The Impact of Transformational Leadership on Project Management Success in the Brazilian Private Healthcare System

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Abstract

This article investigates the relationship between Transformational Leadership and Project Management Success (PMS) in Brazil's private healthcare system. The study involved 218 experts from 130 private hospitals and analyzed the relationship using multiple linear regression and correlation tests. Key findings showed strong correlations between Challenging the Process (CHP) and Inspiring a Sharing Vision (ISV), Encouraging the Heart (EHT), and Modeling the Way (MOW). The research model is objective and based on evidence, providing a new perspective on the subject and offering implications for future research.

Keywords

Leadership Practices Instrument, Covid-19 Pandemic, Private Healthcare, Business Management, Brazil

1. Introduction

This study investigates the relationship between transformational leadership and Project Management in the Brazilian private healthcare system and if it is perceived as a crucial factor in project management success (PMS). Leadership is essential for motivating followers and mobilizing resources to fulfill its mission; it is also necessary for innovation, adaptation, and performance (Crossan & Apaydin, 2010; Flynn & Staw, 2004; House et al., 1991; Jones & Olken, 2005; Waldman & Yammarino, 1999; Yukl, 2008). Beyond the traditional science of delivery, high-performing project managers must effectively lead a diverse team of people and manage human factors that arise (Sheppy, Zuliani, & McIntosh,

2012). These leadership competencies and artful leadership practices have become a critical component of project success (Bell & Bell, 2020). The objective is to measure the intensity of different leadership behaviors and practices and if they affect project management success. Kouzes and Posner (2007) reveal the results of their interviews from a behavioral perspective, in which they present five practices that lead to positive "outcomes" based on ten key behaviors.

The Brazilian healthcare industry must continuously reinvent itself and actively pursue innovations by developing projects and using systems that enable proactive management of its business plans. This study examined the impact of Leadership and Project Management on the Brazilian Private health system. Furthermore, the existing understanding of leadership emphasizes the leader's expanding responsibilities in effectively involving, inspiring, enabling, assigning tasks, and persuading others to work passionately and accomplish the established objectives inside an organization.

We conducted a quantitative study to examine the impact of Transformational Leadership on Project Management Success (PMS) in the Brazilian private health system in response to the demand for change in the healthcare system. The purpose was to get a deeper understanding of the connections between project leadership and project success and to address some aspects that still need to be addressed in the existing literature. A total of 5 hypotheses were examined using a survey methodology.

The research was based on findings in the literature that indicate project leadership has a vital role in influencing project results. The researchers used the Leadership Practices Instrument (LPI) developed by Kouzes and Posner (2007) to examine these findings. Additionally, they considered the internal and external components of project success elements outlined by Pinto & Slevin (1988) and Shenhar & Dvir (2007). Furthermore, chapter two conducted a comprehensive literature analysis, emphasizing the need for more research in this area.

2. Theoretical Background

2.1. Healthcare in Brazil: Perspective

The Covid-19 pandemic has significantly influenced Brazil's private and governmental healthcare systems. The implemented management approaches were inadequate, leading professionals to experience extreme fatigue. Technology and innovation played a crucial role in addressing this situation. The World Health Organization (WHO) published a study outlining thirteen major global health concerns exposed when COVID-19 put the world's healthcare systems to the test. Within a short period, we saw the rapid deterioration of public health, the global economy, and the psychological well-being of healthcare workers at the forefront of the battle against the epidemic.

At the time of writing this piece, an estimated 34.6 million individuals had contracted the infection, and the number of fatalities stood at 685 thousand. The

inadequate effectiveness of government actions worsened the situation, leaving limited room for evidence-based technical choices and recurrent crises in pandemic management, leading to a sense of uneasiness among the Brazilian populace.

According to the OECD (2021), households and enterprises in the private sector spent around R$216.97 billion (US$37.6 billion) on healthcare plans and hospitals in 2020, while private expenditures amounted to BRL 171.50 billion (US$29.7 billion).

Brazil's public health care system's inadequate performance has increasingly prompted middle-income and high-income families to choose private treatment. Furthermore, the private healthcare system is optional. It might be considered redundant since it provides coverage for essential curative therapies that are also covered by the SUS compared to other OECD nations (OECD, 2021).

