consistency.
- **Exploratory Factor Analysis (EFA):** To examine the factor structure, exploratory factor analysis (EFA) was conducted. EFA was run on all the responses to replicate the original instruments' factor solutions. The aim was to know if the 15 items of TL would generate comparable factor structures. A principal component factor analysis and varimax rotation technique were performed. The following criteria were used in order to obtain the best fitting structure and the correct number of factors: (1) Eigenvalues greater than 1.0, (2) Cattell (1966) scree test, (3) the percentage of total variance explained by each factor, and (4) factor loading cut-off of 0.40.
- **Confirmatory factor analysis (CFA):** CFA was used to examine construct validity and applicability of the TLQ. This technique provides analyses of a priori measurement models in which the number of factors and their correspondence

to the indicators are explicitly specified (Kline, 2011). Thus, CFA analysis was appropriate to validate the TLQ because it verifies the adequacy of the item-to-factor associations and examines the construct validity of theoretically proposed measurement (Hair et al., 2009).

For the statistical computing, the R package lavaan is used. It allows to fit a variety of latent variable models, including confirmatory factor analysis, structural equation modeling and latent growth curve models (Rosseel, 2012). The calculations are made according to the calculation method of M-plus software. Reliability and EFA are carried out with functions of the psych (Revelle, 2014), and CFA with lavaan.

3.3 Study 1

3.3.1 Sample

To obtain the first French-speaking sample, 163 senior executives from Tunisian organizations have participated. Tunisia is among the countries sharing the use of French which plays a major role in Tunisian society. Despite having no official status, it is widely used in education, press and business. In 2010, about 64% of the population were French-speakers.

The questionnaire included questions regarding demographic variables of gender, age, educational level, labor sector, number of employees in the company and number of years in the current company. Statistics about these variables are presented in the table 3.1.

Table 3.1: Statistics about demographic variables of the sample (Study1).

Demographic variables	Categories	Frequency	Percentage
Gender	Male	93	57.1
	Female	70	42.9
Age	21-30 years old	66	40.5
	31-40 years old	69	42.3
	41-50 years old	22	13.5
	≥ 51 years old	6	3.7
Educational level	Licence	24	14.7
	Master	34	20.9
	Engineer	88	54.0
	Doctorate	17	10.4
Labor sector	Industry, Energy and Construction	49	30.0
	Computers and telecommunications	46	28.2
	Services and Education	21	12.9
	Trade and artisans	13	8.0
	Agriculture, hunting, forestry and fishing	6	3.7
	Others labor sector	28	17.2
Number of employees in the company	Less than 50	55	33.8
	Between 50 and 150	24	14.7
	More than 50	84	51.5
Number of years in the current company	01-05	102	62.6
	06-10	32	19.6
	11-20	23	14.1
	21-30	4	2.5
	≥ 31	2	1.2

3.3.2 Results

Reliability

The internal consistency of the TLQ was assessed using Cronbach's alpha coefficient. The results are shown in Table 3.2 and are compared to the results of the original version. It is found a high reliability with a value of 0.94 for the total scale and ranged from 0.80 to 0.93 for the five subscales of the TLQ. These results are in accordance with that found in the original version of the TLQ (Rafferty and Griffin, 2004).

Table 3.2: Cronbach's alpha values for TLQ (Study1).

	VIS	INS	INT	PER	SUP
α French	0.90	0.84	0.80	0.93	0.88
α English	0.82	0.88	0.84	0.96	0.95

Exploratory Factor Analysis

Table 3.3 shows two tests that indicate the suitability of the data for factor analysis. The first test is the Kaiser-Meyer Olkin (KMO): it is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors. A high value of KMO (in the order of 0.9) indicates that a factor analysis may be useful with the data. The second is Bartlett's test of sphericity: it allows to test the hypothesis that the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for factor analysis. The observed significance level is .000. It is small enough to reject the hypothesis. It is concluded that the strength of the relationship among variables is strong. Therefore, a factor analysis may be useful with the data.

Using the criterion for retaining factors with an eigenvalue greater than 1, the principal-component factor analysis of the items of the TLQ yielded a 3-factors solution. The analysis of a scree plot corroborated a 3-factors solution. The 3-factors solution explained 71.65% of the total variance. The first three eigenvalues

Table 3.3: KMO and bartlett test of sphericity (Study1).

Measure of sampling adequacy Kaiser-Meyer-Olkin (KMO)	0.9
Approx.chi-square	1933.914
Bartlett test of sphericity p value	0.000
df	105

were 8.377, 1.349 and 1.020, respectively (see table 3.4 and figure 3.1).

Table 3.4: Principal-component analysis for TLQ (Study1).

Component	Initial eigenvalues		
	Total	% of the variance	%accumulated
1	8.377	55.85	55.85
2	1.349	9.00	64.85
3	1.020	6.80	71.65
4	0.908	6.06	77.71
5	0.698	4.65	82.36

The items were resubmitted for a second analysis with five components extracted and rotated using varimax rotation. The results are presented in Table 3.5. Excepting INS3, all items loaded on the appropriate factors and there were no cross-loadings. The INS3 item cross-load on more than one factor (on INS and INT).

Item analysis

Item analysis is an additional means of finding weaknesses in the measurement and assessment of how well each item contributes to the overall measure (Kim and Han, 1998). As can be seen in the Table 3.6, the corrected item-total correlation was high as all items received high correlations with a range from 0.610 to 0.886. Deleting items did not increase the Cronbach alpha coefficient.

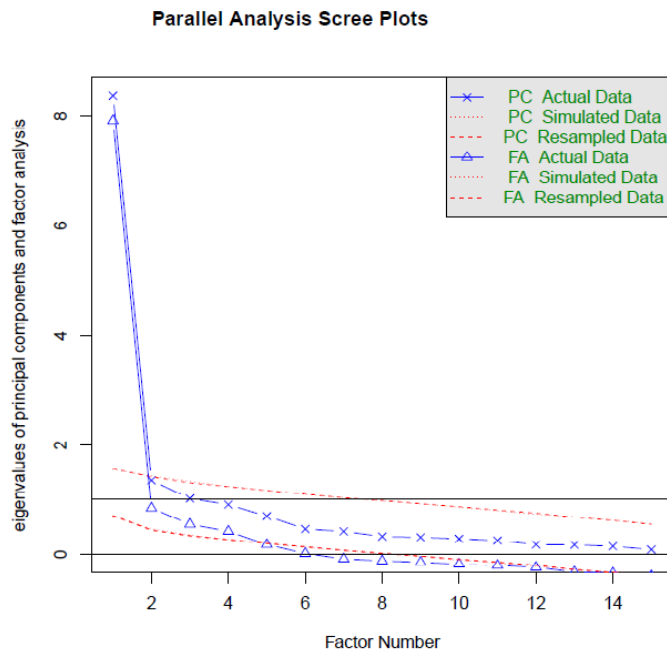


Figure 3.1: Scree plot for TLQ (Study1)

Confirmatory factor analysis (CFA)

In order to test the fit of the original five factors solution, a CFA with maximum likelihood estimation was conducted. The Incremental Fit Index (IFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) all must be over 0.90. The Root Mean Squared Error of Approximation (RMSEA) must be below 0.08 and χ^2/df value must be lower than 3.0.

The results are presented in Table 3.7. As can be seen, the results met all the requirements to conclude that the five dimension theoretical model exhibits a good fit (IFI = 0.963, CFI = 0.963, TLI = 0.947, RMSEA = 0.077 and $\chi^2/df = 1.95$). Moreover, the fit of the five factor model was compared to that of a one and four factors model for the same data. Differences between models were significant. Thus, the one and four factors model were rejected and the five factors solution was supported.

Table 3.5: Principal-component method with Varimax rotation for TLQ (Study1).

Items	Factor 1	Factor2	Factor 3	Factor 4	Factor 5
VIS1	0.785				
VIS2	0.817				
VIS1	0.742				
INS 1		0.605			
INS 2		0.571			
INS 3		0.418	0.409		
INT 1			0.445		
INT 2			0.898		
INT 3			0.495		
PER 1				0.805	
PER 2				0.698	
PER 3				0.805	
SUP 1					0.726
SUP 2					0.856
SUP 3					0.621

3.3.3 Discussion

In this study, 163 senior executives from Tunisian organizations have formed the French-speaking sample. The reliability was calculated by means of the internal consistency reliability using Cronbach's Alpha. The results showed that the Cronbach's alpha values for all the variables ranged between 0.80 and 0.94. These findings confirmed the reliability of measurement scale used in this study and were in accordance with that found in the English original version of the TLQ (Rafferty and Griffin, 2004).

The EFA was run on all the 163 responses in order to replicate the original instrument's factor solutions. The Kaiser Normalization criterion generated only 3 factors. The items were resubmitted with five components extracted and rotated using Varimax rotation. Excepting for INS3, all items loaded on the appropriate factors and there were no cross-loadings. The translation of the item INS3 need to

Table 3.6: Item-total correlation for TLQ (Study1).

Items	Corrected item-total correlation	Cronbach's alpha if item deleted	alpha
VIS1	0.821	0.84	
VIS2	0.799	0.86	0.90
VIS1	0.793	0.86	
INS 1	0.733	0.75	
INS 2	0.708	0.78	0.84
INS 3	0.681	0.80	
INT 1	0.631	0.75	
INT 2	0.717	0.66	0.80
INT 3	0.610	0.77	
PER 1	0.877	0.88	
PER 2	0.829	0.92	0.93
PER 3	0.886	0.88	
SUP 1	0.773	0.85	
SUP 2	0.826	0.80	0.88
SUP 3	0.754	0.87	

be further revised in future works. The results showed that the extracted factors represent the original factors. The items were homogenous to the scale, as there was no significant increase in the alpha when any item was left out.

CFA was used to examine construct validity and applicability of the questionnaire. The results confirmed the same five factor model described in the original instrument which consists of vision, inspirational communication, supportive leadership, intellectual stimulation and personal recognition (Rafferty and Griffin, 2004).

This preliminary validation of the French version of the TLQ showed that it is an acceptable measure to be used with French speaking population.

Table 3.7: Confirmatory factor analysis for TLQ (Study1).

Model	χ^2	df	RMSEA	IFI	GFI	AGFI	CFI	TLI
One factor	614.706	90	0.189	0.728	0.650	0.533	0.726	0.680
Four factors (INS + INT)	215.411	84	0.098	0.932	0.863	0.804	0.931	0.914
Four factors (deleting INS)	130.328	48	0.103	0.946	0.892	0.824	0.945	0.924
+ errors	102.666	46	0.087	0.963	0.909	0.846	0.962	0.946
Five factors	194.210	80	0.094	0.941	0.873	0.810	0.940	0.922
Five factors + errors	145.446	74	0.077	0.963	0.899	0.837	0.963	0.947

3.4 Study 2

The purpose of Study 2 was to provide additional evidence for the 5-factor structure of the TLQ, to test the validity and reliability of this instrument within another French speaking population. Because Study 1 had Tunisian participants, it was important to expand this study within a population whose first language is French (example France) and in order to reach a large sample for generalization of results.

As concluded in the previous study, the translation of the item INS3 needs to be further revised in future works. We propose therefore in this study to change the translation of the item INS3 from "Mon chef encourage les gens à voir une situation de changement comme une opportunité" to "Mon chef encourage les employés à voir un changement de l'environnement du travail comme une opportunité".

3.4.1 Sample

To obtain the sample, 427 senior executives from French organizations have participated. Participants in this study were French employees with a university degree and 2 years of experience in their current organization. Participants were contacted through a service company specialized in the data collection.

The questionnaire included questions regarding demographic variables of gender, age, educational level, labor sector, number of employees in the company and number of years in the current company. Statistics about these variables are presented in the table 3.8.

3.4.2 Results

Reliability

The internal consistency of the TLQ was assessed using Cronbach's coefficient alpha. The results are shown in Table 3.9 and are compared to the results of the original version. It is found a high reliability with a value of 0.96 for the total scale and ranged from 0.89 to 0.95 for the five subscales of the TLQ. These results are in accordance with that found in the original version of the TLQ (Rafferty and Griffin, 2004).

Exploratory Factor Analysis (EFA)

Table 3.10 shows two tests that indicate the suitability of the data for factor analysis. The average KMO value is quite high at 0.94, indicating that factor analysis may be useful with the data. The Bartlett Test of Sphericity is also highly significant, again suggesting that factor analysis can be applied to the data set since it is unlikely that the correlation matrix of the variables is an identity.

Using the criterion for retaining factors with an eigenvalue greater than 1, the principal-component factor analysis of the items of the TLQ yielded a 2-factors solution. The analysis of a scree plot corroborated a 2-factors solution. The 2-factors solution explained 75.88% of the total variance. The first two eigenvalues were 3.171 and 1.152 respectively (see Table 3.11 and figure 3.2).

The items were resubmitted for a second analysis with five components extracted and rotated using varimax rotation. The results are presented in Table 3.12. Excepting items of INS, all items loaded on the appropriate factors and there were no cross-loadings. Items of INS cross-load on more than one factor.

Table 3.8: Statistics about demographic variables of the sample (Study2).

Demographic variables	Categories	Frequency	Percentage
Gender	Male	220	51.5
	Female	207	48.5
Age	21-30 years old	48	11.2
	31-40 years old	129	30.2
	41-50 years old	134	31.4
	≥ 51 years old	116	27.2
Educational level	Licence	202	47.3
	Master	86	20.1
	Engineer	113	26.5
	Doctorate	26	6.1
Labor sector	Industry, Energy and Construction	52	12.2
	Computers and telecommunications	51	11.9
	Services and Education	153	35.8
	Trade and artisans	34	8.0
	Agriculture, hunting, forestry and fishing	6	1.4
	Others labor sector	131	30.7
Number of employees in the company	Less than 50	110	25.8
	Between 50 and 150	58	13.6
	More than 50	259	60.6
Number of years in the current company	01-05	128	30.0
	06-10	95	22.2
	11-15	71	16.6
	16-20	49	11.5
	> 21	84	19.7

Table 3.9: Cronbach's alpha values for TLQ (Study2).

	VIS	INS	INT	PER	SUP
α French	0.94	0.90	0.89	0.95	0.93
α English	0.82	0.88	0.84	0.96	0.95

Table 3.10: KMO and Bartlett test of sphericity (Study2).

Measure of sampling adequacy		0.95
Kaiser-Meyer-Olkin (KMO)		
	Approx.chi-square	6944.08
Bartlett test of sphericity	p value	0.000
	df	105

Item analysis

As can be seen in the Table 3.13, the corrected item-total correlation was high as all items received high correlations with a range from 0.737 to 0.905. Deleting items did not increase the Cronbach alpha coefficient.

Confirmatory factor analysis (CFA)

As items of INS cross-load on more than one factor and especially on INS and INT, we propose to test two more alternatives models: a model with 4 factors where INS and INT are coupled and a model with four factors solution where INS is deleted.

The results are presented in Table 3.14. As can be seen, the results met all the requirements to conclude that the four dimension model when deleting INS exhibits an acceptable fit (IFI =0.985, CFI = 0.985, TLI = 0.978, RMSEA = 0.064 and $\chi^2/df = 2.75$). Moreover, the fit of the four factor model (deleting INS) was compared to that of a one factor, five factors and four factors (coupling INS and INT) for the same data. Differences between models were significant. Thus, the one, five and four factors (coupling INS) were rejected and the four factors solution when deleting INS was supported.

Table 3.11: Principal-component analysis for TLQ (Study2).

Component	Initial Eigenvalues)		
	Total	% of the variance	%accumulated
1	3.171	67.04	67.04
2	1.152	8.84	75.88
3	0.867	5.01	80.89
4	0.756	3.81	84.70
5	0.691	3.18	87.88

3.4.3 Discussion

In this study, 427 senior executives from French organizations have formed the French-speaking sample. The reliability was calculated by means of the internal consistency reliability using Cronbach's Alpha. The results showed that the Cronbach's alpha values for all the variables ranged between 0.89 and 0.95. These findings confirmed the reliability of measurement scale used in this study and were in accordance with that found in the English original version of the TLQ (Rafferty and Griffin, 2004).

