

# Micro-Management Presence Evaluation within Technology-Based Project Management

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## ABSTRACT

This research covers a micro-management presence study, taking into consideration the three main elements of this concept, where organizational culture, project management frameworks, and leadership are found; thus, a relationship between these areas is established and detailed so that a relationship between micro-management as concept and issue from enterprise management can also be identified within a project management context. This research has been made qualitative, exploratory with a transversal denomination, creating and applying an assessment instrument to know the perspective of a small population from the Technology, Information, and Communication industry in Costa Rica; thus, taking into account these results and analyzing it against the theory, so that enterprise elements within organizational culture, project management frameworks and leadership, where micro-management could accommodate can be identified, as results of this research, by placing several significant symptoms and scenarios where team's performance and motivation are affected negatively.

**Keywords:** Burn Out Syndrome, Leadership Management, Micro-Management, Motivation, Organizational Culture, Project Management.

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## I. INTRODUCTION

Through the theory of business management, multiple micro-management references can be found, being identified as a standard practice that causes a lot of prejudice in the direction of teams in such a way that it creates an environment with little synergy and can cause serious effects such as staff turnover, quality, and costs, where different settings can be found. Some of them are mentioned below.

Micro-management means observing every movement or activity performed by employees to control their work and make them feel observed. This is in conjunction with excessive planning in detail and monitoring their involvement and even their location during working hours (Rajkumar *et al.*, 2016; DeCaro *et al.*, 2011).

It corresponds to everything about interference and disruption; it occurs with influence, development, and interaction to subtract value from people and processes. This is due to the mistaken perception of interruption, where a collaborator feels obstructed in his activities, responsibilities, decisions, and authority. This is through excessive, unwanted, counterproductive obstruction and disruption of people or processes (White, 2010; Chambers, 2009).

A difficult habit to break, where pervasive and intrusive behaviors are mixed, interrupting the work of others with excessive bureaucracy, reporting, and approvals, which causes stress in collaborators, and does not add any value to the organization, being a habit or way of managing that

simply does not work (Sanaghan & Lohndord, 2016; Rebecca, 2015).

This research aims to qualitatively determine the presence of micro-management in the management of Information and Communication Technologies projects for Costa Rica to identify organizational elements that lead or make room for its existence within management frameworks, corporate culture, or leadership.

We have found a gap in the management literature in regards to micro-management, where there are very few studies about this topic and none related to project management; hence in the academy and the good practices of the industry, there are no relevant studies that establish the relationship between business micro-management and project management, which opens the possibility of conducting empirical research that can develop this topic, as in this case.

This article is divided into the following sections: literature review, methodology, results and discussion, and conclusions.

## II. LITERATURE REVIEW

Based on what has been described above and as summarized by Li and Khalid (2015), micro-management is also related to other areas such as leadership models and organizational culture. At the same time, it can be identified that management frameworks are also associated with

defining the processes, operations, and projects used within organizations, which can introduce excessive monitoring, control, reporting, and bureaucracy in the shadow of good practices.

According to Sanaghan and Lohndord (2016), it is possible to identify micro-managers' characteristics, as shown in Table I. Based on the studies conducted by Chambers (2009), White (2010), Kumar and Hsiao (2007), Yost (2013), and Li and Khalid (2015), micro-management is described as the convergence of three different areas or components, which correspond to leadership, management models and organizational factors, as shown in general terms in Fig. 1.

This relationship describes how leadership models being used by Project Managers with specific skills and attitudes take effect over the organizational environment and team development, together with management frameworks that require or settle to use of controlling and monitoring practices, can become a monitoring and bureaucracy excess, where also the organizational culture could create an internal competition between collaborators, and even rewarding the usage of authoritarian practices.

At the same time, there are some leadership skills and attitudes that help to create a marked hierarchy, making the high levels of the organization lose interest in critical things like the team's morale, mood, and motivation, creating the opportunity to be victims of burn out syndrome quickly, by an uncomfortable environment and common reason over lower organizational levels, affecting in this way the whole corporate culture. Fig. 1 shows a literature approach to previously mentioned topics, plus its components' relationship.

