THE NEGATIVE SIDE OF LEADERS: CAN THE BASES OF POWER WORSE MOTIVATION IN PROJECT TEAMS?

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Abstract: For years, companies have been seeking to understand how the bases of power used by project leaders impact factors such as motivation, relationships, and conflict among project team members. This study aims to propose a conceptual model focused on the impacts of the bases of power used by project leaders on the motivation of their subordinates. The model and its allied hypotheses will be tested, in future studies, based on information collected from project team participants of an R&D&E Center in Brazil, using two well-known and psychometrically validated scales in the Brazilian context.

Keywords: Motivation, Project Management, Bases of Power.

O LADO NEGATIVO DOS LÍDERES: AS BASES DE PODER PODEM DESMOTIVAR TIMES DE PROJETO?

Resumo: Há anos as empresas buscam entender como as bases de poder exercidas pelos líderes de projetos têm impacto sobre fatores como motivação, relacionamentos e conflitos entre os membros das equipes de projetos. Este estudo tem como objetivo propor um modelo conceitual focado nos impactos das bases de poder exercidas pelos líderes de projetos na motivação de seus subordinados. O modelo e suas hipóteses relacionadas serão testados em estudos futuros, com base em informações coletadas de participantes de equipes de projetos de um Centro de P&D&E no Brasil, utilizando duas escalas bem conhecidas e psicometricamente validadas no contexto brasileiro.

Palavras-chave: Motivação, Gestão de Projetos, Bases de Poder.

1. INTRODUCTION

In the field of operations management, it is often assumed that individuals involved in the process or on the entire operational system, such as employees, consumers, and suppliers, make fully rational decisions unaffected by their emotions or their environment, on the assumption that they are able to react to and distinguish between different types of information [1]. This is not always true, as human behavior plays an important role in decision making and worker motivation, and therefore should be considered in the study of operations.

Being responsible for the project, the project manager is the one who is accountable for reporting to the top management, and deciding on controls budget, deadlines, and scope, being fundamental to its success [2]. However, a project is performed by a team, and it is up to this manager to deal with the different personalities of the members of the team, seeking to optimize the use of these resources by motivating and obtaining the optimal performance from each employee, in order to achieve the final objective [3].

It is essential, therefore, to analyze and understand how the relationships, perceptions and behaviors of the members of project teams are affected by the project manager's leadership. This field of study is contained in the Behavioral Operations Management (BOM) area [4]. BOM evaluates issues related, for example, to the level of motivation in teams and interpersonal conflicts and how these can be linked to factors related to leadership, especially regarding the way power is exercised by project managers [5].

In the Brazilian context, four forms of power have been identified and validated, which are called bases of power. These bases are used by managers in the process of leading their subordinates [6]. These bases are named: rewarding power, coercive power, legitimate power and expertise power. Each of these bases is suitable for some activities and characteristics of subordinates.

The environment of project management, related to new products, new processes or non-trivial engineering activities is extremely challenging, with pressures for results, making managers averse to long development times [7]. It is therefore interesting and pertinent to propose a conceptual model about how the bases of power exercised by the project manager can motivate or demotivate the subordinates, i.e. the participants of project teams. This is the objective of this study.

2. METHODOLOGY

This article is theoretical in nature and proposes, based on a literature review, a conceptual model that correlates specific bases of power with the motivation of project teams. The objective is to lay the groundwork, for a future study, of quantitative and empirical nature, to be conducted in an R&D&E center in Brazil. This future study will test the hypotheses proposed here.

The constructs of the model can be measured based on the Supervisor's Bases of Power Scale (EBPS) and Measurement of Motivation and Meaning of Work scale (IMST), which allow quantitative approaches and analyses. It is important to discuss, however briefly, how these constructs are measured by the scales.

The first instrument used in future research will be the Supervisor's Bases of Power Scale (EBPS), which is a questionnaire that aims to measure the power rating of the supervisor (or project leaders). The instrument was made by Hinkin and Schriesheim in 1989 being

validated in Brazil by Martins and Guimarães in 2007. It consists of fifteen questions using Likert scale response options and investigates four of the five bases of power [6]. The reference power has not been validated in the Brazilian context and was excluded.

