

A Team-Based Leadership Framework—The Interplay of Leadership Self-Efficacy, Power, Collaboration and Teamwork Processes Influencing Team Performance

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Abstract

This study identified a framework of team-based leadership facing the change of future requirements of agile organizations and new work and aims to clarify the underlying mechanisms and how they work together and under what conditions. Data were collected from leaders in three separate surveys characterized by various countries, first languages and different ethnicity. A total of 401 completed interviews were collected and the results were analyzed at the individual level. All variables were modeled in a path diagram and tested applying structural equation modeling. The results show that leadership self-efficacy is a key mechanism that let team-based leadership emerge. Leadership self-efficacy is related to personal power, collaboration, teamwork processes and team task performance, but there is no direct effect on team contextual performance. Personal power is correlated with team task performance. Positional power is interrelated with team contextual performance and personal power. Teamwork processes partially mediate the relation between leadership self-efficacy and team task performance as well as team contextual performance. The study findings identified that the leader role perception by teammates can affect personal power and that organizational politics, expressions of narcissists personal characteristics or cross-cultural context dependency can have an impact on positional power. Theoretical and practical implications of the results are discussed, together with limitations and recommendations for future research.

Keywords

Team-Based Leadership, Power, Collaboration, Leadership Self-Efficacy, Teamwork-Processes

1. Introduction

The impact of the COVID-19 pandemic beginning in 2020 disproves all those who argue that leadership does not matter. It has been shown that leadership can be the difference between “life and death” (Uhl-Bien, 2021). Political and business leaders have to deal with such unprecedented challenges in situations of ambiguity and disasters in a charismatic way and to contribute to the “public good” (Antonakis, 2021). Krstevska and Rizoska-Jovanovska (2021: p. 22) stated that these unprecedented times were a time of substantial change in the understanding of leadership and dictate the necessity that “...until the ‘I’ turns into the ‘WE’, we cannot talk about any leadership...”. This “WE”-oriented post-pandemic world requires teamwork processes that are a combination of in-person collaboration and virtual coordination with effective leadership and that go beyond traditional team leadership by driving information sharing, monitoring progress and, launching goals among teammates (Day, Riggio, Tan, & Conger, 2021; Hooijberg & Watkins, 2021).

However, various leadership researchers argued that the concept of leadership is still poorly understood (Dinh et al., 2014; Riggio, 2018) and the prediction of others that our understanding of leadership will change fundamentally has become true today (Lord, Day, Zaccaro, Avolio, & Eagly, 2017).

Today, leadership research focuses more on team-based leadership concepts, dealing with the new requirements of new work and agile organizations (Lee, 2021; Salas, Dinh, & Reyes, 2019; van Knippenberg, 2017).

1.1. Basis for This Study—A Critical Realist View on the Leadership Phenomena

In a previous conceptual study, the author as a critical realist researcher investigated the causal mechanisms of leadership in general and how they work, exploring whether they had been activated and under what conditions (Krauter, 2020). A main argument of critical realism is the so called epistemic fallacy (Bhaskar, 2013) which means that the ontology of leadership cannot be reduced to epistemology, because experience of leadership alone is uncertain about the “real” reality and human perception of leadership is biased, fallible and influenced by theory-laden thoughts (Varaki & Earl, 2005). Causality in this sense, try to explain how and why the phenomena of leadership occur (Wynn & Williams, 2012) and not to predict it, because of its unique context and the general openness of social systems such as organizations (Bygstad & Munkvold, 2011; Danermark, 2002; Sayer, 2000: p. 14).

Krauter (2020) argued that leadership could be best understood as the interaction between the mechanism of power, along with human agency and collaborative agency, within specific structural and contextual conditions.

Based on this conceptual study (Krauter, 2020), a key question remains: what is the empirical evidence about the interaction between power, human agency and collaborative agency as mechanisms explaining team-based leadership and

how they work? To answer the key question, it is necessary to identify measurable variables for the main categories power, human agency, collaborative agency and team-based leadership.

The purpose of this study is to identify such measurable variables and investigate the interplay between them.

1.2. Structure of the Study

This study consists of the following sections: literature review, research hypotheses and hypothesized path model, method, results and discussion. The literature review discusses existing research that deals with the investigated phenomena of team-based leadership. The section research hypotheses and hypothesized path model provides a quantitative oriented conceptual framework for hypothesis testing to gain a better understanding of the underlying mechanisms of team-based leadership. The method section presents the research methodology in detail and the result section presents the outcome of the data analysis. The final section of discussion provides the data final interpretation, the contribution to theory and the managerial implications derived from this study. It acknowledges the research limitations and suggests future research considerations.

2. Literature Review

The next section provides a brief narrative literature review of the applied concepts of leadership, power bases, human agency, collaborative agency, the mediating concept of teamwork processes and the outcome variables team task performance as well as team contextual performance, for a better understanding of a team-based leadership framework.

2.1. Leadership—The Move from Hierarchy to Team-Based

Among many other definitions (Rost, 1991) leadership can be defined as “a process whereby an individual influences a group of individuals to achieve a common goal” (Northouse, 2015: p. 10). In the earlier context of hierarchical organizations, transformational leadership is an empirically tested and well-known leadership style (Northouse, 2015) and consists of the following dimensions: 1) idealized influence (charisma), 2) inspiration, 3) intellectual stimulation, and 4) individualized consideration with the aim to move teammates beyond self-interests (Bernard M. Bass, 1999; Bernard M. Bass & Avolio, 1993). However, transformational leadership has several critical disadvantages regarding current requirements and Yukl and Mahsud (2010: p. 83) argued that transformational leadership “...fails to capture the complexity of leadership processes in modern organizations.” Anticipating the modern organizations requirements Zaccaro, Rittman, and Marks (2001) stated that as numerous organizations change from a traditional hierarchical organization to a more team-based one, team processes have a progressively vital influence on leadership and organizational effective-

ness (Zaccaro et al., 2001). Team-based Leadership is grounded on tolerance, the allowance of divergent views and constructive criticism. It rigorously creates and maintains a culture for debating ideas and builds a platform of creativity. It is a leadership concept in which the decision-making processes are decentralized and shared by all teammates (de Cruz, 2019; Pearce & Manz, 2005).

2.2. Power Bases

Leadership researchers have proposed an intrinsic interrelation between power and leadership (Janda, 1960; Ross, Matteson, & Exposito, 2014; Zogjani & Llaci, 2014). In this study, power will be represented by the concept of social power bases developed by French, Raven, and Cartwright (1959). This concept is mainly built on social power theory and therefore defines power as the potential ability (potentiality for inducing forces) of person A to have an influence on person B within a particular context (French, Raven, & Cartwright, 1959; French Jr, 1956; Graumann, 1986). French and Raven's taxonomy consists of the leader's ability to influence others' behaviour, based on the hierarchical position (legitimate power), by supporting them to achieve what they want (reward power), by the use of punishment or threat (coercive power), through the extent of her/his knowledge, experience and skills (expert power) and, because of their admiration, respect or identification with the leader (referent power) (French, Raven, & Cartwright, 1959). Advancing the French and Raven taxonomy, Yukl and Falbe (1991) added three sources of power (information, persuasiveness and charisma) and divided all eight sources of power into two categories. Position power contains the legitimate, reward, coercive, information power sources and personal power consists of expert, referent, persuasive and, charisma power (Yukl & Falbe, 1991). They argue that the possession of information other people need to do their work (information power) has been discussed in the theoretical literature over a long period of time, but empirical research seems to be rare, except for the work of Pettigrew (1972); (Yukl & Falbe, 1991). The other two power sources are persuasiveness and charisma. There is evidence that rational persuasion is related to managerial effectiveness (Yukl & Falbe, 1991) regarding its purpose to be a key influence technique (Kipnis, Schmidt, & Wilkinson, 1980). Charisma, as the perception by others to be amazing and trustworthy to lead a team successfully, has a long history in leadership research (House, 1977).

The responsibility of the leader for the consequences of intentionally acting or not acting, evaluated by the criterion of morality, is a main link between power and human agency (Hayward & Lukes, 2008). Within the concept of leadership-as-practice, power and collaborative agency are also interdependent (Raelin, 2020).

2.3. Leadership Self-Efficacy Representing Human Agency

According to Bandura (2006) human agency has four properties: 1) the inten-

tional property including planning strategies and actions; 2) the forethought property consisting of goal orientation and future anticipation; 3) property of self-reactiveness with the purpose of acting and behavioural regulation; 4) the self-reflectiveness property including self-awareness regarding own self-efficacy (Bandura, 2006). Bandura (1982) states the significance of self-efficacy mechanism in human agency because in empirical studies it could be shown that the higher the level of induced self-efficacy, the higher the performance achievements and the lower the emotional excitement. Other studies identified a wide explanatory power of perceived self-efficacy in supporting changes in coping behaviour regarding physiological stress reactions, hopelessness, failure experiences, and resignation (Bandura, 1982, 2018).

Leadership self-efficacy has been recognized as the key cognitive factor regulating leader performance in a complex and volatile environment (McCormick, 2001). For example, in high change contexts, self-efficacy emerged as a more outstanding and instrumental resource leading to positive reactions (Bayraktar & Jiménez, 2020). Also, reliable evidence shows the positive relation between a) leadership self-efficacy and leaders' individual performance and their teams' collective efficacy and performance (Paglis, 2010), b) creative self-efficacy and power distance orientation (Rauniyar, Ding, & Rauniyar, 2017), c) leadership self-efficacy positively moderates the relationships between autocratic leadership and team reflexivity (Lin, Liu, Joe, Chen, & Tsai, 2022), d) empowering leadership styles significantly relates to job performance through self-efficacy (Widianto, 2021), e) collective (team) efficacy as a significant mediator between leadership self-efficacy and group performance (Dwyer, 2019). Bandura (1977) perceived self-efficacy as people's beliefs in their capabilities to produce given attainments and is the most pervasive among the mechanisms of agency. Evidence shows that a high level of agency in the form of intentionally exerting positive influence as well as confidence is necessary for effective leadership (Hannah, Avolio, Luthans, & Harms, 2008) and that self-efficacy is the most powerful self-regulatory mechanism in affecting behaviours (Bobbio & Manganelli, 2009). In contrast, exaggerated self-efficacy could lead to a specific kind of overconfidence with the effect that a leader fails (Ho, Huang, Lin, & Yen, 2016; Loeb, 2016; Moores & Chang, 2009).

Leadership Self-Efficacy (LSE) can be defined as a specific form of efficacy beliefs related to leadership behaviours and so it deals with individual self-efficacy beliefs to successfully accomplish leadership role in groups (Bobbio & Manganelli, 2009). For Bobbio and Manganelli (2009), the concept of leadership self-efficacy is built on six sub-dimensions: 1) starting and leading change processes in groups, 2) choosing effective followers and delegating responsibilities, 3) managing interpersonal relationships within the group, 4) showing self-awareness and self-confidence, 5) motivating people, 6) gaining consensus of group members. Similarly, leadership self-efficacy was investigated in a military context with the presence of perceived threat to life. The result showed that it was supported by

leader self-control efficacy (to maintain cognitive and emotional control) and leader assertiveness efficacy (the ability to make immediate and correct decisions in leading others) (Bergman, Gustafsson-Sendén, & Berntson, 2021; Bergman, Sendén, & Berntson, 2019).

2.4. Collaboration Representing Collaborative Agency

Collaborative agency is a phenomenon of togetherness for the advancement of a creative meeting as an “horizon of possibility” in which teammates work towards a joint goal (Lemos, 2017; Miettinen, 2010, 2013; Van Oers & Hännikäinen, 2001). Leadership can be associated with an agentic process using collaboration and teamwork processes (Hennessy, 2020; Murray, 2017; Nykänen, 2019; Raelin, 2016; Simpson, 2016). This agentic process is based on intersubjectivity, which describes a process of sharing emotional, volitional, intentional and cognitive states between teammates (Crossley, 1996; Zlatev, Racine, Sinha, & Itkonen, 2008) with the purpose of building a ‘we-centric’ shared space (Gallese, 2003).

Collaborative agency can be measured by the concept of collaboration (Kuziemsky & Cornett, 2013; Raelin, 2016). Therefore, Thomson, Perry, and Miller (2009) defined collaboration as a multidimensional, variable construct constituted by five key dimensions: 1) governance 2) administration that has a structural nature, 3) mutuality 4) norms that can be categorized as social capital dimensions 5) organizational autonomy that involves the agency perspective (Thomson et al., 2009). In particular, collaboration is a common effort concerning a team-goal, whether the teammates feel happy with this goal or have reason to achieve it (Briggs, Kolfshoten, de Vreede, & Douglas, 2006). Lai (2011) pointed out that collaboration is the “mutual engagement of participants in a coordinated effort to solve a problem together”, and it is categorized by interdependence, shared goals, a high degree of negotiation, interactivity, and symmetry of structure. Similarly, Henneman, Lee, and Cohen (1995) outlined that collaboration demands that co-workers contribute actively to a shared goal, take responsibility for results and show themselves as team-members. Collaboration is interrelated with teamwork processes (Disch, 2012; Driskell, Salas, & Driskell, 2018; Tseng, Ku, Wang, & Sun, 2009). The study of Tseng et al. (2009) shows, that collaboration factors can explain 63% of the variance in online teamwork processes satisfaction.

2.5. Teamwork Processes Representing Collaboration Agency

Teamwork processes are defined as a set of phases with people working together to achieve something beyond the capabilities of individuals working alone (Marks, Mathieu, & Zaccaro, 2001). Such activities within teamwork processes can be divided into three phases and ten sub-processes.

The transition phase describes a period of time when teams focus on evaluation and/or planning activities to guide their achievement of a team goal. Sub-

processes of the transition phase are 1) mission analysis, 2) goal specification 3) strategy formulation (Marks et al., 2001). Within the action phase, teams handle activities leading directly to goal accomplishment using the following sub-processes: 4) monitoring progress toward goals, 5) systems monitoring, 6) team monitoring and backup responses, 7) coordination activities. Finally, the sub-dimensions of (8) conflict management, 9) motivating/confidence building, 10) affect management, represent the phase of interpersonal processes which are expected to appear during transition and action phases at different times with various issues (Marks et al., 2001). Similarly, Salas, Shuffler, Thayer, Bedwell, and Lazzara (2015) have circumscribed teamwork processes as a configuration of dynamic, adaptive, and episodic processes that incorporate shared behaviours (i.e., what teammates do), cognitions (i.e., what teammates think or know) and, attitudes (i.e., what teammates feel or believe) while they interact toward a shared goal (Salas et al., 2015). Salas et al. (2015) outlined that teamwork processes seem to be a necessary condition for effective team performance as they explain how tasks and objectives have to be accomplished within a specific team context.

2.6. Team Performance Representing the Outcome of Team-Based Leadership

Team performance is an emergent phenomenon as a result of an aim-directed process whereby teammates apply shared resources to show taskwork and teamwork processes to create outcomes (Klein & Kozlowski, 2000; Stagl et al., 2007). Various researchers have identified team performance as bi-dimensional, conceptualized by task performance and conceptual performance (Morgan Jr, Salas, & Glickman, 1993; Morgeson, Reider, & Campion, 2005). This distinction has been used in this study for empirical measurement.

2.6.1. Team Task Performance

Task performance consists of actions that are properly known as part of the task, maintenance of the organization's technical core, and directly impacting organizational goal achievement (Morgeson et al., 2005). In this study, team task performance is theorized by group task performance (Conger, Kanungo, & Menon, 2000) measured by five items with an acceptable Cronbach's alpha level (ranging from 0.70 to 0.95) of 0.85 as an index of reliability (Tavakol & Dennick, 2011). Regarding the impact of task performance on organizational goal accomplishment such as productivity (Bass, 1982; Darisipudi, 2006; Steiner, 1972; Zawawi & Nasurdin, 2020), a second source for item creation was the concept of organizational performance expressed by a reverse articulation of "Productivity of employees is much lower than industry average" (Hassan Nasir, 2021; Hernaus, Škerlavaj, & Dimovski, 2008).

2.6.2. Team Contextual Performance

Jeffrey A. LePine, Hanson, Borman, and Motowidlo (2000) suggest that contextual performance as a behaviour that improves the social, organizational, and

psychological environment is related to teamwork processes (Jeffrey A. LePine et al., 2000). It takes into account a variety of facilitating and cooperating elements of organizational citizenship behaviour (Jeffrey A. LePine, Erez, & Johnson, 2002; Organ, 1997; Podsakoff, Ahearne, & MacKenzie, 1997) and prosocial organizational behaviour (Brief & Motowidlo, 1986) to build an environment which maintains the organization's technical core (Motowidlo & Van Scotter, 1994). Similar to the conception of Motowidlo and Van Scotter (1994), in this study team contextual performance is created from three perspectives 1) commitment (Christian, Garza, & Slaughter, 2011; Vandenberghe, Bentein, & Stinglhamber, 2004), 2) engagement/OCB (Christian et al., 2011), 3) absenteeism (Reilly & Aronson, 2009).

