

Discussion, Limitations and Suggestions

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Abstract The correlational values obtained from research studies investigating the relationship between leadership and organizational outputs were quantitatively analyzed in this meta-analytic study. To determine the impact magnitudes of 13 organizational outputs of leadership, a sample group with a total of 600,201 subjects was compiled using 1,250 pieces of correlational data. The findings showed that leadership had a *small-magnitude, positive effect* on conflict management, *medium-magnitude, positive effects* on job satisfaction, organizational commitment, organizational culture, organizational citizenship and performance and *large-magnitude, positive effects* on organizational trust, organizational climate, organizational health, organizational learning and organizational justice. In contrast, a *small-magnitude, negative effect* was found for stress and burnout with regard to the effect of leadership.

1 Discussion

The correlational values obtained from research studies investigating the relationship between leadership and organizational outputs were quantitatively analyzed in this meta-analytic study. A summary of the meta-analytic results between leadership and organizational outputs can be seen in Table 1. To determine the impact magnitudes of 13 organizational outputs of leadership, a sample group with a total of 600,201 subjects was compiled using 1,250 pieces of correlational data. The findings showed that leadership had a *small-magnitude, positive effect* on conflict management, *medium-magnitude, positive effects* on job satisfaction, organizational commitment, organizational culture, organizational citizenship and performance and *large-magnitude, positive effects* on organizational trust, organizational climate, organizational health, organizational learning and organizational justice. In contrast, a *small-magnitude, negative effect* was found for stress and burnout with regard to the effect of leadership. A narrow confidence interval found for the

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Table 1 Findings of the correlations between leadership and organizational outputs: results of the meta-analysis

Organizational outcome	k	N	r	CI		Q
				Lower limit	Upper limit	
Job satisfaction	318	148,501	0.48*	0.44	0.52	30,939.6*
Organizational commitment	202	63,753	0.44*	0.41	0.47	5,800.35*
Organizational trust	70	24,059	0.66*	0.61	0.71	3,350.66*
Organizational citizenship	55	140,395	0.36*	0.26	0.45	6,886.18*
Organizational culture	48	17,092	0.47*	0.39	0.54	1,768.35*
Organizational climate	99	43,698	0.54*	0.48	0.59	6,322.3*
Performance	270	81,233	0.32*	0.29	0.35	7,725.39*
Organizational stress	41	25,650	-0.13**	-0.20	-0.06	963.5**
Organizational burnout	37	17,368	-0.17**	-0.30	-0.03	2,664.10*
Organizational health	6	3,031	0.78*	0.58	0.89	567.54*
Organizational learning	31	11,944	0.59*	0.49	0.67	1,786.64*
Conflict management	32	6,838	0.15*	0.03	0.26	927.526*
Organizational justice	41	16,639	0.52**	0.46	0.58	1,144.93*

* $p < 0.01$, ** $p < 0.05$

meta-analytic research study indicates that the results of the studies included in the research are reliable. This finding can be considered important because it provides the opportunity to make reliable decisions regarding the strength and direction of the relationships found in the meta-analysis.

A summary of the moderator analysis results between leadership and the organizational outputs can be seen in Table 2.

The *publication type* is a moderator of leadership’s effect on organizational commitment, trust and justice. Its moderating effects on organizational commitment are found in articles [$r = 0.47$], and those on organizational trust are found in dissertations [$r = 0.71$].

The *year of publication* is a moderator of leadership’s effect on organizational trust, citizenship, performance and health. The stated differences are found for organizational trust [$r = 0.77$] and organizational health [$r = 0.97$] for publications in the years 1990–1999 and for performance [$r = 0.37$] and organizational citizenship [$r = 0.40$] for publications from 2010 and later.

The *sample group* is a moderator of leadership’s effect on organizational trust, citizenship, stress and health. The stated differences are found for managers in terms of organizational trust [$r = 0.76$], in the banking sector in terms of organizational citizenship behaviors [$r = 0.57$], among religious officers in the case of organizational stress [$r = -0.27$] and among faculty with respect to organizational health [$r = 0.97$].