TABLE I: MAIN CHARACTERISTICS OF MICROMANAGERS

They impose unrealistic deadlines or time limits to create a recurring false sense of urgency.
They are most motivated when they can declare an emergency.
They persistently try and dictate how tasks should be done, preferably with as much detail as possible.
They are no good listeners since only they know how to do the work.
They do not delegate efficiently for one or more reasons. First, they do not trust the quality of work of others. Second, they feel that they are the only ones who can do the job. Third, they perceive that there are risks in delegating work.
They rarely communicate rules clearly or cede authority over decisions.
They constantly interrupt the work of others with trivial questions, monitoring, paperwork, and requesting approvals, among others.

Source: Sanaghan and Lohndord (2016).



Fig. 1. The theoretical model of micro-management.

Therefore, at the business level, it is demonstrated the importance of generating good leadership that avoids practices related to micro-management and, on the contrary, it focuses more on results, on the people who compose them; to obtain teams with empowerment, capable of performing tasks sustainably, without suffering exhaustion and being motivated. In this way, the primary purpose is for teams to achieve their highest efficiency by adding value to organizations and projects (Fernández, 2018; Peiró & Rodríguez, 2019; Serrano & Portalanza, 2014; Alves, 2003).

At the same time, according to Teixeira (2013), in his research, the project's main success and failure drivers within the Information and Technology industry are communication and collaboration, followed by skills and knowledge. These drivers have been identified by 46% of project failures, having communication and bad resource planning as root causes. This leadership scenario makes room for three situations explained by Li and Khalid (2015), where micro-management could start being used:

- i. Organizational culture: Usually, companies develop themselves within a context where high management rewards progress realization under their frameworks and micro-management level, stimulating practices that make room for micro-management.
- ii. Manager's personality: Micromanagers' personality addresses getting their capabilities to influence decisions made by a group of people, implementing some practices that generate distrust in their subordinates, and making room for micro-management practices to get control over every detail.
- iii. Subordinate's attributes: The subordinate's performance level is based on their capability and competency to pursue an excellent expert judgment, but this also depends generally on their boss's relationship and how this last one decides to take it into account or even omit it prior making any decision, even if that is contradictory against the team's feedback.

These variables are evidence of a practice that could be used on behalf of the management and leadership frameworks, becoming a trend inside the company. High-level managers could even impose them as a rule defined by them. This scenario could develop a micro-management environment throughout the whole organization, making micro-management a mandatory practice and organizational convention, used not only by high and old organizational levels but also by new resources and lower organizational levels to adapt themselves under this alignment (Llanos & Bell, 2018). However, even though the literature mentioned delves into the topic of micro-management in the field of business management, there are no studies on micro-management in the specific area of project management, so in the academy and good industry practices, relevant studies are not observed, that establish the relationship between micro-business management and its presence in project management, which accommodates empirical research that can develop this theme, as is this case. Hence, it is of the utmost importance for the TIC industry to identify the existence of micro-management within project management, know what generates it, what effects it causes in project management, how to control that practice or how to avoid it.

In the case of Costa Rica within the ICT industry, Lopez and Jenkins (2017) identify in their study that 52.8% of the companies used linear methodologies, which, having a rigid and detailed structure of their planning, give room for the use of micro business management techniques to control the administration of projects, for this efficiently they rely on frameworks such as PRINCE2® or PMI since they are methods based on linear processes tested and recognized in the industry. Micro-management, which corresponds to an over-involvement in work assigned to others (Yost, 2013), causes demotivation and a negative effect on the synergy of the teams, which gives way to a feeling of dissatisfaction, as mentioned in their studies; it can be observed that this situation leads to a vast staff turnover (White, 2010; Zaballa *et al.*, 2021). Expanding on the above, Rodriguez (2020) indicates the following associated costs:

- a. Recruitment and selection costs, induction, and costs related to the resignation or dismissal of personnel.
- b. Costs related to production repercussions and operating labor costs.