The EFA was run on all the 427 responses in order to replicate the original instrument factor solutions. The Kaiser Normalization criterion generated only 2 factors. The items were resubmitted with five components extracted and rotated using Varimax rotation. Excepting for items of INS, all items loaded on the appropriate factors and there were no cross-loadings. The results showed that the extracted factors represent the original factors. The items were homogenous to the scale, as there was no significant increase in the Cronbach's alpha when any item was left out.

CFA was used to examine construct validity and applicability of the questionnaire. The results did not confirm the same five factors model described in the original instrument but confirmed a four dimensions model when deleting the sub-dimension of inspirational communication. This model consists of vision, supportive leadership, intellectual stimulation and personal recognition.

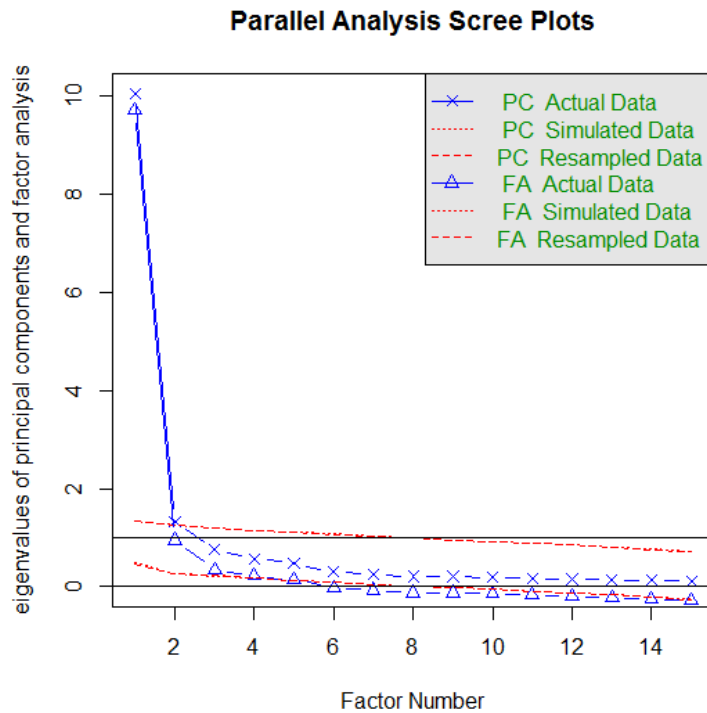


Figure 3.2: Scree plot for TLQ (Study2)

3.5 Conclusions

In this chapter, a translation of the English version of the TLQ to the French has been proposed. The back-translation method proposed by Nunnally and Bernstein (1994) has been followed. Items of the questionnaire have been measured on a seven-point Likert-type scale. Two studies have been conducted. In the first one, a total of 163 senior executives from Tunisian organizations have formed the French-speaking sample. In the second study, a total of 427 participants from French organizations have been used in order to provide additional evidence for the 5-factors structure of the TLQ and in order to reach a large sample for generalization of results.

In study 1, the results of CFA confirmed the same five factors model described in the original instrument which consists of vision, inspirational communication, supportive leadership, intellectual stimulation and personal recognition (Rafferty and Griffin, 2004). However, the results of EFA showed a cross-loadings on one item of INS (INS3).

Table 3.12: Principal-component method with Varimax rotation for TLQ (Study2).

Items	Factor 1	Factor2	Factor 3	Factor 4	Factor 5
VIS1	0.789				
VIS2	0.773				
VIS3	0.801				
INS1	0.440		0.476		
INS2		0.576			
INS3		0.468	0.409		
INT1			0.682		
INT2			0.718		
INT3			0.677		
PER1				0.792	
PER2				0.690	
PER3				0.689	
SUP1					0.707
SUP2					0.815
SUP3					0.679

In study 2, despite the change introduced in the translation of the item INS3, the results of EFA also showed a cross loading on the items of INS. Moreover, the CFA did not confirm the same five factor model but confirmed a four dimensions model when deleting INS. This model consists of vision, supportive leadership, intellectual stimulation and personal recognition.

Consequently, from both studies, we can confirm that the four dimensions model which consists of vision, supportive leadership, intellectual stimulation and personal recognition is an acceptable measure of TL to be used with French speaking population.

As there is no French validated version in the scientific literature, this work has an important contribution as it allows to measure TL in other societies where the maternal language is French. The validation of this scale could help cross-cultural research on TL to determine the cultural differences assigned to the meaning and the differential antecedents associated.

Table 3.13: Item-total correlation for TLQ (Study2).

Items	Corrected item-total correlation	Cronbach's alpha if item deleted	alpha
VIS1	0.862	0.91	
VIS2	0.861	0.91	0.94
VIS3	0.879	0.90	
INT1	0.797	0.84	
INT2	0.846	0.80	0.89
INT3	0.737	0.89	
INS1	0.804	0.86	
INS2	0.806	0.86	0.90
INS3	0.808	0.86	
PER1	0.905	0.91	
PER2	0.877	0.93	0.95
PER3	0.885	0.92	
SUP1	0.833	0.90	
SUP2	0.865	0.88	0.93
SUP3	0.845	0.89	

Finally, we recognize that all data used in the present research were collected from a unique source (followers), which could lead to overstatement or understatement of the results. As the dyadic relationship between leaders and followers was the main interest, managers may also be asked to respond the questionnaire in future works. Future research may also include heterogeneous and larger samples that allow broader generalization of the results. Likewise, the developed scale could also be used in other French-speaking societies.

Table 3.14: Confirmatory factor analysis for TLQ (Study2).

Model	χ^2	Df	RMSEA	IFI	GFI	AGFI	CFI	TLI
One factor	1.685.201	90	0.204	0.771	0.582	0.443	0.781	0.732
Five factor	313.823	80	0.083	0.966	0.914	0.870	0.966	0.956
Four factors (INS+ INT)	420.153	84	0.097	0.952	0.877	0.824	0.952	0.940
Four factors (deleting INS)	166.262	48	0.076	0.978	0.940	0.903	0.978	0.970
+ error	124.013	45	0.064	0.985	0.954	0.920	0.985	0.978

Validation of the French version of the organizational commitment questionnaire

Abstract

The aim of this study is to translate the English organizational commitment questionnaire (OCQ) (Meyer et al., 1993; Powell and Meyer, 2004) into French and to test the validity and reliability of this instrument within a French speaking population. The instrument are translated using a back-translation technique. Two studies have been conducted in which 163 and 427 participants from Tunisian and French organisations, respectively, have formed the samples. Internal consistency is assessed using Cronbach's alpha coefficient. The construct validity is verified using the exploratory and confirmatory factor analyses. The results found in this work support the 4-factor model of OCQ of the original questionnaire. Good internal consistency is found. These findings have shown adequate psychometric properties and have provided preliminary support for the construct validity of the French translation of the OCQ.

4.1 Introduction

Research on organizational commitment (OC) has attracted much attention among academics in the past decades. The interest in this concept is likely to be as a result of its relationship with other important aspects of employee behavior and its positive consequences for the organization. In fact, OC predicts many workplace attitudes and behaviors including job satisfaction, organizational citizenship behavior and turnover (Cooper-Hakim and Viswesvaran, 2005; Meyer et al., 2002) and it is important for organizational effectiveness in that it enhances employees' desire to remain in an organization, improves their performance, and stimulates their utmost efforts to accomplish the organization's goals (Schaubroeck and Ganster, 1991; Meyer et al., 1989; Porter et al., 1974).

The definition of OC, its dimensions and its outcomes on employee and organization were given in details in the first chapter of this thesis. In brief concerning the dimensions, the most widely used multidimensional model of OC is the three-dimensional model of Meyer and Allen (Meyer and Allen, 1991; Meyer et al., 1993; Allen and Meyer, 1990). This model distinguishes between affective commitment (AC), normative commitment (NC) and continuance commitment (CC). The AC represents the emotional attachment that an employee feels toward the employing firm. The NC refers to the employee's feelings of obligation to remain with the organization and the CC refers to commitment based on the costs that the employee associates with leaving the organization. Additional work on the dimensions of OC has shown that the CC dimension contains two separable components (Powell and Meyer, 2004; McGee and Ford, 1987). First, commitment due to a lack of alternative employment opportunities (CCLoAlt) and second, perceived sacrifice of investments associated with leaving the organization (CCHiSac).

Some studies have been conducted to examine the validity of the measures of organizational commitment questionnaire (OCQ) (e.g., Cheng and Stockdale (2003); Allen and Meyer (1996); Hackett et al. (1994)). These authors used principally English questionnaires in their studies. To the author's knowledge, there is no French validated version in the scientific literature. This have generated the interest in performing the present study. Therefore, the goal of this work is to examine and

expand the evidence of validity of this instrument in the French-speaking population. Confirmation of the psychometric properties in the French language would provide evidence of the suitability of the scale in cultural groups other than English. Likewise, the validation of this scale for French-speaking groups would help cross-cultural research on OC, particularly, to determine the cultural differences assigned to the meaning and the differential antecedents associated.

4.2 Method

4.2.1 Measures

OC was measured using the complete scales proposed by Meyer et al. (1993) taking into account the modifications proposed by Powell and Meyer (2004) and McGee and Ford (1987). To assess the affective and the normative commitments, six items reported by Meyer et al. (1993) were adopted for each dimension. These scales had alpha values of 0.81 and 0.83, respectively. To assess CCLoAlt and CCHiSac, three and six items reported by Powell and Meyer (2004) were used. These scales had alphas of 0.85 and 0.81, respectively.

4.2.2 Translation of the questionnaire

To translate OCQ from English to French, the back-translation method proposed by Nunnally and Bernstein (1994) has been followed. More details about this method were previously presented in section 3.2.2 of chapter 3.

4.2.3 Questionnaire design

The questionnaire design consist of two main sections. The first section included the demographic variables and the second section incorporated OCQ. Items were measured on a seven-point Likert-type scale on which respondents were asked to indicate the extent of their agreement with each item (1 = strongly disagree, 7 =

strongly agree).

4.2.4 Data analyses

- **Reliability:** Although reliability may be calculated in a number of ways, the most commonly accepted measure is internal consistency reliability using Cronbach's Alpha (Price and Mueller, 1986). Nunnally (1998) suggested that an alpha of 0.70 is the minimum acceptable standard for demonstrating internal consistency.
- **Exploratory Factor Analysis (EFA):** To examine the factor structure, exploratory factor analysis (EFA) was conducted. EFA was run on all the responses to replicate the original instruments' factor solutions. The aim was to know if the organizational commitment's 21 items would generate comparable factor structures. A principal component factor analysis and varimax rotation technique were performed. The following criteria were used in order to obtain the best fitting structure and the correct number of factors: (1) Eigenvalues greater than 1.0, (2) Cattell (1966) scree test, (3) the percentage of total variance explained by each factor, and (4) factor loading cut-off of 0.40.
- **Confirmatory factor analysis (CFA):** CFA was used to examine construct validity and applicability of the OCQ. This technique provides analyses of a priori measurement models in which the number of factors and their correspondence to the indicators are explicitly specified Kline (2011). Thus, CFA analysis was appropriate to validate the OCQ because it verifies the adequacy of the item-to-factor associations and examines the construct validity of theoretically proposed measurement (Hair et al., 2009).

For the statistical computing, it has been used the R package lavaan. It allows to fit a variety of latent variable models, including confirmatory factor analysis, structural equation modeling and latent growth curve models (Rosseel, 2012). The calculations were made according to the calculation method of M-plus software. Reliability and EFA have been performed with instructions of the psych package (Revelle, 2014), and CFA with lavaan.

4.3 Study 1

4.3.1 Sample

The French-speaking sample consists of 163 senior executives from Tunisian organizations and it is previously presented in section 3.3.1 of chapter 3. The questionnaire included questions regarding demographic variables of gender, age, educational level, labor sector, number of employees in the company and number of years in the current company.

4.3.2 Results

Reliability

The internal consistency of the OCQ was assessed by calculating Cronbach alpha values. The results are presented in Table 4.1. It is found a high reliability with a value of 0.93 for the total scale and ranged from 0.80 to 0.95 for the subscales. These results are in accordance with that found in the original version of the OCQ (Meyer et al., 1993; Powell and Meyer, 2004). For AC and CCHiSac, the Cronbach's alpha is even higher than that found in the English questionnaire.

Table 4.1: Cronbach's alpha values for OCQ (Study1).

	AC	CCLoAlt	CCHiSac	NC	CC
α French	0.95	0.81	0.89	0.83	0.88
α English	0.81	0.85	0.81	0.83	-

Exploratory Factor Analysis (EFA)

Table 4.2 shows two tests that indicate the suitability of the data for factor analysis. The first test is the Kaiser-Meyer-Olkin (KMO): it is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors.

A high value of KMO (in the order of 0.92) indicates that a factor analysis may be useful with the data. The second is Bartlett's test of sphericity: it allows to test the hypothesis that the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for factor analysis. The observed significance level is .000. It is small enough to reject the hypothesis. It is concluded that the relationship between variables is strong. It is recommended to proceed with a factor analysis for the data.

Table 4.2: KMO and Bartlett test of sphericity (Study1).

Measure of sampling adequacy	0.92
Kaiser-Meyer-Olkin (KMO)	
Approx.chi-square	2664.36
Bartlett test of sphericity p value	0.000
df	210

Using the Kaiser criterion for retaining factors with an eigenvalue greater than 1, the principal-component factor analysis of the items of the OCQ yielded a 4-factors solution. Analysis of a scree plot corroborated a 4-factors solution. The 4-factors solution explained 73.20% of the total variance. The first 4 eigenvalues were 9.216, 3.638, 1.361, and 1.156, respectively (see table 4.3 and figure 4.1).

Table 4.3: Principal-component analysis for OCQ (Study1).

Component	Initial Eigenvalues)		
	Total	% of the variance	%accumulated
1	9.216	43.89	43.89
2	3.638	17.32	61.21
3	1.361	6.48	67.69
4	1.156	5.51	73.20

The items were resubmitted for a second analysis, with four components extracted and rotated using varimax rotation. The results are presented in Table 4.4. All items of AC, CClAlt and CCHiSac loaded on the appropriate factors and there were no cross-loadings. However, there were a cross-loadings in NC4 and NC6 items

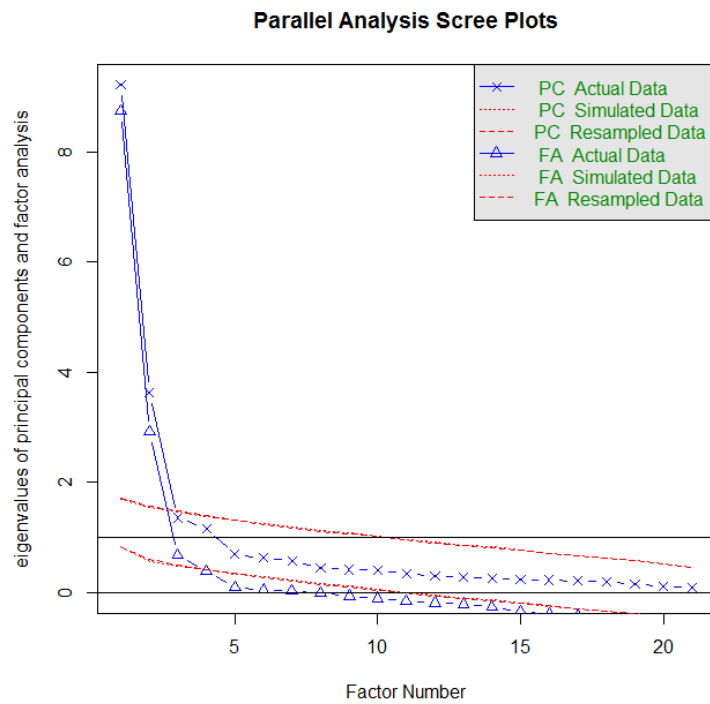


Figure 4.1: Scree plot for OCQ (Study1)

that loaded in two factors (AC and NC) and in NC1 item that loaded in two factors (CCLoAlt and NC).

