Transformational leadership despite COVID-19

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Abstract

The study examined the behavior of transformational leadership in the global health crisis caused by COVID-19. The results of a survey of business leaders in Brazil suggest there are differences between the indicators and their relationship with new ideas during the period. The dimensions of being innovative and encouraging individualized staff development were identified as the main predictive indicators of the ability to implement innovative actions, which is an important capacity for business survival in times of crisis. The methodological strategy adopted was the logistic regression analysis. The paper makes three main contributions: theoretically, it identifies particular indicators of transformational leadership as predictors of innovative actions implemented in companies during a real crisis; methodologically, the analysis rescued the original characteristics of the transformational leadership scale by using it as a formative tool; and practically, the findings of differences in behavioral results from particular indicators can equip professionals with useful information for management and in the area of recruitment and training.

Keywords

Transformational leadership; COVID-19; Innovation; World crisis

Liderança transformacional apesar da COVID-19

Resumo

O estudo analisou o comportamento da liderança transformacional na crise sanitária global causada pela COVID-19. Os resultados de uma pesquisa com líderes empresariais no Brasil sugerem que há diferenças entre os indicadores e sua relação com novas ideias durante o período. As dimensões de ser inovador e incentivar o desenvolvimento individualizado da equipe foram identificadas como os principais indicadores preditivos da capacidade de implementar ações inovadoras, o que é uma capacidade importante para a sobrevivência empresarial em tempos de crise. A estratégia metodológica adotada foi a análise de regressão logística. O artigo faz três contribuições principais: teoricamente, identifica indicadores particulares de liderança transformacional como preditores de ações inovadoras implementadas em empresas durante uma crise real; metodologicamente, a análise resgatou as características originais da escala de liderança transformacional ao usá-la como uma ferramenta formativa; e, praticamente, os achados de diferenças nos resultados comportamentais de indicadores particulares podem equipar os profissionais com informações úteis para a gestão e na área de recrutamento e treinamento.

Palavras-Chave

Liderança transformacional; COVID-19; Inovação; Crise mundial

Liderazgo transformacional a pesar del COVID-19

Resumen

El estudio analizó el comportamiento del liderazgo transformacional en la crisis sanitaria global provocada por el COVID-19. Los resultados de una encuesta realizada a líderes empresariales en Brasil sugieren que existen diferencias entre los indicadores y su relación con las nuevas ideas durante el período. Las dimensiones de ser innovador y fomentar el desarrollo individual del equipo fueron identificadas como los principales indicadores predictivos de la capacidad de implementar acciones innovadoras, habilidad importante para la supervivencia empresarial en tiempos de crisis. La estrategia metodológica adoptada fue el análisis de regresión logística. El artículo hace tres contribuciones principales: teóricamente, identifica indicadores particulares del liderazgo transformacional como predictores de acciones innovadoras implementadas en las empresas durante una crisis real; metodológicamente, el análisis rescató las características originales de la escala de liderazgo transformacional al utilizarla como herramienta de capacitación; y, en la práctica, los hallazgos de diferencias en los resultados de comportamiento de indicadores particulares pueden dotar a los profesionales de información útil para la gestión y en el área de contratación y formación.

Palabras clave

Liderazgo transformacional; COVID-19; Innovación; Crisis global

INTRODUÇÃO

The COVID-19 pandemic, caused by the SARS-CoV-2 virus, represents a substantial global health crisis. This first pandemic of the 21st century has exerted great pressure on societies and health systems worldwide (Simões e Silva, Oliveira & Martelli, 2020). Across the globe, countries have implemented extraordinary containment strategies to control the spread of the disease, with some of the primary efforts including social isolation and restriction of circulation. Billions of people around the world have been isolated (Sample, 2020) and more than a quarter of the world's small businesses have gone bankrupt (Organisation for Economic Cooperation and Development [OECD], 2020).

Leadership is one of the most valuable topics in the social and behavioral sciences during this period of pandemics (Bavel et al., 2020). Although many companies have closed during the crisis, others have continued to operate and sought innovative solutions to survive. In extreme circumstances, which certainly include this period of the crisis caused by the pandemic, the importance of leadership within companies becomes a relevant predictor of organizational results (Mullins & Cummings, 1999). The study of leadership is therefore essential at this time and justified by the difference in the results obtained by different organizations.