Also, Sanaghan and Lohndorf (2016) mention a reduction in the quality of work produced, unnecessary bottlenecks in monitoring and approvals, staff turnover, disinterest in the workplace, oppression of creativity and initiatives, and low morale, and failure in team development. As a consequence of these effects, an impact on the alignment of the project with the strategic objectives could be determined, as detailed in the PMBoK® in its seventh version. This gives rise to potential problems, such as knowledge retention, increased levels of unresolved conflicts, excessive delays and abstentions, failure to correct deficiencies, reduction in quality and process improvement, more excellent resistance to change initiatives, as well as increased dissatisfaction of subordinates, among other effects (Chambers, 2004).

According to leadership theory, it can be concluded that team leaders who are reluctant to delegate are more likely to become micromanagers because they demonstrate a lack of confidence in the capabilities of their team members.

This causes them to view planned tasks with such a high degree of importance that they cannot be delegated, and therefore, they are not willing to take the risk of empowering.

TABLE II: COMPONENTS OF LEADERSHIP

Component	Definition
Proactivity and Creativity	Leaders have the capacity for intellectual stimulation over the team, promoting creativity, intelligence, a sense of belonging, and criticality in achieving the objective.
Influence and assertive communication	Leaders must be committed to directly affecting those around them in their performance, beliefs, and behaviors.
Teamwork	The leader provides opportunities to collaborators to learn about their practice and explore the most appropriate paths.
Joint processes and results	Leadership corresponds to a chain of intercommunications between the leader and collaborators to achieve common objectives.

Source: Own elaboration based on the following authors: Toledo *et al.* (2014), Giraldo and Naranjo (2014), Lee (2020), and Alfaro *et al.* (2021).

This causes a detailed and invasive control of each employee's activity (White, 2012).

Lee (2020) considers that leadership is the factor that most affects employees' perception and, therefore, one of the main variables to be considered within micro-management. According to Toledo *et al.* (2014), Giraldo and Naranjo (2014), Lee (2020), and Alfaro *et al.* (2021), in their studies, describe the elements of leadership as shown in Table II. It is necessary to elucidate how leadership affects organizational culture since it has been observed that this first has effects on the well-being and health of the teams; likewise, a cause-effect process is manifested, associated with the leadership practices identified within the organizational climates, being a cause of motivation and therefore, this allows improvements in the performance of collaborators (Goleman, 2000; Bloch & Whiteley, 2003; Serrano & Portalanza, 2014).

The main effect that can be detected within a bad organizational culture corresponds to the burnout of collaborators, leading them to this state at work, which corresponds to an exhaustion syndrome, and consists of a level of emotional exhaustion associated with fatigue and stress in the face of situations that cannot be controlled and that, in turn, cause both physical and psychological symptoms (Bolaños, 2016; Patlán & Flores, 2013).

For the relationship between Burn Out and Organizational Culture, the Multidimensional Scale of Organizational Culture (EMCO) is used, which comprises two variables: organizational climate or culture and burn out; these have characteristics; firstly, the construction of the EMCO based on the literature review to determine and define factors of the scale, determine the psychological meaning of each factor identified, through the use of natural semantic networks, analyze the results obtained and contrast them with theoretical elements, elaborate the bando of reagents. Secondly, the structure and factors of the EMCO are determined by the following three levels: individual, interpersonal and organizational. Each of these with its evaluation elements, as shown in Table III.