Table 2 Findings on the correlations between leadership and organizational outputs: results of the moderator analysis

Organizational outcome	Moderators				
	Publication type	Year of publication	Sample group	Leadership style/ approach	Leadership scale
Job satisfaction				+	
Organizational commitment	+				
Organizational trust	+	+	+	+	
Organizational citizenship		+	+	+	
Organizational culture				+	
Organizational climate				+	
Performance		+		+	
Organizational stress			+	+	+
Organizational burnout					+
Organizational health		+	+	+	
Organizational learning				+	
Conflict management					
Organizational justice	+			+	+

The *leadership style/approach* is a moderator of leadership’s effect on all variables of organizational trust except organizational commitment and conflict management. The stated differences are found in terms of leadership skills for job satisfaction [$r = 0.81$], adaptive leadership for organizational trust [$r = 0.91$], paternalistic leadership for organizational citizenship [$r = 0.63$], autocratic leadership for organizational culture [$r = 0.79$], reassuring leadership for organizational climate [$r = 0.90$], safety leadership for performance [$r = 0.72$], clinical leadership for stress [$r = -0.46$], transformational leadership for organizational learning [$r = 0.65$] and ethical leadership [$r = 0.61$] and servant leadership [$r = 0.61$] for organizational justice.

The *leadership scale* is a moderator of leadership’s effect on stress, burnout and organizational justice. The stated differences are found in terms of NLB for organizational stress [$r = -0.47$], SLS for burnout [$r = -0.83$] and MLQ for organizational justice [$r = 0.53$].

The results of the study with regard to job satisfaction were as expected; it is frequently suggested in the literature that managers’ behaviors affect the job satisfaction of employees (Bass & Avolio, 1989; Bogler, 2001; English, 2011;

Griffith, 2004; McDaniel & Wolf, 1992; Zigrang, 2000). For example, the relationship employees have with their managers is one of the hygiene factors in Herzberg's two-factor theory (Herzberg, Mausner, & Snyderman, 1959), which states that the lack of hygiene factors (e.g., remuneration, work safety, working conditions, and behavior of managers) adversely affects job satisfaction (Tosi, Rizzo, & Carroll, 1990). Similarly, Maslow's hierarchy of needs conceptualization states that the attitudes of managers directly affect workers' levels of self-confidence (Spector, 1996). It is expected that the direction of the relationship would change according to the constructive or destructive behaviors of the leader. Job satisfaction should have a positive relationship with constructive leadership behaviors; conversely, they should have a negative relationship with destructive behaviors (Einarsen, Aasland, & Skogstad, 2007; Kellerman, 2004; Schyns & Hansbrough, 2010; Schyns & Schilling, 2013). The findings of this study corroborate these relationships. For example, a meta-analysis carried out on research studies conducted in American and Taiwanese schools found that the leadership behaviors displayed by school principals have high-magnitude, positive effects on job satisfaction (Meng & Chin, 2007). The main reason for the observed positive effect was that all of the studies included in the study tested the relationship between job satisfaction and constructive leadership (such as transformational and cultural leadership). In another meta-analysis testing the relationship between destructive leadership behaviors and job satisfaction, a high-magnitude, negative relationship was found (Schyns & Schilling, 2013), hence giving support to the findings of the current study.

The observed positive relationship can be explained as follows. *First*, the positive attitude of constructive leaders toward their employees (i.e., valuing them, supporting them and efficiently solving problems) leads to the employees' performing more successfully in their tasks and thus ensuring a higher job satisfaction (Avolio, Bass, & Jung, 1999; Erez, 1987). *Second*, constructive leaders become role models for their followers and motivate them. Employees then do not show resistance toward their leader and follow the path paved by their leader without the need for coercion; consequently, the followers become happier (Bass, 2000; Hawkins, 2011; Yukl, 2008).