Innovation has been a crucial topic in the management area (Rose, Hölzle & Björk, 2020), and the capacity to innovate is seen as a fundamental characteristic for survival in this difficult period. One of the main styles of innovative leadership is transformational leadership, which has been an object of study for over twenty years (Wang et al., 2011). Transformational leaders have been described as those who inspire confidence, communicate a positive outlook, emphasize the strengths of their followers (Bass, 1985, 1999), promote employee's perceived career success (Al-Ghazali, 2020), in addition to having such positive traits as optimism and resilience as predictors of their behavior (Peterson, Walumbwa, et al., 2008). This style of leadership has been considered the main motivational factor for innovation within companies (Wang et al., 2011; Zach & Baldegger, 2017), as a source of behavioral examples for implementing innovative procedures (Farahnak et al., 2019), and even in comparison to other leadership styles, transformational leadership shows itself as an important predictor such as organizational learning (Xie, 2020).

However, although transformational leadership is one of the most heavily studied styles (Wang et al., 2011; Avolio et al., 2009) and the originator of the concept is considered one of the most influential authors in leadership studies (Zhu et al., 2018), we have little information on how each leadership style affects an organization in times of global crisis (Bavel et al., 2020). The importance of observing how leaders exhibiting different leadership styles react depending on the context was already noted in Avolio et al. (2009), and studies to increase our understanding of transformational leadership in different contexts are still needed today (Alwahaibi, 2019).

The COVID-19 pandemic is presenting especially severe challenges to Brazil: alongside the economic crisis sparked by the crisis, there is great concern over the possible collapse of the health system (Simões e Silva et al., 2020). More than one predominant leadership style is often necessary to succeed in Brazil, especially to deal with the realities faced by small companies (Chammas & Hernandez, 2019). The present global health crisis brings a series of additional challenges to leaders that need to be considered and provides an opportunity to delve a little deeper into the study of the response and conduct of transformational leaders, especially in the Brazilian context where the crisis is particularly acute (Simões e Silva et al., 2020).

Some questions need to be answered to increase our knowledge of how the transformational leadership style behaves in the extreme context of a global health crisis. For example, is transformational leadership able to identify solutions to support a firm's survival during a crisis? Is there a specific indicator within the transformational leadership style that makes a leader of this type more likely to implement new ideas in pursuing a firm's survival?

This paper focuses on transformational leadership behavior in the context of a global health crisis by addressing the research questions. In so doing, it contributes to theoretical knowledge about leadership styles under intense pressure and the capacity to deliver results in novel situations; the influence of different indicators within transformational leadership in support of business survival; and which of the indicators associated with this leadership style can be directly related to the implementation of new ideas.

The work also makes a methodological contribution, following the suggestion of Podsakoff et al. (2003) to preserve the formative nature of the transformational leadership scale in the analysis by treating each indicator and its sub-dimensions as a possible predictor of an observable style of behavior in practice. This approach can further deepen the knowledge linked to the results, which may vary depending on the classification of each indicator (Podsakoff et al., 2003).

1. TRANSFORMATIONAL LEADERSHIP

Optimal styles of leadership are an essential topic during the pandemic (Bavel et al., 2020), because of both the influence that leaders can have on the behavior of their followers (Vroom & Jago, 2007) and the importance of an effective leader for business development (Cogliser & Brigham, 2004). The capacity to innovate is fundamental to keeping a company active in the market, and transformational leadership, which has been studied for over twenty years, is considered one of the central leadership styles in innovation (Wang et al., 2011).

1.1. TRANSFORMATIONAL LEADERSHIP INDICATORS AND RESPONSES TO CRISIS

According to Podsakoff et al. (2003), transformational leadership is multidimensional; each indicator has subdimensions and defined behaviors for its formation. Therefore, different behaviors of transformational leaders can be related to different results for an organization. As a transformational leader can be classified with a high score in one behavior indicator and a lower score in another, the factors that contribute to measures of success can be quite varied. Also, the antecedents and consequences of each of these diverse forms of leader behavior do not necessarily concur (Podsakoff et al., 2003).