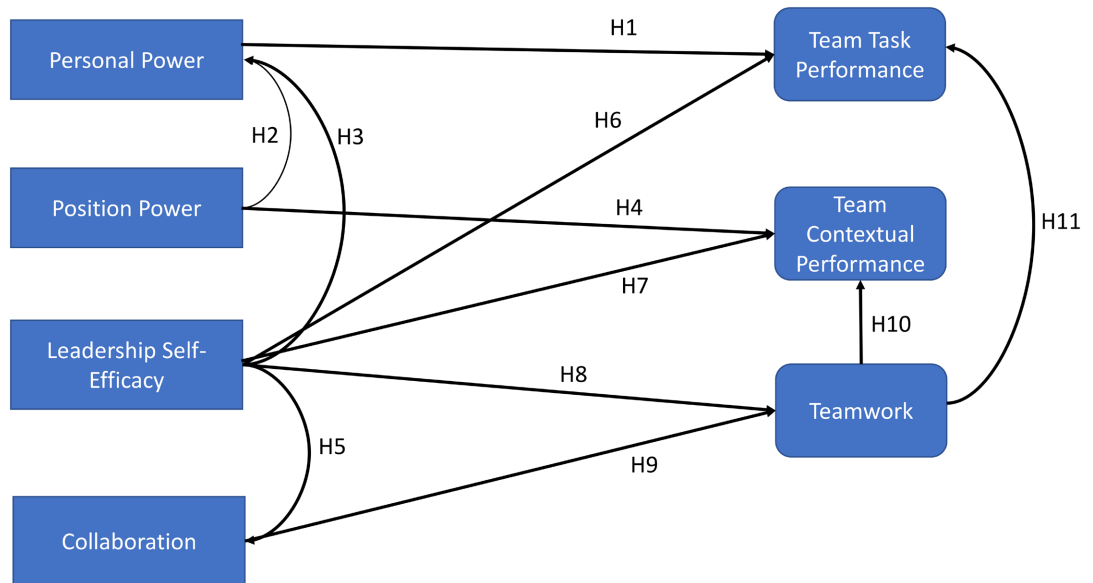
Team performance is significantly affected by leadership (Yangchun, 2014; Zaccaro & Klimoski, 2002; Zaccaro et al., 2001). The impact of leadership to effective team performance relies on the extent to which team leaders help members achieve a common goal, where team-effort achieves more than the sum of the particular abilities of each teammate (Zaccaro et al., 2001). Similarly, Day, Gronn, and Salas (2004) show evidence of leadership as a contribution to team performance (Day et al., 2004).

2.7. Summary

In sum, it can be argued that the identified variables personal and positional power bases (power), leadership self-efficacy (human agency), collaboration and teamwork-processes (collaboration) as well as team task performance and team contextual performance (team performance) are able to represent the main categories power, human agency, collaborative agency and team performance of the conceptual framework (Krauter, 2020). On this basis research hypotheses and a hypothesized path model can be designed.

3. Research Hypotheses and Hypothesized Path Model

On the fundament of the mentioned team-based leadership framework, a path analytic model is presented, as outlined in **Figure 1**. In this model, position power affects personal power and leadership self-efficacy influences position power, personal power, as well as collaboration. Furthermore, personal power, position power, and leadership self-efficacy are afterwards connected to two perceptual outcome variables: team task performance and team contextual performance. Additionally, leadership self-efficacy and collaboration are linked to teamwork processes. Two mediation hypotheses were included to test teamwork processes as a mediator regarding the relations between leadership self-efficacy and team task performance, as well as team contextual performance. The aim of this was to better understand the underlying processes. Hereby, the relation between self-efficacy and teamwork processes is mediated by collaboration. Control variables 1) age, 2) gender 3) leadership experience were included in the path analytic model, but to maintain a better overview they not represented in the



Source: the author.

Figure 1. Hypothesized research model without control variables.

hypothesized research model.

Correspondingly, the hypotheses H1 to H13 are justified as follows:

3.1. H1: Personal Power -> Team Task Performance

Strong empirical evidence shows that the application of personal power is the most effective regarding performance. For example, [Podsakoff and Schriesheim \(1985\)](#) argued that personal power (expert and referent power) are positively connected to teammate performance. Similarly, in earlier research, [Student \(1968\)](#) found that referent power and expert power were both related to production performance. Rational persuasion as a dimension of personal power is associated with managerial effectiveness ([Yukl & Falbe, 1991](#)) regarding its purpose to be a key influence technique ([Kipnis et al., 1980](#)). Also, [Tost, Gino, and Larrick \(2013\)](#) stated that the psychological effect of power (personal power) on leaders' behaviour can affect team performance in a negative way as verbal dominance and diminishing communication deteriorate team performance ([Cummings, 2017; Tost et al., 2013](#)). Or it can also affect it in a positive way when personal power is labelled with high organizational effectiveness, which should improve valuable teammate outcomes ([Haller, Fischer, & Frey, 2018](#)). In contrast, the offered studies might be criticized as they do not all explicitly discuss the relation between personal power and team task performance. Some investigated the relation regarding performance and outcome in a more general way ([Nikoloski, 2015; Reiley & Jacobs, 2019; Wageman & Mannix, 1998](#)). However, it can be argued that the study findings supporting the hypothesis within the long time frame of investigations (see ([Student, 1968](#))) and coming from different perspectives and contexts show strong empirical evidence. Thus, the following hypothesis can be formulated: H1: The higher the level of personal power, the higher the

level of Team Task Performance.

3.2. H2: Position Power -> Personal Power

As shown in **Table 1** a different kind of relation between the dimensions of positional power and the dimensions of personal power can be identified in various studies.

However, the identified relations are diverse and inconsistent. For example, the study of **Munduate and Dorado (1998)** is contextualized on organizational change and the occurrence of reward power is connected with application of expert power. Other studies have identified the relation between the strength of reward and coercive power bases and expert and legitimate power bases, but do not answer precisely whether the relation is a positive or negative one (**Carson et al., 1993; Gaski, 1986; Rahim & Psenicka, 1996; Rahim, 2009**). In contrast, the study of **Aguinis et al. (1994)** proved that coercive power reduces referent power and coercive and reward power negatively affect expert power. Regarding these findings, **Lunenburg (2012)** proposed that expert power itself can be the basis of legitimate power, which shows the multifaceted interrelations between the positional power and personal power. It might be argued similarly to **Lunenburg (2012: p. 1)** that “Sometimes leaders use the sources of power together in varying combinations depending on the situation.” But, this assumption should be advanced by the circumstance that the usage of different power bases in particular situations also depends on the cross-cultural context of leaders and teammates, as shown by **Mittal and Elias (2016)**.

Regarding the categorization of power in soft and harsh power, based on **Raven (1992)** taxonomy, they argue that soft power (similar to personal power)

Table 1. Relation between the dimensions of positional power and the dimensions of personal power.

Positional power	Relation	Personal power	Source
reward coercive	affect the strength of	Expert legitimate	(Carson, Carson, & Roe, 1993; Gaski, 1986; Rahim & Psenicka, 1996; Rahim, 2009)
reward (together with expert power)	positively associated	referent	(Munduate & Dorado, 1998)
coercive	reduce	referent power	(Aguinis, Nesler, Quigley, & Tedeschi, 1994)
coercive reward	reduce	expert	(Aguinis et al., 1994)
Legitimate	are likely to have (reverse) (people accept expertise as a basis for authority)	expert	(Lunenburg, 2012)

seems to be more often activated in cultural contexts that have a collectivist, long-term view, but low on uncertainty avoidance and power distance. Conversely, harsh power (similar to positional power) seems to be more likely to be activated in cultures that are short-term oriented, tight, and high in power distance (Dirik & Eryilmaz, 2018; Mittal & Elias, 2016).

In summary, the expected influence of positional power on personal power is not fully supported by the existing study results. It can be argued that when leaders have a high level of reward power, it has a positive impact on expert and referent power. However, when leaders show a high level of coercive power this can reduce expert and referent power levels. Both relations might be influenced by multifaceted interrelations and cross-cultural context dependency. Overall, it can therefore be hypothesised as follows: H2: The higher the level of position power, the higher the level of personal power.

3.3. H3: Leadership Self-Efficacy -> Personal Power

One study provided evidence that leaders with high self-efficacy are more likely to use personal power, such as expert, informational, and referent power, when carrying out their role (Lyons & Murphy, 1994), others referenced this source in similar contexts (Yost, Conrad, Watkins, Parr, & Gordon, 2019). Investigating the sub-dimension of leadership self-efficacy regarding the relation to personal power, there are studies indicating the hypothesized relationship. For example, Demont (2017) proposed that female leaders' self-awareness as a sub-dimension of leadership self-efficacy increased social power overall, but is most strongly correlated with information power (positional power) (Demont, 2017).

Studying the context of new team-leaders' role perception by teammates, Sauer (2011) argued that for new team-leaders within a high-status leader role might be better off relying on their personal power, because teammates perceive them as more effective applying a participative style mediated by self-confidence (a part of leadership self-efficacy). Low-status leaders can improve their level of personal power by drawing on whatever positional power they hold and are viewed as more effective, when they use a directive leadership style. This is because a perception of "taking charge" can outweigh the low-status role level at the beginning (Sauer, 2011). Hereby, self-confidence embodies the new leader's degree of perceived likelihood of success in exercising power (Cartwright, 1965; McClelland, 1985; Sauer, 2011). Teammates view leaders' self-confidence as a signal of self-efficacy, demonstrating willingness to show leadership responsibilities (Gist & Mitchell, 1992). Based on the study result, Sauer (2011) argued that teammates will respond more positively to leaders' effectiveness if they merely perceive the leader to be self-confident, whether the leader truly feels self-confident or is motivated to apply power. The basis of this assumption lies on the findings of Mowday (1979), theorizing that self-confidence is a vital factor of power motivation predicting leaders' willingness to practice power in decision situations, and self-awareness (also a part of leadership self-efficacy) supports

new leader to understand the current status of the leader role and choosing fitting leadership behaviours (Atwater & Yammarino, 1992; Sauer, 2011).

Arguably, the leader role and its perception or expectation by teammates are relevant conditional factors for the hypothesized relationship between leadership self-efficacy and personal power. Thus, the following hypothesis can be formulated: H3: The higher the level of leadership self-efficacy, the higher the level of personal power.

3.4. H4: Position Power -> Team Contextual Performance

The current state of research claims that the lower the level of position power, the higher the level of team contextual performance (Podsakoff & Schriesheim, 1985; Reiley & Jacobs, 2019; Vigoda-Gadot, 2007). In contrast, the findings of the correlation analysis applied by Dirik and Eryilmaz (2018) show evidence that there is a synchronized increase of contextual performance along with perceptions of leaders' positional power bases, in the case of a cultural context that is tight, short-term oriented and high in power distance and uncertainty avoidance (Dirik & Eryilmaz, 2018; Mittal & Elias, 2016). Such cultural contexts can be found in Turkey and South Korea with the result that the teammates accept and like the positional power bases of their leaders (Dirik & Eryilmaz, 2018). Therefore, the following hypothesis can be made: H4: The lower the level of position power, the higher the level of team contextual performance.

3.5. H5: Leadership Self-Efficacy -> Collaboration

Empirical findings from Pendley (2021) show that there is a strong positive relation between school social workers' leadership self-efficacy and the perceived interdisciplinary collaboration. It may be argued that a social worker with enlarged self-efficacy is placed to provide aspects of transformational leadership within the context of interdisciplinary collaboration (Bobbio & Manganeli, 2009; Ng, Ang, & Chan, 2008). Other research results confirm that teacher self-efficacy is positively associated with collaboration (Sehgal, Nambudiri, & Mishra, 2017). Chiochio, Lebel, and Dubé (2016) found out that for effective collaboration to happen, it is necessary for teammates to believe in their ability to provide what others need to perform their job well (a part of leadership self-efficacy). Hereby, informational role self-efficacy predicts proactive collaboration behaviours by common goals, coordination and intra-team trust (Chiochio et al., 2016). Successful scientific collaborations depend on strong leaders with a high level of self-awareness (a part of leadership self-efficacy) (Bennett & Gadlin, 2012). Similarly, Keogh and Sonenberg (2006) argued that leaders need to have a high level of self-awareness regarding their own role and responsibilities and be aware of their relationships with others in the team with the aim to work in a self-organized collaborative team to deal well with critical incidents, such as a bush-fire. Connected to the relation between leadership self-efficacy and collaboration, Hoyt, Murphy, Halverson, & Watson (2003), Murphy, Reichard, & Johnson (2008)

showed that leadership self-efficacy can lead to increased collective self-efficacy of followers as a basis of collaboration. Collective self-efficacy can affect team goal setting, team effort, and team performance (Bandura, 1998, 2000). Similarly, Salanova, Rodríguez-Sánchez, Schaufeli, and Cifre (2014) showed within an empirical study of teams that collective efficacy beliefs predict collective flow over time. Overall, the following hypothesis can be stated: H5: The higher the level of leadership self-efficacy, the higher the level of collaboration.

3.6. H6: Leadership Self-Efficacy -> Team Task Performance

In general, there is evidence that self-efficacy positively influences task performance (Avey, Palanski, & Walumbwa, 2011; Bandura & Locke, 2003; Koonce, 2012; Kozlowski, Watola, Jensen, Kim, & Botero, 2009; Krauter, 2020; Locke & Latham, 2006). In particular, studies propose that leadership self-efficacy is positively related to performance indicators (Dwyer, 2019; Katz-Navon & Erez, 2005; Lev & Koslowsky, 2009; Paglis, 2010). Iroegbu (2015) reported that self-efficacy is significantly and positively correlated with task performance. Various other studies demonstrated that self-efficacy improves performance within several organizational contexts (Gist & Mitchell, 1992). Similarly, Lennings (1994) proposes that self-efficacy predicts individual behaviour (performance) across situations and Eden and Zuk (1995: p. 629) stated that self-efficacy is the ability to effect "...requisite performances in achievement situations". Also, Eden (1992) argued that leadership can enhance self-efficacy which leads to increased performance. Regarding team task performance, a meta-analysis showed that self-efficacy as a function of self-beliefs to accomplish a task can lead to increased performance and productivity (Cherian & Jacob, 2013). Overall, the following can therefore be hypothesised: H6: The higher the level of leadership self-efficacy, the higher the level of team task performance.

3.7. H7: Leadership Self-Efficacy -> Team Contextual Performance

Various research results have a distinct assumption that self-efficacy is significantly and positively correlated with contextual performance (Bhatti, Alshagawi, & Juhari, 2018; Iroegbu, 2015; Kappagoda, 2018). Other study results offer a different picture that self-efficacy seems to be more closely correlated with task than with contextual performance (Jawahar, Meurs, Ferris, & Hochwarter, 2008). However, the following hypothesis H7 can be outlined: H7: The higher the level of leadership self-efficacy, the higher the level of team contextual performance.

3.8. H8: Leadership Self-Efficacy -> Teamwork Processes

Various study results support the positive relation between leadership self-efficacy and teamwork processes ($B = 0.631$ with $p = 0.001$) (Darma, 2021; Khan, Shahzad, Karim, & Amin, 2015). Anderson, Krajewski, Goffin, and Jackson (2008) stated that managers with high leadership self-efficacy trusted in their ability to

deliver guidance; they developed a sense of teamwork processes. Self-efficacy is valid to support the functioning of management teams (De Jong, Bouhuys, & Barnhoorn, 1999). Overall, the following can therefore be hypothesised: H8: The higher the level of leadership self-efficacy, the higher the level of teamwork processes.

3.9. H9: Collaboration -> Teamwork Processes

The positive relation between collaboration and teamwork processes can be indicated by various study results. Hereby, collaboration (Kabanoff & O'Brien, 1979; Lai, 2011) positively influences teamwork processes as codependent acts based on cognitive and behavioural patterns to achieve collective goals (Chiocchio, Grenier, O'Neill, Savaria, & Willms, 2012; Driskell et al., 2018; Marks et al., 2001). Inter-professional collaboration seems to be a good way to influence working together within multiple settings in different ways (Reeves, Xyrichis, & Zwarenstein, 2018; Schot, Tummers, & Noordegraaf, 2020). Collaborative communities encourage teammates to continually apply their unique talents to team projects and mobilize their expertise in flexible, highly manageable team-work efforts, because they become motivated by a collective purpose (Prusak, 2011), as a possible result of collaborative agency. Conversely, collaborative learning (team learning behaviours) as the creation of mutually shared cognition is dependent on interpersonal context (expression of collaboration) and the engagement of teammates and does not happen just by pushing people together (Van den Bossche, Gijsselaers, Segers, & Kirschner, 2006). Thus, the following hypothesis can be formulated: H9: The higher the level of collaboration, the higher the level of teamwork processes.