In 2020, Brazil had around 507,000 hospital beds, which translates to a ratio of 2.3 beds per 1000 people. This fact is almost half the average number of hospital beds per 1000 population in OECD countries. However, the density of beds is comparable to that of some European nations like Denmark (2.6), the United Kingdom (2.5), and Sweden (2.1), and higher than that of other countries in Latin America, such as Chile (2.0), Colombia (1.7), or Costa Rica (1.1). Like other OECD nations, Brazil also experiences fluctuation in the availability of beds across different regions. At the state level, the number of hospital beds per 1,000 people varies by a factor of 2, with the lowest density of 1.5 beds in the Northern state of Amapá and the highest density of 2.9 beds in the Southern state of Rio Grande do Sul (OECD, 2021).

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In 2020, around 22 percent of the Brazilian population, equivalent to 47 million individuals, opted for voluntary medical insurance to supplement their existing healthcare coverage provided by the SUS. This figure represents a decrease from the 25 percent recorded in 2014 (ANS, 2020). Over 700 companies and insurers provide this coverage (ANS, 2020).

In 2020, the number of individuals benefiting from private healthcare plans, including dental coverage, rebounded after a decline in 2019. The total number of beneficiaries reached 47.62 million, indicating a 1.24 percent rise compared to

the previous year. Furthermore, the number of beneficiaries saw a positive growth rate that exceeded 2 percent (ANS, 2020).

Although Brazil's total healthcare expenditures surpass those of many comparable nations, the country significantly depends on funding from the private sector, either via voluntary private health insurance or direct payments made by families (OECD, 2021; WHO, 2020).

Most private health plans are employer-based group policies included in employment contracts, with employers making payments. However, other options exist for individuals or collective insurance (Thomson, Sagan, & Mossialos, 2020).

The demographic phenomenon of population aging is a contributing factor to the rise in healthcare expenditures. According to demographic forecasts from the Brazilian Institute of Geography and Statistics (IBGE), the percentage of older individuals aged 65 and over in the Brazilian population will continue to climb by more than 8 percent in the coming years. In 2020, the proportion of older people in the Brazilian population aged 60 and above was 10.13 percent. Projections suggest that this proportion would increase to 13.44 percent in 2030, 17.58 percent in 2040, and 26.77 percent in 2060 (IBGE, 2020).

The demographic transition will result in a rise in both the prevalence of chronic conditions like diabetes and the number of individuals requiring long-term care. These individuals will need assistance carrying out daily activities and acquiring essential life skills (IBGE, 2020).

Like in OECD nations, the healthcare system in Brazil encounters several issues that may impact the long-term sustainability of healthcare expenditure. On the other hand, the administration of healthcare initiatives is very intricate (Aubry et al., 2014). It extends beyond planning and overseeing the building or renovation of existing locations. Additionally, it entails reassessing the administration of medical treatment. The issues include service process rearrangement, information technology, human competency development, and change management (Richer et al., 2013). Organizational project management is a modern kind that involves using flexible organizational structures to carry out strategic goals via projects to optimize value (Aubry et al., 2007). Therefore, we address the following research question: What is the relationship between project management success and leadership variables in the Brazilian Private Healthcare System? Justification: Leadership is essential for motivating followers and mobilizing resources to fulfill its mission; it is also necessary for innovation, adaptation, and performance (Crossan & Apaydin, 2010; House, Spangler, & Woycke, 1991; Jones & Olken, 2005; Waldman & Yammarino, 1999; Yukl, 2008).

2.2. Leadership Perspective

The investigation of leadership and project management achievement aligns with the research goals. The questionnaire, as presented in Appendix A, included the LPI and PMS scales. The desire to comprehend the factors that contribute to the success of a leader is not a recent phenomenon. Throughout his-

tory, there has been an ongoing discussion over the distinguishing factors between those who assume leadership roles and those who do not, as well as the disparities between leaders and followers. Upon closer examination of this progression, albeit not exhaustive, it is feasible to assess theories up to Transformational Leadership. This research examined the crucial role of leadership and its impact on project management's effectiveness in Brazil's private healthcare system.

Their comparison focused on leadership and project management. Urli and Urli (2000) found that from 1987 to 1996, fewer than 0.5% of all project management studies published included an examination of leadership. This fact is particularly astonishing considering the regularity with which project manager leadership traits are included in compilations of critical success factors (CSF) for project success. Furthermore, Pinney (2002) proposed that the limited research attention given to project leadership in this field may be attributed to the perception that project management is predominantly seen as a conventional management field that emphasizes methods and techniques rather than being approached from a social sciences perspective. Although there has been a lack of attention in the literature, recent years have seen an increase in the examination of project leadership (Dias et al., 2022; Kloppenborg & Opfer, 2002).