Specifically, since the indicators in the transformational leadership scale are all positive (Podsakoff et al., 2003), they are not necessarily related to innovative capacity in times of crisis. Transformational leadership has proven to be an especially important leadership style in maintaining a positive climate during times of change (Aarons et al., 2011), with studies finding that it was negatively associated with employee cynicism about organizational change (Bommer et al., 2005) and positively associated with the perception of high organizational performance and innovation (İşcan et al., 2014). Nonetheless, it is theoretically possible that certain leadership characteristics will not contribute to the implementation of new ideas when facing a crisis.

It is therefore a useful exercise to classify the transformational leadership scale indicators as to their importance for the implementation of innovative actions during a critical period for a company. For this purpose, it is necessary to deepen the definition of each indicator and, treating it as a formative construct, analyze its potential relationship with the implementation of new ideas in times of crisis.

1.1.1. FIRST INDICATOR: COMMUNICATING A VISION

Communicating a vision means engaging in behavior that "communicates a clear and positive vision of the future" (Carless et al., 2000, p. 396); it refers to a leader's ability to communicate a vision, which has the objective of describing a future to followers (House & Shamir, 1993). This communication capacity can be useful for several other aspects of performance, but as a characteristic of transformational leadership, it shows little relevance to the implementation of new ideas in the short term in responding to a temporary crisis. As this is an indication of the communication of possibilities about the future and not an indicator of the implementation of emergency actions, we proposed the following hypothesis: the indicator of communicating a vision is not directly related to the implementation of new ideas generated at the time of the crisis.

1.1.2. SECOND INDICATOR: DEVELOPING PEOPLE

Staff development "treats staff as individuals, [and] supports and encourages their development" (Carless et al., 2000, p. 396). Innovative behavior is moderated by the exchange between a leader and team member (Aryee et al., 2012). The staff development indicator consists of treating team members as individuals, supporting and encouraging each team member's development, showing respect for team members, and being concerned for their individual development (MacKenzie & Podsakoff, 2001).

In short, when leaders provide individualized supportive behavior, they indicate respect for their followers and concern with their personal feelings and needs, demonstrating a condition of empathy and acceptance (Podsakoff et al., 1990). With the condition of empathy being associated with social intelligence (Cantor & Kihlstrom, 1989), an individual endowed with this condition can produce appropriate behaviors to achieve the desired social objectives and, consequently, generate ideas that favor the company.

Given this positive relationship between empathy and social intelligence, it is expected that a leader scoring highly in this indicator will provide more individualized support and that this will result in a greater number of ideas emerging in a moment of crisis than from leaders with a low score in this indicator, which led us to a third hypothesis: the indicator of developing people is directly related to the implementation of new ideas in times of crisis.

1.1.3. THIRD INDICATOR: BEING CHARISMATIC

"Charisma instills pride and respect in others and inspires … by being highly competent" (Carless et al., 2000, p. 396). This indicator of transformational leadership involves fundamentally changing the values, goals, and aspirations of followers so that they do their work in a manner consistent with their values, as opposed to the expectation that they will be rewarded for their efforts (MacKenzie & Podsakoff, 2001). Charismatic leaders can "formulate and articulate an inspiring vision and through behaviors and actions that foster the impression that they and their mission are extraordinary" (Conger et al., 1997). Thus, the indicator of being charismatic focuses on the ability to persuade and direct by a leader's values, not necessarily on the ability to devise and implement new ideas in a company facing times of crisis. Based on this definition, a fourth hypothesis was proposed: the charisma indicator is not related to implementing new ideas generated at the time of crisis.

1.1.4. FOURTH INDICATOR: LEADING BY EXAMPLE

A person who leads by example is "clear about his/her values and practices what he/she preaches" (Carless et al., 2000, p. 396). By providing an appropriate model, the transformational leader demonstrates a clear sense of identity and purpose that elevates followers (Avolio & Gardner, 2005). Leadership by example appears in daily behavior, demonstrating clarity about the values and attitudes that the leader believes in and wants followers to embody, providing an appropriate behavior model, and seeking that followers follow the leader's example. This indicator is linked to being admired and perceived as a leader, which is essential to generate influence (Lord & Maher, 1991). Like the third indicator, the condition of being admired by team members presupposes a characteristic perceived by the followers towards the leader and not necessarily something driven by the leader to take care of the team. Based on these reflections, we developed a fifth hypothesis: the indicator of leading by example is not related to implementing new ideas generated in the moment of crisis.