The positive effect of leadership on organizational commitment found in the study emerges in parallel with opinions that leadership behaviors have an impact on organizational commitment, which relates to how an employee's behaviors are congruent with his or her organization and how the employee perceives himself or herself as a permanent member of the organization (Meyer & Allen, 1991; Mowday, Porter, & Steers, 1982; Wiener, 1982). This positive effect also parallels the findings of many other studies that suggest that leadership has a large-magnitude, positive effect on organizational commitment (Avolio, Zhu, Koh, & Bhatia, 2004; Dunn, Dastoor, & Sims, 2012; Howell & Hall-Merenda, 1999; Hulpia, Devos, & Keer, 2011; Jackson, Meyer, & Wang, 2013; Kirkpatrick & Locke, 1996; Khasawneh, Omari, & Abu-Tineh, 2012; Leithwood & Sun, 2012; Lok & Crawford, 2004; Thamrin, 2012). A further important finding of the study is the direction and strength of the impact of leadership on organizational commitment. Of the individual research studies included in the meta-analysis, some

research studies found only a small-magnitude or a statistically non-significant effect of leadership on commitment, whereas many studies found varying magnitudes of impact. However, when these studies were compiled and an average impact level was calculated, the effect of leadership on organizational commitment was found to be positive, with a high-magnitude impact. This finding is important in that organizational commitment plays a critical and significant role in organizational efficiency (Dee, Henkin, & Singleton, 2006; Leithwood & Sun, 2012) and shows that perceived leadership behaviors have an impact on thoughts about organizational commitment. The study findings are in line with research studies citing the influence of leadership as an organizational factor on organizational commitment (Hoy, Tarter, & Bliss, 1990; Koh, Steers, & Terborg, 1995; Nguni, Slegers, & Denessen, 2006).

It was found that leadership has a large-magnitude, positive effect on organizational trust. This finding is supported by the suggestion that employees feel trust for all practices and policies of the organization for which they work (Lewicki, McAllister, & Bles, 1998), and support for this notion is found in the literature through the suggestion that managers' leadership behaviors affect trust in an organization, which is related to the assumption that all types of activities of the organization are, to a great extent, sincere and worthy of trust (Joseph & Winston, 2005; Lawal & Oguntuashe, 2012; Lewicki et al., 1998; Podsakoff, MacKenzie, & Bommer, 1996; Top, Tarcan, Tekingündüz, & Hikmet, 2013; Velez & Strom, 2012). Organizational trust is the sum of the trust of an employee towards his or her manager and organization (Nyhan & Marlowe, 1997; Podsakoff et al., 1996; Velez & Strom, 2012). Organizational trust is (1) a factor that deeply affects the relationship between the leader and employee and organizational achievement (Lewicki et al., 1998), (2) an important factor that affects the organization's long-term decisiveness and performance of its members (Cook & Wall, 1980), (3) an important role-player in the successful performance of human resources (Whitney, 1994) and (4) a factor that increases organizational learning and innovation and ensures communication (Dodgson, 1993). When such factors are evaluated as a whole, it can be understood that the impact of trust is of great importance for the actualization of the aims of an organization (Joseph & Winston, 2005; Lawal & Oguntuashe, 2012; Lewicki et al., 1998; Podsakoff et al., 1996; Top et al., 2013; Velez & Strom, 2012). In this context, the findings of the study are important in terms of employees' perceptions of trust being one of the fundamental factors subject to the effects of the leadership behaviors of managers.

The study showed that leadership has a positive impact on the organizational citizenship perceptions of teachers. Although this was not exactly a medium-magnitude impact, this result was to be expected: it was thought that leadership would have a positive impact on the perception of organizational citizenship (Roberson & Strickland, 2010). This finding shows that the organizational citizenship of employees, which is a concept based on behaviors displayed on a volunteer basis by the employee (Bateman & Organ, 1983; Organ, 1988), is shaped by leadership, along with important factors such as the scope of the work, socio-economic opportunities and individual traits (Greenberg & Baron, 2000). It should also be noted that for an employee to consider himself or herself to be a citizen of an