3.10. H10: Teamwork Processes -> Team Task Performance

In particular, Jeffery A. LePine, Piccolo, Jackson, Mathieu, and Saul (2008) showed that teamwork processes are positively associated with team performance in complex relations. Baker and Salas (1992) also investigated the mutual relations between teamwork processes and team task performance. Specifically, team-level emotional processes and skills are positively related to team task performance (Troth, Jordan, Lawrence, & Tse, 2012). In a more general view, Hoegl and Parboteeah (2003) showed that the quality of teamwork processes positively influences the performance of goal setting in team projects whereby goal setting is directly related to both effectiveness and efficiency (Hoegl & Parboteeah, 2003) as expressions of team task performance. Teammates demonstrating greater proficiency of teamwork processes knowledge exhibit greater task proficiency (Hirschfeld, Jordan, Feild, Giles, & Armenakis, 2006). Jeffery A. LePine et al. (2008) showed that teamwork processes are positively associated with team performance in complex relations. Overall, the following can therefore be hypothesised: H10: The higher the level of teamwork processes, the higher the level of team task performance.

3.11. H11: Teamwork Processes -> Team Contextual Performance

Team contextual performance and teamwork processes seem to be interdependent by influencing organization's social and psychological environment with for example teammates' helping behaviour and other reflective behaviour (Ahmad Zawawi, 2020). Hereby, team contextual performance frequently echoes teamwork processes properties such cooperation, communication, team values, adaptability, and coordination (Ahmad Zawawi, 2020; McIntyre & Salas, 1995). Conversely, teams expressing a high level of contextual performance behaviours, might be able to optimize their capability for teamwork processes (Jeffrey A. LePine et al., 2000). Jeffrey A. LePine et al. (2000) also discussed similarities between contextual performance and teamwork processes because both concepts pay attention to behaviours creating a social and emotional context (Jordan, 2000) regardless of the taskwork. Overall, the following hypothesis can be stated: H11: The higher the level of teamwork processes, the higher the level of Team Contextual Performance.

3.12. H12 and H13: Mediation Hypotheses

Hypotheses H6 and H7 outline the direct effect of leadership self-efficacy to the outcome variables of team task performance and team contextual performance. As demonstrated in **Figure 1**, the hypotheses H10 and H11 cover the direct effect of teamwork processes to the outcome variables. Therefore, it can be hypothesized that teamwork processes mediate the relationship between leadership self-efficacy and the outcome variables of team task performance and team contextual performance. Hence, to create a mediation hypothesis it is necessary that all paths of the related variables should be included. Therefore, another mediation relation should be taken into consideration. Collaboration might be a mediator for the relation between leadership self-efficacy and teamwork processes.

Existing literature provides evidence that both 1) collaboration and 2) teamwork processes are investigated as mediator in relevant contexts of team-based leadership.

In several studies, collaboration has been investigated as a mediator in a leadership context. For example, Ismail, Kanesan, and Muhammad (2018) found out that teacher collaboration can be a mediator between the strategic leadership and teaching quality in schools. Others have identified member collaboration as the mediator explaining the effect of leader centrality on team performance, as moderated by team size (Yuan & Van Knippenberg, 2021) and team collaboration mediate the relationship between dispersion and team performance (Anh, Cruzes, & Conradi, 2012). Li and Hallinger (2015) tested the mediating effect of collaboration between principal leadership and teacher professional learning in Hong Kong primary schools.

In general, studies have given evidence to the mediating role of teamwork processes in various leadership and team-based contexts. Teamwork processes were identified as a partial mediator of work demands and burnout relationship

(Mijakoski et al., 2015) and also mediate the effect between service quality improvement (education and training) and professionalism at the Makassar Main Harbourmaster Office (Achmat et al., 2021). Another study proposed the effect of a no-blame culture on team effectiveness mediated by teamwork processes (Koolwijk, van Oel, & Gaviria Moreno, 2020).

Based on their work theorizing that cognitive states deliver a fundament for teamwork processes, Salas, Sims, and Burke (2005) suggested that teamwork processes mediate between cognitive states and team effectiveness. Hereby the study findings show that teamwork processes mediate the relationship between emergent states and team performance (Littlepage & Wertheimer, 2017). Others found that project managers' leadership style, teamwork processes, and project performance are highly correlated and teamwork processes partially mediate the relationships between leadership style and project performance (Yang & Chen, 2010).

Overall, the following hypotheses can be stated:

H12: The relation of leadership self-efficacy and teamwork processes is mediated by collaboration. Teamwork processes mediates the relationship between leadership self-efficacy and team contextual performance.

H13: The relation of leadership self-efficacy and teamwork processes is mediated by collaboration. Teamwork processes mediates the relationship between leadership self-efficacy and team task performance.

4. Method

The framework was analyzed through quantitatively analysis. The applied quantitative method highlights objective measurements and the statistical analysis of data collected through focusing on gathering numerical data across groups of people and to explain a particular phenomenon, here team-based leadership. In particular, a structural equation modelling (SEM), named covariance-based SEM technique was applied to test the specific hypotheses based on conceptual framework and estimate the model fit by comparing the covariance structure fit of the model under study with an appropriate possible fit covariance structure (Byrne, 2013; Gefen, Straub, & Boudreau, 2000).

Data gathering conducted as three differentiated self-administered online surveys of people in active leader role positions with various level of leadership experience has been applied: 1) place: Germany with German as a first language, 2) place: United States and United Kingdom with English as a first language and, 3) place: United States and United Kingdom with different ethnicity and English not as a first language. The aim was to obtain an appropriately large database to statistically control for possible common-method bias (MacKenzie & Podsakoff, 2012).

4.1. Participants and Procedures

Leaders make up the investigated population and are the unit of analysis for this

part of the study (Creswell, 1994; Pinsonneault & Kraemer, 1993). Knowledgeable key informants were people actively working as leaders (leader role and management experience) within different hierarchical levels of companies embedded in an international environment during the time period of the study (Eastwood, Jalaludin, & Kemp, 2014; Mitchell, 1994).

This study is a cross-sectional survey conducted as three differentiated self-administered online surveys. The first survey was conducted via the network platform, LinkedIn and as a snowball sampling using network data from the consulting company SYNK GROUP, Germany, to reach German leaders. Two surveys were conducted via an online platform managed by Prolific Academic Ltd., focusing on leaders) with English as a first language (survey 2) and English not as a first language (survey 3). Here, participants were paid a small sum for their participation via Prolific Academic and provided informed consent.

The introduction to the survey informed all participants about regularities of data security and that participation in the questionnaire was optional and could be cancelled at any time.

Studies examining leadership use sample sizes of more than 400 (Lawrence et al., 2009; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Therefore, this study aimed to yield more than 400 complete questionnaire records of leaders to sufficiently reach the statistical requirements of the proposed testing and analysis.

In total, 503 participants took part in the survey, in three separate survey approaches. The first survey was in Germany with German as a first language with 72 participants. The second included 224 leaders in United States and United Kingdom with English as their first language. The third included 207 participants from United States and United Kingdom with different ethnicity and English not as a first language. Overall, 401 completed interviews were collected.

Several procedural remedies were applied to reduce the effect of method bias (MacKenzie & Podsakoff, 2012). For example, the introduction of the survey ensured that only leaders with the necessary experience (Söhnchen, 2009) participated. This increased the likelihood that they would answer the questions accurately.

The same source bias might be a relevant aspect in this study as the data for dependent and independent variables was measured at the same time, when it might be preferable to gather data at different times (MacKenzie & Podsakoff, 2012; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, this option was not applicable as the selection of a single source approach was appropriate for this research topic due to the limited time table and the constraints of the resources (Söhnchen, 2009). The structure of the survey ensured that the dependent variable and the independent variables were answered in two separate parts.

Furthermore, measurement bias was reduced by the application of different Likert scales, such as 7, and 11 point scales with different semantic interpretations (Podsakoff et al., 2003).

One limitation of self-administered online surveys can be sampling bias, as gathering data from a particular population via online questionnaires does not always yield a representative sample (Birnbau, 2004). However, the online survey provides an opportunity for people who have access to the internet to reach a wide range of participants and so reduces lack of representativeness (Evans & Mathur, 2005; Scholl, Mulders, & Drent, 2002).

Table 2 shows data for the study sample on three socio-demographic characteristics; sex, age, education level, and four role-specific characteristics; duration of leadership experience, hierarchical leadership level, area of responsibility, and manager-to-employee ratio.

Table 2. Socio-demographic and role-specific characteristics of the study sample.

		All	
Socio-demographic characteristics	Attributes	Frequency	Percent
Sex	female	184	45.89%
	male	215	53.62%
	NA	2	0.50%
	total	401	100.00%
Age	<30	160	39.90%
	31 - 40	152	37.91%
	41 - 50	53	13.22%
	51 - 60	31	7.73%
	>60	5	1.25%
	total	401	100.00%
Education	PhD/Dr	11	2.74%
	Master	105	26.18%
	Bachelor	139	34.66%
	Diploma	34	8.48%
	Magister	11	2.74%
	High-school degree and Certificate of general qualification for university entrance	88	21.95%
	others	13	3.24%
total	401	100.00%	
Leaders' length of experience	< 1 year	56	13.97%
	1-3 years	153	38.15%
	04. Mai	85	21.20%
	06. Okt	53	13.22%
	> 10	53	13.22%

Continued

NA	NA	1	0.25%
	total	401	100.00%
Hierarchical leadership level	Top Management	45	11.22%
	Middle Management	147	36.66%
	Head of a specialist department	40	9.98%
	Team Leader	142	35.41%
	Leading of agile teams (temporary leader tasks)	27	6.73%
	total	401	100.00%
Area of Responsibility	Organisation	75	18.70%
	Business Area	81	20.20%
	Team	219	54.61%
	Parts of an agile team	26	6.48%
	total	401	100.00%
Manager-to-employee ratio	< 5	131	32.67%
	05- Okt	153	38.15%
	Nov 20	61	15.21%
	21-50	31	7.73%
	>50	13	3.24%
	NA	12	2.99%
	total	401	100.00%

The sample for this study appears to be overrepresented in the male leader category with 53.62% in comparison to 45.89% female. The majority of the leaders appear to be representative of under the age of 40 with 77.81%. 13.22% of the participants were aged between 41 - 60 and 1.25% were over 60. Academics appear to be overrepresented in the sample for this study with 71.81%. The bachelor degree level has a high representation of 34.66% and the master degree demonstrates 26.18% of the sample and PhD degree with 2.74%.

52.12% of the leaders identified their duration of leadership experience as less than 3 years and 13.22% as more than 10 years. Furthermore, the sample represents all hierarchical levels from top management with 11.2% to team leaders with 35.41%. The highest score could be identified by the middle management category with 36.66%. 6.73% of the participants were leading agile teams. The sample of the study appears to represent all areas of responsibility, organisational level (18.9%), business area level (20.20%), and 52.61% of the leaders were responsible for the team level. 6.48% of the leaders were part of an agile team. The manager-to-employee ratio shows that 32.67% of leaders lead less than 5 followers and 38.15% lead 5 to 10 followers. 15.21% lead 10 to 20 teammates and

around 11% more than 21 employees.

4.2. Measures

Table 3 shows the selected independent and dependent variables as well as the mediation variable as the main categories regarding the hypothesized research model and the control variables as a system category of the research model.

Table 3. Overview of all integrated variables in the hypothesized research model.

Main category	Type of variable	Variable
Power Bases	independent	Personal power
Power Pases	independent	Positional power
Human Agency	independent	Leadership self-efficacy
Collaborative Agency	independent	Collaboration
Team-based Leadership performance	dependent	Team task performance
Team-based Leadership performance	dependent	Team contextual performance
Collaborative Agency	mediator	Teamwork processes
system	control	Age
system	control	Gender
system	control	Leadership experience

4.2.1. Independent Variables

1) Power bases

Power as potential effect derived from position power or personal power was measured by the newly developed questionnaire from [Yukl and Falbe \(1991\)](#) with eight power scales and usually four items in each scale. Four scales measured position power: a) authority (legitimate), b) control over punishments (coercive), c) control over rewards (reward), d) control over information (Information). Four scales measured personal power a) expertise (expert), b) persuasiveness, c) likeability (referent), and d) charisma. This scale consists of items representing the [French, Raven, and Cartwright \(1959\)](#) social power bases and items of three added power sources such as persuasiveness, information power and charisma developed from [Yukl and Falbe \(1991\)](#).

Position power was measured with 9 items (e.g., “I have the authority to give others tasks or assignments”, “I can make things difficult for others, and they want to avoid getting me angry” and, “I have information others need to do their work effectively”). Personal power was measured with 10 items (e.g., “I have the experience and knowledge to earn other’s respect”, “I have the ability to use facts and logic to present a persuasive case” and, “I am very charismatic”). Regarding the composite scales, the alpha coefficients were 0.89 and 0.88 for position power, and 0.92 and 0.91 for personal power. The results show that internal consistency for the composite scales was very high ([Yukl & Falbe, 1991](#)).

2) Leadership Self-Efficacy

17 Items (e.g. “I am able to set a new direction for a group, if the one currently taken doesn’t seem correct to me”, “I am sure I can communicate with others, going straight to the heart of the matter”, and “I am able to motivate and give opportunities to any group member in the exercise of his/her tasks or functions”) of the 21 items multidimensional LSE scale developed by [Bobbio and Manganelli \(2009\)](#) were applied to measure leadership self-efficacy. The reliability of the whole scale (21 items) was $\rho = 0.91$. The reliability of the six dimensions was calculated with ρ coefficients ([Bagozzi, 1994: p. 324](#)). Four items were excluded, because their meaning was unclear (e.g., “As a leader, I am usually able to affirm my beliefs and values”, “I would be able to delegate the task of accomplishing specific goals to other group members”). The six dimensions articulated self-efficacy beliefs about leader’s competency of: a) starting and leading change processes in teams; b) choosing effective followers and delegating responsibilities; c) building and managing interpersonal relationships within the teams; d) showing self-awareness and self-confidence; e) motivating people; f) gaining consensus of teammates ([Bobbio & Manganelli, 2009](#)). Items were scored on a 11-point scale, ranging from 1 (do not apply at all) to 11 (do apply to all).

3) Collaboration

The measurement of collaboration is based on the study of [Thomson et al. \(2009\)](#) conceptualizing and measuring collaboration in the context of organizations. [Thomson et al. \(2009: p. 3\)](#) emphasizes that “collaboration is a multidimensional, variable construct composed of five key dimensions, two of which are structural in nature (governance and administration), two of which are social capital dimensions (mutuality and norms), and one of which involves agency (organizational autonomy).”

The estimate for each of the 17 items structured within the five key dimensions is statistically highly significant. The applied measurement method (polychronic correlation matrix with lambda (l) parameter) is equivalent to the standardized estimates, which serve as validity coefficients. The applied standardized estimate measurement is equivalent to the Pearson correlation, thus the R2 value for the equation, which measures the reliability of the indicator, is related to the lambda (l) estimate. 14 of the 17 original variables, have a standardized lambda (l) coefficients of .75 or greater and the majority (11) have coefficients of 0.80 - 0.95. Three remaining indicators with lower standardized lambda (l) coefficients (0.66 - 0.67) have been retained in the model, because of its theoretical relevance.

However, 10 items (e.g., “I brainstorm with others to develop solutions to mission-related problems facing the collaboration?”, “Others accomplish what is necessary for the collaboration to function well?” and, “My tasks in the collaboration are well coordinated with those of others?”) of the 14 qualified items were used to measure collaboration in the team context in this study. Phrasing of the items was changed slightly in an effort to fit best to the team context. Items were rated on a 11-point scale, ranging from 1 (do not apply at all) to 11 (do apply at all).

4.2.2. Dependent Variables

1) Team Task Performance

In this study team task performance is theorized by group task performance (Conger et al., 2000) measured by five items (e.g. “My team has high work performance.”, “Most of tasks in my team are accomplished quickly and efficiently.” and, “My team always achieves a high standard of task accomplishment”) with an acceptable Cronbach’s alpha level (ranging from 0.70 to 0.95) of 0.85 as an index of reliability (Tavakol & Dennick, 2011). Regarding the impact of task performance on organizational goal accomplishment such as productivity (Bass, 1982; Darisipudi, 2006; Steiner, 1972; Zawawi & Nasuridin, 2020), a second source for item creation was the concept of organizational performance expressed by a reverse articulation of “Productivity of employees is much lower than industry average” (Hassan Nasir, 2021; Hernaus et al., 2008). Items were scored on a 11-point scale, ranging from 1 (not apply at all) to 11 (fully apply) and Cronbach’s alpha was 0.91.