1.1.5. FIFTH INDICATOR: PROVIDING SUPPORT

Supportive leadership "gives encouragement and recognition to staff" (Carless et al., 2000, p. 396). This indicator focuses on action and the condition of encouraging and recognizing the efforts of a team. To behave as a supportive leader, it is necessary to have the motivation to lead others (Chan & Drasgow, 2001), which has been recently shown to play a central role in the emergence and effectiveness of leadership (Badura et al., 2019). Given the assumption that this behavior emerges from the individual motivation to lead and provide support, the latter necessarily involving a condition of empathy, we were directed to a further hypothesis: the indicator of supportive leadership is directly related to the number of new ideas generated at the time of crisis.

1.1.6. SIXTH INDICATOR: EMPOWERING PEOPLE

Empowerment "fosters trust, involvement, and cooperation among team members" (Carless et al., 2000, p. 396), promoting the acceptance of the group's shared goals and seeking cooperation. "Leaders who exhibit this behavior emphasize collective identities and encourage self-sacrifice for the good of the group" (Organ et al., 2006, p. 99) and, like the second indicator, it demonstrates a capacity for highly developed social skills and empathy. A focus on the group and its development might be positively related to the condition of implementing new ideas, which led us to a seventh hypothesis: the indicator empowering people is directly related to the implementation of new ideas generated at the time of crisis.

1.1.7. SEVENTH INDICATOR: BEING INNOVATIVE

Innovative thinking "encourages thinking about problems in new ways and questions assumptions" (Carless et al., 2000, p. 396). A leader with a high ranking in this indicator tends to encourage followers to question the status quo, reexamine assumptions about their work, and seek creative ways to improve their performance. Any behavior practiced consistently generates a habit and, according to Avolio and Bass (1988), the intellectual stimulus causes a "cognitive reassessment of the current circumstances," therefore raising questions about the way the status quo has been produced and how effective it is.

Given that the behaviors associated with this indicator involve challenging followers to reexamine some of their assumptions about their work and rethink how it can be carried out, it most clearly adheres to the notion of innovation, which led us to the final hypothesis: the indicator of being innovative is directly related to the implementation of new ideas generated at the time of crisis.

2. METHOD

2.1. PARTICIPANTS

The data used to test the hypotheses were obtained through a questionnaire that was administered electronically. This approach was justified by the respondents' wide geographic distribution and the pandemic making the circumstances unfavorable for face-to-face interviews. Approximately 200 invitations were sent by e-mail to Brazilian leaders and entrepreneurs selected by convenience sampling, based on the criteria of management experience and participation in their respective companies' decision-making processes. Of the invitees, 106 opened the questionnaire, and 76 answered all the questions in May 2020, during which time social isolation was being enforced due to the pandemic. Most of the respondents were working in consolidated companies that had been operating for more than 11 years (74.24%) and provided services to the furniture or metallurgical industries (59.09%). Most of the respondents were in the state of São Paulo (56.06%), with a further 16.66% in the southern region of Brazil and the remainder spread across the country.

2.2. VARIABLES

2.2.1. TRANSFORMATIONAL LEADERSHIP

The GTL (Carless et al., 2000) was adopted for this study, for three main reasons: first, it features a low number of items (seven); second, the origin of the scale follows the assumptions presented by Podsakoff, McKenzie, Moorman, and Fetter in 1990 (Carless et al., 2000); and third it has demonstrated good psychometric properties of both convergent and discriminant validity (Carless et al., 2000). The scale was used in the questionnaire in the form translated and adapted to the Portuguese language in Valladares' (2012) doctoral work.

The respondents reported the extent to which they performed the behaviors described by the scale items. The results were evaluated based on the suggestion of Podsakoff et al. (2003) that the transformational leadership scale is treated as a formative construct that needs to be evaluated following the statistical method appropriate to this type of construct.