TABLE III: COMPONENTS OF LEADERSHIP

Concept	Level	Factors
Organizational Climate	Individual System	F1. Workers Satisfaction
		F2. Autonomy at work
		F3. Social relations through the organization members and levels
Organizational Climate	Interpersonal System	F4. Support and unity between collaborators from different work units and departments
		F5. Executives consideration
Organizational Climate	Organizational System	F6. Benefits and rewards
		F7. Motivation and effort
		F8. Executives Leadership

Source: Own elaboration based on the following authors: Toledo *et al.* (2014), Bolaños (2016), Patlán & Flores (2013).

This research aims to qualitatively determine the presence of micro-management in the management of Information and Communication Technologies projects for Costa Rica to identify the business elements such as management frameworks, organizational culture, or leadership that lead to their existence. Having a scope only the theoretical complementation of identifying the presence of business micro-management within project management through a

qualitative analysis in six technology-based companies dedicated to the TIC industry in Costa Rica, which manage public and private sector projects.

At the same time, it is essential to mention that analysis or identification of micro-management components are not included, meaning that these are not directly affected by the productive performance of the projects. Nor is considered the development of a presence identification tool, considering that each company has different processes, methodologies, and tools, which limits the feasibility of creating a device that fits under this scenario, in addition to the effort required to carry out a test concept and obtain results of both its application and its impact over time.

In addition, it seeks to know findings of how project management skills and attitudes are perceived, from the point of view of management and subordinates, generating an analysis of results in which both perspectives are interpolated (from the project manager and from the subordinate), to list the points of agreement and discrepancy. In this way, the existence of components belonging to micro-management can be identified and, therefore, its presence. Having limitations: in the first place, the rejection by the companies of the application of a survey by the chosen population sample. Secondly, the reluctance by the people participating in applying the research tool to give the appropriate information in the answers.

### III. RESEARCH METHODOLOGY

This research corresponds to a qualitative, exploratory, and transversal approach based on the ethnographic study process. The selected population consisted of six companies with the following characteristics: Firstly, being a company or work team working on projects. Secondly, to develop information and Technology projects within their operations. Third, to be located in Costa Rica. Fourthly, to have a medium or large size, they would have a minimum of forty collaborators.

Likewise, two representatives are chosen from this sample. To obtain the data corresponding to both perspectives, a leader or project manager, or member of the project team should manage projects in the area of information and communication technologies for the company contacted, and a member of the project team.

Additionally, a non-standardized questionnaire with open-ended questions and unstructured observation, created as part of the research by Vargas (2022), were used as data collection tools. On the other hand, regarding data analysis and processing, the three phases mentioned by Monje (2011) are handled by performing a discovery, coding, and relativization, stages that can be executed cyclically and each iteration in parallel, applying observation to perform the discovery, and qualitative data analysis as a guide for coding, in conjunction with narrative analysis, to create the qualitative labels.