Item analysis

Item analysis is an additional means to find weaknesses in the measurement and assessment of how well each item contributes to the overall measure (Kim and Han, 2004). As can be seen in the Table 4.5, there was a significant increase in the Cronbach's alpha only when the item NC1 was left out. Excepting the NC1 item which presents a small value (0.204), the corrected item-to-total correlations ranged from 0.609 to 0.910 and there was no significant increase in the Cronbach's alpha when items was left out. when the NC1 item was deleted, an increase from 0.83 to 0.87 in the Cronbach's alpha value was obtained.

Confirmatory factor analysis (CFA)

A Confirmatory Factor Analysis (CFA) with maximum likelihood estimation was conducted to determine whether the four-factor model explained well the data set. The Incremental Fit Index (IFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) all must be over 0.90. The Root Mean Squared Error of Approximation (RMSEA) must be below 0.08 and χ^2/df value must be lower than 3.0.

The results are presented in Table 4.6. As can be seen, the results met all the requirements to conclude that the four dimensions theoretical model exhibits a good fit (IFI = 0.919, CFI = 0.918, TLI = 0.900, RMSEA = 0.087 and $\chi^2/df = 2.23$). Furthermore, the fit of the four-factors model was compared to that of a one, two and three-factors models for the same data. Differences between models were significant. Thus, the one, two and three-factors models were rejected and the four-factors model solution was supported.

4.3.3 Discussion

In this study, 163 senior executives from Tunisian organizations have formed the French-speaking sample. The reliability was calculated by means of the internal consistency reliability using Cronbach's Alpha. The results showed that the Cronbach's alpha values for all the variables ranged between 0.81 and 0.95. These findings confirmed the reliability of measurement scales used in this study and were in accordance with that found in the English original version of the OCQ (Meyer et al., 1993; Powell and Meyer, 2004).

The EFA was run on all the 163 responses in order to replicate the original instruments' factor solutions. The analysis of the different variables of OCQ produced factors similar to that identified in previous research. Principal component factor analysis using the scree test (Cattell, 1966), Kaiser Criterion eigenvalue greater than one (Kaiser, 1960), and varimax rotation, yielded four factors accounting for 73.20 % of the variance. The cross loading found on AC and NC can be explained by the correlation between these two factors. This correlation is often quite strong in

the literature (Allen and Meyer, 1990; Meyer et al., 2002). Meyer et al. (2002) suggested that the constructs themselves are more closely related to culture (i.e., the difference between desire and obligation is less distinct). The NC1 item presented a small value of corrected item-to-total correlations (0.204). The weak correlation and the cross-loadings in NC1 may be due to some translation problems. Then, the item NC1 need to be further revised in future works.

CFA was used to examine construct validity and applicability of the questionnaire. The results support a four-factor solution and are in agreement with the state of knowledge that supports a four dimensional conceptualization of OC (AC, CCLoAlt, CCHiSac and NC). This finding is in accordance with the results found by Powell and Meyer (2004) that provided evidence pertaining to the development of CC as a two-dimensional scale consisting of CCLoAlt and CCHiSac distinct subscales.

This preliminary validation of the French version of the OCQ showed that it is an acceptable measure to be used with French speaking population.

4.4 Study 2

The purpose of Study 2 was to provide additional evidence for the 4-factor structure of the OCQ, to test the validity and reliability of this instrument within a French speaking population. Because Study 1 had Tunisian participants, it was important to expand this study within a population whose first language is French (example France) and in order to reach a large sample for generalization of results.

As concluded in the previous study, the translation of the item NC1 needs to be further revised. We propose, therefore, in this study to change the item from "Je me sens obligé(e) de rester chez mon employeur actuel" to "J'ai un certain sentiment d'obligation de continuer à travailler dans cette organisation". Moreover, we propose to change the items NC4 and NC6 that loaded in study 1 on more than one factors. We suggest then to change NC4 from "Cette organisation mérite ma loyauté" to "L'organisation où je travaille mérite ma loyauté" and the item NC6 from "Je dois beaucoup à mon organisation" to "Je crois que je dois beaucoup à

mon organisation". Furthermore, the order of the six items of NC has been changed. The changes introduced to the items are presented in table 4.7.

4.4.1 Sample

The sample consists of 427 senior executives from French organizations. Details about the sample were presented in the section 3.4.1 of chapter 3.

4.4.2 Results

Reliability

The internal consistency of the OCQ was assessed by calculating Cronbach alpha values. The results are presented in Table 4.8. It is found a high reliability with a value of 0.94 for the total scale and ranged from 0.83 to 0.95 for the subscales. These results are in accordance with that found in the original version of the OCQ (Meyer et al., 1993; Powell and Meyer, 2004). For AC, CCHiSac and NC, the Cronbach's alpha is even higher than that found in the English questionnaire.

Exploratory Factor Analysis

The data on which this study is based is shown to be significant by the Bartlett test of sphericity and the KMO measure of sampling adequacy is 0.95 (see Table 4.9). For the interpretation of KMO values, Kaiser (1974) guidelines state that values greater than 0.90 are considered "marvellous". Hence, it is concluded that factor analysis is appropriate for the data.

Using the criterion for retaining factors with an eigenvalue greater than 1, the principal-component factor analysis of the items of the OCQ yielded a 4-factors solution. The analysis of scree plot corroborated a 4-factors solution. The 4-factors solution explained 75.43 % of the total variance. The first four eigenvalues were 10.006, 3.263, 1.409 and 1.163, respectively (see table 4.10 and figure 4.2).

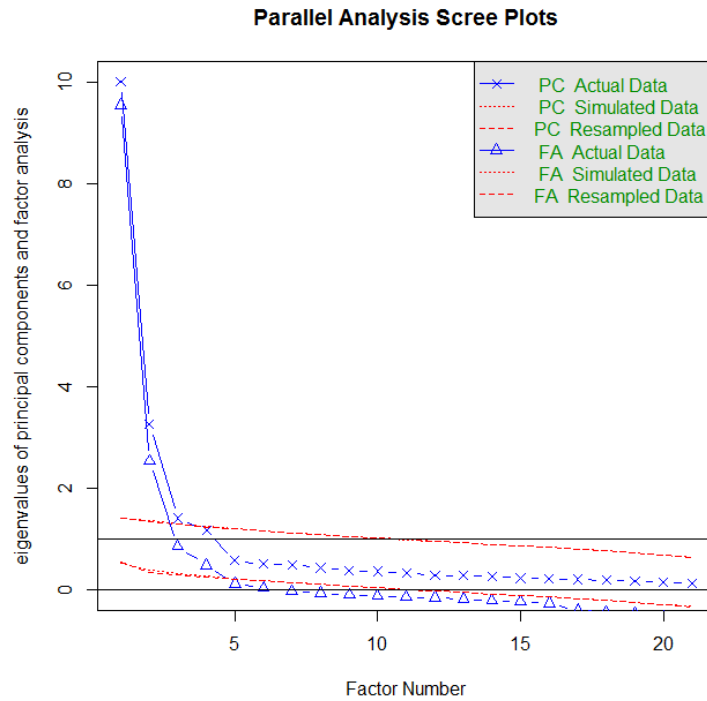


Figure 4.2: Scree plot for OCQ (Study2)

The items were resubmitted for a second analysis, with four components extracted and rotated using Varimax rotation. The results are presented in Table 4.11. All items of AC, CCloAlt and CCHiSac loaded on the appropriate factors and there were no cross-loadings. However, there were a cross-loadings in NC2 and NC3 items that loaded in two factors (AC and NC).

Item analysis

As can be seen in the Table 4.12, the corrected item-total correlation was high as all items received high correlations with a range from 0.618 to 0.901. Deleting items did not increase the Cronbach's alpha coefficient.

Confirmatory factor analysis

The results of the CFA are presented in Table 4.13. As can be seen, the results met all the requirements to conclude that the four dimensions theoretical model exhibits

the best fit (IFI = 0.946, CFI = 0.887, TLI = 0.933, RMSEA = 0.075 and $\chi^2/df = 3.38$). Furthermore, the fit of the four factors model was compared to that of a one, two and three factors model for the same data. Differences between models were significant. Thus, the one, two and three factors models were rejected and the four factors model solution was supported.

4.4.3 Discussion

In this study, 427 senior executives from French organizations have formed the French-speaking sample. The reliability was calculated by means of the internal consistency reliability using Cronbach's Alpha. The results showed that the Cronbach's alpha values for all the variables ranged between 0.83 and 0.95. These findings confirmed the reliability of measurement scales used in this study and were in accordance with that found in the English original version of the OCQ (Meyer et al., 1993; Powell and Meyer, 2004).

The EFA was run on all the 427 responses in order to replicate the original instruments' factor solutions. The analysis of the different variables of OCQ produced factors similar to that identified in previous study and in previous research. Principal component factor analysis using the scree test (Cattell, 1966), Kaiser Criterion eigenvalue greater than one (Kaiser, 1960), and varimax rotation, yielded four factors accounting for 75.43 % of the variance. In study 1, the items NC6 and NC4 loaded more in AC (0.732 and 0.655 respectively) than in NC (0.425 and 0.335 respectively). In study 2, after changing the formulation of the items NC6 and NC4, they loaded more in NC (0.577 and 0.519 respectively) than in AC (0.496 and 0.485 respectively). Although the changes introduced to the items, the cross loading between NC and AC also persisted which can be explained by the correlation between these two factors. Moreover, by changing the item NC1 which loaded in two factors (CCLoAlt and NC) in study 1, the cross loading disappears in study 2 and the item load only on NC.

4.5 Conclusions

In this chapter, a translation of the English version of the OCQ to the French has been proposed. The back-translation method proposed by Nunnally and Bernstein (1994) has been followed. Items of the questionnaire have been measured on a seven-point Likert-type scale. Two studies have been conducted. In the first one, a total of 163 senior executives from Tunisian organizations have formed the French-speaking sample. In the second study, a total of 427 participants from French organizations have been used in order to provide additional evidence for the 4-factors structure of the OCQ and in order to reach a large sample for generalization of results.

In both studies a cross loading is found on AC and NC which may be explained by the correlation between these two factors. This correlation is often quite strong in the literature (Allen and Meyer, 1990; Meyer et al., 2002). The most important result arising from this study is that the change in the items of NC affect positively the results (the items of NC loaded highly on this factor). The contribution of this work is online with Meyer et al. (2002) who suggest that the constructs themselves are more closely related to culture (i.e., the difference between desire and obligation is less distinct).

CFA was used to examine construct validity and applicability of the questionnaire. The results of both studies have supported a four-factor solution and are in agreement with the state of knowledge that supports a four dimensional conceptualization of OC (AC, CCLoAlt, CCHiSac and NC). This finding is in accordance with the results found by Powell and Meyer (2004) that provided evidence pertaining to the development of CC as a two-dimensional scale consisting of CCLoAlt and CCHiSac distinct subscales.

Consequently, from both studies, we can confirm that the four dimensions model which consists of AC, CCLoAlt, CCHiSac and NC is an acceptable measure of OC to be used with French speaking population. As there is no French validated version in the scientific literature, this work has an important contribution as it allows to measure OC in other societies where the maternal language is French. The validation of this scale could help cross-cultural research on OC to determine the cultural differences assigned to the meaning and the differential antecedents

associated.

Finally, we recognize that all data used in the present research were collected from a unique source (followers), which could lead to overstatement or understatement of the results. As the dyadic relationship between leaders and followers was the main interest, managers may also be asked to respond the questionnaire in future works. Future research may also include heterogeneous and larger samples that allow broader generalization of the results. Likewise, the developed scale could also be used in other French-speaking societies.

Table 4.4: Principal-component method with Varimax rotation for OCQ (Study1).

Items	Factor 1	Factor2	Factor 3	Factor 4
AC1	0.799			
AC2	0.833			
AC3	0.911			
AC4	0.913			
AC5	0.885			
AC6	0.848			
CCLoAlt1		0.716		
CCLoAlt2		0.840		
CCLoAlt3		0.839		
CCHiSac1			0.476	
CCHiSac2			0.774	
CCHiSac3			0.809	
CCHiSac4			0.814	
CCHiSac5			0.791	
CCHiSac6			0.606	
NC1		0.519		0.498
NC2				0.711
NC3				0.770
NC4	0.732			0.425
NC5				0.686
NC6	0.655			0.335

Table 4.5: Item-total correlation for OCQ (Study1).

Items	Corrected item-total correlation	Cronbach's alpha if item deleted	alpha
AC1	0.783	0.95	
AC2	0.771	0.91	
AC3	0.903	0.94	0.95
AC4	0.910	0.93	
AC5	0.872	0.94	
AC6	0.865	0.94	
CCLoAlt1	0.6625	0.77	
CCLoAlt2	0.753	0.63	0.81
CCLoAlt3	0.592	0.80	
CCHiSac1	0.612	0.89	
CCHiSac2	0.783	0.86	
CCHiSac3	0.798	0.86	0.89
CCHiSac4	0.788	0.86	
CCHiSac5	0.705	0.88	
CCHiSac6	0.609	0.89	
NC1	0.204	0.87	
NC2	0.710	0.77	
NC3	0.717	0.77	0.83
NC4	0.656	0.79	
NC5	0.726	0.77	
NC6	0.619	0.79	

Table 4.6: Confirmatory factor analysis for OCQ (Study1).

Model	χ^2	Df	RMSEA	IFI	GFI	AGFI	CFI	TLI
One factor	1153.784	189.0	0.177	0.633	0.443	0.319	0.630	0.589
Two factors	740.893	188.0	0.134	0.7902	0.651	0.572	0.788	0.763
Three factors	610.074	186.0	0.118	0.839	0.722	0.654	0.837	0.816
Four factors	478.128	183.0	0.099	0.888	0.771	0.710	0.887	0.870
Four factors + errors	385.425	172.0	0.087	0.919	0.821	0.759	0.918	0.900

Table 4.7: Changes in the items between Study 1 and Study 2.

Study 1	Study 2
NC1 : Je me sens obligé(e) de rester chez mon employeur actuel.	NC4 : J'ai un certain sentiment d'obligation de continuer à travailler dans cette organisation
NC2. Même si c'est en ma faveur, je ne crois pas qu'il soit juste de quitter mon organisation maintenant.	NC1. Même si c'est en ma faveur, je ne crois pas qu'il soit juste de quitter mon organisation maintenant.
NC3. Je me sentirais coupable si je quitte mon organisation maintenant.	NC5. Je me sentirais coupable si je quitte mon organisation maintenant
NC4: Cette organisation mérite ma loyauté.	NC3 : L'organisation où je travaille mérite ma loyauté
NC5. Je ne quitterais pas mon organisation en ce moment parce que j'ai un sentiment d'obligation envers les personnes qui s'y trouvent.	NC6. Je ne quitterais pas mon organisation en ce moment parce que j'ai un sentiment d'obligation envers les personnes qui s'y trouvent
NC6: Je dois beaucoup à mon organisation.	NC2 : Je crois que je dois beaucoup à mon organisation

Table 4.8: Cronbach's alpha values for OCQ (Study2).

	AC	CCLoAlt	CCHiSac	NC	CC
α French	0.95	0.83	0.90	0.92	0.87
α English	0.81	0.85	0.81	0.83	-

Table 4.9: KMO and bartlett test of sphericity (Study2).

Measure of sampling adequacy		0.92
Kaiser-Meyer-Olkin (KMO)		
	Approx.chi-square	7497.304
Bartlett test of sphericity	p value	0.000
	df	210

Table 4.10: Principal-component analysis for OCQ (Study2).