Organizations are undergoing significant transformations due to the perpetual need for innovation, fierce global rivalry, economic constraints, and shifting demographics. Consequently, several conventional leadership responsibilities and positions are undergoing significant changes. Extensive studies spanning decades have uncovered a multitude of behaviors in leaders and managers (Bass, 1990; Yukl, 2008). A well-known difference in early leadership literature is the differentiation between task-oriented and relationship-oriented behaviors (Blake & Mouton, 1964; Fleishman, 1953; Ekvall & Arvonen, 1991; Yukl, 2008). Task-oriented behaviors are more effective in increasing efficiency, change-oriented behaviors are more pragmatic in promoting adaptability, and relationship-oriented behaviors are more beneficial in bolstering human resources and interpersonal connections. A transformational leader is an individual who motivates and empowers their people to attain exceptional outcomes (Robbins & Coulter, 2007). According to Warrilow (2012), the transformational leadership style consists of four components: 1) Charisma or idealized influence, 2) Inspirational motivation, 3) Intellectual stimulation, and 4) Personal and individual attention. Transformational leadership is distinct from Transactional leadership since the latter is based on a system of exchanges between the leader and followers, where followers are rewarded for achieving specific objectives or performance standards (Trottier, Van Wart, & Wang, 2008). Transactional leadership in businesses allows managers and subordinates to engage in a reciprocal exchange (Jung, 2001). Furthermore, it is recognized that there is an interchange of incentives and objectives between personnel and management (Howell & Avolio, 1993). Transactional leadership is a leadership style where followers are dri-

ven by incentives, as discussed by Bass and Avolio (1990), Bass (1990), and Burns (1978).

The research shows that a wide range of theories, frameworks, and survey instruments have been used to study project management leadership (Pan, 2022; Jiang, Klein, & Chen, 2001; Lewis, 2005). The research on project leadership models is significant due to the documented correlation between leadership and project results. Nevertheless, there needs to be more understanding of the correlation between distinct leadership characteristics and their impact on project results. Furthermore, no all-encompassing model has been created for the healthcare system to explain these behaviors. This study utilizes a Leadership Practices Inventory (LPI) tool to investigate the connection between project manager behaviors and project performance. It improves upon earlier research by examining particular leadership behaviors.

The questionnaire was created to cover the Leadership Practices Inventory (LPI) survey instrument established by Posner and Kouzes in 1988. The formulation of LPI used a combination of qualitative and quantitative research methodologies, including triangulation. Kouzes and Posner used comprehensive interviews and case studies of "personal-best leadership experiences" to construct the model's conceptual framework. The model categorizes its observations of leader practices into five distinct kinds of leadership behaviors: 1) Modeling the Way; 2) Inspiring a Shared Vision; 3) Challenging the Process; 4) Enabling Others to Act (EOA); 5) Encouraging the Heart (Posner & Kouzes, 1988). Finally, Zagorsek, Stough and Jaklic (2006) suggested that LPI is suitable for assessing low—to midlevel leadership abilities, but it is less trustworthy for evaluating high-quality leaders or for training purposes.

2.3. Project Management Success (PMS) Perspective

Project Management Success (PMS) has been the focus of scholarly research in recent decades. Scholars such as De Wit (1988), Shenhar & Dvir (2007), Cooke-Davies (2002), Zwikael & Smyrk (2012), Serra & Kunc (2015), have all contributed to this field of study. Furthermore, PMS aligns well with the research goals since this study included internal and external project success criteria. The references used are Freeman & Beale (1992), O'Brochta (2002), and Shenhar and Dvir (2007). De Wit (1988) states that PMS is assessed by evaluating criteria that include conventional metrics, cost, time, and quality, sometimes called the triple constraint. Pinto & Slevin (1988) and De Wit (1988) argue that the traditional approach of evaluating project performance solely based on the triple constraint is no longer sufficient. They advocate for a more holistic method that takes into account project goals. De Wit (1988) further expands on this, introducing additional measures of success, such as client satisfaction, functionality, contractor contentment, project manager and team happiness, and adherence to budget and deadlines. Alternatively, Pocock et al. (1996) propose considering legal factors, such as the absence of legal issues in projects. This shift in perspective unders-

cores the evolving nature of project management and the need for a more comprehensive approach to project success evaluation.

Atkinson (1999) presents a classification for assessing project success based on various criteria, including the iron triangle, information systems, benefits for the organization, and stakeholder benefits. Shenhar and Dvir (2007) attempt to categorize success metrics into groups. Projects inside companies are often integrated into their strategic management and must be assessed according to their impact on the desired outcome. The authors propose a multifaceted method to ensure the success of the initiatives, which aligns with the company's strategic goal and commercial objectives. The authors propose evaluating the project's short- and long-term success by considering five categories: efficiency, customer impact, influence on the team, business, direct hit, and preparedness for the future.