2) Team Contextual Performance

Similar to the conception of Motowidlo and Van Scotter (1994), in this study team contextual performance is created from three perspectives a) commitment (Christian et al., 2011; Vandenberghe et al., 2004), b) engagement/OCB (Christian et al., 2011) and, absenteeism (Reilly & Aronson, 2009). Committed and engaged teammates going an extra mile for performing a specific task (Frese, Kring, Soose & Zempel, 1996) to achieve their organizational success (Gebauer, Lowman & Gordon 2008) and they show a higher level of motivation and optimistic behaviour about their work goals (Sarangi & Srivastava, 2012).

Reilly and Aronson (2009) reported that Carmeli, Shalom, and Weisberg (2007) found evidence for the effect that teammates who were supported in their organization show low absenteeism. In contrast, a poor workplace environment has the effect of decreasing teammate performance such as following organization rules and increasing absenteeism (Kahya, 2007). This is supported by empirical evidence that classified absenteeism as a measure of contextual performance (Hatrup, O’Connell, & Wingate, 1998).

Three items from among three extant performance scales were selected to capture the full range of team contextual performance. Two items a) representing commitment (“Team employees do feel special commitment to the organization.”) b) standing for engagement/OCB (“Team employees are prepared to go an extra mile for the company”) derived from Christian et al. (2011); Vandenberghe et al. (2004). One item (“Absenteeism regarding health issues in my team is low”) derived from Reilly and Aronson (2009). The phrasing of the items was changed slightly in an effort to fit best to team performance aspects. Items were rated on 11-point scale, ranging from 1 (1 = not apply at all) to 11 (fully apply) and Cronbach’s alpha was 0.76.

4.2.3. Mediator Variable

Teamwork processes contains the teammates’ interdependent actions that con-

vert inputs to results throughout cognitive, verbal, and behavioural activities directed toward managing team tasks (Marks et al., 2001). Mathieu, Luciano, D’Innocenzo, Klock, and LePine (2020) tested empirically Marks et al.’s 10 item model applying a CFA model, with the result of acceptable fit. All items loaded on their latent factors significantly (>0.59 , $p < 0.001$) (Mathieu et al., 2020). Furthermore, the study outcome delivered evidence that the 10-item version (1 item per first-order dimension) fits Marks et al. (2001) three-dimensional higher-order framework and shows evidence for discriminant validity versus a measure of team empowerment (Kirkman & Rosen, 1999; Mathieu et al., 2020).

The 10-item version with 1 item per first-order dimension developed by Marks et al. (2001) was used to measure teamwork processes (e.g. “We, in the team, make sure that everyone in the team has clearly understood the goals.”, “We, as a team, help each other when help is needed.” or, “We, in the team, maintain a balanced emotional mood.”). Items were rated on 11-point scale, ranging from 1 (1 = do not apply at all) to 11 (do apply to all) and Cronbach’s alpha was .93.

Two types of indirect effects were estimated: particular indirect effects, which are the results of a supposed related factor on an outcome that are mediated by a specific mediator (Bollen & Stine, 1990) and total indirect effects, which are the effect of the summation of all particular indirect effects by which the related factor influences the outcome. To investigate the indirect and total indirect effects regarding statistical significance, bootstrapping with 1,000 bootstraps (Hayes, 2009) was applied.

4.2.4. Control Variables

Age, gender and leadership experience (tenure) have been used as control variables in leadership research (Bernerth, Cole, Taylor, & Walker, 2018) to improve the validity and plausibility of the hypotheses of this study (Atinc, Simmering, & Kroll, 2012; Bernerth & Aguinis, 2016; Bernerth et al., 2018; Pearl, 2003).

The responses of age were measured with 5 categories (< 30, 31 - 40, 41 - 50, 51 - 60, > 60). It was represented as 4 dummy variables with an age below 30 years as the reference category. Likewise, leadership experience was measured with 4 categories (< 4, 4 - 5 years, 6 - 10 years, > 10 years), resulting in 3 dummy variables with an experience below 4 years being the reference.

4.3. Analytical Procedures

A structural equation modelling (SEM), in particular a covariance-based SEM technique was applied to estimate the model fit by comparing the covariance structure fit of the model under study with an appropriate possible fit covariance structure (Byrne, 2013; Gefen et al., 2000). This means to investigate how well the data fits with the proposed model and how well the conceptual framework is supported by the gathered sample data (Schumacher & Lomax, 1996). Various fit indices were developed to estimate the model fit (Hooper, Coughlan, &

Mullen, 2008). The absolute fit indices are one of the best indications of how well an *a priori* model fits the sample data (Jöreskog & Sörbom, 1993; McDonald & Ho, 2002). The chi-square test and the root mean square error of approximation (RMSEA) (Hooper et al., 2008), and the comparative fit index (CFI) (Bentler, 1990) were selected for this study.

SEM is substantiated on a computed variance–covariance matrix (Schumacher & Lomax, 1996). The covariance indices show the value of influence between two variables and its direction (positive or negative). For a better comparison it is useful to standardise the covariance indices to get the correlation value (Schumacher & Lomax, 1996). **Table 4** shows the correlation matrix of all included, dependent and independent variables (excluded control variables) and the estimated significance.

The result of the correlation matrix review shows that the dependent variables of team task performance and team contextual performance are positively correlated with all independent variables. Teamwork processes as the mediating variable is also positively correlated with all independent variables, with a weakening at the correlation with positional power with a low effect size of 0.10 and a significance level of 5%.

To interpret the correlation coefficient it is useful to apply the guidelines of Cohen (1988: p. 79). The effect size of a correlation coefficient > 0.10 is weak, >0.30 moderate and >0.50 is strong.

Positional power base overall demonstrates a weak effect size (0.10 - 0.22) regarding the correlations with the other variables, except the moderate effect size of 0.37 with personal power. Leadership self-efficacy indicates a moderate or strong effect size (0.43 - 0.79) with the other variables, except with positional power base of 0.22. The strongest correlations exist between leadership self-efficacy and teamwork processes with 0.79, leadership self-efficacy and collaboration with 0.71, and collaboration and teamwork processes with 0.67. Also, a strong effect size of correlation show the relation between leadership self-efficacy and personal power base with 0.66, leadership self-efficacy and team task performance with 0.61, and personal power base and teamwork processes with 0.51. Moderate

Table 4. Correlation matrix of dependent and independent variables and the estimated significance.

	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)
1) Personal power base	5.81	0.70						
2) Positional power base	4.62	1.05	0.37***					
3) Leadership self-efficacy	9.07	1.07	0.66***	0.22***				
4) Collaboration	8.25	1.02	0.46***	0.15**	0.71***			
5) Team task performance	8.26	1.12	0.48***	0.14**	0.61***	0.49***		
6) Team contextual performance	7.76	1.54	0.27***	0.21***	0.43***	0.35***	0.59***	
7) Teamwork processes	9.15	1.21	0.51***	0.10*	0.79***	0.67***	0.65***	0.52***

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

effect size shows personal power base and team task performance with 0.48, personal power base and collaboration with 0.46, and leadership self-efficacy and team contextual performance with 0.43.

Table 5 outlines the estimated fit indices of the SEM test for the proposed model according to the reporting requirements (Weiber & Mühlhaus, 2014).

The overall model fit is acceptable as all fit indices show acceptable fit values according to the required acceptable scale for good as well as adequate fit. The RMSEA with 0.000 is lower than the acceptable value of 0.05 and the RMSEA confidence interval of 90% is 0.000 - 0.058. The ratio of χ^2/df is with 0.868 smaller than 2 and indicates a good model fit and the “ χ^2 exact fit test” is with 0.54 higher than 0.05 and also accepts the SEM model as “fitting”. The SRMR with 0.009 is less than 0.08 and indicates a good fit. The comparative fit index CFI with 1.0 is greater than 0.95 is defined as a good fit to make sure that any mis specified models are not accepted.

After evaluating the model fit, the next step was the analysis of the SEM results and the test of the proposed hypotheses, as outlined in the next section.

The analysis of the SEM results consists of the r-squared value (R^2) analysis to describe the amount of variation from the independent variables of personal power and collaboration, the dependent variables of team task performance and team contextual performance as well as the mediating variable of teamwork processes. All hypotheses were tested regarding their plausibility and judgement of the statistical parameters (Boomsma, 2000; Hooper et al., 2008; Kline, 2005).

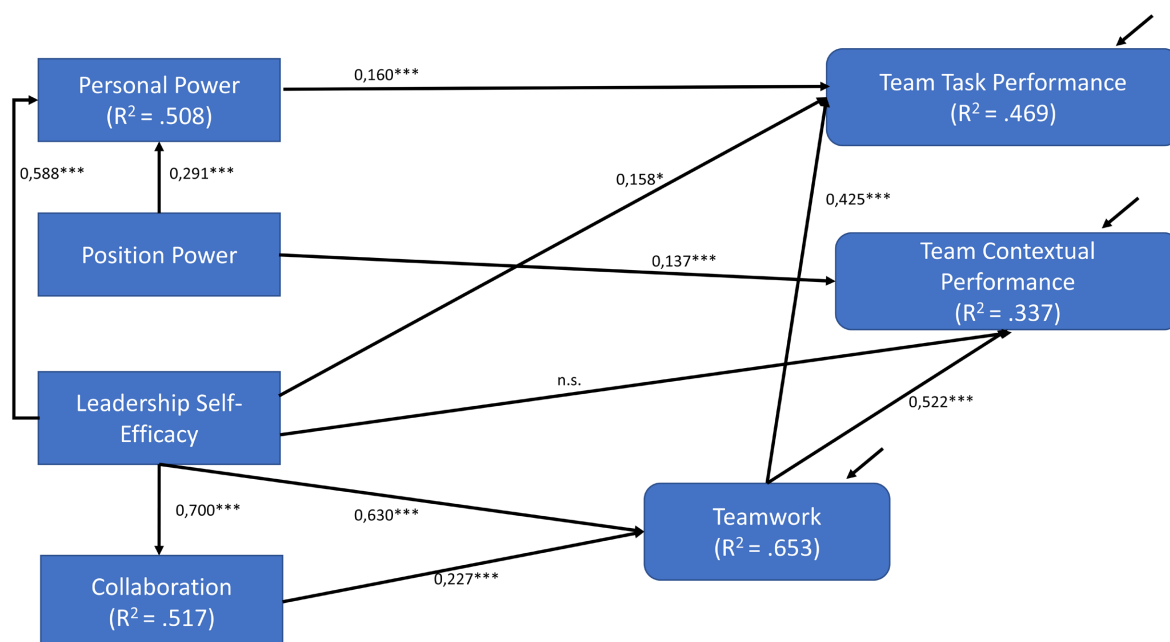
Figure 2 presents the proposed SEM model with the estimated standardised regression coefficients regarding the hypothesised paths’ links. Significant paths are identified with stars (significance levels: ***0.001, **0.01, and *0.05 levels) or with “n.s.” if there was no significance estimated.

The arrows above the dependent variables stand for the ‘error’ term in SEM models, which includes estimating errors and the determined influence of other possible factors not in the model.

The r-squared value (R^2) describes the amount of variation explained by the model produced and its evaluation with the recommended acceptable range of

Table 5. Overview of the SEM test output, fit indices, and desired level of fit.

Level of Model Fit	Overall Model Fit					
	Model Fit				Model Comparison	
	Inference Statistical Fit-Indices		Descriptive absolute Fit-Indices		Incremental Fit Indices	
Fit Measures	RMSEA	RMSEA confidence interval	χ^2 (df)	probability of occurrence (not rejected)	SRMR	CFI
Acceptable Scale for Good as well as Adequate Fit	<0.05	0.000 - <0.08	<2	>0.05	<0.08	≥0.95
Composed Model Fit	0.000	CI 90%: (0.000 bis 0.058)	6.946 (8) 0.868	0.54	0.009	1.0



Source: the author.

Figure 2. Proposed structural equation model.

r-squared ≥ 0.67 as substantial, ≥ 0.33 as moderate, and ≥ 0.19 as weak (Weiber & Mühlhaus, 2014). The R² values of Team Task Performance 0.469, Teamwork processes 0.653, Collaboration 0.517 and Personal power 0.508 are validated with a moderate explanatory power and for Team Contextual Power 0.337 with a moderate explanatory power.

The results of the tested hypotheses are presented in the next section.

5. Results

5.1. Descriptive Statistics

The requirement of multi-normality for SEM is a conventional assumption (Mardia, 1985; Weiber & Mühlhaus, 2014). However, non-normal data is a common problem in research practice (Bentler & Yuan, 1999; Steinmetz, 2015; Weiber & Mühlhaus, 2014). Evaluating the data, it can be identified as probably non-normal distributed samples. Therefore, Yuan and Bentler's correction was applied to handle the aspect of a non-normal distributed sample (Bentler & Yuan, 1999; Steinmetz, 2015).

5.2. Hypotheses Testing

The standard rule to evaluate whether certain parameters (i.e., path coefficient) deviate significantly from zero is by dividing the path coefficient by its standard error. The resulting quantity is a z-value, when "under the" null hypothesis of a zero effect in the population is evaluated, by inspecting its probability by means of a standard normal distribution. Consequently, path coefficients with associated z-values greater than or equal to 1.96 have a lower probability of 5% for

randomness and are thus conventionally treated as significantly different from zero (Chin, 1998).

5.2.1. Direct Effects—Testing the Research Hypotheses

Table 6 shows the result of all the tested direct effects denoted in the hypotheses. The table outlines the hypothesised path, e.g., H1, its relation, e.g., *personal power base* → *team task performance* and its estimated indices such as B as the non-standardised regression coefficient, SE as the standard error, C.R. as the critical ratio (z-value), p-value as the significance level, and b as the standardised correlation with its different significance levels described with stars (***0.001, **0.01, and *0.05 level), and its conclusion based on the hypotheses’ test (not supported or supported). Hypotheses were accepted as “supported” if the previously mentioned C.R. value is >1.96, the p-value < 0.05, and the direction of the correlation (positive or negative) is as expected.

The results of the hypotheses test of each hypothesis were discussed within the findings of the literature review.

5.2.2. Mediation Effect—Testing the Research Hypotheses

Each of the mediated effects characterizes the sum of various particular indirect effects that run across a specific mediator. So, the relevant coefficient for estimating the mediator hypotheses is the *total* indirect effect. For evaluating the hypothesized mediator effects the total indirect effects (B) and their bootstrapped confidence intervals (CI95 [lower, upper]) are presented. Due to the fact that the confidence interval did not contain zero, the study result shows an overall significant mediating function of teamwork processes between leadership

Table 6. Overview of the direct effects of the hypotheses.

Hypo-theses	Path	B	SE	C.R. Value (z-value)	p-value	b	Conclusion
H1	personal power base → team task performance	0.258	0.0734	3.498	0.000	0.159***	supported
H2	position power base → personal power base	0.193	0.029	6.673	0.000	0.291***	supported
H3	leadership self-efficacy → personal power base	0.379	0.027	14.256	0.000	0.588***	supported
H4	position power base → team contextual performance	0.203	0.062	3.267	0.000	0.137***	Not supported
H5	leadership self-efficacy → collaboration	0.662	0.035	19.084	0.000	0.700***	supported
H6	leadership self-efficacy → team task performance	0.165	0.079	2.095	0.036	0.158*	supported
H7	leadership self-efficacy → team contextual performance	-0.017	0.114	-0.149	0.882	-0.012 n.s.	Not supported
H8	leadership self-efficacy → teamwork processes	0.710	0.054	13.161	0.000	0.630***	supported
H9	collaboration → teamwork processes	0.271	0.060	4.512	0.000	0.227***	supported
H10	teamwork processes → team contextual performance	0.668	0.094	7.102	0.000	0.668***	supported
H11	teamwork processes → team task performance	0.395	0.060	6.526	0.000	0.425***	supported

Note: Significant at different levels: Note. **p* < 0.05, ***p* < 0.01, ****p* < 0.001, n.s. = not significant, B = not standardised regression coefficient, SE = standard error, C.R. (z-value) = critical ratio, b = standardised correlation.

self-efficacy and team contextual performance ($B = 0.594$, CI_{95} [0.42, 0.769]), supporting H12, as well as with team task performance ($B = 0.351$, CI_{95} [0.239, 0.464]), supporting H13.

5.2.3. Control Variables—Testing the Effect of Control Variables

The control variables of age, gender and leadership experience (tenure) were integrated as independent variables in the SEM Model and the relation of all other independent and dependent in the SEM Model was tested. Having done so, the results show that age, gender and leadership experience (tenure) have no significant effect with the other independent and dependent variables considered in the proposed model, excepted the four mentioned paths shown in **Table 7**. However, only the relations between gender and personal power base with a standardised correlation of 0.124* and leadership experience between 6 to 10 years and team contextual performance with a standardised correlation of -0.127^* show a weak effect.