Component	Initial Eigenvalues)		
	Total	% of the variance	%accumulated
1	10.006	47.64	47.64
2	3.263	15.54	63.18
3	1.409	6.71	69.89
4	1.163	5.53	75.43

Table 4.11: Principal-component method with Varimax rotation for TLQ (Study2).

Items	Factor 1	Factor2	Factor 3	Factor 4
AC1	0.702			
AC2	0.725			
AC3	0.855			
AC4	0.875			
AC5	0.778			
AC6	0.853			
CCLoAlt1		0.660		
CCLoAlt2		0.909		
CCLoAlt3		0.742		
CCHiSac1			0.495	
CCHiSac2			0.746	
CCHiSac3			0.773	
CCHiSac4			0.767	
CCHiSac5			0.756	
CCHiSac6			0.656	
NC1			0.410	0.564
NC2	0.496			0.577
NC3	0.485			0.519
NC4				0.750
NC5				0.795
NC6				0.810

Table 4.12: Item-total correlation for OCQ (Study2).

Items	Corrected item-total correlation	Cronbach's alpha if item deleted	alpha
AC1	0.776	0.94	
AC2	0.780	0.94	
AC3	0.887	0.93	0.95
AC4	0.901	0.93	
AC5	0.839	0.94	
AC6	0.882	0.93	
CCLoAlt1	0.618	0.83	
CCLoAlt2	0.810	0.65	0.83
CCLoAlt3	0.659	0.80	
CCHiSac1	0.618	0.89	
CCHiSac2	0.741	0.87	
CCHiSac3	0.776	0.87	0.90
CCHiSac4	0.778	0.87	
CCHiSac5	0.743	0.87	
CCHiSac6	0.695	0.88	
NC1	0.721	0.91	
NC2	0.788	0.90	
NC3	0.717	0.91	0.92
NC4	0.834	0.90	
NC5	0.808	0.90	
NC6	0.825	0.90	

Table 4.13: Confirmatory factor analysis for OCQ (Study2).

Model	χ^2	df	RMSEA	IFI	GFI	AGFI	CFI	TLI
1 factor	2.942.226	189	0.185	0.631	0.463	0.344	0.630	0.589
4 factors	780.796	183	0.087	0.920	0.841	0.800	0.920	0.908
(AC,NC, CCLoAlt, CCHiSac)								
3 factors	1.219.858	186	0.114	0.862	0.777	0.723	0.861	0.843
(AC, NC, CC)								
2 factors	1.920.707	188	0.147	0.768	0.635	0.551	0.767	0.740
(AC+NC, CC)								
3 factors	1.485.178	186	0.128	0.826	0.680	0.602	0.826	0.803
(AC+NC, CCLoAlt, CCHiSac)								
4 factors + error	574.710	170	0.075	0.946	0.887	0.846	0.946	0.933

Study of the leader member exchange as a mediator of the relationship between transformational leadership and followers' organizational commitment

Abstract

This chapter is dedicated to propose and to test three models that take into account the diverse dimensions of transformational leadership (TL) and the different forms of organizational commitment (OC). Moreover, the aim of this chapter is to examine the mechanisms through which dimensions of TL influence different forms of OC by testing the possible mediating role of leader-member-exchange (LMX) dimensions (AFF: affect, PROF: professional respect, LOY: loyalty and CONT: contribution). To verify that the three proposed models present an adequate construct validity, two types of validity have been considered: the convergent validity and the discriminant validity. To test the direct hypothesis, Pearson's correlation is used. Baron and Kenny method and a series of nested model method are used for testing the mediation hypothesis. Our results revealed that all the proposed hypothesis are supported. Positive relationship is found between Intellectual stimulation

(INT), vision (VIS), contribution (CONT) and AC. Positive relationship is found between personal recognition (PER) and CCHiSac and between supportive leadership (SUP) and NC. Moreover, LMX-AFF fully mediated the relationship between SUP and NC, LMX-LOY fully mediated the relationship between PER and CCHiSac, LMX-PROF fully mediated the relationships between VIS and AC while LMX-PROF partially mediated the relationships between INT and AC. These findings are important since previous research has not tested these variables together.

5.1 Introduction

Transformational leadership (TL), Leader-member exchange (LMX), and organizational commitment (OC) are all important factors in ensuring the effectiveness and accomplishment of organizational goals and objectives. By integrating these constructs, the current study provides some exploratory information on how these factors can be related.

TL and OC have been broadly studied and discussed from various perspectives in the literature (see Chapter 2). In brief, TL is the most popular contemporary theory of leadership. The theory was originally introduced by Burns (1978) and Bass (1985) to describe the impact that exceptional leaders have on subordinates' reactions and to describe the process by which leaders create a connection with followers, attend to their individual needs, and help followers reach their potential. TL theory rests on the idea that certain leader behaviors not only influence subordinate attitudes and behaviors, but also inspire them to perform beyond previous levels. Rafferty and Griffin (2004) identified five dimensions of TL: vision, inspirational communication, supportive leadership, intellectual stimulation and finally personal recognition. However, our validation of the French version of the TLQ presented in chapter 3 showed that a four dimensions model when deleting inspirational communication is an acceptable measure to be used with our sample (French speaking population). Then in this chapter, we will use the four dimensions of TL which are: vision, supportive leadership, intellectual stimulation and personal recognition

OC is defined as a psychological state that binds the individual to the organization (Allen and Meyer, 1990). It is associated with the wish to remain in the company (affective commitment: AC), rational cost-benefit considerations (continuance commitment: CC), and moral obligations (normative commitment NC). Additional work on the dimensions of OC has shown that the CC dimension contains two separable components (Powell and Meyer, 2004; McGee and Ford, 1987). First, commitment due to a lack of alternative employment opportunities (CCLoAlt) and second, perceived sacrifice of investments associated with leaving the organization (CCHiSac). Our validation of the French version of the OCQ presented in chapter 4 confirmed that the four dimensions model which consists of AC, CCLoAlt, CCHiSac and NC

is an acceptable measure to be used with our sample (French speaking population).

While a great deal of research has studied the link between TL and OC (Clinebell et al., 2013; Joo et al., 2012; Lo et al., 2010; Limsila and Ogunlana, 2008; Rafferty and Griffin, 2004; Avolio et al., 2004; Lee, 2005; Walumbwa et al., 2005), few researches have examined the relationship between these two concepts as multidimensional constructs which therefore prompts further research. Many studies on TL have used only a composite score rather than the four individual component behaviors (Yukl, 2006). From another hand, the majority of the literature on OC has explored AC (Rhoades et al., 2001; Rhoades and Eisenberger, 2002; Riketta, 2002; Eisenberger et al., 2010) more closely than the normative and continuance components. As such, more is known about the affective element of OC than its two counterparts (Gutierrez et al., 2012). Therefore, one of the objectives of this work is to examine the relationship between TL and OC as multidimensional constructs.

Likewise, the mechanisms by which transformational leaders influence their followers have not been studied in a systematic manner (Barroso Castro et al., 2008; Avolio et al., 2004), and several authors have suggested that greater attention should be paid to understand how these influential processes operate in TL (Kark and Shamir, 2002; Conger et al., 2000; Bass, 1998; Yukl, 1999). As there is lack of systematic research in this area, this study will focus on the possible mediating role of LMX in the relationship between dimensions of TL and differents forms of OC.

LMX represents a theoretical approach to understand leadership at work (Gerstner and Day, 1997; Graen and Uhl-Bien, 1995; Liden et al., 1997; Schriesheim et al., 1999), and it has evolved into one of the more useful approaches for studying employee-supervisor relationships and how they affect employee outcomes. Liden and Maslyn (1998) developed a multidimensional scale designed to measure subordinate LMX perceptions. This scale proposed four dimensions labeled contribution (e.g., performing work beyond what is specified in the job description), affect (e.g., friendship and liking), loyalty (e.g., loyalty and mutual obligation), and professional respect (e.g., respect for professional capabilities).

Thus, this research aims to link the TL and OC and to examine them in the light of LMX by means of a detailed empirical study. In fact, this research looks to find the role of certain dimensions of LMX as a mediating function between

dimensions of TL and components of OC. Also, we propose that a certain dimension of LMX (contribution) act as a consequence of certain component of OC (affective commitment). Most past research has treated the three variables mentioned above (TL, LMX and OC) as unidimensional constructs. In the present research, we have conceptualized them as multidimensional constructs. To the authors' knowledge, this is the first empirical study that tests the interaction of TL and LMX on OC in a French context.

5.2 Theoretical framework

5.2.1 Transformational leadership and organizational commitment

Transformational leaders have great ability to influence OC by promoting the values which are related to the goal accomplishment, by emphasizing the relation between the employees efforts and goal achievement and by creating a greater degree of personal commitment on part of both follower's as well as leaders for the achievement of ultimate common vision, mission and goals of the organization (Shamir et al., 1998). Transformational leaders influence followers' OC by encouraging followers to think critically by using novel approaches, involving followers in decision-making processes, inspiring loyalty, while recognizing and appreciating the different needs of each follower to develop his or her personal potential (Avolio et al., 1999; Bass and Avolio, 1998; Yammarino et al., 1993). This is further supported by Walumbwa and Lawler (2003) that transformational leaders can motivate and increase followers' motivation and OC by getting them to solve problems creatively and also understanding their needs.

Many studies aimed at examining relationships between TL and OC (Clinebell et al., 2013; Joo et al., 2012; Limsila and Ogunlana, 2008; Rafferty and Griffin, 2004; Avolio et al., 2004; Lee, 2005; Walumbwa et al., 2005). TL has a strong and positive effect on OC (Walumbwa et al., 2005; Joo et al., 2012; Walumbwa et al., 2004; Avolio et al., 2004). In particular, Joo et al. (2012) found that vision articulation, group goal promotion, and intellectual stimulation were significant predictors of

OC. Limsila and Ogunlana (2008) and Barroso Castro et al. (2008) found a positive correlation between TL and AC. Lee (2005) and Clinebell et al. (2013) found that TL has greater impact on AC than NC.

Few studies reported their results based on a multidimensional measure of TL and OC (eg. Rafferty and Griffin (2004)). Rafferty and Griffin (2004) examined the relationship between five dimensions of TL and two dimensions of OC (AC and CC). They found that intellectual stimulation displayed a unique positive relationship with AC and CC. Moreover, they found that vision displayed a unique negative association with CC (not hypothesized in their work). These results may be explained by focusing on the composition of the CC scale, which contains items measuring individuals' perceptions of their investments in the organization and the availability of alternative employment possibilities. They also found conflicting empirical results in relation with CC. They hypothesized that personal recognition has a unique positive relationship with CC. Contrary to their expectations; personal recognition was found to be significantly negatively associated with CC.

Defining and testing models that take into account the diverse dimensions of TL and the different forms of OC may allow to more understand how TL enhances employee commitment.

5.2.2 Leader-Member Exchange

LMX was derived from social exchange theory and it was founded on the notion that leaders develop relationships of different qualities with their subordinates (Graen and Cashman, 1975). LMX also represented a theoretical approach to understand leadership at work (Gerstner and Day, 1997; Graen and Uhl-Bien, 1995; Liden et al., 1997; Schriesheim et al., 1999). LMX differs from other leadership theories by focusing on the dyadic relationship between leaders and their followers (Gerstner and Day, 1997). In general, these dyadic exchanges are thought to range on a continuum from high to low. High-quality exchanges are characterized by a higher level of trust, interaction, support and rewards than low-quality exchanges (Dienesch and Liden, 1986).

LMX theory contends that leaders develop separate relationships with each of

their subordinates through a series of work-related exchanges (Graen and Cashman, 1975; Graen and Scandura, 1987). Indeed, the theory has traditionally focused on explaining the relationship that a leader has with one follower and differentiating it from the relationships that leader has with others (Graen and Uhl-Bien, 1995; Liden et al., 1997).

LMX has been traditionally considered as a unidimensional construct (Graen and Cashman, 1975; Graen et al., 1982; Graen and Scandura, 1987). However, several theorists (e.g., Dienesch and Liden (1986); Liden et al. (1997)) have argued that treating LMX as a multidimensional construct characterizes more appropriately the leader-member relationship and allows for more complete descriptions of its relationships with important individual and organizational variables. Consequently, Liden and Maslyn (1998) developed a multidimensional scale designed to measure subordinate LMX perceptions. This scale proposed four dimensions of LMX relationships labeled contribution, affect, loyalty and professional respect. Contribution is the perception of the amount of 'work and the quality of work' (Dienesch and Liden, 1986) that each member of the dyadic relationship brings into the dyadic relationship. Loyalty is the expression of support for members of the dyadic relationship for each other based only goals and personal characteristics (Dienesch and Liden, 1986). Affect identifies the mutual affection the dyadic members have for each other based on interpersonal attraction rather than work or professional values (Dienesch and Liden, 1986). Finally, professional respect is defined as the degree to which each member of the dyad has built a reputation, within and/ or outside the organization of excelling at his/ her line of work (Liden and Maslyn, 1998).

5.2.3 Transformational leadership and LMX

According to LMX theory, effective leadership occurs when leaders and followers maintain a high-quality relationship characterized by mutual trust, respect, and obligation (Graen and Uhl-Bien, 1995). Leaders determine the quality of LMX relationships to a greater extent than members (Dienesch and Liden, 1986; Graen and Scandura, 1987). In higher quality relationships, leaders offer benefits for the member, including consideration of members' needs, assistance with problems at work, emotional support, and formal and informal rewards (Gerstner and Day, 1997).

These behaviors characterize transformational leaders. In addition, Deluga (1992) argued that the heightened outcomes associated with transformational leadership result from the individualized dyadic relationship between a given subordinate and leader.

Some previous studies investigated the relationship between transformational leadership and LMX (Asgari et al., 2008; Wang et al., 2005; Basu and Green, 1997; Deluga, 1992; Howell and Hall-Merenda, 1999). Asgari et al. (2008) results confirmed that the TL behavior would have an effect on the LMX. Also, Wang et al. (2005)' results supported a positive association between overall TL and LMX. These results corroborated with others reported in previous studies by Deluga (1992) and Howell and Hall-Merenda (1999), indicating that TL has a strong positive impact on LMX. Deluga (1992) noted that "Transformational leaders may foster the formation of high quality relationships and a sense of a common fate with individual subordinates". Some other studies examined TL (e.g., Pillai et al. (1999a)) as antecedents of LMX quality.

As LMX relationships are developed through a series of interactions or exchanges between leaders and followers, immediate supervisors are critical in enhancing the LMX relationship because of their proximity to employees (Walumbwa et al., 2011). Specifically, leaders who use their power to help members to solve problems at work, support members' actions, and consider members' needs, evoke positive evaluations of LMX quality in members (Scandura and Graen, 1984).

5.2.4 LMX and organizational commitment

Based on the norm of reciprocity (Gouldner, 1960), LMX theory suggests that positive evaluations of LMX quality engender positive work behaviors and attitudes by members (Liden et al., 1997). According to social exchange theory, individuals take a cost-benefit approach to forming relationships with other parties (Blau, 1964). As relationships evolve through a series of interactions between parties, expectations for reciprocation are generated, such that contributions by one party are expected to be reciprocated by the other (Cropanzano and Mitchell, 2005). Following from social exchange theory (Blau, 1964) and in line with the norm of reciprocity (Gouldner,

1960), high LMX employees, in receiving something of value, feel themselves to be more valuable for the organization and thus feel obligated to reciprocate by offering organizationally desired contributions such as commitment. In addition, research on LMX suggests that members in higher quality dyads are more committed to the organization than are members in lower quality dyads (Basu and Green, 1997; Yukl, 1989; Duchon et al., 1986; Dansereau Jr et al., 1975).

With regard to the relationship between LMX quality and OC, several studies have provided evidence that organizational and supervisory support plays a critical role in enhancing OC (Allen and Meyer, 1990; Eisenberger et al., 1986; Mottaz, 1988; Reichers, 1986; Vancouver et al., 1994). The recent study by Joo et al. (2012) supported the results of the previous studies that a relational context is an important factor for OC.