TABLE IV: RESEARCH CATEGORIES

Category	Concept	Subcategory	Definition
Management Frameworks	Processes, tools, practices, and experiences used within the team are considered for their respective management. This is from how it can affect the couple, either in time, over-allocation, monitoring, or change management (Axelos, 2017; PMI, 2018).	Processes	Processes associated with approvals and level of bureaucracy that may be present; it also contemplates consideration of criteria for planning and flexibility or rigidity in the application of process (Chambers, 2004; Sanaghan & Lohndorf, 2016; Shuford, 2019; Li & Khalid, 2015; Van de Ridder, 2020).
		Tools	Existence and affectation of tools for control and monitoring, and associated reporting, towards project team collaborators. (Barnes, 2015; Sanaghan & Lohndorf, 2016; Shuford, 2019).
Organizational culture	It probes how the relationships of team members work, whether internal or external, processes of motivation and evaluation of collaborators (Uribe, 2015; Llanos & Bell, 2018).	Individual System	Existing evaluation processes, how leaders are evaluated, and teams or team members' autonomy in projects are also considered (Uribe, 2015).
		Interpersonal System	A communication system between collaborators of different hierarchies and external teams (Uribe, 2015).
		Organizational System	Processes of reward and punishment based on performance, practices that induce team motivation (Uribe, 2015).
Leadership	It covers team management by leaders and how they influence and create a work environment with collaborators (Toledo <i>et al.</i> , 2014; Giraldo & Naranjo, 2014; Lee, 2020; Alfaro <i>et al.</i> , 2021).	Proactivity and Creativity	Stimulation practices and competencies on team members, how to induce a sense of belonging and criticality about team objectives (Toledo <i>et al.</i> , 2014; Giraldo & Naranjo, 2014; Lee, 2020; Alfaro <i>et al.</i> , 2021).
		Influence and assertive communication	Involvement of the team in decision-making, consideration of members' opinions, and leader participation in conflict resolution (Toledo <i>et al.</i> , 2014; Giraldo & Naranjo, 2014; Lee, 2020; Alfaro <i>et al.</i> , 2021).
		Teamwork	Skills and attitudes to ensure proper team health and morale; consideration and listening to feedback from team members, both in planning, execution, and phase or project closure (Toledo <i>et al.</i> , 2014; Giraldo & Naranjo, 2014; Lee, 2020; Alfaro <i>et al.</i> , 2021).
		Joint Processes and Results	Consent towards delegation and trust in team members for task accomplishment and the leader's involvement in knowledge transfer when this is necessary (Toledo <i>et al.</i> , 2014; Giraldo & Naranjo, 2014; Lee, 2020; Alfaro <i>et al.</i> , 2021).

Source: Umana *et al.* (2022).



Fig. 3. Distribution of qualitative labels among subcategories.

TABLE V: GENERATING QUESTIONS

Category	Subcategory	Generating Questions
Management Frameworks	Process	How is the monitoring of tools' performance-optimized on computers? How are work teams managed and created? (Chambers, 2004)
	Tools	How the monitoring and control tools for the team are managed? (Sanaghan & Lohndorf, 2016; Shuford, 2019). How intrusive are these tools on the performance and motivation of the team? (Yost, 2014; Barnes, 2015).
Organizational Culture	Individual System	How are team members evaluated; does the team member possess autonomy or not? (Uribe, 2015).
	InterperSystemsonal	How is transparent and interactive communication between different hierarchical levels and other teams handled? (Uribe, 2015)
	Organizational System	What reward systems are managed, which increase team performance? (Uribe, 2015)
Leadership	Proactivity and Creativity	How do you try to decentralize knowledge and optimize and empower the work team? (Toledo <i>et al.</i> ,2014)
	Influence and Assertive Communication	How do you obtain and influence the opinion and criteria of the team members regarding the planning of work to be performed? (Toledo <i>et al.</i> , 2014)
	Teamwork	How much involvement do project leaders or managers possess to distribute, allocate, balance, and motivate the team? (Toledo <i>et al.</i> , 2014)
	Joint Processes and Results	How are teams motivated to perform the planned work? (Toledo <i>et al.</i> , 2014)

Finally, a relativization is performed through an ethnographic study once the coding is done. The theory is contrasted with the data obtained, creating a discussion and evidencing the relationship between micro-management and project management.

The categories used during the research are described in Table IV. Additionally, the following generator questions presented in Table V were used and applied during coding within the narrative analysis so that the subcategories could be used as qualitative labels.

#### IV. RESULTS AND DISCUSSION

The data obtained from the survey, after coding, yielded 132 qualitative labels distributed, as shown in Fig. 3. Using such information as input for an ethnographic study, in conjunction with the observation of such data, the following findings and theoretical relationships by category can be found.

##### A. Organizational Culture

Delving into what was observed through the ethnographic study, in terms of organizational culture, it is determined that

the main elements or cultural factors, which may come to cause or accommodate micro-management in projects, closing, wherefrom the findings are identified: 1) Benefit policies. 2) Reward and punishment policies and processes. 3) Communication and interaction between different hierarchical levels

Elements that are directly related to symptoms of demotivation, frustration, staff turnover, tense environment, and negative impact on the productive performance of the project, symptoms that for Kumar and Hsiao (2007), Chambers (2009), White (2010), Yost (2014), and Van de Ridder (2020), correspond to direct symptoms of micro-management.