The second construct of the model, Motivation, can be measured based on the Measurement of Motivation and Meaning of Work scale (IMST), which is an instrument with reliable psychometric properties for the study of motivation [8]. The instrument was developed by Borges e Filho in 2001, based on the Work and Motivation study from Vroom in 1964. The instrument was used by Borges and Filho in 2001, Magalhães e Rosa in 2017 and by Castro in 2019 on the Brazilian context.

The IMST aims to broaden the understanding of professionals' relationships with their work and is composed of four components (value attributes, descriptive attributes, expectations, and instrumentality), with specific items (questions) and a factor structure in each component. Each item has an assigned weight that, once placed in its factorial structure, allows the calculation of the constructs. For measuring Motivational Force, a measure of motivation, the expectancy and instrumentality questionnaires are used [8]. Instrumentality consists of the degree of perceived relationship between the execution of the work (the total performance) and the achievement of results. Expectancy consists of the perception of how much effort leads to the expected results. It is the degree to which the individual believes that a specific result is likely. It is a subjective probability that can be described according to its intensity [8].

In the IMST, motivational force (MF) is the amount of effort or pressure a person applies to motivate himself, this being a measure of the "motivation" construct. Motivational force is obtained from the product of the sums of the expectancy and instrumentality factor scores (the sum of expectancies 1, 3, 4, and 5 multiplied by the sum of instrumentalities 1, 2, 4, and 5), subtracted by the product of the expectancy and instrumentality factor scores related to undesirable or unattractive work outcomes, which are hypothetically assigned negative valence. These two factors are related to attrition and dehumanization (expectancy 2 and instrumentality 3, respectively). The calculation is shown in Equation 1 [8].

$$MF = [\Sigma(Fe1, Fe3, Fe4, Fe5) * \Sigma(Fi1, Fi2, Fi4, Fi5)] - (Fe2 * Fi3) \qquad (1)$$

Equation 1 can be translated as follows: Fe2 and Fi3 measure negative valence; Fe1, Fe3, Fe4 and Fe5 measure expectancy; and Fi1, Fi2, Fi4 and Fi5 measure instrumentality.

3. RESULTS AND DISCUSSION

This section will present the hypotheses derived from the literature and from the authors' analysis, and will also present the conceptual model that represents these hypotheses.

3.1. MOTIVATION AT WORK

According to Erez [9], dissatisfied employees show unwillingness to devote knowledge, effort, and personal skills at work. It is essential that the organization efficiently values its employees, thus retaining the best talents in order to remain competitive.

The fields of Psychology of Organizations and Psychology of Work highlight the relationship between the effort one puts in at work and their performance, resulting from the individual's motivation. Individuals have expectations about the fulfillment of their function, expectations that may be distant or close to what they find in reality, generating a valence that must be evaluated by the project leader. It must be reduced in the negative case, and

used as a motivational force in the positive case, since it benefits the company by increasing the employees' commitment to performing their tasks. Motivation at work is manifested by the employee's orientation to perform his tasks promptly and accurately and to persist in their execution until the expected result is achieved [10].

It is important to note that motivation varies according to the expectations of individuals and involves emotional, biological, and social factors, being a behavior responsible for initiating, directing, and maintaining behaviors related to the achievement of one's goals. In an organization, people may feel more or less motivated by the type of work they do, by their relationship with the group, by the skills they use and learn, by positions and salaries, among others. In this sense, it is important to study what stimulates the motivation of teams who work on R&D&E projects. Such a study might indicate what is valued by the employees (increasing their motivation), and what is considered indifferent or despised by the employees (reducing their motivation).

As was previously mentioned, Borges and Filho [8] developed and validated, by means of a quantitative study, the instrument Measurement of Motivation and Meaning of Work (IMST). The scale is divided into blocks, composed of questions with different weights, generating results through the use of factor analysis [10].