6. Discussion

Arguably, the research question “What is the empirical evidence about the interaction between power, human agency and collaborative agency as mechanisms explaining team-based leadership and how they work?” can be answered as follows: empirical evidence shows that the team-based leadership conceptual framework is mostly confirmed.

In particular, the most relevant findings of this study are as listed below.

1) Remarkably, leadership self-efficacy was identified as the key mechanism of leadership emergence with the significant relations to the independent variables personal power ($b = 0.588$, $p < 0.001$) possibly affected by *leader role perception or expectation* by teammates, collaboration ($b = 0.700$, $p < 0.001$), teamwork processes ($b = 0.630$, $p < 0.001$), the dependent variable team task performance ($b = 0.158$, $p < 0.05$), excepted the not significant direct effect with team contextual performance.

2) Contrary to expectations, the key role of power regarding the occurrence of

Table 7. Significant effects of control variables.

Path	B	SE	C.R. Value (z-value)	p-value	b
gender → personal power base	0.172	0.055	3.134	0.002	0.124**
Age_41_50 → team task performance	-0.288	0.149	-1.968	0.049	-0.087*
gender → team contextual performance	-0.296	0.138	-2.15	0.032	-0.095*
Leadership_experience_6_10 years → team contextual performance	-0.586	0.231	-2.539	0.011	-0.127*

Note: Significant at different levels: Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, n.s. = not significant, B = not standardised regression coefficient, SE = standard error, C.R. (z-value) = critical ratio, b = standardised correlation.

leadership could not be confirmed by the empirical data. However, it could be shown that personal power is closely related to team task performance ($b = 0.159, p < 0.001$) expressing a weak effect size (Cohen, 1988). Position power is highly significant related with team contextual performance ($b = 0.137, p < 0.001$) also demonstrating a weak effect size. This effect might be influenced by the intentional usage of *organizational politics* and/or *narcissists personal characteristics*. Hereby, position power is significantly correlated with personal power ($b = 0.291, p < 0.001$), possibly affected by *cross-cultural context dependency*.

3) Empirical data of this study shows that teamwork processes (team processes) have a significant effect on the outcome variables of team task performance ($b = 0.425, p < 0.001$) and team contextual performance ($b = 0.522, p < 0.001$). Also, the expected mediating role of teamwork processes (team processes) between leadership self-efficacy and team task performance ($B = 0.351, CI_{95} [0.239, 0.464]$), and team contextual performance ($B = 0.594, CI_{95} [0.42, 0.769]$) could be confirmed as a partial mediation.

4) The results of the current study provide empirical evidence that collaboration is greatly influenced by leadership self-efficacy ($b = 0.700, p < 0.001$), whilst collaboration itself has little effect on teamwork processes ($b = 0.277, p < 0.001$). Furthermore, this study indicates a possible mediating role of collaboration between leadership self-efficacy and teamwork processes, which was not separately tested, although this path was integrated in the mediating analysis of teamwork processes.

5) Explaining the hypothesis rejections, it can be stated that a) the effect of the partial mediation H12 influences the direct effect of the path between leadership self-efficacy and team contextual performance H7, and b) the interplay of various factors such as cross-cultural context dependency, organizational politics or narcissists personal characteristics might affect the direct effect of position power on team contextual performance H4.

6.1. Team-Based Leadership Framework

6.1.1. Leadership Self-Efficacy

To the best of our knowledge, this study is the first to demonstrate that leadership self-efficacy is a key mechanism which influences the occurrence of team-based leadership by various parameters. Firstly, leadership self-efficacy positively affects personal power by dealing with individual self-efficacy beliefs to successfully accomplish the leadership role in teams (Bobbio & Manganelli, 2009) and fulfill one's own and others' expectations (Biddle, 1986; Stryker & Burke, 2000; Turner, 1978). Teammates with a high level of self-efficacy are more likely to apply personal power, such as expert, informational, and referent power, when carrying out their leader role (Lyons & Murphy, 1994; Yost et al., 2019). Furthermore, leaders perceived by teammates in a high-status leader role rely mainly on their personal power, because others judge them as more effective mediated by self-confidence Sauer (2011). Low-status leaders improve their level of

personal power by applying a directive leadership style within a specific positional power role, because others judge them as “taking charge” (Sauer, 2011). In contrast, exaggerated self-efficacy can lead to overconfidence (Ho et al., 2016; Loeb, 2016; Moores & Chang, 2009), over-optimism determined by unrealistic expectations (Shepperd, Pogge, & Howell, 2016) or destructive and toxic behaviour (Kaiser, LeBreton, & Hogan, 2015; Padilla, Hogan, & Kaiser, 2007).

Moreover, existing research supports the positive relation between leadership self-efficacy and collaboration (Pendley, 2021) as well as with teamwork processes (Darma, 2021; Khan et al., 2015). Finally, the relation between leadership self-efficacy and the outcome variables of team task performance and team contextual performance seems to be ambiguous. Existing research proposed that self-efficacy is positively correlated with contextual performance (Bhatti et al., 2018; Iroegbu, 2015; Kappagoda, 2018) and also with task performance (Iroegbu, 2015). However, the best explanation of this relationship in this study seems to be the partial mediation effect of teamwork processes, because current evidence indicates a mediation role of teamwork processes in performance contexts (Littlepage & Wertheimer, 2017; Salas et al., 2005; Yang & Chen, 2010).

6.1.2. Power Bases

The study result that power is not the key mechanism of leadership, was a surprise, because a huge amount of research has proposed an intrinsic interrelation between power and leadership (Janda, 1960; Ross et al., 2014; Zogjani & Llaci, 2014). To clarify, Podsakoff and Schriesheim (1985) and Student (1968) argued that the usage of personal power is the most effective regarding performance. However, power (personal and positional) significantly influences the outcome variables of team task performance and team contextual performance.

Nevertheless, this result can be interpreted in different ways, because the existing literature outlines various factors affecting the level of power. Firstly, positional power and personal power are interrelated and context dependent (see Table cc) (Carson et al., 1993; Gaski, 1986; Munduate & Dorado, 1998; Rahim & Psenicka, 1996) in a way that “...sometimes leaders use the sources of power together in varying combinations depending on the situation Lunenburg (2012: p. 1). Secondly, the application of power can be cross-culturally dependent in that soft power (similar to personal power) seems to be more often activated in cultural contexts that are collectivist with a long-term view, but low on uncertainty avoidance and power distance (Mittal & Elias, 2016; Raven, 1992). Conversely, Dirik and Eryilmaz (2018) proposed that a synchronized increase of contextual performance along with perceptions of leaders’ positional power bases, in the case of a cultural context that is tight, short-term oriented and high in power distance and uncertainty avoidance. However, a cumulation of a particular cultural background in the data cannot be confirmed, because the participants’ cultural background was diverse. Finally, leaders’ application of both personal and positional power is related to lower levels of contextual performance when teammates perceive a high level of organizational politics (Dirik & Eryilmaz,

2018; Ferris & Kacmar, 1992) or they experience a behavioural pattern of narcissism regarding positioning authority to maintain a deep-seated grandiose image of the leader role (Asad & Sadler-Smith, 2020; Judge, LePine, & Rich, 2006; Nevicka, Baas, & Ten Velden, 2016). It might be supposed, that the participants of this study do not use or perceive a high level of organizational politics and/or they have less narcissistic characteristics.

6.1.3. Teamwork Processes

As expected, the empirical data of this study shows that teamwork processes play a highly important role regarding the occurrence of team-based leadership. Existing research supports the assumption that teamwork processes are positively associated with team performance (Jeffery A. LePine et al., 2008), especially with team task performance (Baker & Salas, 1992). Team contextual performance regularly resonances with teamwork processes, such as cooperation, communication, and coordination (Ahmad Zawawi, 2020; McIntyre & Salas, 1995) and teams with a high level of contextual performance are able to improve their teamwork processes (Jeffrey A. LePine et al., 2000). Moreover, existing research also identified teamwork processes as mediators in various team related contexts regarding performance indicators (Koolwijk et al., 2020; Littlepage & Wertheimer, 2017; Salas et al., 2005; Yang & Chen, 2010). Therefore, the empirically determined mediating role of teamwork processes between leadership self-efficacy and team task performance and team contextual performance is valid.

6.1.4. Collaboration

The understanding of collaboration in this study consists of dimensions such as governance/administration and mutuality/norms, as well as organizational autonomy (Thomson et al., 2009). This should be distinct from the concept of teamwork processes described as teammates' interdependent acts that produce intentional outcomes using cognitive, verbal, and behavioural activities directed toward managing team tasks (Marks et al., 2001). This differentiation supports a better understanding of how collaboration can positively influence teamwork processes, because it stands for an underlying willingness of mutual engagement of teammates to work simultaneously within specific teamwork processes to reach common goals (Chiocchio et al., 2012; Driskell et al., 2018; Marks et al., 2001). Therefore, collaboration is the basis for the successful application of teamwork processes. Furthermore, it should be taken into account that collaboration might also be a mediator between leadership self-efficacy and teamwork processes. However, this mediation has not been tested separately in this study.

6.2. Contribution to Theory

This study empirically validated theoretical hypotheses regarding the underlying mechanisms (Krauter, 2020) of team-based leadership (Zaccaro et al., 2001) and extended empirical findings (Marks et al., 2001) related to leadership self-

efficacy, power, collaboration, teamwork processes and their influence on team performance indicators. Even though research in team-based leadership shapes the future of agile organizations (Day et al., 2021; Hooijberg & Watkins, 2021), research in this context is largely lacking (Dinh et al., 2014; Lord et al., 2017; R191Riggio, 2018). This study also sheds light on the previously unknown structural and contextual conditions: 1) cross-cultural dependency, 2) leader role perception and expectation, 3) organizational politics, and 4) negative personality aspects such as narcissism under which team-based leadership can occur. The findings of this study advance the understanding of the underlying mechanisms (leadership self-efficacy, power, collaboration, teamwork processes) and their interrelations.

6.3. Practical Implication

The results of this study inform teams that the more they increase their leadership self-efficacy and the better they manage their positional and personal power bases and improve their efficiency of teamwork processes, the greater their team task performance and team contextual performance can be. It recommends that specific leadership development programmes should integrate existing structural and contextual conditions in organizations and their environment to frame leadership events and orchestrate the relevant mechanisms. In this way, useful and intentional leadership behaviour can arise with the aim to increase team performance.

6.4. On Limitations and Future Research Directions

This study has various limitations which mainly lie in common biases. However, these biases were taken into account regarding the design of the study and during the implementation. Self-report measures and ratings by leaders of the independent variables such as leadership self-efficacy, power bases, collaboration and teamwork processes and outcome variables such as team task performance and team contextual performance might be influenced by common method bias/same source bias. This is because the data was measured at the same time, when it might be preferable to gather data at different times and sources (MacKenzie & Podsakoff, 2012; Podsakoff et al., 2003). However, these biases were controlled by several aspects: 1) using SEM Model investigating and eliminating confounding effects (Conway & Lance, 2010; Podsakoff & Organ, 1986); 2) the structure of the survey which guaranteed that the dependent variables and the independent variables were answered in two separate parts by offering a time lag via a short relaxation task and declaring different circumstances (Söhnchen, 2009; Tehseen, Ramayah, & Sajilan, 2017); and 3) only persons in active leader role positions with various level of leadership experience participated in three separated surveys with a) German as first language, b) United States and United Kingdom with English as a first language and, c) United States and United Kingdom with different ethnicity and English not as a first language (MacKenzie

& Podsakoff, 2012). Measurement bias was reduced by the application of different Likert scales, such as 7, and 11 point scales with different semantic interpretations (Podsakoff et al., 2003) and a representative sample (Birnbaum, 2004) was assured by the application of an online survey providing the opportunity to reach a wide range of participants (Evans & Mathur, 2005; Scholl, Mulders, & Drent, 2002).

Today, leadership definitions include interrelated social interactions and feedback processes between leaders, followers and the environment (Bass & Bass, 2009; Northouse, 2015). Such definitions infer that the concepts and variables referred to leader role and follower role can influence each other in various ways (Russell, 2003; Uhl-Bien, 2021). This can cause a simultaneity bias which leads to endogeneity (Güntner, Klonek, Lehmann-Willenbrock, & Kaufeld, 2020) with the result of biased estimations, incorrect assumptions about theory as well as invalid advices for practice (Angrist & Pischke, 2008). In this study, self-report of people in leader roles was used for data selection. Therefore the risk of simultaneity bias was possible. Specifically, the data selection for the independent variable teamwork processes and the dependent variables of team task performance and team contextual performance could be biased by self-report, because the focus lies on team phenomena. However, it can be argued that this risk was reduced as the context of measurement was not the usual understanding of hierarchical leadership (Bass & Bass, 2009; Northouse, 2015). Instead the focus lies on team-based leadership with a heterarchical organization of roles in teams. This means that the relation (hierarchy, power, influence) of the classical leader and follower role could be evaluated differently, resulting in a lower level of simultaneity bias. Arguably, the recommendation of Güntner et al. (2020) that leaders should acknowledge that their own behaviour is not independent from what their followers are doing with the aim to be aware of the simultaneity bias, was already integrated in the concept of team-based leadership in this study. So, it can be suggested, that the simultaneity bias has been controlled by the study design.

A future study should use a longitudinal approach with the aim to get data regarding the same variables from various times as well as integrating several data sources, e.g., assessment from followers, peers, and other stakeholders. A follow-up study should aim to test different cause-effect models within a comparative test of different structural equation models. This parsimonious approach could reduce complexity and could improve the model fit. The findings of this study show that there is potential for future research into the new concept of team-based leadership. Further empirical confirmation of the findings could support theoretical and managerial implications.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Achmat, B., Baharuddin, M., Anjanarko, T., Yusriadi, Y., Awi, A., Muchtar, F., & Lionardo, A. (2021). Analysis of Service Quality Improvement with Education and Training and Professionalism and Teamwork as Mediation Variables. In *The Proceedings of the International Conference on Industrial Engineering and Operations Management* (pp. 7165-7175). IEOM Society International.
- Aguinis, H., Nesler, M. S., Quigley, B. M., & Tedeschi, J. T. (1994). Perceptions of Power: A Cognitive Perspective. *Social Behavior and Personality: An International Journal*, *22*, 377-384. <https://doi.org/10.2224/sbp.1994.22.4.377>
- Ahmad Zawawi, A. (2020). An Analysis on the Role of Trust on Nursing Team Contextual Performance. *Journal of Administrative Science*, *17*, 210-218.
- Anderson, D. W., Krajewski, H. T., Goffin, R. D., & Jackson, D. N. (2008). A Leadership Self-Efficacy Taxonomy and Its Relation to Effective Leadership. *The Leadership Quarterly*, *19*, 595-608. <https://doi.org/10.1016/j.leaqua.2008.07.003>
- Angrist, J. D., & Pischke, J.-S. (2008). *Mostly Harmless Econometrics*. Princeton University Press. <https://doi.org/10.2307/j.ctvcm4j72>
- Anh, N. D., Cruzes, D. S., & Conradi, R. (2012). Dispersion, Coordination and Performance in Global Software Teams: A Systematic Review. In *The Proceedings of the 2012 ACM-IEEE International Symposium on Empirical Software Engineering and Measurement* (pp. 129-138). The Association for Computing Machinery. <https://doi.org/10.1145/2372251.2372274>
- Antonakis, J. (2021). Leadership to Defeat COVID-19. *Group Processes & Intergroup Relations*, *24*, 210-215. <https://doi.org/10.1177/1368430220981418>
- Asad, S., & Sadler-Smith, E. (2020). Differentiating Leader Hubris and Narcissism on the Basis of Power. *Leadership*, *16*, 39-61. <https://doi.org/10.1177/1742715019885763>
- Atinc, G., Simmering, M. J., & Kroll, M. J. (2012). Control Variable Use and Reporting in Macro and Micro Management Research. *Organizational Research Methods*, *15*, 57-74. <https://doi.org/10.1177/1094428110397773>
- Atwater, L. E., & Yammarino, F. J. (1992). Does Self-Other Agreement on Leadership Perceptions Moderate the Validity of Leadership and Performance Predictions? *Personnel Psychology*, *45*, 141. <https://doi.org/10.1111/j.1744-6570.1992.tb00848.x>
- Avey, J. B., Palanski, M., & Walumbwa, F. O. (2011). When Leadership Goes Unnoticed: The Moderating Role of Follower Self-Esteem on the Relationship between Ethical Leadership and Follower Behavior. *Journal of Business Ethics*, *98*, 573-582. <https://doi.org/10.1007/s10551-010-0610-2>
- Bagozzi, R. P. (1994). Structural Equation Models in Marketing Research: Basic Principles. In R. P. Bagozzi (Ed.), *Principles of Marketing Research* (pp. 317-385). Blackwell Business.
- Baker, D. P., & Salas, E. (1992). Principles for Measuring Teamwork Skills. *Human Factors*, *34*, 469-475. <https://doi.org/10.1177/001872089203400408>
- Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, *84*, 191-215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1982). Self-Efficacy Mechanism in Human Agency. *American Psychologist*,