Considering these elements, Chiavenato (2009) and Schein (2010) establish a direct relationship between the importance of communication and the adverse effects it can cause, aligned with the findings where it is observed that the participants manifest symptoms of demotivation and frustration, and even the participants themselves relate it to the tense atmosphere within the team, a situation that ends up leading to staff turnover. Similarly happens with the policies and processes of benefits and rewards, identifying that both for the participants and Llanos and Bell (2018), it is a crucial

element to generating a culture within an organization, fostering motivation, and inciting collaborators to develop a more harmonious environment, even influencing leaders to take into consideration how to carry out these processes, and how to collaborate with the team to achieve them.

Additionally, within the individual system described by Uribe (2015), personal motivation is considered; two project leaders represent the explicit manifestation when there is an affectation in the productive performance of the team due to bad practices employed by the project management.

Considering the above, it is concluded that the three cultural elements described above as the main factors at the organizational level that can accommodate micro-management.

### B. Leadership

According to what was observed in the ethnographic analysis of leadership, a distinction of leadership qualities, skills, or attitudes that affect the productive performance of the work team is identified. So, through the relationship between the findings and theory, mainly with the PMI (2017, 2018, 2018, 2019, 2021) in its various books, together with what is described by Alves (2003), Peiró and Rodríguez (2008) and Serrano (2014), qualities have been identified as (a) mentoring, (b) assertiveness, (c) empathy, (d) communication, (e) self-control, (f) trust in others, (g) flexibility, and (h) providing support to others; as the primary leadership skills and attitudes that affect team performance.

These previously mentioned qualities negatively affect the team with various symptoms such as demotivation, frustration, burnout syndrome, staff turnover, tense environment, negative impact on the productive performance of the project, decrease in the quality of deliverables, aligned with Kumar and Hsiao (2007), Chambers (2009), White (2010), Yost (2014), and Van de Ridder (2020), evidence a direct relationship with micro-management. Based on the findings of one project leader and the six-team members, they may present themselves in the project work team and at higher levels of benefits and project program management, accommodating these symptoms in project leadership positions.

At the same time, through the details by White (2010), Chambers (2009), and Li and Khalid (2015), the lack of these qualities, or the incorrect employment of these, can cause symptoms such as loss of loyalty and commitment, undervaluing the experience and knowledge of the team, and relates this concept to morale and motivation directly; effects associated to the findings found by the data obtained by the application of the research instrument in all respondents.

The identification of these effects is crucial to be able to create strategies to correct or avoid them, supported by Yost (2014), who mentions that communication is essential to prevent and correct micro-management, increasing understanding, trust, and empowerment on the part of the team, by involving the team in decision making. It also details the essentiality of a suitable and comfortable environment for the team and adequate mentoring, motivating the team, congratulating their efforts, and helping them understand and give them the necessary context to do their work.

At the project management level, it is essential to identify these needs described by Yost (2014), which also the PMI

(2017, 2021), through the PMBoK® in its sixth and seventh version, defines as responsibilities of the project leader or manager, and that all team members agree with this, corresponding to an influencing factor on motivation, stability, frustration and low morale in the project team.

For the development of these skills and their involvement within project management, it is also observed that Texeira (2013), and even two of the team members, and a project leader or manager, propose the use of agile methodologies with frameworks such as Scrum and Kanban, which help not only the proper management of uncertainty but also the development of high-performance teams, by taking into account the team for decisions, assignments, and other issues to be addressed in the various ceremonies, at the same time, establishing a more transparent and manageable monitoring and control process by the leaders. Where also the PMI (2021) through the PMBoK® in its seventh version, relates these practices within its principles such as team, holistic thinking, leadership, complexity management, adaptation, and resilience; as well as in its domains, for example, group, development method and life cycle, planning, measurement, and uncertainty.