Magalhães and Rosa [11] investigated the motivational characteristics of employees in a public hospital in the interior of the state of Rondônia using the IMST. The results showed that the participants value their own development, professional achievement, expect dignified and safe conditions for the exercise of their profession and integrate with co-workers. This analysis provided subsidies for the institution to take actions to boost motivation and consequently improving performance. The authors established a link between motivation and organizational performance.

Castro [12] used the IMST to study the relationship between motivation and change of the organizational context to the lean production approach. The results showed that more motivated teams with better intra-group relationships, presented better performance in terms of waste reduction and productivity increase. Moreover, the absence of motivation and consequent low performance was directly correlated with the difficulty in visualizing the results of individual effort by group members.

3.2. BASES OF POWER

The way project leaders relate to their subordinates has an influence on their performance and behavior, as well as on the company's work environment. Depending on the bases of power that are used, the conflicts, the sense of well-being, motivation and performance of the teams will affect the results of their deliverables [13].

Influence works through persuasion, suggestion, induction, and convincing, and the person is free to accept it or not without suffering any kind of penalty for refusing. Power, on the other hand, works by command and order, where there is no freedom of choice, and the individual is obliged to submit to the determination, or will be punished for refusal. Leaders are people who can extract from their followers, through influence (persuasion, reliability and charisma), personal sacrifices for the achievement of a goal.

Getting people (or subordinates) to change their behavior is not always an easy task, especially when for some reason they are against the idea or the proposed plan. As shown in table 1, some of the forms reported as influence tactics by Kipnis and Schmidt [14] are: energetic (involving voice raising, assertiveness and demands), rational (use of logic, dialogue and bargaining); soft (flattery, submission and making agreements). It is important to emphasize that these forms of influence are inherent to the individual who applies them, choosing them intuitively, considering his experience, his relationship with who is being influenced, the objective of the approach and the relative power of his position to choose the best way to influence in a given situation.

Table 1: Influence strategies.

Strategy	Situation in which it is used
Energetic	The agent of influence takes advantage.
	Resistance is predicted.
	The behavior of the target of influence violates social or organizational norms.
Rational	The target of influence is in an advantageous position.
	Resistance is predicted.
	The goal is to achieve benefits for oneself.
Soft	Neither the agent nor the target of influence has a real power advantage.
	Resistance is not predicted.
	The goal is to achieve benefits for oneself and for the organization

Source: based on KIPNIS and SCHMIDT [14].

The level of power is key in choosing which influence approach to use. Generally speaking, the greater the power of the individual the greater his freedom to use any of the tactics, such as energetic, which is only applied as a last resort by a subordinate towards the boss. Those with less power generally resort to softer tactics [15].

The four bases of power identified in the Brazilian context [6], and their definitions are:

- **Coercive power**: based on punishment. The strength of A's power over B is proportional to B's perception of the punishment that A can apply to him if he does not confirm the desires of A's influence;
- **Legitimate power**: based on B's perception that A has a legitimate power over the former. This power can be a consequence of a superior position or also of a trust relationship like a code or pattern between the two;
- **Reference power**: based on B's identification with A that materializes in the willingness to follow the precepts established by the former;
- **Specialist power**: based on B's perception or beliefs that A is a reference in the area, and as such should be followed.

The use of power bases by project leaders is fundamental to influence the performance of project teams and their deliveries. The motivation to use power generally comes from the need to increase productivity, complete a task, or satisfy some internal need, and it is up to the project leader to measure, analyze, and verify which is the most appropriate power base for a given scenario and individual. The effective exercise of the power base can be preceded by a preparation of the environment so that its application is more effective.