- 37, 122-147. <https://doi.org/10.1037/0003-066X.37.2.122>
- Bandura, A. (1998). Personal and Collective Efficacy in Human Adaptation and Change. *Advances in Psychological Science, 1*, 51-71.
- Bandura, A. (2000). Exercise of Human Agency through Collective Efficacy. *Current Directions in Psychological Science, 9*, 75-78. <https://doi.org/10.1111/1467-8721.00064>
- Bandura, A. (2006). Toward a Psychology of Human Agency. *Perspectives on Psychological Science, 1*, 164-180. <https://doi.org/10.1111/j.1745-6916.2006.00011.x>
- Bandura, A. (2018). Toward a Psychology of Human Agency: Pathways and Reflections. *Perspectives on Psychological Science, 13*, 130-136. <https://doi.org/10.1177/1745691617699280>
- Bandura, A., & Locke, E. A. (2003). Negative Self-Efficacy and Goal Effects Revisited. *Journal of Applied Psychology, 88*, 87-99. <https://doi.org/10.1037/0021-9010.88.1.87>
- Bass, B. (1982). Individual Capability, Team Performance, and Team Productivity. *Human Performance and Productivity, 1*, 179-222.
- Bass, B. M. (1999). Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology, 8*, 9-32. <https://doi.org/10.1080/135943299398410>
- Bass, B. M., & Avolio, B. J. (1993). *Transformational Leadership: A Response to Critiques*.
- Bass, B. M., & Bass, R. (2009). *The Bass Handbook of Leadership: Theory, Research, and Managerial Applications*. Simon and Schuster.
- Bayraktar, S., & Jiménez, A. (2020). Self-Efficacy as a Resource: A Moderated Mediation Model of Transformational Leadership, Extent of Change and Reactions to Change. *Journal of Organizational Change Management, 33*, 301-317. <https://doi.org/10.1108/JOCM-12-2018-0368>
- Bennett, L. M., & Gadlin, H. (2012). Collaboration and Team Science: From Theory to Practice. *Journal of Investigative Medicine, 60*, 768-775. <https://doi.org/10.2310/JIM.0b013e318250871d>
- Bentler, P. M. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin, 107*, 238-246. <https://doi.org/10.1037/0033-2909.107.2.238>
- Bentler, P. M., & Yuan, K.-H. (1999). Structural Equation Modeling with Small Samples: Test Statistics. *Multivariate Behavioral Research, 34*, 181-197. <https://doi.org/10.1207/S15327906Mb340203>
- Bergman, D., Gustafsson-Sendén, M., & Berntson, E. (2021). From Believing to Doing: The Association between Leadership Self-Efficacy and the Developmental Leadership Model. *Frontiers in Psychology, 12*, Article ID: 669905. <https://doi.org/10.3389/fpsyg.2021.669905>
- Bergman, D., Sendén, M. G., & Berntson, E. (2019). Preparing to Lead in Combat: Development of Leadership Self-Efficacy by Static-Line Parachuting. *Military Psychology, 31*, 481-489. <https://doi.org/10.1080/08995605.2019.1670583>
- Bernerth, J. B., & Aguinis, H. (2016). A Critical Review and Best-Practice Recommendations for Control Variable Usage. *Personnel Psychology, 69*, 229-283. <https://doi.org/10.1111/peps.12103>
- Bernerth, J. B., Cole, M. S., Taylor, E. C., & Walker, H. J. (2018). Control Variables in Leadership Research: A Qualitative and Quantitative Review. *Journal of Management, 44*, 131-160. <https://doi.org/10.1177/0149206317690586>
- Bhaskar, R. (2013). *A Realist Theory of Science*. Routledge. <https://doi.org/10.4324/9780203090732>

- Bhatti, M. A., Alshagawi, M., & Juhari, A. S. (2018). Mediating the Role of Work Engagement between Personal Resources (self-Efficacy, the Big Five Model) and Nurses' Job Performance. *International Journal of Human Rights in Healthcare*, *11*, 176-191. <https://doi.org/10.1108/IJHRH-10-2017-0056>
- Biddle, B. J. (1986). Recent Developments in Role Theory. *Annual Review of Sociology*, *12*, 67-92. <https://doi.org/10.1146/annurev.so.12.080186.000435>
- Birnbaum, M. H. (2004). Human Research and Data Collection via the Internet. *Annual Review of Psychology*, *55*, 803-832. <https://doi.org/10.1146/annurev.psych.55.090902.141601>
- Bobbio, A., & Manganelli, A. M. (2009). Leadership Self-Efficacy Scale: A New Multidimensional Instrument. *TPM-Testing, Psychometrics, Methodology in Applied Psychology*, *16*, 3-24.
- Bollen, K. A., & Stine, R. (1990). Direct and Indirect Effects: Classical and Bootstrap Estimates of Variability. *Sociological Methodology*, *20*, 115-140. <https://doi.org/10.2307/271084>
- Boomsma, A. (2000). Reporting Analyses of Covariance Structures. *Structural Equation Modeling*, *7*, 461-483. https://doi.org/10.1207/S15328007SEM0703_6
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial Organizational Behaviors. *Academy of Management Review*, *11*, 710-725. <https://doi.org/10.2307/258391>
- Briggs, R., Kolfshoten, G., de Vreede, G.-J., & Douglas, D. (2006). *Defining Key Concepts for Collaboration Engineering*.
- Bygstad, B., & Munkvold, B. E. (2011). *In Search of Mechanisms. Conducting a Critical Realist Data Analysis*.
- Byrne, B. (2013). *Structural Equation Modeling with LISREL, PRELIS, and SIMPLIS: Basic Concepts, Applications, and Programming*. Psychology Press. <https://doi.org/10.4324/9780203774762>
- Carmeli, A., Shalom, R., & Weisberg, J. (2007). Considerations in Organizational Career Advancement: What Really Matters. *Personnel Review*, *36*, 190-205. <https://doi.org/10.1108/00483480710726109>
- Carson, P. P., Carson, K. D., & Roe, C. W. (1993). Social Power Bases: A Meta-Analytic Examination of Interrelationships and Outcomes 1. *Journal of Applied Social Psychology*, *23*, 1150-1169. <https://doi.org/10.1111/j.1559-1816.1993.tb01026.x>
- Cartwright, D. (1965). *Influence, Leadership, Control*. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
- Cherian, J., & Jacob, J. (2013). Impact of Self Efficacy on Motivation and Performance of Employees. *International Journal of Business and Management*, *8*, 80-88. <https://doi.org/10.5539/ijbm.v8n14p80>
- Chin, W. W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. *Modern Methods for Business Research*, *295*, 295-336.
- Chiocchio, F., Grenier, S., O'Neill, T. A., Savaria, K., & Willms, J. D. (2012). The Effects of Collaboration on Performance: A Multilevel Validation in Project Teams. *International Journal of Project Organisation and Management*, *4*, 1-37. <https://doi.org/10.1504/IJPOM.2012.045362>
- Chiocchio, F., Lebel, P., & Dubé, J.-N. (2016). Informational Role Self-Efficacy: A Validation in Interprofessional Collaboration Contexts Involving Healthcare Service and Project Teams. *BMC Health Services Research*, *16*, Article No. 153. <https://doi.org/10.1186/s12913-016-1382-x>

- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work Engagement: A Quantitative Review and Test of Its Relations with Task and Contextual Performance. *Personnel Psychology, 64*, 89-136. <https://doi.org/10.1111/j.1744-6570.2010.01203.x>
- Cohen, J. (1988). The Effect Size. In J. Cohen (Ed.), *Statistical Power Analysis for the Behavioral Sciences* (pp. 77-83). Erlbaum.
- Conger, J. A., Kanungo, R. N., & Menon, S. T. (2000). Charismatic Leadership and Follower Effects. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 21*, 747-767. [https://doi.org/10.1002/1099-1379\(200011\)21:7<747::AID-JOB46>3.0.CO;2-J](https://doi.org/10.1002/1099-1379(200011)21:7<747::AID-JOB46>3.0.CO;2-J)
- Conway, J. M., & Lance, C. E. (2010). What Reviewers Should Expect from Authors Regarding Common Method Bias in Organizational Research. *Journal of Business and Psychology, 25*, 325-334. <https://doi.org/10.1007/s10869-010-9181-6>
- Creswell, J. W. (1994). *Research Design*. Sage Publications.
- Crossley, N. (1996). *Intersubjectivity: The Fabric of Social Becoming* (Vol. 4). Sage. <https://doi.org/10.4135/9781446250532>
- Cummings, A. R. (2017). *The Effects of Social Power Bases within Varying Organizational Cultures*. City University of New York.
- Danermark, B. (2002). *Explaining Society: Critical Realism in the Social Sciences*. Psychology Press.
- Darisipudi, A. (2006). *Towards a Generalized Team Task Complexity Model*. Louisiana State University and Agricultural & Mechanical College.
- Darma, D. Q. (2021). Strengthening Teamwork, Visionary Leadership and Self Effication in Efforts to Improve Teachers Creativity. *Psychology and Education Journal, 58*, 3825-3837.
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership Capacity in Teams. *The Leadership Quarterly, 15*, 857-880. <https://doi.org/10.1016/j.leaqua.2004.09.001>
- Day, D. V., Riggio, R. E., Tan, S. J., & Conger, J. A. (2021). *Advancing the Science of 21st-Century Leadership Development: Theory, Research, and Practice*. Elsevier. <https://doi.org/10.1016/j.leaqua.2021.101557>
- de Cruz, N. (2019). A Conceptual Overview of Attaining, Maintaining, and Regaining Shared Leadership in High Performing Teams. *Journal of Leadership Education, 18*, 213-226. <https://doi.org/10.12806/V18/I1/T3>
- De Jong, R. D., Bouhuys, S. A., & Barnhoorn, J. C. (1999). Personality, Self-Efficacy and Functioning in Management Teams: A Contribution to Validation. *International Journal of Selection and Assessment, 7*, 46-49. <https://doi.org/10.1111/1468-2389.00103>
- Demont, E. (2017). *Impact of Perceived Self-Awareness on Attributions of Social Power, Moderated by Gender*. University of Pretoria,
- Dinh, J. E., Lord, R. G., Gardner, W. L., Meuser, J. D., Liden, R. C., & Hu, J. (2014). Leadership Theory and Research in the New Millennium: Current Theoretical Trends and Changing Perspectives. *The Leadership Quarterly, 25*, 36-62. <https://doi.org/10.1016/j.leaqua.2013.11.005>
- Dirik, D., & Eryilmaz, İ. (2018). Leader Power Bases and Organizational Outcomes: The Role of Perceived Organizational Politics. *JEEMS Journal of East European Management Studies, 23*, 532-558. <https://doi.org/10.5771/0949-6181-2018-4-532>
- Disch, J. (2012). Teamwork and Collaboration. In *Quality and Safety in Nursing: A Competency Approach to Improving Outcomes* (p. 1). Wiley.
- Driskell, J. E., Salas, E., & Driskell, T. (2018). Foundations of Teamwork and Collaboration. *American Psychologist, 73*, 334-348. <https://doi.org/10.1037/amp0000241>

- Dwyer, L. P. (2019). Leadership Self-Efficacy: Review and Leader Development Implications. *Journal of Management Development, 38*, 637-650. <https://doi.org/10.1108/JMD-03-2019-0073>
- Eastwood, J. G., Jalaludin, B. B., & Kemp, L. A. (2014). Realist Explanatory Theory Building Method for Social Epidemiology: A Protocol for a Mixed Method Multilevel Study of Neighbourhood Context and Postnatal Depression. *SpringerPlus, 3*, 12. <https://doi.org/10.1186/2193-1801-3-12>
- Eden, D. (1992). Leadership and Expectations: Pygmalion Effects and Other Self-Fulfilling Prophecies in Organizations. *The Leadership Quarterly, 3*, 271-305. [https://doi.org/10.1016/1048-9843\(92\)90018-B](https://doi.org/10.1016/1048-9843(92)90018-B)
- Eden, D., & Zuk, Y. (1995). Seasickness as a Self-Fulfilling Prophecy: Raising Self-Efficacy to Boost Performance at Sea. *Journal of Applied Psychology, 80*, 628-635. <https://doi.org/10.1037/0021-9010.80.5.628>
- Evans, J., & Mathur, A. (2005). The Value of Online Surveys. *Internet Research, 15*, 195-219. <https://doi.org/10.1108/10662240510590360>
- Ferris, G. R., & Kacmar, K. M. (1992). Perceptions of Organizational Politics. *Journal of Management, 18*, 93-116. <https://doi.org/10.1177/014920639201800107>
- French Jr, J. R. (1956). A Formal Theory of Social Power. *Psychological Review, 63*, 181-194. <https://doi.org/10.1037/h0046123>
- French, J., Raven, B., & Cartwright, D. (1959). The Bases of Social Power. *Classics of Organization Theory, 7*, 311-320.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal Initiative at Work: Differences between East and West Germany. *Academy of Management Journal, 39*, 37-63. <https://doi.org/10.2307/256630>
- Gallese, V. (2003). The Roots of Empathy: The Shared Manifold Hypothesis and the Neural Basis of Intersubjectivity. *Psychopathology, 36*, 171-180. <https://doi.org/10.1159/000072786>
- Gaski, J. F. (1986). Interrelations among a Channel Entity's Power Sources: Impact of the Exercise of Reward and Coercion on Expert, Referent, and Legitimate Power Sources. *Journal of Marketing Research, 23*, 62-77. <https://doi.org/10.1177/002224378602300107>
- Gebauer, J., Lowman, D., & Gordon, J. (2008). *Closing the Engagement Gap: How Great Companies Unlock Employee Potential for Superior Results*. Penguin.
- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural Equation Modeling and Regression: Guidelines for Research Practice. *Communications of the Association for Information Systems, 4*, Article No. 7. <https://doi.org/10.17705/1CAIS.00407>
- Gist, M. E., & Mitchell, T. R. (1992). Self-Efficacy: A Theoretical Analysis of Its Determinants and Malleability. *Academy of Management Review, 17*, 183-211. <https://doi.org/10.5465/amr.1992.4279530>
- Graumann, C. F. (1986). Power and Leadership in Lewinian Field Theory: Recalling an Interrupted Task. In *Changing Conceptions of Leadership* (pp. 83-99). Springer. https://doi.org/10.1007/978-1-4612-4876-7_6
- Güntner, A. V., Klonek, F. E., Lehmann-Willenbrock, N., & Kauffeld, S. (2020). Follower Behavior Renders Leader Behavior Endogenous: The Simultaneity Problem, Estimation Challenges, and Solutions. *The Leadership Quarterly, 31*, Article ID: 101441. <https://doi.org/10.1016/j.leaqua.2020.101441>
- Haller, D. K., Fischer, P., & Frey, D. (2018). The Power of Good: A Leader's Personal Power as a Mediator of the Ethical Leadership-Follower Outcomes Link. *Frontiers in Psychology, 9*, Article No. 1094. <https://doi.org/10.3389/fpsyg.2018.01094>