The concept of Project Management Success (PMS), as defined by Zwikael and Smyrk (2012) and Serra and Kunc (2015), was a key focus of Ul Musawir's (2017) examination. PMS, considered the primary variable in this research, plays a crucial role in creating advantages and value for companies. It encompasses the project's outputs at the end of the project, the project's outcomes in the months following its completion, and the project's long-term impact in the years after its completion (Turner et al., 2009). This study integrates the conceptual framework provided by De Wit (1988), Turner et al. (2009), Shenhar & Dvir, 2007; Cooke-Davies, 2002 into the concept of "Project Success". The concept of "Project Success" in this study, derived from the works of Zwikael and Smyrk (2012) and Serra and Kunc (2015), is defined and evaluated as the dependent variable. The value of the project is determined by its adherence to cost, time, and scope requirements, as well as its ability to meet customer needs and expectations. The project's alignment with the parent organization's strategy and return on investment also contributes to its overall value (Thomas & Mullaly, 2008).

3. Methods and Materials

3.1. Hypotheses

H1a: Impact Team (ITM) predicts Challenging the process (CHP), i.e., a significant causal relationship exists between ITM and CHP.

H2a: Impact on the organization (IOO) predicts inspired a shared vision (ISV), i.e., a significant causal relationship exists between IOO and ISV.

H3a: Impact on the organization (IOO) predicts enabling others to act (EOA); i.e., a significant causal relationship exists between IOO and EOA.

H4a: Impact on the Future (IOF) predicts Challenging the process (CHP), i.e., a significant causal relationship exists between Impact on the Future (IOF) and challenging the process (CHP).

H5a: Customer Impact (CUI) predicts enabling others to act (EOA), i.e., a significant causal relationship exists between CUI and EOA, as illustrated in
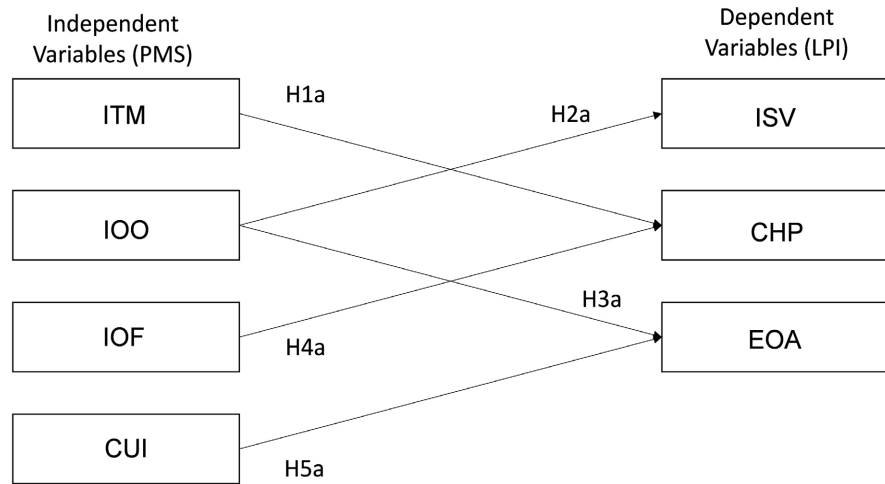
Figure 1:

Figure 1. Research model with hypotheses.

3.2. Data Collection Method and Sampling

First, a combination of convenient and snowball samples was used in the pre-test with 40 respondents and 77% of responses. After adjustments, the strategy adopted is random, based on a population of 215,000 employees in 130 private hospitals in Brazil. The research questionnaire was pre-tested with nine academics and 22 practitioners for face and content validation and then applied to the selected sample. After validation and content testing, the questionnaires were reviewed and distributed for data and information collection in both Portuguese and English languages. The electronic survey invitation was sent via e-mail to 303 leaders from 130 private hospitals from the National Association of Private Hospitals, with a 72 percent tax response (218 respondents). The raw data were collected from April to June 2022 through Google Forms®. All members of the study population pool had their identities preserved for ethical purposes.

Data collection was carried out through the researcher's professional network in the Private Healthcare System in Brazil and with the support of ANHAP (National Association of Private Hospitals), illustrated in **Figure 2**.