In the study of Khong (2009), LMX was hypothesized to have a significant relationship with OC. Their findings indicated that LMX significantly predicts OC. In this sense, LMX could be a useful means for employees to get ahead in their career and become more committed to the organization. A likely explanation for the positive correlation between LMX and OC could be that members feel that their leaders do recognize their abilities and contributions, thus increasing their respect for such leaders and leading to a greater increase in OC.

The study of Bhal and Ansari (2007) employs a two-dimensional scale of LMX consisting of “contributions” on-the-job and “affective” interactions off-the-job and a one-dimensional scale of OC to explore the process paths between LMX and subordinate commitment. Their results indicated that the commitment was related to both LMX-Contribution and LMX-affect, its relationship with LMX-contribution was much stronger than its relationship with LMX-affect.

Hung et al. (2004) investigated how LMX affects the relationship between perceptions of HRM practices and OC. Among their results, the professional respect dimension of LMX positively predicts AC.

5.2.5 The Mediating Role of LMX

There is substantial evidence that TL is positively related to employee OC. This was demonstrated in numerous studies which have applied a direct effect approach to examine the effect of TL on OC. However, the mechanisms by which transformational leaders influence their followers have not been studied in a systematic manner (Barroso Castro et al., 2008; Avolio et al., 2004), and several authors have suggested that greater attention should be paid to understand how these influential processes operate in TL (Kark and Shamir, 2002; Conger et al., 2000; Yukl, 1999). Despite the lack of systematic research in this area, this study will focus on the possible mediating role of LMX.

LMX theory has been identified as "one of the more interesting and useful approaches for studying hypothesized linkages between leadership processes and outcomes" (Gerstner and Day, 1997). According to Bass (1985, 1998) the basic premise of TL is that the motivational effects of TL are transmitted through follower perception and reactions to the leader. This suggests that there are underlying psychological processes to underpin why and how individual effectiveness can be facilitated and enhanced by the effects of TL. Based on this notion, we propose that LMX may explain how dimensions of TL affect different types of OC.

The mediating role of LMX in the relationship between TL and OC is premised on the notion that a high-quality LMX relationship reflects an affective bonding accompanied by largely unstated mutual expectations of reciprocity. A partial mediation of LMX quality was found by Lee (2005) in the relationship between leadership and OC. This is to say that leadership directly and indirectly affects OC via LMX quality where LMX quality also contributes to followers' OC.

5.3 Hypothesis

The aim of this study is to examine the mechanisms through which dimensions of TL influence different forms of OC. To do so, we proposed 3 models, each contain two mechanisms. In the first mechanism, different dimensions of TL is hypothesized to have a direct impact on different forms of OC. In the second mechanism, the impact

of different dimensions of LMX is hypothesized to mediate this relationship. However, in the first model we propose that a certain dimension of LMX (contribution) act as a consequence of AC.

5.3.1 Model for AC

Intellectual stimulation/vision - AC

Bycio et al. (1995) reported that all the subdimensions of TL are strongly positively associated with AC. In particular, we propose that intellectual stimulation and vision are correlated to AC.

Intellectual stimulation increases followers' abilities to conceptualize, comprehend, and analyze problems and improve quality of solutions (Bass, 1990). Intellectual stimulation may be one way in which leaders indicate to employees that their firm values their contribution, which increases AC to the organization (Rafferty and Griffin, 2004).

Vision is the expression of an idealized picture of the future based around organizational values. One area that clearly requires additional research is the influence of vision on AC (Rafferty and Griffin, 2004). While some studies have reported that articulating a vision has a positive impact on affective commitment (Podsakoff et al., 1996; Dvir et al., 2004), this finding was not replicated in the study of Rafferty and Griffin (2004) where the influence of the other leadership constructs was taken into account.

In addition, a recent study conducted by Joo et al. (2012) found a positive relationship between TL and AC. In particular, these authors found that vision articulation and intellectual stimulation were significant predictors of AC.

Taking into account the aforementioned findings, we propose that vision and intellectual stimulation will be positively associated with AC.

Hypothesis 1a: There is a positive relationship between intellectual stimulation and AC.

Hypothesis 1b: There is positive relationship between vision and AC.

Mediating role of profesional respect

Professional respect is the perception of the degree to which each member of the dyad has built a reputation of work-related activity (e.g., respect for professional capabilities) (Liden and Maslyn, 1998). Leader's reputation among other leaders will act as a resource that a subordinate can utilize while seeking for favour within the organization and may enhance subordinates job satisfaction (Amah, 2010) which would elicit greater AC to the organization (Meyer and Allen, 1997). It is highly plausible that followers who assess the exchange with their leaders to be high professional respect tend to express greater AC (Lee, 2005).

We argue that professional respect might mediate the relationship between intellectual stimulation, vision and AC. Then, we expect that when leaders use intellectual stimulation with their followers and express an idealized picture of the future, this may increase followers feeling of respect for professional capabilities of their leader which in turn may enhance attachment to the organization and consequently this can enhance the employee AC. Thus it is expected that:

Hypothesis 1c: The subordinate's perception of professional respect mediates the positive relationship between intellectual stimulation, vision and AC (See figure 5.1).

Contribution is a consequence of AC

An employee's level of AC reveals an element of their identification with, and involvement in the organization (Moorman et al., 1993). Employees with high levels of job involvement are likely to put more effort into their jobs and therefore tend to display higher levels of in-role performance (Chughtai, 2008). Employees who feel more affectively attached to the organization are part of the organization because they want to be; hence, one would expect them to be present at work and motivated to perform their best (Meyer and Allen, 1997). Moreover, employees who have a high level of AC are said to exhibit increased levels of extra-role behaviors (Meyer et al.,

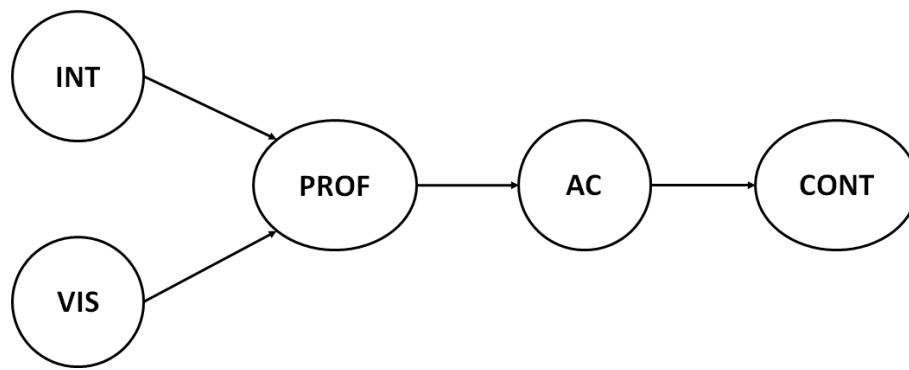


Figure 5.1: Model TL-LMX-AC

1989). Therefore, it is plausible that employees with high AC to the organization will be more likely to perform work beyond what is specified in the job description.

Hypothesis 1d: There is a positive relationship between AC and contribution (See figure 5.1).

5.3.2 Model for CCHiSac

Personal recognition - CCHiSac

The term of “personal recognition” was used to capture the aspect of contingent reward that is conceptually related to TL and it is defined as the provision of rewards such as praise and acknowledgement of effort for achievement of specified goals (Rafferty and Griffin, 2004). Rafferty and Griffin (2004) proposed that when people received recognition for their work then they would feel an increased sense of investment in an organization. Contrary to their expectations, personal recognition was significantly negatively associated with continuance commitment. They explained this unexpected result by considering the additional aspect of continuance commitment assessed in measures of this construct. That is, these authors have suggested that the continuance commitment scale assesses investments and perceptions of alternative employment options.

We suggest that when leader indicates for his followers that he or she rewards the achievement of specified goals consistent with follower’s efforts, the employee

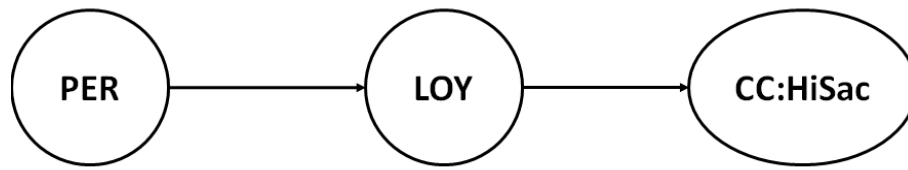


Figure 5.2: Model TL-LMX-CC

may have a sense of fear of losing these rewards if he leaves the organisation. Thus, personal recognition is expected to act as an antecedent of CCHiSac

Hypothesis 2a: There is a positive relationship between personal recognition dimension of TL (PER) and CCHiSac.

Mediating role of loyalty

Loyalty is the expression of public support by the leader to his followers. We suggest that when the leader values individuals' efforts and rewards the achievement of outcomes consistent with the vision through praise and acknowledgment of followers' efforts (Rafferty and Griffin, 2004), the subordinate's perception of loyalty expressed by their leader may increase. This increase of loyalty perception may enhance a sense of fear of losing this loyalty in case of leaving the organization. Then, we propose that the subordinate's perception of loyalty expressed by the leader mediates the positive relationship between personal recognition and CCHiSac.

Hypothesis 2b: The subordinate's perception of loyalty mediates the positive relationship between Personal recognition and CCHiSac (See figure ??)

5.3.3 Model for NC

Supportive leadership - NC

Managers who treat each employee as an individual, rather than as a means to an end, reduce turnover rates and increase employees' OC (Goleman, 2003; Peterson, 2004). By identifying with followers' needs, transformational leaders are able to mo-

tivate their followers to get more involved in their work, resulting in higher levels of OC (Walumbwa and Lawler, 2003). This view was supported by prior research that showed OC was higher for employees whose leaders were supportive and concerned for their followers' development (Allen and Meyer, 1990, 1996).

Employees are more likely to feel an obligation to return the supportive behaviour in terms of commitment (Shore and Wayne, 1993), which may be explained as the reciprocity theory. Aquino and Bommer (2003) noted that the person who received some benefits from others may indirectly have the tendency to return or feel obligated to return the favour and this interaction is known as positive reciprocity.

Gouldner (1960) suggested that the reciprocity norm implies two minimal demands: (1) people should help those who have helped them and (2) people should not harm those who have helped them. That is to say, when leaders express concern for followers, take account of their individual needs, direct their behavior toward the satisfaction of subordinates' needs and preferences and create a friendly and psychologically supportive work environment, the employee may feel compelled to reciprocate with loyalty and commitment that derive from morality and value-driven principles based on reciprocity norms and socialization practices (Meyer and Herscovitch, 2001). This reasoning allows formulating the following hypothesis:

Hypothesis 3a: There is a positive relationship between the supportive leadership (SUP) and normative commitment (NC).

Mediating role of affect

Supporting is part of the individualized consideration component of TL. Deluga (1992) wrote that individualized consideration was one of the TL factors that predicted LMX. Supporting is similar to individualized consideration in TL theory (O'Donnell et al., 2012) and was explicitly mentioned in the early LMX literature as a type of behaviour that fosters a high exchange relationship (Graen and Cashman, 1975). A positive relationship between the amount of supporting behavior used by a manager and LMX was found in Yukl et al. (2009).

A transformational leader's consideration for followers as individuals and the

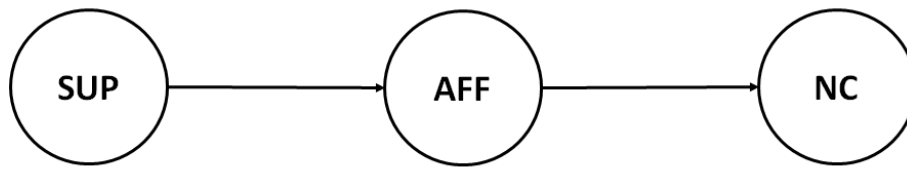


Figure 5.3: Model TL-LMX-NC

time spent coaching them to develop their capabilities creates meaningful exchanges between them. Such interactions not only reduce the physical distance (Howell and Hall-Merenda, 1999) but also the status barrier between leader and followers. Individualized consideration has the effect of creating a warmer and friendlier atmosphere in the workplace (Lee, 2005). With such transformational behaviours, the followers' affect for their leader are likely to be enhanced. From another side, it is found that exchanges between leaders and followers marked by high levels of affect relate positively to NC (Lee, 2005).

However, we expect that when leaders create strong relationship with his followers, responds to the needs of each individual for achievement and growth. This recognition of needs and desires enhance the interpersonal attraction (liking, friendship) which in turn increases employee feelings of responsibility to the organization.

Hypothesis 3b: Affect mediates the relationship between Supportive leadership and employee NC (See figure 5.3).

5.4 Method

5.4.1 Sample and data collection

Participants in this study are 427 senior executive French employees with a university degree and 2 years of experience in their current organization. Participants were contacted through a service company specialized in the data collection.

The questionnaire design consist of two main sections. The first section included the demographic variables and the second section incorporates TLQ, LMX and OCQ

(See Appendix table 6.1). Items were measured on a seven-point Likert-type scale on which respondents were asked to indicate the extent of their agreement with each item (1 = strongly disagree, 7 = strongly agree).

The questionnaire included questions regarding demographic variables of gender, age, educational level, labor sector, number of employees in the company and number of years in the current company. Statistics about these variables are presented in the table 3.8 of chapter 3.

5.4.2 Measures

Transformational leadership

TL was assessed by four leadership sub-dimensions scale that were given by Rafferty and Griffin (2004) and translated into French by the authors of this study. The sub-dimensions were based on vision, intellectual stimulation, supportive leadership and personal recognition. Each sub-dimension scale comprised three items and responses ranged from 1 (strongly disagree) to 7 (strongly agree). These scales had values of Cronbach's alpha of 0.94, 0.89, 0.93 and 0.95 respectively (see Chapter 3). An example item for vision was 'Mon chef a une vision claire où nous nous dirigeons'. An example item for intellectual stimulation was 'Mon chef me stimule à réfléchir aux vieux problèmes avec de nouvelles perspectives'. An example item for Supportive leadership was 'Mon chef se comporte d'une manière gentille envers mes besoins personnels' and finally an example item for personal recognition was 'Mon chef me félicite quand je fais un travail qui est au-dessus de l'attendu'.

Organizational commitment

OC was measured using the complete scales proposed by Meyer et al. (1993) taking into account the modifications proposed by Powell and Meyer (2004) and McGee and Ford (1987). To assess the affective and the normative commitments, six items reported by Meyer et al. (1993) were adopted for each dimension. To assess CCLoAlt and CCHiSac, three and six items reported by Powell and Meyer (2004) were used.

These scales were translated into French by the authors and responses ranged from 1 (strongly disagree) to 7 (strongly agree). These scales had an alpha of 0.95, 0.92, 0.83 and 0.90 respectively (see Chapter 4). An example item for AC was 'Je serais très heureux (se) de passer le reste de ma carrière dans cette organisation'. An example item for NC was 'J'ai un certain sentiment d'obligation de continuer à travailler dans cette organisation'. An example item for CCLoAlt was 'La raison pour laquelle je continue à travailler dans cette organisation est le manque d'opportunités ailleurs' and finally an example item for CCHiSac was 'Personnellement, je crois que le coût de quitter cette organisation est beaucoup plus important que les avantages'.

Leader-member exchange

Liden and Maslyn (1998) multi-dimensional model of LMX scale, comprising 12 items, was used to measure the quality of relationship between respondents and their superiors. The scale incorporates the dimensions of affect, loyalty, contribution and professional respect, with each dimension consisting of three items. These scales were translated into French by the authors and had an alpha of 0.95, 0.92, 0.87, 0.92 respectively. The respondents were asked to rate the statements on a seven-point scale 1 (strongly disagree) to 7 (strongly agree). An example item for affect 'J'aime mon chef en tant que personne'. An example item for loyalty 'Mon chef me défend auprès de son supérieur même s'il ne connaît pas tous les faits du problème'. An example item for contribution 'Je fais du travail pour mon chef qui dépasse ma description d'emploi' and finally, an example item for professional respect 'Je suis impressionné(e) par les connaissances et les compétences de mon chef'.