organization, personal and environmental factors are of importance, as are the leadership behaviors displayed by managers. Researchers have long been interested in how a leader's behaviors impact the work and behaviors of employees in the scope of organizational psychology (Roberson & Strickland, 2010). Past research has shown that leadership behaviors affect the meaning employees place on their work (Greenberg & Baron, 2000; Roberson & Strickland, 2010; Strickland et al., 2007). When employees find the work that they do to be meaningful, they develop positive behaviors and a positive attitude toward the organization, leading them to contribute to the success of the organization in all aspects. This positive attitude and behavior, known in the literature as "organizational citizenship," comprise perceptions that contribute to the organization's becoming more efficient and effective (Organ, 1988). In this context, the positive impact of school leadership on the organizational citizenship of teachers found by this study was also previously reported in other studies (Appelbaum et al., 2004; Bateman & Organ, 1983; Organ, 1988; Strickland et al., 2007; Shin, 2012; Walumbwa, Wu, & Orwa, 2008).

The results of the study have shown that leadership has a medium-magnitude, positive effect on organizational culture. The findings are supported by the related literature (Hoy & Miskel, 2010; Karadağ, 2009; Klatt & Hiebert, 2001). These findings show that to a great extent, the leadership behaviors of managers have an impact on the concept of organizational culture with respect to the values and beliefs of employees concerning the organization that sets the organization apart from other organizations (Bolman & Deal, 2008; Peters & Waterman, 1995; Schein, 1992). The study findings are congruent with the findings of past studies (Flores, 2004; Giritli, Yazıcı, Oraz, & Acar, 2013; Knutson, Miranda, & Washell, 2005; Tsui, Zhang, Wang, Xin, & Wu, 2006). Organizational culture is one of the critical components that increases the achievement and performance of employees within an organization (Balthazard, Cooke, & Potter, 2006; Frontiera, 2010). Another important component of culture consists of the attitudes and behaviors of managers (Bolman & Deal, 2008; Hoy & Miskel, 2010; Klatt & Hiebert, 2001; Peters & Waterman, 1995; Schein, 1992). Namely, it is the responsibility of managers to ensure that all networks work with consistency in the context of its large and small actions and that all aim to reach shared objectives and to create the impact required to reach these objectives (Karadağ, 2009). In addition, the findings of the study are important in that they can contribute to the discussion in the literature as to whether leaders influence culture or if culture has an impact on the leader.

A large-magnitude, positive effect of leadership was found to impact the organizational climate. This finding seems to parallel opinions that the leadership behaviors of managers have an effect on the organizational climate (Black, 2007; Kelley, Thornton, & Daugherty, 2005; Koene, Vogelaar, & Soeters, 2002; Tajasom & Ahmad, 2011; Varner, 2007; Wang & Rode, 2010), which can be defined as the sum of all factors that affect the behaviors of individuals within the organization and which are related to the general emotions and atmosphere of the organization, setting it apart from other organizations (Hoy, Tarter, & Kottkamp, 1991; Hoy & Miskel, 2010). The positive atmosphere of an organization ensures the increased

performance of its employees, supports morale and improves achievements (Bulach, Malone, & Castleman, 1995; Freiberg, 1998; Hoy et al., 1990). Heck (2000) and Goddard, Hoy, and Hoy (2000) have argued that there is a meaningful relationship between achievement and organizational climate. Consequently, it can be stated that an important factor in the success of an organization is its climate. Without a positive climate, neither an organized and functional organization nor a high degree of success can be established (Hoyle, English, & Steffy, 1985). The findings of the study are important in that they demonstrate the high-magnitude influences of leadership behaviors displayed by managers in the creation of organizational culture, which is of critical importance for the success of organizations.