Based on their current activities and roles, a total of 46 project team, 22 functional project manager, 112 project manager, and 38 project clients in the healthcare system were identified and invited to participate via a link made available from the Google Forms platform. The questionnaire measured variables on five-point and ten-point Likert scales. In addition, the questionnaire has 68 questions, one open, three ethnographic questions, seven multiple-choice questions, 2 questions 7-point Likert, 25 questions 5-point Likert, and 30 questions 10-point Likert. The respondents were invited by e-mail with a 72 percent tax response (303 e-mails were sent with 218 respondents). Finally, all questions in the
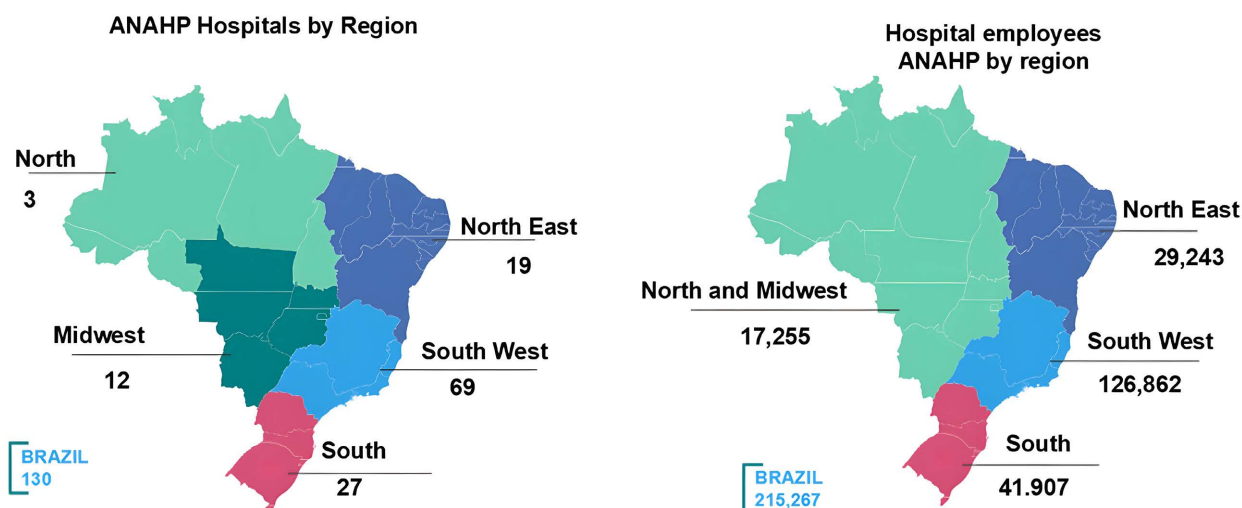
survey were mandatory.

Figure 2. Hospital employees per region. Source: ANHAP, 2024.

3.3. Data Analysis Methods/Techniques

In order to select the appropriate statistical method for data analysis, the following procedures were adopted: 1) identification of the type of variable to be analyzed; 2) analysis of data distribution through the histogram; 3) analysis of the data distribution through the quantile-quantile graph (QQ-Plot) and; 4) verification if the data are normally distributed using the Shapiro-Wilk normality test. Once it was identified that the data did not have a normal distribution, the Spearman Correlation and Chi-Square Test methods were used to assess the association between the variables.

4. Results

Key findings pointed out strong correlations between 1) Challenging the Process (CHP) and Inspiring a Sharing Vision (ISV), resulting in ($\rho = 0.70$; $p < 0.01$). Also, 2) Encouraging the Heart (EHT) and Modeling the Way (MOW), resulting in ($\rho = 0.72$; $p < 0.01$). After careful analysis, the research model is introduced and portrayed as objective and based on the evidence, as illustrated in **Figure 3**.

The results for each hypothesis are disclosed in the following paragraphs:
H1a: Multiple Linear Regression was used to verify whether Impact Team (ITM) predicts Challenging the process (CHP) (see **Figure 3**). The analysis resulted in statistically significant models: [F (1, 213) = 7.41; $p < 0.0000$; $R^2 = 0.05$]. ITM variable resulted in ($\beta = -0.11$; t = 2.72; $p < 0.000$. Finally, the evidence pointed out that the ITM predicts CHP. Therefore, the multiple linear regression is expressed by the following equation:

$$Y = 7.41 + -0.11X_1$$

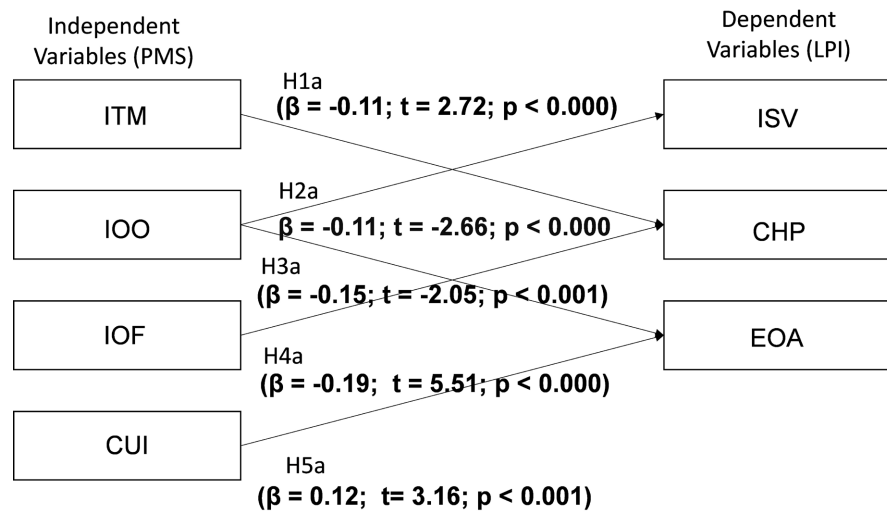where: Y = Challenging the process (CHP); X_1 = Impact Team (ITM).

Figure 3. Hypothesized model with results.

In sum, Impact Team (ITM) is a predictor of Challenging the process (CHP) on the equation. Finally, the coefficient of determination (R^2), which is a statistical measure in Model 2 that determines the proportion of variance in the dependent variable (ITM), can be explained by the independent variable (CHP). In other words, the goodness of fit is $R^2 = 0.05$, indicating that five percent of the variance of ITM (dependent variable) is explained by the variance of CHP (independent variable), implying that ITM is not a strong predictor for CHP. Thus, H1a is not a strong predictor of the phenomenon investigated.

H2a: Multiple Linear Regression was used to verify whether IOO predicts Inspiring a Shared Vision (ISV). The analysis resulted in statistically significant models: [$F(3, 211) = 4.84$; $p < 0.000$; $R^2 = 0.09$]. IOO and ISV variable resulted ($\beta = -0.11$; $t = -2.66$; $p < 0.000$). Still, according to the research model, illustrated in **Figure 3**:

$$Y' = 4.84 + -0.11X_2$$

where $Y' =$ Impact on the Organization (IOO). $X_2 =$ Inspired a Shared Vision (ISV). The coefficient of determination (R^2), which is a statistical measure in **Figure 3** that determines the proportion of variance in the dependent variable (IOO), can be explained by the independent variable (ISV). In other words, the goodness of fit is $R^2 = 0.06$, indicating that six percent of the IOO (predictor variable) is explained by the variance of ISV (independent variable), implying that the IOO is not a strong predictor for ISV. Thus, **H2a** is not a strong predictor of the phenomenon investigated.

H3a: Multiple Linear Regression was used to verify whether IOO predicts Enabling Others to Act (EOA). The analysis resulted in statistically significant models: [$F(3, 211) = 4.84$; $p < 0.000$; $R^2 = 0.09$]. IOO and EOA variable resulted ($\beta = -0.15$; $t = -2.05$; $p < 0.001$). Still, according to **Figure 3**:

$$Y'' = 4.84 + -0.15X_3$$

where $Y'' =$ impact on the organization (IOO). $X_3 =$ enabling others to act (EOA). The coefficient of determination (R^2), which is a statistical measure in Model 3 that determines the proportion of variance in the dependent variable (IOO), can be explained by the independent variable (EOA). In other words, the goodness of fit is $R^2 = 0.05$, indicating that five percent of the IOO (predictor variable) is explained by the variance of inspired EOA (independent variable) variance, implying that the IOO is not a strong predictor for EOA. Thus, **H3a** is not a strong predictor of the phenomenon investigated.

H4a: Multiple Linear Regression was used to verify whether Impact on the Future (IOF) predicts Challenging the process (CHP). The analysis resulted in statistically significant models: [$F_{(1, 213)} = 30.35$; $p < 0.000$; $R^2 = 0.11$]. "IOF variable resulted ($\beta = -0.19$; $t = 5.51$; $p < 0.000$). Finally, the statistical analysis pointed out that IOF predicts CHP. Therefore, the multiple linear regression is expressed by the following equation:

$$Y = 5.51 + -0.19X_1$$

where: $Y =$ Impact on the future (IOF). $X_1 =$ Challenging the process (CHP). In sum, Impact on the future (IOF) predicts Challenging the process (CHP).