5.5 Results

5.5.1 Validity analyses

To verify that the studied models present an adequate construct validity, two types of validity have been considered: the convergent validity and the discriminant validity

Table 5.1: Convergent validity of model AC.

Construct	AVE
PROF	0.80
AC	0.76
CONT	0.71
INT	0.75
VIS	0.83

Convergent validity

Convergent validity assesses whether the observable variables related to a construct are a reliable measure of that construct (that is, all of them converge in measuring that construct).

To assess Convergent validity, Average Variance Extracted (AVE) is calculated. AVE was proposed by Fornell and Larcker (1981) as a measure of the shared or common variance in a latent variable. If the AVE is larger to 0.50, the convergent validity of latent variable is adequate (Fornell and Larcker, 1981).

Discriminant validity

Chi-square difference test (Segars, 1997) is a method used to assess discriminant validity and it allows to compare two models, one in which the constructs are correlated and one in which they are not. When the test is significant, the constructs present discriminant validity. In order to do the test, the constructs are analyzed using CFA. A comparison should be performed between each two constructs that are suspected to have problems with items discriminating among them.

Validity of model AC

In this model, we can see in table 5.1 that AVE of all constructs exceeded 0 .50 (AVE ranged from 0.71 to 0.83 fulfilling the criterion of convergent validity).

Table 5.2: Discriminant validity of model AC.

Model (AC)	χ^2	df	$\Delta\chi^2$	RMSEA	CFI	TLI
Our model (5-factors)	243.81	125		0.04	0.99	0.98
3-factors	917.16	132	673.34	0.12	0.90	0.88
2-factors	1472.36	134	1228.55	0.15	0.83	0.80
1-factor	2488.63	135	2244.82	0.20	0.69	0.65

To assess discriminant validity, we compared the fit of our measurement model (5 factors) against three alternative models:

1. 3-factor model, in which (INT + VIS) formed the first factor, (CONT+PROF) formed the second factor and AC formed the third factor.
2. 2-factor model, in which (INT + VIS + CONT + PROF) formed the first factor and AC formed the second factor.
3. 1-factor model, in which all constructs of this model were combined into one factor.

The chi-square difference test presented in table 5.2 showed that the proposed 5-factors model fitted the data significantly better than the three alternative models ($\Delta\chi^2 = 673.34$, $p < 0.001$; $\Delta\chi^2 = 1228.55$, $p < 0.001$ and $\Delta\chi^2 = 2244.82$, $p < 0.001$, respectively). Therefore, discriminant validity of this model is supported.

Validity of model CCHiSac

As can be seen in the table 5.3, AVE of all constructs of this model exceeded 0.50 fulfilling the criterion of convergent validity (AVE ranged from 0.60 to 0.86).

To assess discriminant validity of this model, we compared the fit of our measurement model (3-factor) against two alternative models

1. 2-factor model, in which (PER + LOY) formed the first factor and CCHiSac formed the second factor.

Table 5.3: Convergent validity of model CCHiSac.

Construct	AVE
PER	0.86
LOY	0.80
CCHiSac	0.60

Table 5.4: Discriminant validity of model CCHiSac.

Model (CCHiSac)	χ^2	df	$\Delta\chi^2$	RMSEA	CFI	TLI
Our model (3-factors)	163.73	51		0.07	0.97	0.96
2-factors	578.69	53	414.96	0.15	0.87	0.84
1-factor	1747.83	54	1584.1	0.27	0.58	0.49

2. 1-factor model, in which all constructs of this model were combined into one factor.

The chi-square difference test presented in table 5.4 showed that the proposed 3-factors model fitted the data significantly better than the two alternative models ($\Delta\chi^2 = 414.96$, $p < 0.001$ and $\Delta\chi^2 = 1584.1$, $p < 0.001$ respectively). Therefore, discriminant validity is supported.

Validity of model NC

As can be seen in the table 5.5, AVE of all constructs of this model exceeded 0.50 fulfilling the criterion of convergent validity (AVE ranged from 0.67 to 0.86).

Table 5.5: Convergent validity of model NC.

Construct	AVE
SUP	0.79
AFF	0.86
NC	0.67

Table 5.6: Discriminant validity of model NC.

Model (NC)	χ^2	df	$\Delta\chi^2$	RMSEA	CFI	TLI
Our model (3-factors)	246.75	51		0.09	0.96	0.95
2-factor	353.78	53	107.03	0.12	0.94	0.92
1-factor	1487.24	54	1240.49	0.25	0.71	0.65

To assess discriminant validity, we compared the fit of our measurement model (3-factor) against two alternative models

1. 2-factors model, in which (SUP + AFF) formed the first factor and NC formed the second factor.
2. 1-factor model, in which all constructs of this model were combined into one factor.

The chi-square difference test presented in table 5.6 showed that the proposed 3-factors model fitted the data significantly better than the two alternative models ($\Delta\chi^2 = 107.03$, $p < 0.001$ and $\Delta\chi^2 = 1240.49$, $p < 0.001$ respectively). Therefore, discriminant validity is supported.

5.5.2 Descriptive Statistics

Pearson's correlation coefficient was used to examine the relationship between dimensions of TL, LMX and OC. The results of Pearson's correlation coefficient as well as the means and the standard deviations, are presented in Table 5.7. All dimensions of TL have been found to correlate with all dimensions of LMX and with the three forms of OC (AC, NC and CCHiSac). All of the correlations among the constructs indicated significant positive relationships ($p < 0.001$). CC: LoAlt revealed no significant relationship to either dimension of TL or dimension of LMX. CCLoAlt shows only a significant positive correlation to CONT ($r = 0.10$, $p < 0.05$) and to NC ($r = 0.17$, $p < 0.001$).

Table 5.7: Results of Pearson's correlation coefficient, means and standard deviations.

	mean	sd	1	2	3	4	5	6	7	8	9	10	11
1. INT	4.13	1.43											
2. PER	4.53	1.59	0.67***										
3. VIS	4.57	1.42	0.73***	0.62***									
4. SUP	4.23	1.48	0.65***	0.80***	0.61***								
5. AFF	4.23	1.59	0.66***	0.75***	0.59***	0.86***							
6. PROF	4.28	1.48	0.71***	0.66***	0.66***	0.70***	0.79***						
7. LOY	4.25	1.52	0.63***	0.73***	0.61***	0.83***	0.84***	0.75***					
8. CONT	4.40	1.41	0.56***	0.63***	0.50***	0.69***	0.73***	0.69***	0.73***				
9. AC	4.34	1.43	0.60***	0.65***	0.55***	0.66***	0.68***	0.67***	0.66***	0.69***			
10. CCHISac	4.59	1.22	0.32***	0.33***	0.31***	0.36***	0.32***	0.33***	0.36***	0.35***	0.50***		
11. CCLoAlt	4.39	1.46	0.05	-0.04	-0.04	0.02	0.00	0.04	0.04	0.10*	0.00	0.41***	
12. NC	4.08	1.38	0.60***	0.50***	0.49***	0.54***	0.57***	0.55***	0.57***	0.58***	0.73***	0.59***	0.17***

5.5.3 Hypothesis Tests

As shown in the results presented in table 5.7, the following hypothesis's confirmations are found:

- The correlations between INT and AC ($r = 0.60, p < 0.001$) provided preliminary evidence to support Hypothesis 1a.
- The correlations between VIS and AC ($r = 0.55, p < 0.001$) provided preliminary evidence to support Hypothesis 1b.
- The correlations between AC and CONT ($r = 0.69, p < 0.001$) provided preliminary evidence to support Hypothesis 1d.
- The correlations between PER and CC: HISAC ($r = 0.33, p < 0.001$) provided preliminary evidence to support Hypothesis 2a.
- The correlations between SUP and NC ($r = 0.54, p < 0.001$) provided preliminary evidence to support Hypothesis 3a.

The mediation hypothesis 1c, 2b and 3b were tested through two methods: Baron and Kenny Method and a series of nested model method.

Baron and Kenny method

According to Baron and Kenny (1986), we should estimate three regression models in order to test the mediation. First, the mediator is regressed on the independent variable; second dependent variable is regressed on independent variable; and third, dependent variable is regressed on both the independent variable and the mediator. Separate coefficients for each equation should be tested. In order to identify evidence of mediation; the independent variable should affect the mediator in the first equation; the independent variable should affect the dependent variable in the second equation, and the mediator should affect the dependent variable in the third equation. If the effect of the independent variable on the dependent variable is less in the third equation than in the second one, the mediation is established. This is

Table 5.8: Regression results to test the mediating role of PROF on the Relationship between INT, VIS and AC.

	D.V.	I.V.	β	S.E	P
Step1	PROF	INT	0.650	0.074	0.000
		VIS	0.238	0.069	0.001
Step2	AC	INT	0.466	0.073	0.000
		VIS	0.146	0.068	0.032
Step3	AC	INT	0.173	0.078	0.026
		VIS	0.045	0.063	0.472
		PROF	0.444	0.062	0.000

D.V. = dependent variable, I.V. = Independent variable, S.E. = standard error, β =standardized regression coefficient.

called partial mediation. Perfect or full mediation holds if the independent variable has no effect when the mediator is introduced into the model.

(a) Mediating role of PROF on the Relationship between INT, VIS and AC: The three steps proposed by Baron and Kenny (1986) are followed and the regression results are presented in table 5.8. Step one examines the relationship between INT, VIS and PROF. It can be seen that PROF is significantly and positively related to INT ($\beta = 0.650$, $p < 0.001$) and to VIS ($\beta = 0.238$, $p < 0.005$). Second step examines the relationship between INT, VIS and AC. It shows that the relationships between INT and AC ($\beta =0.466$, $p < 0.001$) and VIS and AC ($\beta =0.146$, $p < 0.05$) are also significantly and positively related. The last step analyzes the relationship between INT, VIS and AC while controlling the proposed mediator, which is PROF. We see that the relationship between INT and AC when controlling PROF decreases from $\beta =0.466$ to $\beta = 0.173$. However, the relationship is still statistically significant ($p<0.05$). Then, partial mediation of PROF is said to exist in the relationship between INT and AC. Furthermore, we see that the relationship between VIS and AC when controlling PROF decreases from $\beta =0.146$ to $\beta = 0.045$. Moreover, the relationship becomes non-significant. Thus, full mediation of PROF is said to exist in the relationship between VIS and AC.

Table 5.9: Regression results to test the mediating role of LOY on the Relationship between PER and CCHiSac.

	D.V.	I.V.	β	S.E	P
Step1	LOY	PER	0.835	0.046	0.000
Step2	CCHiSac	PER	0.351	0.056	0.000
Step3	CCHiSac	PER	0.068	0.053	0.197
		LOY	0.201	0.059	0.001

(b) Mediating role of LOY on the relationship between PER and CCHiSac:

Regression results are presented in table 5.9. Step one examines the relationship between PER and LOY. It can be seen that LOY is significantly and positively related to PER ($\beta = 0.835$, $p < 0.001$). Second step examines the relationship between PER and CCHiSac and it shows that PER and CCHiSac are also significantly and positively related ($\beta = 0.351$, $p < 0.001$). The last step analyzes the relationship between PER and CCHiSac while controlling the proposed mediator LOY. We see that the relationship between PER and CCHiSac when controlling LOY decreases from $\beta = 0.351$ to $\beta = 0.068$. Moreover, the relationship becomes non-significant ($P = 0.197 > 0.1$). Thus, full mediation of LOY is said to exist in the relationship between PER and CCHiSac.

(c) Mediating role of AFF on the relationship between SUP and NC:

Regression results are presented in table 5.10. Step one examines the relationship between SUP and AFF. It can be seen that AFF is significantly and positively related to SUP ($\beta = 0.850$, $p < 0.001$). Second step examines the relationship between SUP and NC. It shows that SUP and NC is also significantly and positively related ($\beta = 0.477$, $p < 0.001$). The last step analyzes the relationship between SUP and NC while controlling the proposed mediator, which is AFF. We see that the relationship between SUP and NC when controlling AFF decreases from $\beta = 0.477$ to $\beta = 0.078$. Moreover, the relationship becomes non-significant ($P = 0.556 > 0.1$). Thus, full mediation of AFF is said to exist in the relationship between SUP and NC.

Table 5.10: Regression results to test the mediating role of AFF on the Relationship between SUP and NC.

	D.V.	I.V.	β	S.E	P
Step1	AFF	SUP	0.850	0.036	0.000
Step2	NC	SUP	0.477	0.044	0.000
Step3	NC	SUP	0.078	0.133	0.556
		AFF	0.406	0.123	0.001

Nested model method

The results obtained by the nested method for the models of AC, CCHiSac and NC are presented in Table 5.11.

For AC, model 1 which is our baseline model, represents a fully mediating model. We specified paths from INT and VIS to PROF and from PROF to AC. This model does not have direct paths from INT and VIS to AC. As Table 5.11 shows, all fit indexes showed a good fit ($\chi^2 = 331.92$, $df = 128$; $RMSEA = 0.06$; $CFI = 0.97$; $TLI = 0.97$). Against our baseline model, we tested three nested models. In model 2, we added to a direct path from INT to AC. Model 3 was also identical to model 1, except for the addition of a direct path from VIS to AC. In our third nested model, model 4, we added to two direct paths from both INT and VIS to AC. Model 1 is therefore nested within models 2, 3, and 4. As Table 5.11 shows, the differences between chi-squares were significant for models 2, 3, or 4 compared with model 1 ($\Delta\chi^2 = 6.72$, $p < 0.01$; $\Delta\chi^2 = 4.31$, $p < 0.01$ and $\Delta\chi^2 = 7.29$, $p < 0.05$ respectively). However in model 2, the differences between chi-squares is the more significant. These results suggest that model 2 best fitted our data. We concluded, then, that there is full mediation of PROF between VIS and AC and partial mediation of PROF between INT and AC.

For CCHiSac, model 1 which is our baseline model, represents a fully mediating model. We specified paths from PER to LOY and from LOY to CCHiSac. This model does not have direct paths from PER to CCHiSac. As Table 5.11 shows, all fit indexes showed a good fit ($\chi^2 = 114.219$, $df = 49$; $RMSEA = 0.056$; $CFI = 0.98$; $TLI = 0.98$). Against our baseline model, we tested a nested model. In model 2,

Table 5.11: Comparison of Structural Equation Models.

	χ^2	df	$\Delta\chi^2$	RMSEA	CFI	TLI
Model of AC						
1. INT+VIS→PROF→AC→CONT	331.92	128		0.06	0.97	0.97
2. INT+VIS→PROF→AC→CONT and INT→AC	325.19	127	6.72	0.06	0.97	0.97
3. INT+VIS→PROF→AC→CONT and VIS→AC	327.60	127	4.31	0.06	0.97	0.97
4. INT+VIS→PROF→AC→CONT and INT+VIS→AC	324.62	126	7.29	0.06	0.97	0.97
Model of CCHiSac						
1. PER→LOY→CCHiSac	114.22	49		0.05	0.98	0.98
2. PER→LOY→CCHiSac and PER→CCHiSac	113.77	48	0.45	0.05	0.98	0.98
Model of NC						
1. SUP→AFF→NC	126.49	46		0.06	0.98	0.98
2. SUP→AFF→NC and SUP→NC	126.24	45	0.25	0.06	0.98	0.98

we added to a direct path from PER to CCHiSac. As Table 5.11, the difference between chi-squares were not significant for model 1 compared with models 2. Under the principle of model parsimony, therefore, these results suggested that model 1 best fitted our data. We concluded that affect fully mediated the relationship between personal recognition and CCHiSac.