- Hannah, S. T., Avolio, B. J., Luthans, F., & Harms, P. D. (2008). Leadership Efficacy: Review and Future Directions. *The Leadership Quarterly, 19*, 669-692. <https://doi.org/10.1016/j.leaqua.2008.09.007>
- Hassan Nasir, M. (2021). *The Impact of Contractual Hiring on the Performance of Project Based Organizations*. Department of Management Science, COMSATS University Lahore.
- Hattrup, K., O'Connell, M. S., & Wingate, P. H. (1998). Prediction of Multidimensional Criteria: Distinguishing Task and Contextual Performance. *Human Performance, 11*, 305-319. https://doi.org/10.1207/s15327043hup1104_1
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium. *Communication Monographs, 76*, 408-420. <https://doi.org/10.1080/03637750903310360>
- Hayward, C., & Lukes, S. (2008). Nobody to Shoot? Power, Structure, and Agency: A Dialogue. *Journal of Power, 1*, 5-20. <https://doi.org/10.1080/17540290801943364>
- Henneman, E. A., Lee, J. L., & Cohen, J. I. (1995). Collaboration: A Concept Analysis. *Journal of Advanced Nursing, 21*, 103-109. <https://doi.org/10.1046/j.1365-2648.1995.21010103.x>
- Hennessy, J. L. (2020). 6. Collaboration and Teamwork: You Cannot Do It Alone. In *Leading Matters* (pp. 83-100). Stanford University Press. <https://doi.org/10.1515/9781503608023-008>
- Hernaus, T., Škerlavaj, M., & Dimovski, V. (2008). Relationship between Organisational Learning and Organisational Performance: The Case of Croatia. *Transformations in Business & Economics, 7*, 32-48.
- Hirschfeld, R. R., Jordan, M. H., Feild, H. S., Giles, W. F., & Armenakis, A. A. (2006). Becoming Team Players: Team Members' Mastery of Teamwork Knowledge as a Predictor of Team Task Proficiency and Observed Teamwork Effectiveness. *Journal of Applied Psychology, 91*, 467-474. <https://doi.org/10.1037/0021-9010.91.2.467>
- Ho, P.-H., Huang, C.-W., Lin, C.-Y., & Yen, J.-F. (2016). CEO Overconfidence and Financial Crisis: Evidence from Bank Lending and Leverage. *Journal of Financial Economics, 120*, 194-209. <https://doi.org/10.1016/j.jfineco.2015.04.007>
- Hoegl, M., & Parboteeah, K. P. (2003). Goal Setting and Team Performance in Innovative Projects: On the Moderating Role of Teamwork Quality. *Small Group Research, 34*, 3-19. <https://doi.org/10.1177/1046496402239575>
- Hooijberg, R., & Watkins, M. (2021). The Future of Team Leadership Is Multimodal. *MIT Sloan Management Review, 62*, 1-4.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *The Electronic Journal of Business Research Methods, 6*, 53-60.
- House, R. J. (1977). *A 1976 Theory of Charismatic Leadership*. Faculty of Management Studies, University of Toronto.
- Hoyt, C. L., Murphy, S. E., Halverson, S. K., & Watson, C. B. (2003). Group Leadership: Efficacy and Effectiveness. *Group Dynamics: Theory, Research, and Practice, 7*, 259-274. <https://doi.org/10.1037/1089-2699.7.4.259>
- Iroegbu, M. N. (2015). Self-Efficacy and Work Performance: A Theoretical Framework of Albert Bandura's Model, Review of Findings, Implications and Directions for Future Research. *Psychology and Behavioral Sciences, 4*, 170-173. <https://doi.org/10.11648/j.pbs.20150404.15>
- Ismail, S. N., Kanesan, A. G., & Muhammad, F. (2018). Teacher Collaboration as a Me-

- diator for Strategic Leadership and Teaching Quality. *International Journal of Instruction*, 11, 485-498. <https://doi.org/10.12973/iji.2018.11430a>
- Janda, K. F. (1960). Towards the Explication of the Concept of Leadership in Terms of the Concept of Power. *Human Relations*, 13, 345-363. <https://doi.org/10.1177/001872676001300404>
- Jawahar, I., Meurs, J. A., Ferris, G. R., & Hochwarter, W. A. (2008). Self-Efficacy and Political Skill as Comparative Predictors of Task and Contextual Performance: A Two-Study Constructive Replication. *Human Performance*, 21, 138-157. <https://doi.org/10.1080/08959280801917685>
- Jordan, P. J. (2000). High Performing Work Teams: Does Emotional Intelligence Matter? In M. Sheehan, S. Ramsay, & J. Patrick (Eds.), *Transcending Boundaries: Integrating People, Processes and Systems* (p. 208). Griffith University.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*. Scientific Software International.
- Judge, T. A., LePine, J. A., & Rich, B. L. (2006). Loving Yourself Abundantly: Relationship of the Narcissistic Personality to Self- and Other Perceptions of Workplace Deviance, Leadership, and Task and Contextual Performance. *Journal of Applied Psychology*, 91, 762-776. <https://doi.org/10.1037/0021-9010.91.4.762>
- Kabanoff, B., & O'Brien, G. E. (1979). Cooperation Structure and the Relationship of Leader and Member Ability to Group Performance. *Journal of Applied Psychology*, 64, 526-532. <https://doi.org/10.1037/0021-9010.64.5.526>
- Kahya, E. (2007). The Effects of Job Characteristics and Working Conditions on Job Performance. *International Journal of Industrial Ergonomics*, 37, 515-523. <https://doi.org/10.1016/j.ergon.2007.02.006>
- Kaiser, R. B., LeBreton, J. M., & Hogan, J. (2015). The Dark Side of Personality and Extreme Leader Behavior. *Applied Psychology*, 64, 55-92. <https://doi.org/10.1111/apps.12024>
- Kappagoda, U. (2018). *Self-Efficacy, Task Performance and Contextual Performance: A Sri Lankan Experience*. <https://doi.org/10.2139/ssrn.3198802>
- Katz-Navon, T. Y., & Erez, M. (2005). When Collective- and Self-Efficacy Affect Team Performance: The Role of Task Interdependence. *Small Group Research*, 36, 437-465. <https://doi.org/10.1177/1046496405275233>
- Keogh, K., & Sonenberg, L. (2006). Agent Teamwork and Reorganization: Exploring Self-Awareness in Dynamic Situations. In *The First International Workshop on Agent Technology for Disaster Management* (pp. 56-63).
- Khan, Z., Shahzad, S., Karim, N., & Amin, A. (2015). Determining the Role of Teamwork, Leadership Communication, Commitment, Self Efficacy and Its Impact on Organization. *City University Research Journal*, 5, 39-48.
- Kipnis, D., Schmidt, S. M., & Wilkinson, I. (1980). Intraorganizational Influence Tactics: Explorations in Getting One's Way. *Journal of Applied Psychology*, 65, 440-452. <https://doi.org/10.1037/0021-9010.65.4.440>
- Kirkman, B. L., & Rosen, B. (1999). Beyond Self-Management: Antecedents and Consequences of Team Empowerment. *Academy of Management Journal*, 42, 58-74. <https://doi.org/10.2307/256874>
- Klein, K. J., & Kozlowski, S. W. (2000). From Micro to Meso: Critical Steps in Conceptualizing and Conducting Multilevel Research. *Organizational Research Methods*, 3, 211-236. <https://doi.org/10.1177/109442810033001>
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). Guilford Press.

- Koolwijk, J. S. J., van Oel, C. J., & Gaviria Moreno, J. C. (2020). No-Blame Culture and the Effectiveness of Project-Based Design Teams in the Construction Industry: The Mediating Role of Teamwork. *Journal of Management in Engineering*, *36*, Article ID: 04020033. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000796](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000796)
- Koonce, R. (2012). *The Motivational Complexity of Leader-Follower Verbal Communication and Job Satisfaction*. Grand Canyon University.
- Kozlowski, S. W., Watola, D. J., Jensen, J. M., Kim, B. H., & Botero, I. C. (2009). Developing Adaptive Teams: A Theory of Dynamic Team Leadership. In *Team Effectiveness in Complex Organizations: Cross-Disciplinary Perspectives and Approaches* (pp. 113-155). Routledge/Taylor & Francis Group.
- Krauter, J. (2020). Explaining Leadership: A Framework for a Layered Ontology of Leadership. *Journal of Critical Realism*, *19*, 500-521. <https://doi.org/10.1080/14767430.2020.1827925>
- Krstevska, G., & Rizoska-Jovanovska, S. (2021). The Challenge of 21st Century Leadership: The Transition from “I” to “We”. *Journal of Economics*, *6*, 22-29. <https://doi.org/10.46763/JOE2160022k>
- Kuziemsky, C. E., & Cornett, J. A. (2013). A Model of Collaborative Agency and Common Ground. In *Enabling Health and Healthcare through ICT* (pp. 388-392). IOS Press.
- Lai, E. R. (2011). *Collaboration: A Literature Review*. Pearson Publisher. <https://doi.org/10.25148/lawrev.11.2.3>
- Lawrence, K. A., Lenk, P., & Quinn, R. E. (2009). Behavioral Complexity in Leadership: The Psychometric Properties of a New Instrument to Measure Behavioral Repertoire. *The Leadership Quarterly*, *20*, 87-102. <https://doi.org/10.1016/j.leaqua.2009.01.014>
- Lee, M. R. (2021). *Leading Virtual Project Teams: Adapting Leadership Theories and Communications Techniques to 21st Century Organizations*. CRC Press. <https://doi.org/10.1201/9781003119869>
- Lemos, M. (2017). Collaborative Agency in Educational Management: A Joint Object for School and Community Transformation. *Revista de Administração de Empresas*, *57*, 555-566. <https://doi.org/10.1590/s0034-759020170604>
- Lennings, C. (1994). An Evaluation of a Generalized Self-Efficacy Scale. *Personality and Individual Differences*, *16*, 745-750. [https://doi.org/10.1016/0191-8869\(94\)90215-1](https://doi.org/10.1016/0191-8869(94)90215-1)
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The Nature and Dimensionality of Organizational Citizenship Behavior: A Critical Review and Meta-Analysis. *Journal of Applied Psychology*, *87*, 52-65. <https://doi.org/10.1037/0021-9010.87.1.52>
- LePine, J. A., Hanson, M. A., Borman, W. C., & Motowidlo, S. J. (2000). Contextual Performance and Teamwork: Implications for Staffing. In *Research in Personnel and Human Resources Management* (pp. 53-90). Emerald Group Publishing Limited.
- LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E., & Saul, J. R. (2008). A Meta-Analysis of Teamwork Processes: Tests of a Multidimensional Model and Relationships with Team Effectiveness Criteria. *Personnel Psychology*, *61*, 273-307. <https://doi.org/10.1111/j.1744-6570.2008.00114.x>
- Lev, S., & Koslowsky, M. (2009). Moderating the Collective and Self-Efficacy Relationship. *Journal of Educational Administration*, *47*, 452-462. <https://doi.org/10.1108/09578230910967437>
- Li, L. J., & Hallinger, P. (2015). *Collaboration as a Mediator in the Relationship between Principal Leadership and Teacher Professional Learning: The Hong Kong Experience*.
- Lin, C.-P., Liu, C.-M., Joe, S.-W., Chen, K.-J., & Tsai, C.-C. (2022). Modelling Leadership and Team Performance: The Moderation of Politics and Leadership Self-Efficacy. *Total*

- Quality Management & Business Excellence*, 33, 73-91.
<https://doi.org/10.1080/14783363.2020.1794804>
- Littlepage, G. E., & Wertheimer, M. (2017). Teamwork and Emergent Cognitive States as Predictors of Routine and Adaptive Performance in Flight Dispatch Centers. In *The 19th International Symposium on Aviation Psychology* (p. 125). Middle Tennessee State University.
- Locke, E. A., & Latham, G. P. (2006). New Directions in Goal-Setting Theory. *Current Directions in Psychological Science*, 15, 265-268.
<https://doi.org/10.1111/j.1467-8721.2006.00449.x>
- Loeb, C. (2016). *Self-Efficacy at Work*.
- Lord, R. G., Day, D. V., Zaccaro, S. J., Avolio, B. J., & Eagly, A. H. (2017). Leadership in Applied Psychology: Three Waves of Theory and Research. *Journal of Applied Psychology*, 102, 434-451. <https://doi.org/10.1037/apl0000089>
- Lunenburg, F. C. (2012). Power and Leadership: An Influence Process. *International Journal of Management, Business, and Administration*, 15, 1-9.
- Lyons, C. A., & Murphy, M. J. (1994). *Principal Self-Efficacy and the Use of Power*.
- MacKenzie, S. B., & Podsakoff, P. M. (2012). Common Method Bias in Marketing: Causes, Mechanisms, and Procedural Remedies. *Journal of Retailing*, 88, 542-555.
<https://doi.org/10.1016/j.jretai.2012.08.001>
- Mardia, K. V. (1985). Mardia's Test of Multinormality. In S. Kotz, & N. L. Johnson (Eds.), *Encyclopedia of Statistical Sciences* (Vol. 5, pp. 217-221). John Wiley.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A Temporally Based Framework and Taxonomy of Team Processes. *Academy of Management Review*, 26, 356-376.
<https://doi.org/10.5465/amr.2001.4845785>
- Mathieu, J. E., Luciano, M. M., D'Innocenzo, L., Klock, E. A., & LePine, J. A. (2020). The Development and Construct Validity of a Team Processes Survey Measure. *Organizational Research Methods*, 23, 399-431. <https://doi.org/10.1177/1094428119840801>
- McClelland, D. (1985). Human Motivation. Glenview, IL: Scott. In *The Foresmen Proceedings of the Third Creativity, Innovation an Entrepreneurship Symposium*.
- McCormick, M. J. (2001). Self-Efficacy and Leadership Effectiveness: Applying Social Cognitive Theory to Leadership. *Journal of Leadership Studies*, 8, 22-33.
<https://doi.org/10.1177/107179190100800102>
- McDonald, R. P., & Ho, M.-H. R. (2002). Principles and Practice in Reporting Structural Equation Analyses. *Psychological Methods*, 7, 64-82.
<https://doi.org/10.1037/1082-989X.7.1.64>
- McIntyre, R. M., & Salas, E. (1995). Measuring and Managing for Team Performance: Emerging Principles from Complex Environments. In R. A. Guzzo, & E. Salas (Eds.), *Team Effectiveness and Decision Making in Organizations* (pp. 9-45). Jossey-Bass.
- Miettinen, R. (2010). *Creative Encounters and the Emergence of Object-Oriented Collaborative Agency*. European Group of Organizational Studies.
- Miettinen, R. (2013). Creative Encounters and Collaborative Agency in Science, Technology and Innovation. In K. Thomas, & J. Chan (Eds.), *Handbook of Research on Creativity* (pp. 435-449). Edward Elgar Publishing.
- Mijakoski, D., Karadzinska-Bislimovska, J., Basarovska, V., Minov, J., Stoleski, S., Angeleska, N., & Atanasovska, A. (2015). Work Demands-Burnout and Job Engagement-Job Satisfaction Relationships: Teamwork as a Mediator and Moderator. *Open Access Macedonian Journal of Medical Sciences*, 3, 176-183.
<https://doi.org/10.3889/oamjms.2015.024>

- Mitchell, V.-W. (1994). Using Industrial Key Informants: Some Guidelines. *Journal of the Market Research Society*, 36, 139-145. <https://doi.org/10.1177/147078539403600206>
- Mittal, R., & Elias, S. M. (2016). Social Power and Leadership in Cross-Cultural Context. *Journal of Management Development*, 35, 58-74. <https://doi.org/10.1108/JMD-02-2014-0020>
- Moore, T. T., & Chang, J. C.-J. (2009). Self-Efficacy, Overconfidence, and the Negative Effect on Subsequent Performance: A Field Study. *Information & Management*, 46, 69-76. <https://doi.org/10.1016/j.im.2008.11.006>
- Morgan Jr, B. B., Salas, E., & Glickman, A. S. (1993). An Analysis of Team Evolution and Maturation. *The Journal of General Psychology*, 120, 277-291. <https://doi.org/10.1080/00221309.1993.9711148>
- Morgeson, F. P., Reider, M. H., & Campion, M. A. (2005). Selecting Individuals in Team Settings: The Importance of Social Skills, Personality Characteristics, and Teamwork Knowledge. *Personnel Psychology*, 58, 583-611. <https://doi.org/10.1111/j.1744-6570.2005.655.x>
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence That Task Performance Should Be Distinguished from Contextual Performance. *Journal of Applied Psychology*, 79, 475-480. <https://doi.org/10.1037/0021-9010.79.4.475>
- Mowday, R. T. (1979). Leader Characteristics, Self-Confidence, and Methods of Upward Influence in Organizational Decision Situations. *Academy of Management Journal*, 22, 709-725. <https://doi.org/10.5465/255810>
- Munduate, L., & Dorado, M. A. (1998). Supervisor Power Bases, Co-Operative Behaviour, and Organizational Commitment. *European Journal of Work and Organizational Psychology*, 7, 163-177. <https://doi.org/10.1080/135943298398853>
- Murphy, S. E., Reichard, R. J., & Johnson, S. K. (2008). Self-Regulation and Leadership: Implications for Leader Performance and Leader Development. In C. L. Hoyt, G. R. Goethals, & D. R. Forsyth (Eds.), *Leadership at the Crossroads: Leadership and Psychology* (Vol. 1, pp. 250-264). Praeger.
- Murray, J. (2017). Complexity Leadership and Collective Action in the Age of Networks. *College English*, 79, 512-525.
- Nevicka, B., Baas, M., & Ten Velden, F. S. (2016). The Bright Side of Threatened Narcissism: Improved Performance Following Ego Threat. *Journal of Personality*, 84, 809-823. <https://doi.org/10.1111/jopy.12223>
- Ng, K.-Y., Ang, S., & Chan, K.-Y. (2008). Personality and Leader Effectiveness: A Moderated Mediation Model of Leadership Self-Efficacy, Job Demands, and Job Autonomy. *Journal of Applied Psychology*, 93, 733-743. <https://doi.org/10.1037/0021-9010.93.4.733>
- Nikoloski, K. (2015). Leadership and Management: Practice of the Art of Influence. *Annals of the "Constantin Brâncuș" University of Târgu Jiu, Economy Series*, 1, 31-39.
- Northouse, P. G. (2015). *Leadership: Theory and Practice*. Sage Publications.
- Nykänen, L. (2019). *Collaborative Agency in Leadership: An Ethnographic Study in a Software Startup*. Itä-Suomen yliopisto.
- Organ, D. W. (1997). Organizational Citizenship Behavior: It's Construct Clean-Up Time. *Human Performance*, 10, 85-97. https://doi.org/10.1207/s15327043hup1002_2
- Padilla, A., Hogan, R., & Kaiser, R. B. (2007). The Toxic Triangle: Destructive Leaders, Susceptible Followers, and Conducive Environments. *The Leadership Quarterly*, 18, 176-194. <https://doi.org/10.1016/j.leaqua.2007.03.001>