2.2.2. THE NUMBER OF NEW IDEAS IMPLEMENTED

The number of new ideas was measured using an open question about the different implementations carried out in this period to keep the company in the market: "Did you take actions that reduced the losses caused by the changes in the ways of working imposed by the pandemic? If not, write 'no' and skip the answer. If so, please list some actions you have taken that have achieved their goals." With this open question, we tried to get the leaders to list actions already taken to obtain more reliable data about actual behavior and not just intentions to act.

The answers were counted, and the results were transformed into a dummy variable representing two groups: leaders who listed new and effective ideas (more than one idea to help the company to survive) and leaders who listed no idea. The listed ideas were then categorized based on their valence into two divisions: positive actions and negative actions. Positive actions were those that sought to maintain the company and its staff and negative actions were those that involved the dismissal or reduction of staff.

3. RESULTS

3.1. IMPLEMENTATION OF NEW IDEAS

In the sample studied, we had a prevalence of actions to implement new ideas (n = 57) aiming to help the company's survival. The actions reported by leaders had a mostly positive valence (59.1%), with a focus on adapting to the new scenario, developing partnerships, negotiating contracts, and improving conditions for customers. However, some leaders opted for negative actions, with 18.2%

reducing the number of employees, and others (22.7%) reported implementing no new ideas during the period.

The results did not show a statistically significant difference in transformational leadership scores between leaders who implemented what we have called positive ideas and those who implemented negative actions (i.e., dismissed employees). However, some of the predictive behaviors for implementing new ideas were identified within the characteristics of transformational leadership. Thus, certain behaviors associated with a transformational style of leadership were positively related to implementing new ideas, while other behaviors did not show a statistically significant difference.

Logistic regression was performed to test which behavioral indicators of transformational leadership were predictive of the implementation of actions to keep the company functioning in the context of the global health crisis. The trends are based on the following equation:

$$p = \frac{e^{\alpha + \beta_1 x_1 + \dots + \beta_k x_k}}{1 + e^{\alpha + \beta_1 x_1 + \dots + \beta_k x_k}}$$

The model containing all the indicators of transformational leadership shows a correlation matrix among the independent variables.

There is sufficient independence among them, that is without multicollinearity and met the pre-requisites of tolerance > .1, VIF <10, and adequacy by the Hosmer−Lemeshow test ($\chi^2(7)$ = 5.658; p = .580).

This model showed a significant result [$\chi^2(7)$ = 17.675; p = .014, R2Nagelkerke = .307] with high scores in the staff development characteristic (β = 2.680; OR = 14.591; 95% CIs [1.704, 124.926], p = .014), and in being innovative (β = .620; OR = 1.859; 95% CIs [.934, 3.702], p = .078) identified as positive and significant predictors of the implementation of new ideas. The leading by example indicator (β = .961; OR = 2.613; 95% CIs [.624, 10.937], p = .188) and communication a vision (β = .117; OR = 1.124; 95% CIs [.423, 2.986], p = .815) were also positively related to implementation but did not present a statistically significant result in this model.

High ratings in charisma (β = -2.640; OR = .071; 95% CIs [.007, .731], p = .026) was found to be negative and significant predictor of the implementation of new ideas and may even be more prevalent among the group that did not implement new ideas in their companies, as shown by the result of the OR. The other indicators that were not among the implementation group was providing

support (β = −1.341; OR = .262; 95% CIs [.036, 1.902], p = .185), and empowering people (β = −.446; OR = .640; 95% CIs [.126, 3.260], p = .591), but its results were not statistically significant in the model.

4. DISCUSSION

This research has some significant contributions to the leadership study area and practical managerial activities, especially knowing the influence the leader can have on the followers' behavior in the context of a health crisis (Nature, 2020).

The study tested the consolidated characteristic of transformational leadership, the condition of being a leader who promotes the innovation process within companies (Jung et al., 2003), without the external support (environment) that is an essential facilitator of the relationship between transformational leadership and organizational innovation (see Gumusluoglu & Ilsev, 2009). In the present study, the capacity of transformational leadership to innovate was put to the test because it was considered in a context demanding a result from the implementation of innovative actions that sought to keep the company functioning in a real crisis. The dependent variable, implementing innovation actions, was measured considering the leaders' innovative actions, i.e., it is a real behavior measurement that increases the validity of the results (Morales, Amir & Lee, 2017).