For NC, model 1 which is our baseline model, represents a fully mediating model. We specified paths from SUP to AFF and from AFF to NC. This model does not have direct paths from SUP to NC. As Table 5.11 shows, all fit indexes showed a good fit ($\chi^2 = 126.495$; $df = 46$; $RMSEA = 0.064$; $CFI = 0.98$; $TLI = 0.98$). Against our baseline model, we tested a nested model. In model 2, we added to a direct path from SUP to NC. The difference between chi-squares were not significant for model 1 compared with models 2. Under the principle of model parsimony, therefore, these results suggested that model 1 best fitted our data. We concluded that affect fully mediated the relationship between supportive leadership and NC.

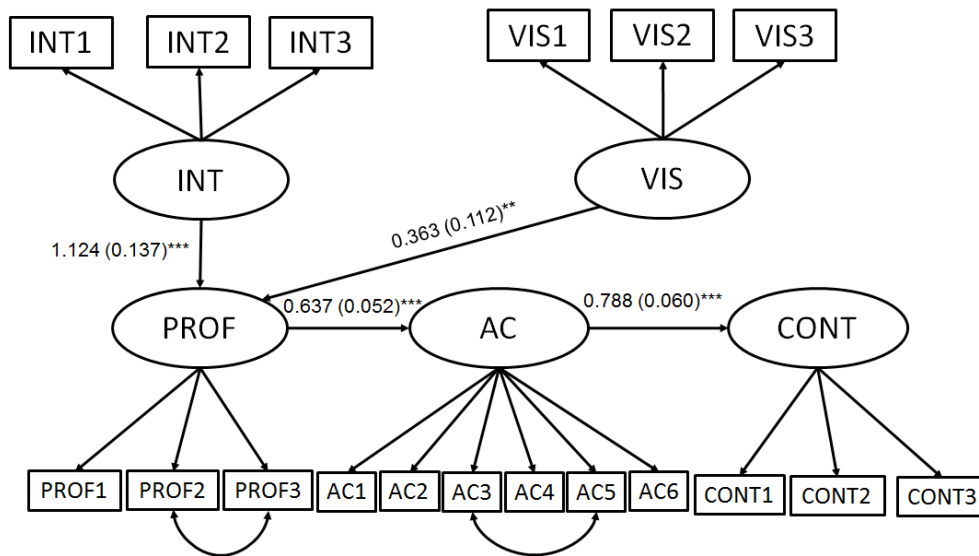


Figure 5.4: Results of Structural Equation Modeling on the Mediating Effect of PROF

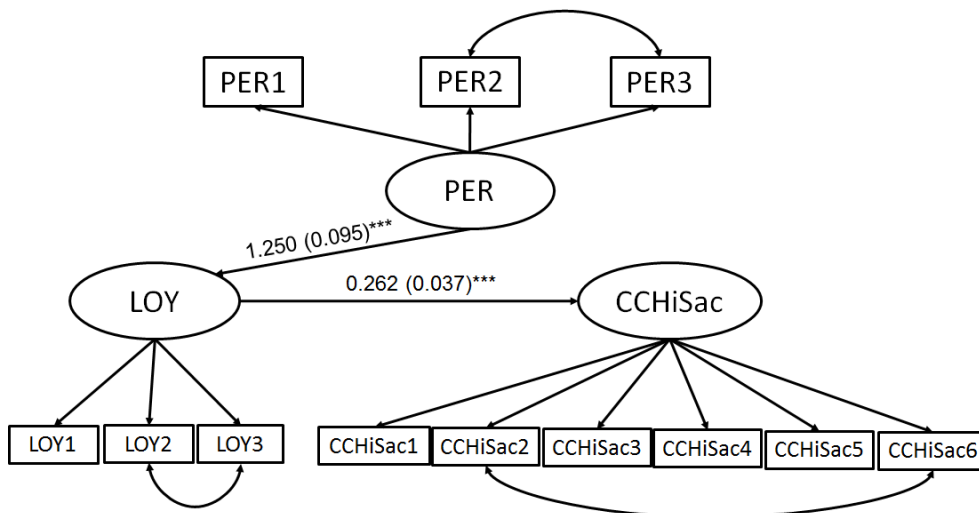


Figure 5.5: Results of Structural Equation Modeling on the Mediating Effect of LOY

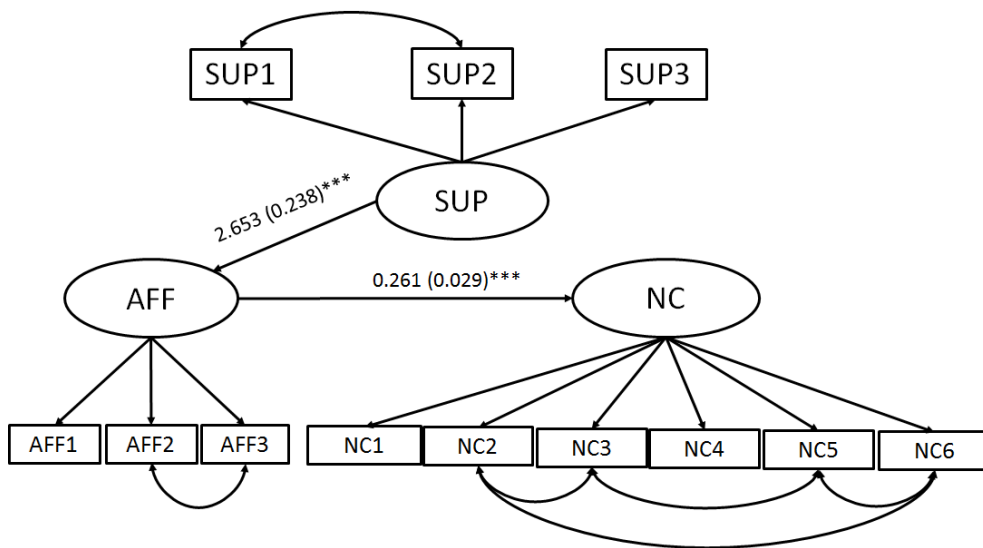


Figure 5.6: Results of Structural Equation Modeling on the Mediating Effect of AFF

5.6 Discussion

The aim of this chapter is to examine the mechanisms through which dimensions of TL influence different forms of OC by testing the possible mediating role of leader-member-exchange (LMX) dimensions. Three models are proposed (see Figures 5.4, 5.5 and 5.6). In the empirical study, 427 senior executives from French organizations have participated to rate the questionnaire (see appendix Table 6.1). To verify that the studied models present an adequate construct validity, two types of validity have been considered: the convergent validity and the discriminant validity. The results showed that construct validity is supported for the three proposed models.

For the descriptive statistics, Pearson's correlation coefficient was used to examine the relationship between dimensions of TL, dimensions of LMX and different forms of OC. It has been found that all dimensions of TL correlate well with the three forms of OC (AC, NC and CCHiSac). However, CCLoAlt revealed no significant relationship to either dimension of TL. This result may be explained by the fact that the perceptions of job alternatives outside the organization should not be related to any leadership behavior (Korek et al., 2010), including TL. It has also been found that all dimensions of TL correlate well with all dimensions of LMX. This result is consistent with previous studies (Asgari et al., 2008; Wang et al., 2005;

Basu and Green, 1997; Deluga, 1992; Howell and Hall-Merenda, 1999). Moreover, all dimensions of LMX have been found to correlate with the three forms of OC (AC, NC and CCHISAC). This result is in agreement with some previous research which found that a relational context is an important factor to OC (Joo, 2010; Khong, 2009; Bhal and Ansari, 2007; Hung et al., 2004). CCloalt show only a correlation to CONT. This results is on line with Hung et al. (2004) which found that contribution had positive impact on CC. The correlation between CCLoAlt and CONT may be explained as: an employee which has a commitment to the organization related to a lack of alternatives employment opportunities may perform work beyond that is specified in his job description in order to not lose his current work.

With regard to the dimensionality of CC, it has been found that the two sub-components, CCHiSac and CCLoAlt, are correlated ($r=0.41$). This finding is in agreement with the results reported previously by McGee and Ford (1987) and Meyer et al. (2002). It has also been found that CCHiSac and CCLoAlt displayed different relationship with all dimensions of LMX and all dimensions of TL which further support their distinctiveness. This result support previous studies which stated that OC is a multidimensional construct (Allen and Meyer, 1990; Meyer and Allen, 1991; Hackett et al., 1994) and some previous studies which confirmed that the CC dimension contains two separable components (Vandenberghe et al., 2007; Bentein et al., 2005; Powell and Meyer, 2004; Meyer et al., 1990; McGee and Ford, 1987).

All the proposed direct relations are supported. Intellectual stimulation and vision displayed a positive relationship with AC ($\beta =0.466$, $p < 0.001$ and $\beta =0.146$, $p < 0.005$: Hypothesis 1a and Hypothesis 1b are supported). These relationships were supported in the study of Joo et al. (2012). The positive relationship between AC and intellectual stimulation was also supported in the study of Rafferty and Griffin (2004) that suggested that intellectual stimulation may be one way in which leaders indicate to employees that their firm values their contribution. These employees may feel valued when they are encouraged to actively engage in a firm which increases AC to the organization.

It is found a significant positive relationship between AC and contribution ($\beta =1.134$, $p < 0.001$: Hypothesis 1d is supported). This result is on line with previous

studies which stated that employees with high levels of job involvement are likely to put more effort into their jobs, tend to display higher levels of in-role performance and are motivated to perform their best (Chughtai, 2008; Meyer and Allen, 1997).

Personal recognition displayed a positive relationship with CCHiSac ($\beta = 0.351$, $p < 0.001$: Hypothesis 2a is supported). This result is in accordance with the suggestion of Rafferty and Griffin (2004) that stated that when people receive recognition for their work, they would feel an increased sense of investment in that organization. However, when considering the two subdimensions of CC in this study, this finding may explain the unexpected result found by Rafferty and Griffin (2004) in which personal recognition was significantly negatively associated to CC.

Supportive leadership displayed a positive relationship with NC ($\beta = 0.477$, $p < 0.001$: Hypothesis 3a is supported). This result implies that the person who receive some benefits from others may feel obligated to return the favour by NC (Aquino and Bommer, 2003).

The mediation hypothesis are tested using Baron and Kenny (1986) and a series of nested model method. These two methods showed the same results which supported our hypothesis.

Partial mediation of PROF is found in the relationship between INT and AC (Hypothesis 1c is supported). This may be explained by the fact that when leader use intellectual stimulation behaviour, he directly and indirectly affects AC via PROF. Full mediation of PROF is found in the relationship between VIS and AC (Hypothesis 1c is supported). Full mediation of LOY is found in the relationship between PER and CCHiSac (Hypothesis 2b is supported) and full mediation of AFF is found in the relationship between SUP and NC (Hypothesis 3b is supported). In other words, VIS, PER and SUP does not have a direct effect on AC, CCHiSac and NC respectively when PROF, LOY and AFF are controlled respectively. According to these results, dimensions of LMX (PROF, LOY and AFF) serves as a critical explanatory variables in the relationship between certain dimensions of TL (VIS, PER and SUP) and different forms of OC (AC, CCHiSac and NC).

These results confirm that when leaders use intellectual stimulation with their followers and express an idealized picture of the future based around organizational

values (Rafferty and Griffin, 2004), this increase followers feeling of respect for professional capabilities of their leader which in turn enhance the employee AC. When the leader values individuals' efforts and rewards the achievement of outcomes consistent with the vision through praise and acknowledgment of followers' efforts (Rafferty and Griffin, 2004), the subordinate's perception of loyalty expressed by their leader increase. This increase of loyalty perception may enhance a sense of fear of losing this loyalty in case of leaving the organization (CCHiSac). Also, the results confirm that when the leaders create strong relationship with his followers, responds to the needs of each individual for achievement and growth (Rafferty and Griffin, 2004), this enhance the interpersonal attraction (liking, friendship) which in turn increases employee feelings of responsibility to the organization (NC).

These results supported previous literature studies which stated that LMX represents a theoretical approach to understand leadership at work (Gerstner and Day, 1997; Graen and Uhl-Bien, 1995; Liden et al., 1997; Schriesheim et al., 1999), and it has evolved into one of the more useful approaches for studying employee-supervisor relationships and how they affect employee outcomes (Rosen et al., 2011). In this study, LMX is found as an important factor when analyzing the relationship between TL and OC. As LMX relationships are developed through a series of interactions or exchanges between leaders and followers, immediate supervisors are critical in enhancing the LMX relationship because of their proximity to employees (Walumbwa et al., 2011). Specifically, transformational leaders who express an idealized picture of the future, use their power to help members to solve problems at work, values individuals' efforts, support members' actions, and consider members' needs, evoke positive evaluations of LMX quality in members (Scandura and Graen, 1984). Based on the norm of reciprocity (Gouldner, 1960), LMX theory suggests that positive evaluations of LMX quality engender positive work behaviors and attitudes by members (Liden et al., 1997). Following from social exchange theory (Blau, 1964) and in line with the norm of reciprocity (Gouldner, 1960; Cropanzano and Mitchell, 2005), high LMX employees, in receiving something of value, feel themselves to be more valuable for the organization and thus feel obligated to reciprocate by offering organizationally desired contributions such as commitment to the organization.

5.7 Conclusion

In this chapter, by examining the role of LMX as a mediator between TL and OC, the mechanisms through which dimensions of TL influence different forms of OC has been studied. Three different theoretical models have been proposed and tested.

For performing the empirical study, 427 senior executives from French organizations have participated to rate questionnaire. To verify that the studied models present an adequate construct validity, the convergent validity and the discriminant validity have been used. To test the direct hypothesis, Pearson's correlation and betas in structural model are used. To test the mediation hypothesis, Baron and Kenny (1986) 's method and a series of nested model method are followed.

The results found in this study can be summarized as follow:

- There is a positive relationship between intellectual stimulation and AC. This relationship was supported in previous studies of Joo et al. (2012) and Rafferty and Griffin (2004)
- There is positive relationship between vision and AC. This relationship was supported in previous study of Joo et al. (2012)
- The subordinate's perception of professional respect mediates the positive relationship between intellectual stimulation, vision and AC. This result is in agreement with the study of Lee (2005) which stated that followers who assess the exchange with their leaders to be high professional respect tend to express greater AC.
- There is a positive relationship between AC and contribution. This result is on line with previous studies which stated that employees with high levels of job involvement are likely to put more effort into their jobs, tend to display higher levels of in-role performance and are motivated to perform their best (Chughtai, 2008; Meyer and Allen, 1997).
- There is a positive relationship between personal recognition and CCHiSac. This result is in accordance with the suggestion of Rafferty and Griffin (2004) and may explain the unexpected result found by these authors.

- The subordinate's perception of loyalty mediates the positive relationship between Personal recognition and CCHiSac.
- There is a positive relationship between the supportive leadership and employee normative commitment (NC). This result implies that the person who receive some benefits from others may feel obligated to return the favour by NC (Aquino and Bommer, 2003).
- Affect mediates the relationship between Supportive leadership and employee NC. This result is on line with the study of Lee (2005) which found that exchanges between leaders and followers marked by high levels of affect relate positively to NC

From the models presented in this study, we can confirm that:

- TL, LMX and OC are multidimensional concepts which is in accordance with the results found in some previous studies such as Rafferty and Griffin (2004), Liden and Maslyn (1998) and Meyer et al. (1993), respectively.
- To find precise results, it is useful, when treating CC, to differentiate between its two dimensions which are: commitment due to a lack of alternative employment opportunities (CCLoAlt) and perceived sacrifice of investments associated with leaving the organization (CCHiSac). This result is in agreement with that of Powell and Meyer (2004) and McGee and Ford (1987).
- The definition of two models with different antecedents for affective and normative commitment contributes to confirm that they are two distinct dimensions of organizational commitment. These findings suggest that affective and normative commitment are not identical constructs (Meyer et al., 2002)
- The three dimensions of LMX (PROF, LOY and AFF) serve as a critical explanatory variables in the relationship between certain dimensions of TL (VIS, PER and SUP) and different forms of OC (AC, CCHiSac and NC). This result is on line with that of Lee (2005) which found that LMX quality mediates the relationship between leadership and OC.
- Differently from the others three dimensions of LMX that play a role of mediator between dimensions of TL and dimensions of OC, contribution appears

as a consequence of AC. Consequently, it can be confirmed that contribution does not form a part of the LMX concept.