- Paglis, L. L. (2010). Leadership Self-Efficacy: Research Findings and Practical Applications. *Journal of Management Development*, *29*, 771-782. <https://doi.org/10.1108/02621711011072487>
- Pearce, C. L., & Manz, C. C. (2005). The New Silver Bullets of Leadership: The Importance of Self- and Shared Leadership in Knowledge Work. *Organizational Dynamics*, *34*, 130-140. <https://doi.org/10.1016/j.orgdyn.2005.03.003>
- Pearl, J. (2003). Causality: Models, Reasoning, and Inference. *Econometric Theory*, *19*, 675-685. <https://doi.org/10.1017/S0266466603004110>
- Pendley, M. (2021). *School Social Work Leadership Self-Efficacy and Perceptions of Multidisciplinary Collaboration*. Walden University,
- Pettigrew, A. M. (1972). Information Control as a Power Resource. *Sociology*, *6*, 187-204. <https://doi.org/10.1177/003803857200600202>
- Pinsonneault, A., & Kraemer, K. L. (1993). Survey Research Methodology in Management Information Systems: An Assessment. *Journal of Management Information Systems*, *10*, 75-105. <https://doi.org/10.1080/07421222.1993.11518001>
- Podsakoff, P. M., & Organ, D. W. (1986). Self-Reports in Organizational Research: Problems and Prospects. *Journal of Management*, *12*, 531-544. <https://doi.org/10.1177/014920638601200408>
- Podsakoff, P. M., & Schriesheim, C. A. (1985). Field Studies of French and Raven's Bases of Power: Critique, Reanalysis, and Suggestions for Future Research. *Psychological Bulletin*, *97*, 387-411. <https://doi.org/10.1037/0033-2909.97.3.387>
- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational Citizenship Behavior and the Quantity and Quality of Work Group Performance. *Journal of Applied Psychology*, *82*, 262-270. <https://doi.org/10.1037/0021-9010.82.2.262>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common Method Biases In Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, *88*, 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Prusak, L. (2011). Building a Collaborative Enterprise. *Harvard Business Review*, *89*, 94-101.
- Raelin, J. A. (2016). Imagine There Are No Leaders: Reframing Leadership as Collaborative Agency. *Leadership*, *12*, 131-158. <https://doi.org/10.1177/1742715014558076>
- Raelin, J. A. (2020). Toward a Methodology for Studying Leadership-as-Practice. *Leadership*, *16*, 480-508. <https://doi.org/10.1177/1742715019882831>
- Rahim, M. A. (2009). Bases of Leader Power and Effectiveness. In *Power and Interdependence in Organizations* (p. 224). Cambridge University Press. <https://doi.org/10.1017/CBO9780511626562.015>
- Rahim, M., & Psenicka, C. (1996). Bases of Leader Power, Workgroup Commitment, and Conflict: A Structural Equations Model. *Current Topics in Management*, *1*, 31-47.
- Rauniyar, K., Ding, D., & Rauniyar, N. (2017). Understanding the Role of Creative Self-Efficacy and Power Distance Orientation for Examining the Consequences of Abusive Supervision on Employee Creativity: A Case Study from Nepal. *Open Journal of Leadership*, *6*, 61-81. <https://doi.org/10.4236/ojl.2017.62004>
- Raven, B. H. (1992). A Power/Interaction Model of Interpersonal Influence: French and Raven Thirty Years Later. *Journal of Social Behavior & Personality*, *7*, 217-244.
- Reeves, S., Xyrichis, A., & Zwarenstein, M. (2018). *Teamwork, Collaboration, Coordination, and Networking: Why We Need to Distinguish between Different Types of Inter-professional Practice*. Taylor & Francis.

- <https://doi.org/10.1080/13561820.2017.1400150>
- Reiley, P. J., & Jacobs, R. R. (2019). Linking Leader Power Use and Performance: The Mediating Role of Follower Satisfaction and Commitment. *Journal of Management & Organization*, 1-21. <https://doi.org/10.1017/jmo.2019.20>
- Reilly, R. R., & Aronson, Z. H. (2009). Managing Contextual Performance. In *Performance management: Putting Research into Action* (pp. 297-328). Wiley.
- Riggio, R. E. (2018). *What's Wrong with Leadership? Improving Leadership Research and Practice*. Routledge. <https://doi.org/10.4324/9781315163604>
- Ross, D. B., Matteson, R., & Exposito, J. (2014). *Servant Leadership to Toxic Leadership: Power of Influence over Power of Control*.
- Rost, J. C. (1991). *Leadership for the Twenty-First Century*. Greenwood Publishing Group.
- Russell, M. (2003). Leadership and Followership as a Relational Process. *Educational Management Administration & Leadership*, 31, 145-157. <https://doi.org/10.1177/0263211X0303102103>
- Salanova, M., Rodríguez-Sánchez, A. M., Schaufeli, W. B., & Cifre, E. (2014). Flowing Together: A Longitudinal Study of Collective Efficacy and Collective Flow among Workgroups. *The Journal of Psychology*, 148, 435-455. <https://doi.org/10.1080/00223980.2013.806290>
- Salas, E., Dinh, J., & Reyes, D. (2019). What Makes a Good Team Leader? *The Journal of Character & Leadership Development*, 6, 88-100.
- Salas, E., Shuffler, M. L., Thayer, A. L., Bedwell, W. L., & Lazzara, E. H. (2015). Understanding and Improving Teamwork in Organizations: A Scientifically Based Practical Guide. *Human Resource Management*, 54, 599-622. <https://doi.org/10.1002/hrm.21628>
- Salas, E., Sims, D. E., & Burke, C. S. (2005). Is There a "Big Five" in Teamwork? *Small Group Research*, 36, 555-599. <https://doi.org/10.1177/1046496405277134>
- Sarangi, S., & Srivastava, R. K. (2012). Impact of Organizational Culture and Communication on Employee Engagement: An Investigation of Indian Private Banks. *South Asian Journal of Management*, 19, 18-33.
- Sauer, S. J. (2011). Taking the Reins: The Effects of New Leader Status and Leadership Style on Team Performance. *Journal of Applied Psychology*, 96, 574-587. <https://doi.org/10.1037/a0022741>
- Sayer, A. (2000). *Realism and Social Science*. Sage. <https://doi.org/10.4135/9781446218730>
- Scholl, N., Mulders, S., & Drent, R. (2002). On-Line Qualitative Market Research: Interviewing the World at a Fingertip. *Qualitative Market Research: An International Journal*, 5, 210-223. <https://doi.org/10.1108/13522750210697596>
- Schot, E., Tummers, L., & Noordegraaf, M. (2020). Working on Working Together. A Systematic Review on How Healthcare Professionals Contribute to Interprofessional Collaboration. *Journal of Interprofessional Care*, 34, 332-342. <https://doi.org/10.1080/13561820.2019.1636007>
- Schumacher, R., & Lomax, R. G. (1996). *A Beginner's Guide to SEM*. Lawrence.
- Sehgal, P., Nambudiri, R., & Mishra, S. K. (2017). Teacher Effectiveness through Self-Efficacy, Collaboration and Principal Leadership. *International Journal of Educational Management*, 31, 505-517. <https://doi.org/10.1108/IJEM-05-2016-0090>
- Shepperd, J. A., Pogge, G., & Howell, J. L. (2016). Assessing the Consequences of Unrealistic Optimism: Challenges and Recommendations. *Consciousness and Cognition*, 50, 69-78. <https://doi.org/10.1016/j.concog.2016.07.004>

- Simpson, B. (2016). Where's the Agency in Leadership-as-Practice. In *Leadership-as-Practice: Theory and Application* (pp. 159-177). Routledge.
<https://doi.org/10.4324/9781315684123-8>
- Söhnchen, F. (2009). Common Method Variance Und Single Source Bias. In *Methodik der empirischen Forschung* (pp. 137-152). Springer.
https://doi.org/10.1007/978-3-322-96406-9_10
- Stagl, K. C., Salas, E., Rosen, M. A., Priest, H. A., Burke, C. S., Goodwin, G. F., & Johnston, J. H. (2007). Distributed Team Performance: A Multi-Level Review of Distribution, Demography, and Decision Making. In F. Dansereau, & F. J. Yammarino, (Eds.), *Multi-Level Issues in Organizations and Time (Research in Multi-Level Issues)* (Vol. 6, pp. 11-58). Emerald Group Publishing Limited.
[https://doi.org/10.1016/S1475-9144\(07\)06001-8](https://doi.org/10.1016/S1475-9144(07)06001-8)
- Steiner, I. D. (1972). *Group Process and Productivity*. Academic Press.
- Steinmetz, H. (2015). *Lineare Strukturgleichungsmodelle: Eine Einführung mit R*. Rainer Hampp Verlag.
- Stryker, S., & Burke, P. J. (2000). The Past, Present, and Future of an Identity Theory. *Social Psychology Quarterly*, 63, 284-297. <https://doi.org/10.2307/2695840>
- Student, K. R. (1968). Supervisory Influence and Work-Group Performance. *Journal of Applied Psychology*, 52, 188-194. <https://doi.org/10.1037/h0025886>
- Tavakol, M., & Dennick, R. (2011). Making Sense of Cronbach's Alpha. *International Journal of Medical Education*, 2, 53-55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Tehseen, S., Ramayah, T., & Sajilan, S. (2017). Testing and Controlling for Common Method Variance: A Review of Available Methods. *Journal of Management Sciences*, 4, 142-168. <https://doi.org/10.20547/jms.2014.1704202>
- Thomson, A. M., Perry, J. L., & Miller, T. K. (2009). Conceptualizing and Measuring Collaboration. *Journal of Public Administration Research and Theory*, 19, 23-56.
<https://doi.org/10.1093/jopart/mum036>
- Tost, L. P., Gino, F., & Larrick, R. P. (2013). When Power Makes Others Speechless: The Negative Impact of Leader Power on Team Performance. *Academy of Management Journal*, 56, 1465-1486. <https://doi.org/10.5465/amj.2011.0180>
- Troth, A. C., Jordan, P. J., Lawrence, S. A., & Tse, H. H. (2012). A Multilevel Model of Emotional Skills, Communication Performance, and Task Performance in Teams. *Journal of Organizational Behavior*, 33, 700-722. <https://doi.org/10.1002/job.785>
- Tseng, H., Ku, H.-Y., Wang, C.-H., & Sun, L. (2009). Key Factors in Online Collaboration and Their Relationship to Teamwork Satisfaction. *Quarterly Review of Distance Education*, 10, 195-206. <https://doi.org/10.1037/t26434-000>
- Turner, R. H. (1978). The Role and the Person. *American Journal of Sociology*, 84, 1-23.
<https://doi.org/10.1086/226738>
- Uhl-Bien, M. (2021). Complexity and COVID-19: Leadership and Followership in a Complex World. *Journal of Management Studies*, 58, 1400-1405.
<https://doi.org/10.1111/joms.12696>
- Van den Bossche, P., Gijssels, W. H., Segers, M., & Kirschner, P. A. (2006). Social and Cognitive Factors Driving Teamwork in Collaborative Learning Environments: Team Learning Beliefs and Behaviors. *Small Group Research*, 37, 490-521.
<https://doi.org/10.1177/1046496406292938>
- van Knippenberg, D. (2017). Team Leadership. In *The Wiley Blackwell Handbook of the Psychology of Team Working and Collaborative Processes* (pp. 345-368). Wiley.

- <https://doi.org/10.1002/9781118909997.ch15>
- Van Oers, B., & Hännikäinen, M. (2001). Some Thoughts about Togetherness: An Introduction Reflexions sur e Togetherness f Algunos Pensamientos Sobre el Sentimiento de Unión. *International Journal of Early Years Education*, 9, 101-108.
<https://doi.org/10.1080/713670686>
- Vandenbergh, C., Bentein, K., & Stinglhamber, F. (2004). Affective Commitment to the Organization, Supervisor, and Work Group: Antecedents and Outcomes. *Journal of Vocational Behavior*, 64, 47-71. [https://doi.org/10.1016/S0001-8791\(03\)00029-0](https://doi.org/10.1016/S0001-8791(03)00029-0)
- Varaki, B. S., & Earl, L. (2005). Epistemic Fallacy in Educational Research. *Masalah Pendidikan*, 28, 279-288.
- Vigoda-Gadot, E. (2007). Leadership Style, Organizational Politics, and Employees' Performance: An Empirical Examination of Two Competing Models. *Personnel Review*, 36, 661-683. <https://doi.org/10.1108/00483480710773981>
- Wageman, R., & Mannix, E. A. (1998). Task-Performing Teams. In R. M. Kramer, & M. A. Neale (Eds.), *Power and Influence in Organizations* (pp. 261-285). SAGE Publications. <https://doi.org/10.4135/9781483345291.n12>
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic Leadership: Development and Validation of a Theory-Based Measure. *Journal of Management*, 34, 89-126. <https://doi.org/10.1177/0149206307308913>
- Weiber, R., & Mühlhaus, D. (2014). *Strukturgleichungsmodellierung: Eine anwendungsorientierte Einführung in die Kausalanalyse mit Hilfe von AMOS, SmartPLS und SPSS*. Springer-Verlag. https://doi.org/10.1007/978-3-642-35012-2_15
- Widianto, S. (2021). Empowering Leadership to Performance Excellence: The Role of Knowledge Sharing and Self-Efficacy. *International Journal of Business Excellence*, 23, 297-311. <https://doi.org/10.1504/IJBEX.2021.113701>
- Wynn, D., & Williams, C. (2012). Principles for Conducting Critical Realist Case Study Research in Information Systems. *MIS Quarterly*, 36, 787-810.
<https://doi.org/10.2307/41703481>
- Yang, L.-R., & Chen, Y.-T. (2010). Project Manager's Leadership Style Linked with Schedule and Cost Performance. In *The 2010 International Conference on Management and Service Science* (pp. 1-4). Institute of Electrical and Electronics Engineers.
<https://doi.org/10.1109/ICMSS.2010.5577222>
- Yangchun, F. (2014). The Effect of Inclusive Leadership on Team Performance: Based on the Mediating Effect of Self-Efficacy. *Science Research Management*, 35, 152-160.
- Yost, D. M., Conrad, M., Watkins, L., Parr, K., & Gordon, H. R. (2019). A Pilot Survey of a Self-Efficacy Tool for Career and Technical Education Administrators. *Journal of Leadership Education*, 18, 70-81.
- Yuan, Y., & Van Knippenberg, D. (2021). Leader Network Centrality and Team Performance: Team Size as Moderator and Collaboration as Mediator. *Journal of Business and Psychology*, 37, 283-296. <https://doi.org/10.1007/s10869-021-09745-4>
- Yukl, G., & Falbe, C. M. (1991). Importance of Different Power Sources in Downward and Lateral Relations. *Journal of Applied Psychology*, 76, 416-423.
<https://doi.org/10.1037/0021-9010.76.3.416>
- Yukl, G., & Mahsud, R. (2010). Why Flexible and Adaptive Leadership Is Essential. *Consulting Psychology Journal: Practice and Research*, 62, 81-93.
<https://doi.org/10.1037/a0019835>
- Zaccaro, S. J., & Klimoski, R. (2002). *The Interface of Leadership and Team Processes*. Sage Publications. <https://doi.org/10.1177/1059601102027001002>

- Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team Leadership. *The Leadership Quarterly*, *12*, 451-483. [https://doi.org/10.1016/S1048-9843\(01\)00093-5](https://doi.org/10.1016/S1048-9843(01)00093-5)
- Zawawi, A. A., & Nasurdin, A. M. (2020). The Association between Team Skills and Nursing Team Performance: A Malaysian Perspective. *International Journal of Care Scholars*, *3*, 3-16.
- Zlatev, J., Racine, T. P., Sinha, C., & Itkonen, E. (2008). *The Shared Mind: Perspectives on Intersubjectivity* (Vol. 12). John Benjamins Publishing. <https://doi.org/10.1075/ceIcr.12>
- Zojjani, A., & Llac, S. (2014). The Role of Power in Effective Leadership and Followership: The Albanian Case. *Romanian Economic and Business Review*, *9*, 89-102.