The differential came to light with the high correlation between the staff development indicator and our dependent variable implementation of new ideas. The importance of the staff development indicator beside the innovation indicator as a predictor of new action implementation during this crisis period shed light on the importance of empathic capacity in innovation management, in addition to the expected high correlation between the innovation indicator of transformational leadership.

These analyzes were carried out with respect for the formative nature of the transformational leadership scale (Podsakoff et al., 2003); that is, consideration was given to its indicators being composed of subdimensions, with each indicator capable of predicting a different style of behavior of the leader in practice depending on its classification on the scale. The regression results revealed two leading indicators of transformational leadership as predictors of the implementation of new ideas in times of crisis in companies: developing people and being innovative.

This result corroborates previous findings showing that innovative behavior was moderated by the exchange between leader and team member (Aryee et al., 2012). The indicator for developing people consists of treating followers as individuals, supporting and encouraging each team member's development, showing respect for team members, and exhibiting a concern for their individual

development (MacKenzie & Podsakoff, 2001). A leader who provides individualized support shows respect and concern for followers' personal feelings and needs, which is related to a condition of empathy and acceptance (Podsakoff et al., 1990). Therefore, it is reasonable to expect that the condition of empathy, which is associated with social intelligence (Cantor & Kihlstrom, 1989), can produce appropriate behaviors to achieve the desired social objectives and, consequently, a high score in this indicator was associated with a predisposition to the generation of ideas that favor the company.

CONCLUSION

COVID-19, the disease caused by SARS-CoV-2, was declared a global pandemic in March 2020 (World Health Organization, 2020) and represents a vast global health crisis, with more than a quarter of the world's small businesses failing between January and May of that year (OECD, 2020). In low and middle-income countries, such as Brazil, in addition to the economic crisis, the potential for a collapse of the health system is one of the major concerns (Simões e Silva et al., 2020).

These extreme circumstances intensify the importance of leadership as a significant predictor of organizational results (Mullins & Cummings, 1999), making it one of the most valuable topics in the study of social and behavioral sciences during this period of crisis (Bavel et al., 2020). The COVID-19 pandemic is a favorable context for identifying the most vital attributes of various leadership styles. The present work adopted transformational leadership as its object of study; despite being one of the most heavily studied leadership styles for the last twenty years (Wang et al., 2011; Avolio et al., 2009) and its originator still being considered as one of the top five most influential authors in leadership studies (Zhu et al., 2018), it is largely unknown how it or any other leadership style reacts at a time of global health crisis.

Transformational leaders acted positively, directing their efforts to devise and implement new ideas that would allow the team and company to adapt to the new reality of social distancing imposed by attempts at disease mitigation.

The association of the indicator of being innovative with the implementation of new ideas is neither new nor surprising, but its predictive efficiency was confirmed in this moment of genuine health crisis across the globe and especially in Brazil, where the characteristics of the country often demand more than one predominant leadership style (Chammas & Hernandez, 2019). The findings suggest that there is still a significant positive relationship between two transformational leadership indicators, innovative thinking and staff development, and the implementation of new ideas and actions in a time of crisis. The other indicators of transformational leadership can be considered relevant for other types of actions that may have an indirect effect on the implementation of new

ideas. However, this study did not identify a statistically significant difference between these other indicators and innovative action during the pandemic.

The research reported in this article has several limitations that should be acknowledged. First, the data collection and the estimated measures are not casually identified. However, all the respondents have a leadership position and are in charge of new action implementations, i.e., besides our exogenous variables are not manipulated, they are real measurements, implemented by respondents inside a real company in real context of a crisis and with real responsibility.

Regarding the ability conferred on transformational leadership to implement new ideas and seek innovative management, we included with this work another option in addition to the innovative indicator that was relevant in the results of the leaders who had actions effectively implemented, the concern to develop the team of work, consequently the empathic capacity.

Other studies could explore other dependent variables related to the innovative capacity and the type of leadership and consider carrying out an experiment that guarantees the results' causality. More research is needed to determine how each indicator of transformational leadership can differ in background and behavioral response. It would also be interesting to compare transformational leadership in the context of the global health crisis across different cultures. Future research could also include larger samples and other leadership styles to see how they perform in this context by comparing the organizational results obtained by different leadership approaches in a crisis.

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