There are some findings that arise from this study which may have some practical implications for organization's management. Results suggested that it is useful to evaluate the different components of TL for purposes such as how to improve the different forms of OC. However, transformational leaders are the most prominent aspect in a workplace environment and shape followers' perceptions. Transformational leaders can use this impact to improve followers' work-related attitudes and feelings including employee organizational commitment (Clinebell et al., 2013; Joo et al., 2012; Limsila and Ogunlana, 2008; Barroso Castro et al., 2008; Lee, 2005; Walumbwa et al., 2005; Rafferty and Griffin, 2004; Avolio et al., 2004; Walumbwa et al., 2004). The relationship between TL and OC is mediated by the three dimensions of LMX. This result is on line with that of Lee (2005) which found that LMX quality mediates the relationship between leadership and OC. This result confirms that a relational context is an important factor for OC (Joo et al., 2012).

Like all studies of this type, the present work may have some limitations. The same respondents rated TL, LMX and OC which may yield possible 'common source bias' in the results. Future studies should consider employing multiple sources of data collection, with variables collected at different times. The use of cross-sectional data precludes definitive assertions regarding causality and directionality. Longitudinal designs are needed in future research to extend our findings. Additional research adapting a longitudinal design in which both predictor and criterion variables are measured over time would provide interesting insights into the direction of relationships. Another limitation may be that the questionnaire has been assessed by employees which may reflect participants' perceptions rather than objective realities. However, some of the analyzed variables (for example OC and employee perception of LMX) pertain exclusively to individuals' perceptions and feelings. However, the measures of TL should be assessed through actual behaviors and more objective measures in order to substantiate the results obtained.

Conclusions and future research

The present thesis has addressed a multidimensional study of the relationship between transformational leadership (TL) style and organizational commitment (OC). The presented research has focused on the possible mediating role of leader member exchange (LMX) in the relationship between dimensions of TL and different forms of OC.

The translation of the English version of the Transformational Leadership Questionnaire (TLQ) (Rafferty and Griffin, 2004) and the Organizational Commitment Questionnaire (OCQ) (Meyer et al., 1993; Powell and Meyer, 2004) and the leader-member exchange (LMX) (Liden and Maslyn, 1998) to the French has been performed using the back-translation method proposed by Nunnally and Bernstein (1994). Items of the questionnaire have been measured on a seven-point Likert-type scale. Two studies have been conducted. The first sample is composed of 163 French-speaking Tunisian senior executives. In the second study, a total of 427 participants from French organizations have been used in order to provide additional evidence for the 5-factor structure of the TLQ and the 4-factor structure of OCQ and in order to reach a large sample for generalization of the results. Internal consistency is assessed using Cronbach's alpha coefficient. The validity is verified using the exploratory and confirmatory factor analyses.

For TLQ, the results showed a cross loading on the items of INS in both studies. Moreover, the CFA did not confirm the five factor model but confirmed a four dimension model when deleting INS. Consequently, it was confirmed that the four

dimensions model which consists of vision, supportive leadership, intellectual stimulation and personal recognition is an acceptable measure of TL to be used with French speaking population. For OCQ, the results of both studies supported the four dimensional conceptualization of OC (AC, CCLoAlt, CCHiSac and NC). This finding is in accordance with the results found by Powell and Meyer (2004) that provided evidence pertaining to the development of CC as a two-dimensional scale consisting of CCLoAlt and CCHiSac distinct subscales.

In order to more understand how TL enhances employee commitment, several models have been proposed. These models take into account the diverse dimensions of TL and the different forms of OC. In order to study the mechanisms through which dimensions of TL influence different forms of OC, a theoretical approach based on the social exchange theory (Cropanzano and Mitchell, 2005) has been used, where dimensions of the quality of the leader-member exchange relationship mediate the relationship between transformational leadership and organizational commitment. To verify that the proposed models present an adequate construct validity, two types of validity analysis have been considered: the convergent validity and the discriminant validity. To assess convergent validity, Average Variance Extracted (AVE) was calculated (Fornell and Larcker, 1981). To assess discriminant validity, Chi-square difference test (Segars, 1997) was used. To examine the relationship between dimensions of TL, LMX and OC, Pearson's correlation coefficient was used. The direct hypothesis are confirmed by the significance of the beta parameters in the structural models. The mediation hypothesis are tested through two methods: Baron and Kenny (1986) 's method and a series of nested model method. The results revealed that:

- There is a positive relationship between intellectual stimulation and affective commitment (AC).
- There is positive relationship between vision and AC.
- The subordinate's perception of professional respect mediates the positive relationship between intellectual stimulation, vision and AC.
- There is a positive relationship between AC and contribution of employee to leader's work.

- There is a positive relationship between personal recognition and continuance commitment related to perception of high sacrifice (CCHiSac).
- The subordinate's perception of loyalty mediates the positive relationship between personal recognition and CCHiSac.
- There is a positive relationship between the supportive leadership and normative commitment (NC).
- Affect mediates the relationship between Supportive leadership and NC.

From the models presented in this study, we can confirm that:

- TL, LMX and OC are multidimensional concepts, in accordance with the results found in some previous studies such as Rafferty and Griffin (2004), Liden and Maslyn (1998) and Meyer et al. (1993), respectively.
- To find precise results, it is useful, when treating CC, to differentiate between its two dimensions which are: commitment due to a lack of alternative employment opportunities (CCLoAlt) and perceived sacrifice of investments associated with leaving the organization (CCHiSac). This result is in agreement with that of Powell and Meyer (2004) and McGee and Ford (1987).
- The definition of two models with different antecedents for affective commitment and normative commitment contributes to confirm that they are two distinct dimensions of OC. These findings suggest that affective and normative commitment are not identical constructs (Meyer et al., 2002).
- The three dimensions of LMX (PROF, LOY and AFF) serve as a critical explanatory variables in the relationship between certain dimensions of TL (VIS, PER and SUP) and different forms of OC (AC, CCHiSac and NC). This result is on line with that of Lee (2005) which found that LMX quality mediates the relationship between leadership and OC.
- Differently from the others three dimensions of LMX that play a role of mediator between dimensions of TL and dimensions of OC, contribution appears as a consequence of AC. Consequently, it can be confirmed that contribution does not form a part of the LMX concept.

These findings are important since previous research has not tested these variables together. LMX is an important factor when analyzing the relationship between dimensions of TL and different forms of OC. There are some findings that arise from this study which may have some practical implications for organization's management. Results suggest that it is useful to evaluate the different components of TL for purposes such as how to improve the different forms of OC. However, leaders are the most prominent aspect in a workplace environment and shape followers' perceptions. Leaders can use this impact to improve followers' work-related attitudes and feelings. When leaders use intellectual stimulation behavior with their followers and express an idealized picture of the future (Rafferty and Griffin, 2004), this increase followers feeling of respect for professional capabilities of their leader which in turn enhance the employee AC Lee (2005). When the leader values individuals' efforts and rewards the achievement of outcomes consistent with the vision through praise and acknowledgment of followers' efforts (Rafferty and Griffin, 2004), the subordinate's perception of loyalty expressed by their leader increase. This increase of loyalty perception may enhance a sense of fear of losing this loyalty in case of leaving the organization (CCHiSac). Also, when the leaders create strong relationship with his followers, responds to the needs of each individual for achievement and growth (Rafferty and Griffin, 2004), this enhance the interpersonal attraction (liking, friendship) which in turn increases employee feelings of responsibility to the organization (NC) (Lee, 2005).

Finally, implications of this research are provided. As there is no French validated version in the scientific literature, this work has an important contribution as it allows to measure OC, TL and LMX in societies where the maternal language is French. The validation of this scales could help cross-cultural research on OC, TL and LMX to determine the cultural differences assigned to the meaning and the differential antecedents associated.

In terms of practical implications, because employees can adopt the three forms of commitment (AC, NC and CC) to various degrees (Meyer and Allen, 1991), a manager should discern that TL is a dynamic process rather than static in the sense that leaders must observe how their behaviors affect the followers' perceptions in order to cultivate employees' commitment to the organization.

With the finding of LMX as a mediator in the relationship between dimensions of TL and different forms of OC, it can be suggested that superiors should direct their activities of their members to achieve different forms of employee' OC through the quality of leader-member relationship. This is consistent with previous studies that suggest that superiors should direct their activities of their members to achieve organizational outcomes through the quality of leader-member relationship (Lee, 2005; Mcclane et al., 1991). Leaders must observe how their behaviors affect the followers' perceptions of the LMX (affect, professional respect or loyalty) in order to cultivate employees' commitment to the organization on different forms.

Appropriate guidelines could be provided to help managers improve their understanding of how to increase employees' commitment to the organization. For instance, management needs to pay special attention to the distinct attributes that should be considered when organizations seek to select and train leaders. The results of this work suggest that training should consist not only of expressing an idealized picture of the future (vision), expressing concern for followers (supportive leadership), enhancing employees' awareness of problems (intellectual stimulation) and the provision of rewards (personal recognition). They should also include knowledge of the importance of social relations and LMX employee perceptions. These perceptions include interpersonal attraction rather than work or professional values (affect), respect for professional capabilities (professional respect) and the subordinate's perception of loyalty expressed by their leader (loyalty).

Like all studies of this type, the present work may have some limitations. The same respondents rated TL, LMX and OC which may yield possible common source bias in the results. As the dyadic relationship between leaders and followers was the main interest, managers may also be asked to respond the questionnaire in future works. The use of cross-sectional data precludes definitive assertions regarding causality and directionality. Longitudinal designs are needed in future research to extend our findings. Additional research adapting a longitudinal design in which both predictor and criterion variables are measured over time would provide interesting insights into the direction of relationships. Future research may also include heterogeneous and larger samples that allow broader generalization of the results. Likewise, the developed scales could also be used in other French-speaking societies.

Nomenclature

AC: Affective Commitment

AVE: Average Variance Extracted

AFF: Affect

CC: Continuance Commitment

CCHiSac: Commitment due to Perceived sacrifice of investments associated with leaving the organization

CCLoAlt: Commitment due to a lack of alternative employment opportunities

CFA: Confirmatory Factor Analyses

CFI: Comparative Fit Index

D.V.: Dependent Variable EFA: Exploratory Factor Analyses

HRM: Human resource management

IFI: Incremental Fit Index

INT: Intellectual stimulation

I.V. Independent Variable

KMO: Kaiser-Meyer-Olkin

OC: Organizational Commitment

OCQ: Organizational Commitment Questionnaire

LOY: Loyalty

LMX : Leader Member Exchange

NC: Normative Commitment

PROF: Professional respect

RMSEA: Root Mean Squared Error of Approximation

S.E.: Standard Error

SUP: Supportive leadership

TL: Transformational Leadership

TLI: Tucker-Lewis Index

TLQ: Transformational Leadership Questionnaire

VIS: Vision

β : standardized regression coefficient

$\Delta\chi^2$: chi-square difference

Appendix

Table 6.1: Questionnaire

Par la suite, vous trouverez une série d'affirmations concernant votre chef. S'il vous plaît indiquez le degré de votre accord ou désaccord avec chacune des affirmations suivantes:

	1	2	3	4	5	6	7
VIS1. Mon chef a une vision claire où nous nous dirigeons							
VIS2. Mon chef a une idée claire où il / elle veut que notre organisation (unité /équipe) soit au bout de 5 ans							
VIS3. Mon chef a des idées claires où l'organisation (unité /équipe) est dirigée							
INS1. Mon chef dit des choses qui rendent les employés fiers de faire partie de cette organisation							
INS2. Mon chef dit des choses positives à propos de l'unité de travail (l'équipe de travail)							
INS3. Mon chef encourage les employés à voir un changement de l'environnement du travail comme une opportunité							
INT1. Mon chef me stimule à réfléchir aux vieux problèmes avec de nouvelles perspectives							
INT2. Mon chef a des idées qui me poussent à réfléchir sur des aspects de mon travail que je n'ai jamais remis en question avant							
INT3. Mon chef m'a mis au défi de repenser certains aspects basiques de mon travail							

1 2 3 4 5 6 7

PER1. Mon chef me félicite quand je fais un travail qui est au-dessus de l'attendu

PER2. Mon chef admet (reconnaît) l'amélioration de ma qualité de travail

PER3. Mon chef me félicite personnellement quand je fais un travail remarquable (exceptionnel)

SUP1. Mon chef considère mes sentiments personnels avant d'agir

SUP2. Mon chef se comporte d'une manière gentille envers mes besoins personnels

SUP3. Mon chef s'assure que les intérêts des employés sont tenus en considération

AFF1. J'aime mon chef en tant que personne

AFF2. Mon chef est le type d'individu qu'on aimerait avoir comme ami

AFF3. J'ai beaucoup de plaisir à travailler avec mon chef

LOY1. Mon chef me défend auprès de son supérieur même s'il ne connaît pas tous les faits du problème

LOY2. Mon chef viendrait à mon secours si j'étais «attaqué(e)» par d'autres

LOY3. Si je fais une faute involontaire, mon chef me défend devant les autres dans l'organisation

CONT1. Je fais du travail pour mon chef qui dépasse ma description d'emploi

CONT2. Je suis prêt à faire un effort supplémentaire afin d'aider mon chef à atteindre ses objectifs

CONT3. Ça ne me dérange pas de travailler plus pour mon chef

PROF1. Je suis impressionné(e) par les connaissances et les compétences de mon chef

PROF2. Je respecte les connaissances et les compétences de mon chef au travail

PROF3. J'admire les habiletés professionnelles de mon chef

En ce qui suit, vous trouverez une série d'affirmations concernant votre implication dans votre organisation. S'il vous plaît indiquez le degré de votre accord ou désaccord avec chacune des affirmations qui suivent:

AC1. Je serais très heureux(se) de passer le reste de ma carrière dans cette organisation

AC2. Je sens vraiment que les problèmes de cette organisation sont les miens

AC3. J'ai un fort sentiment «d'appartenance» à mon organisation

AC4. Je me sens «émotionnellement attaché(e)» à cette organisation

AC5. Je me sens comme un membre de famille dans cette organisation

AC6. Travailler dans cette organisation signifie beaucoup pour moi

CCLoAlt1. Je pense que j'ai trop peu d'alternatives si je quitte cette organisation

CCLoAlt2. Un des obstacles sérieux pour quitter mon organisation est le manque d'alternatives ailleurs

CCLoAlt3. La raison pour laquelle je continue à travailler dans cette organisation est le manque d'opportunités ailleurs

CCHiSac1. J'ai tellement investi mon temps dans cette organisation que je ne pense pas travailler dans un autre lieu

CCHiSac2. Quitter cette organisation maintenant nécessiterait beaucoup de sacrifices personnels

CCHiSac3. Personnellement, je crois que le coût de quitter cette organisation est beaucoup plus important que les avantages

CCHiSac4. Je ne voudrais pas quitter cette organisation à cause de ce que je risquerais de perdre

CCHiSac5. Si je décide maintenant de quitter cette organisation, beaucoup de choses dans ma vie personnelle seront perturbées

CCHiSac6. Je continue à travailler dans cette organisation parce que je ne crois pas qu'une autre organisation puisse m'offrir les mêmes bénéfices que je reçois ici

NC1. Même si c'est en ma faveur, je ne crois pas qu'il soit juste de quitter mon organisation maintenant

NC2. Je crois que je dois beaucoup à mon organisation

NC3. L'organisation où je travaille mérite ma loyauté

NC4. J'ai un certain sentiment d'obligation de continuer à travailler dans cette organisation

NC5. Je me sentirais coupable si je quitte mon organisation maintenant

NC6. Je ne quitterais pas mon organisation en ce moment parce que j'ai un sentiment d'obligation envers les personnes qui s'y trouvent

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