Evaluating the power of reward, we see that this is linked to the subordinate's possibility of obtaining personal gains by performing the action. The coercive power, on the other hand, is linked to intimidation, proving that it has the ability to punish and that it is willing to use it if necessary [15]. Given this, it is possible to imagine that the power of reward

and the power of coercion (punishment) could be misused and be perceived as unfair by employees, generating demotivation, because there are people favored or punished unfairly. The other two bases suggest a more positive outcome among the teams, thus resulting in the following original hypotheses proposed in this study:

- **H1:** A higher level of the use of legitimate power by the leader of a project team is associated with higher levels of motivation among his collaborators.
- **H2:** A higher level of the use of coercive power by the leader of a project team is associated with lower levels of motivation among his collaborators.
- **H3:** A higher level of the use of the power of expertise by the leader of a project team is associated with higher levels of motivation among his collaborators.
- **H4:** A higher level of the use of reward power by the leader of a project team is associated with lower levels of motivation among his collaborators.

It is important to mention that the bases of power used by managers should be measured by their employees or collaborators, avoiding biases [6][15].

3.3. PROPOSED CONCEPTUAL MODEL

Figure 1 presents the conceptual model proposed in this study, which graphically represents the relationships between variables derived from the hypotheses proposed here.

Figure 1: Conceptual model of the research.
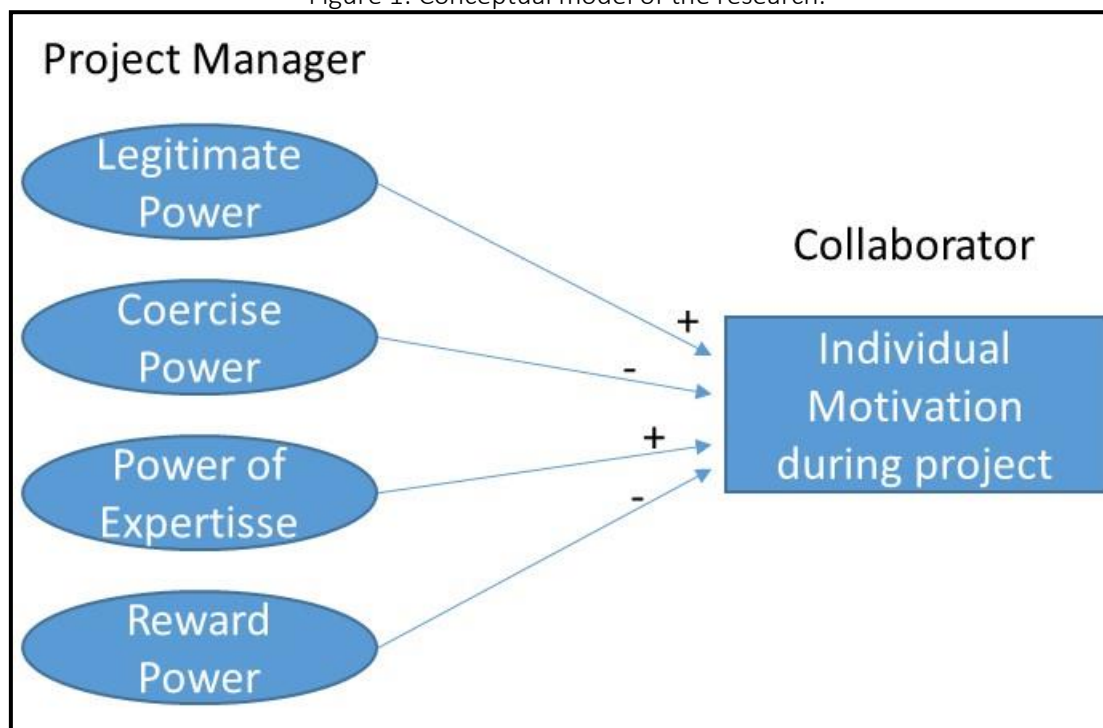
4. CONCLUSION

This research has so far resulted in a conceptual model that represents a series of hypotheses to be tested in a future study, which is already in progress. This study can be used to direct the decisions and work methodologies of project managers, identifying best practices in terms of the use of bases of power and focusing on human behavior, especially on motivation. Once the research hypotheses are confirmed, managerial processes can be proposed implying greater motivation for project teams and improving the performance of projects, including the satisfaction of the project team. The hypotheses proposed here have

not yet been tested or studied in academia, which also reinforces the potential contribution that this future study will bring in terms of theoretical advances.

5. REFERENCES

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