The finding of the study that leadership has a positive effect on performance is supported in the literature (Friedkin & Slater, 1994; Imran, Zahoor, & Zaheer, 2012; Ishikawa, 2012; Jung, Moon, & Hahm, 2008; Lowe, Kroeck, & Sivasubramaniam, 1996; Rowold, 2011; Wang, Oh, Courtright, & Colbert, 2011). The results of the study concerning performance, a concept defined as the contribution an employee makes to the organization, showed that the leadership behaviors of managers affect performance. The perception of performance is a psychological need at the employee level, whereas it is a motivational need at the organizational level. Performance-related activities point to the current inadequacies of the employee and provide guidance to the employee that reform of his or her behaviors is required to make new progress. To improve the performance of each person separately contributes to an overall increase in the effectiveness of the organization (Bass, 1985). The positive impact of managers' leadership behaviors on each organizational output found in the study also indirectly predicts performance; hence, each organizational output is considered relative to the performance of the employee within the theoretical infrastructure for each (Bass, 1985; Curral & Epstein, 2003; Greenberg, 1987, 1990; Hoy & Miskel, 2010; Meyer & Allen, 1991; Organ, 1988; Spector, 1996). In this manner, the work is an important reference in assessing the performance of an employee in terms of the variables and findings reached.

The meta-analytic results of the study showed that school leadership has a high-magnitude, positive effect on teachers' perceptions of organizational justice. This result, as expressed by Adams (1965), is supported by the opinion that managers' or leaders' attitudes and behaviors affect the perceptions of justice of employees (Eberlin & Tatum, 2008; Cremer, Dijke, & Bos, 2007; Hoy & Tarter, 2004; Kale, 2013; Pillai, Scandura, & Williams, 1999).

To evaluate the findings of the study as a whole, the different data compiled from various sample groups and obtained with various testing tools were collapsed to calculate an average impact magnitude of different organizational outputs undertaken in the literature investigating the effect of leadership on organizational behavior. The meta-analysis study found that leadership had a small-magnitude effect on conflict management, a medium-magnitude effect on job satisfaction, organizational commitment, organizational culture, organizational citizenship and performance and a large-magnitude, positive effect on organizational trust, organizational climate, organizational health, organizational learning and organizational

justice. In contrast, it was found that leadership had a small-magnitude, negative effect on stress and burnout. In the meta-analysis conducted with data obtained from the research studies, the results of the research studies included in the study as a whole were found to be reliable, as evidenced by the narrow confidence intervals, and no finding suggested the existence of a distribution bias.

2 Limitations of the Study

This study was conducted based on current data obtained from original research studies. Possibly the biggest disadvantage of the study was that the data were based only on correlational studies. This feature introduces a potential methodological bias. The opinion that quantitative research methods may be more effective in explaining the nature of leadership and organizational outputs serves as the basis for the argument that the results of this study cannot sufficiently explain the causal effects of the results.

Despite the strategies developed to select the research studies subsequently included in the meta-analysis, it was not possible to access all of the research studies. The reason for this is twofold: (1) the ScienceDirect, ProQuest and EBSCO academic databases solely provide access to the full text of publications written in the English language—therefore, it was not possible to reach research studies written in other languages; and (2) all dissertations used in the study were from American and Canadian universities, thereby introducing the possibility of a cultural bias.

The correlational values from research studies that generally assessed constructive leadership skills and organizational outputs were included in the meta-analysis. The fact that studies of destructive leadership are not yet internationally common and that the number of studies are limited have an effect on this situation. Therefore, the meta-analytic studies were not designed to draw conclusions on destructive leadership and organizational outputs; moreover, destructive leadership on organizational outputs may have a higher degree of explanatory power. Thus, to include both constructive and destructive leadership and organizational outputs in a meta-analysis may provide more detailed information with which to explain concepts.

3 Suggestions

In light of the findings of the analyses carried out over the course of this study, the following suggestions can be made.

- Based on the positive effect of leadership on organizational outputs, necessary measures should be taken to encourage managers to adopt constructive leadership behaviors to reach organizational objectives.
- It was noted that many research studies compiled for this study concerning leadership and organizational outputs did not report the correlation coefficient (r). Researchers should report their findings in a way that is conducive to meta-analysis so that their research does not remain limited to their individual studies.
- In the study's moderator analysis of the leadership scales, the construct validity of the scales should be reviewed in a manner that considers the differences in impact among scales measuring the same types of leadership—especially the leadership scales.
- Future studies on the effects of leadership should be qualitative, not quantitative.

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