Finally, the coefficient of determination (R^2), which is a statistical measure in H15a that determines the proportion of variance in the independent variable (IOF), can be explained by the dependent variable (CHP). In other words, the goodness of fit is $R^2 = 0.11$, indicating that 11 percent of the variance of IOF (independent variable) is explained by the variance of CHP (dependent variable), implying that IOF is not a strong predictor for CHP. Thus, **H4a** is not a strong predictor of the phenomenon investigated.

H5a: Multiple Linear Regression was used to verify whether Customer Impact (CUI) predicts Enabling Others to Act (EOA). The analysis resulted in statistically significant models: [$F_{(2, 212)} = 5.75$; $p < 0.000$; $R^2 = 0.07$], resulting ($\beta = 0.12$; $t = 3.16$; $p < 0.001$). In addition, the following equation expresses the multiple linear regression:

$$Y' = 3.16 + 0.12X_2$$

where: $Y' =$ customer impact (CUI) $X_2 =$ Enabling Others to Act (EOA).

Finally, the coefficient of determination (R^2), which is a statistical measure in H16a that determines the proportion of variance in the independent variable (CUI), can be explained by the dependent variable (EOA). In other words, the goodness of fit is $R^2 = 0.02$, indicating that two percent of the variance of CUI (independent variable) is explained by the variance of EOA (dependent variable), implying that CUI is not a strong predictor for EOA. Thus, **H5a** is not a strong predictor of the phenomenon investigated.

5. Implications and Discussion

First, a new study was designed to address the relationship between leadership and project management success in the Brazilian private health care system. This

study has implications in several fields of knowledge and is helpful to scholars, project managers, leaders, professors, instructors, and other practitioners. Strong, positive correlations were found between 1) Encouraging the Heart (EHT) and Modeling the Way (MOW), also 2) Challenging the Process (CHP) and Inspiring a Shared Vision (ISV).

Figure 3 shows that 1) Encouraging the Heart (EHT) refers to how Leaders make people feel like winners, keeping hope and determination alive, appreciating and valuing the team's contributions, and creating a sense of community by celebrating victories. They set high expectations and standards, hold people accountable, and ensure that rewards and performance are linked. In turn, Modeling the Way (MOW) refers to regulations regarding how stakeholders should be treated and goals should be pursued, creating standards of excellence and being an example for others to follow. The implications are clear: a follower motivated is more likely to be well treated.

It is observed also in Figure 3 that 2) Challenging the Process (CHP) refers to Leaders who aspire to improve the status quo by looking for opportunities to grow and innovate. They experiment, take risks and see setbacks as learning opportunities for themselves and their team. Ultimately, Inspiring a Shared Vision (ISV) refers to the passionate belief that leaders inspire in their followers that they can make a difference in their environment; they envision the future, creating an ideal and unique image of what the organization can become. They bring visions to life and make people see exciting possibilities beyond the horizon. They have an active listening to the aspirations of others so that, by incorporating them, people can see themselves in a shared dream about the future. The implications are also clear: the more the process is challenged, the more likely the leader is to inspire a shared vision.

It is observed in Figure 3 the relationships among the variables, associated to each of the16 hypotheses. Both implications are helpful for practitioners and should be investigated in future studies.

Study limitations refer to threats to the internal validity of the study. Internal validity is the "ability to infer that there is a causal relationship between two variables" (Johnson & Christensen, 2004). The following addresses some potentially significant limitations of this study and describes any design considerations intended to minimize these threats.

1) Confusing variables. The study focused on a limited number of assumed variables that the literature has suggested can significantly correlate with project success. These variables included the project manager's leadership behaviors. There may also have been other confounding variables that masked or affected correlation measures.

2) Ambiguous temporal precedence. Ambiguous temporal precedence is the inability to discern the time at which variable one comes before the other (Johnson & Christensen, 2004). An underlying assumption of this study was that managers' leadership behaviors, as observed by stakeholders, precede successful

project outcomes. It is possible that the project's success skewed observers' perceptions and could have caused positive leader behaviors to be reported more readily in this study. However, with its focus on leader-specific behaviors, the LPI instrument was shown to have high internal validity. It should have minimized the likelihood of ambiguous, albeit not zero, temporal precedence threats to the study's validity (Crnkovish & Hesterly, 1993).

3) Sampling bias. Non-random samples are biased samples (Wiersma & Jurs, 2005). This study sought voluntary responses from the entire study population and, therefore, may have been biased. For example, project managers with unsuccessful projects may be less inclined to participate. The study minimized selective participation bias by using confidential responses and involving the organization as a sponsor that expressed positive encouragement and appreciation for individual involvement. Furthermore, the combination of the scores of the observer and the LPI itself, rather than relying solely on the leader's self-assessment, must have reduced the effect of selective responses.

Secondly, the present research investigated the relationship between transformational leadership and project management success (PMS), as described in the Research Objective, within the context of the Brazilian private healthcare system. However, there might be implications in other fields of study, not limited to 1) the Brazilian Public healthcare system; 2) project management and remote leadership (Dias, Pereira, Vieira, Pan, & Juliana, 2022); 3) Another suggested research objective would be to gain insights into the integration of understanding of leadership and project success into recent models of project typology and complexity. As the theoretical models indicate, adding additional research dimensions, such as innovation, cadence, or size, would likely require adding additional research dimensions.

This work investigated the impact of leadership in project management success. However, it has implications in other fields or subfields of research, such as 1) Leadership and Negotiation (Dias, 2016, 2020; Dias & Navarro, 2020; Dias, Lafraia, Schmitz, & Vieira, 2023; Dias, Pereira, Vieira, & Pan, 2022); 2) project management (Dias et al., 2022; Dias, Navarro, & Valle, 2013); 3) Healthcare in Brazil (Pan & Dias, 2024; Dias, 2023; Craveiro & Dias, 2019).

Brazilian private health care comprises public and private systems. Constant complaints about the public system collapsed with the Covid-19 pandemic. On the other hand, the public health system was considered poor and went worse. Therefore, the private health care system is expensive and usually seen as a "necessary evil." In that perspective, all the professionals involved in the Brazilian private health care system have to deal with widespread dissatisfaction regarding the insufficient means to attend to all the population. In this sense, when enhancing the perspective from the analysis of the dataset results and comparing the findings mentioned in this section, there is an explainable rationale that is encouraged to be investigated in future studies: out of the 22 variables investigated, only two correlations were found positive, and strong: 1) Encouraging the

Heart (EHT) and Modeling the Way (MOW), and 2) Challenging the Process (CHP) and Inspiring a Shared Vision (ISV).

Finally, these four variables represent the core of the LSP model, which organizes its observations of leader practices into five categories of leadership behaviors: 1) Modeling the Way; 2) Inspiring a Shared Vision; 3) Challenging the Process; 4) Enabling Others to Act (EOA); 5) Encouraging the Heart (Posner & Kouzes, 1988). In sum, four out of five leadership behaviors are significant to the private healthcare leader in Brazil. Furthermore, they indicate how crucial the leader's role is within such project-driven organizations. None of the PMS variables revealed such a strong correlation. The implications are clear: the role of the leader in Brazilian Private health care organizations is a critical success factor. Another conclusion is that the LSP is a reliable instrument to be applied in the Brazilian private health care system. For future studies, external validation of the LSP is encouraged to be applied in the entire sector.

6. Conclusion

6.1. Theoretical and Managerial Contributions

The study contributes to consolidating theories and concepts and has developed a theoretical framework that can be explored in future research to explain the relationships between transformational leadership practices in project management and measures of project success.

It has been demonstrated that individuals charged with managing, directing, or championing projects or project work must be aware of the importance of providing leadership to achieve successful outcomes. Although the literature has emphasized this importance in the past, in practice, the strong correlations have mainly been on leadership issues regarding:

1) Leader's experiment, take risks and see setbacks as learning opportunities for themselves and their team.

2) Leaders passionately believe they can make a difference in their environment, and bring their visions to life and make people see exciting possibilities beyond the horizon.

3) Leaders make people feel like winners by appreciating and valuing team contributions and creating a sense of community by celebrating wins.

4) Leaders clear the objectives that must be pursued, creating standards of excellence and being an example for others.

The strong relationship observed between leadership and success suggests that organizations select, train, and challenge their project leaders to Model the Way, Inspire a Shared Vision, Challenge the Process and Encourage the Heart of their peers, subordinates, customers, and managers. This may require integrating people and communication enablers and more project management training, professional certification criteria, and methodologies.

The findings can be used to implement new human resources policies to achieve better goals, select leaders and use best practices in project management.

6.2. Limitations and Future Research

Replication of this survey for a larger sample is recommended to validate or refute these results. A more extensive selection would increase statistical validity and, more importantly, allow model building and testing. Other internal factors may include scope and other project-oriented metrics. In addition, external measures of stakeholder perceptions can be designed to capture the perceived benefits of specific project stakeholders, including team members, project managers, project sponsors, senior management, and the customer. Breaking down the leadership construct into specific leader roles or stakeholder perspectives can be an essential step towards better modeling the dynamics of the project's leadership-success relationship and is recommended as a topic for future research.

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