### C. Management Frameworks

Based on the good practices established by the PMI (2017, 2019, 2021) through the PMBoK® in its sixth and seventh version for project management, benefits management through the BRM, as well as the agile practice guide, and complemented with Texeira (2013), Yost (2014), Del Pomar (2018), Sirshar *et al.* (2019), we get to perform a contrast of these practices with the findings found, determining existing gaps in their implementation, so that they leave open to techniques, focused both in the management, development, and acquisition of teams, as well as in the monitoring and systemic control of the project through its different stages, which can affect the productive performance, motivation and morale of the team, giving room to the manifestation of various effects described by Kumar and Hsiao (2007), Chambers (2009), White (2010), Yost (2014), and Van de Ridder (2020), which at the same time these same authors relate them to micro-management; so that, they are determined:

- Excessive use of control and monitoring tools, whether there is a duplicity of controls, redundant or meaningless reports or processes, or simply directly affects the productive performance of the team and even the leaders or project managers themselves when this practice is used from higher levels, presenting a systemic affectation, resulting in effects such as staff turnover, demotivation, presence of burn out syndrome and low morale mainly. Two of the team members even relate this practice explicitly to micro-management.
- In the team acquisition process, there may be practices that impact team performance; for example, two project leaders or managers mention the acquisition, allocation, and direct use of new resources in the project, so that this self-management effort, in case there is a team autonomy, falls on the team, giving room for an over allocation or over an effort by some team members, to meet the learning curve.

- Within the attention of changes, through the integrated process of changes, the PMI (2017) through the PMBoK® in its sixth edition, details the possibility of a systemic affectation in the planning artifacts, mainly in scope, cost and time, so that a leader or project manager manifests resorting to escalation, creating over-allocation and over effort, and where all participating team members agree that this practice makes multiple adverse effects, mainly demotivation and burn out syndrome, also creating staff turnover and therefore negative impact on team performance. These effects are recognized by authors such as Kumar and Hsiao (2007), Chambers (2009), White (2010), Yost (2014), and Van de Ridder (2020), who relate these effects to the use of micro-management. In addition, three of the project leaders or managers state that they avoid affecting the team to prevent this situation.
- The involvement of project leaders or managers in the assignment of critical activities and the use of benefits, where the findings show two leaders who prefer constant monitoring and control, in both scenarios, opening a gap of excessive power in critical activities and affecting team performance.
- The team management and the effects it causes on the team are the responsibility of the project leader or manager (PMI, 2017, 2021), as indicated by the PMBoK® in its sixth and seventh version, so that not leading the team in an ideal way, generates situations such as poor communication, poor empowerment by the group, inadequate mentoring, are generators of multiple negative symptoms, which are directly referenced by authors such as Kumar and Hsiao (2007), Chambers (2009), White (2010), Yost (2014). Van de Ridder (2020) is effects caused by micro-management, as these authors call it.

#### D. Discussion and Closure

By what was described above and the existing interrelationship between the three categories detailed at the beginning of this discussion, together with the findings found during the ethnographic analysis, in such a way that jointly different circumstances can be identified, based on: a) poor communication, b) poor mentoring, c) over-allocation and over effort, d) over control, e) poor team management; as factors that systemically affect the project, and which are triggers of multiple negative symptoms. The findings found directly coincide with what was exposed by Kumar and Hsiao (2007), Chambers (2009), White (2010), Yost (2014), Li and Khalid (2015), Rajkumar (2016), Shuford (2019), and Van de Ridder (2020), as symptoms to detect micro-management.

In this way, it is possible to provide an answer to our working hypotheses, where according to the data and findings found, together with the ethnographic analysis, it is possible to determine the presence of micro-management within the projects for the Information and Communications Technology industry in Costa Rica, observing negative symptoms as a result of this practice. Therefore, it is concluded that hypothesis one is accurate, and the second hypothesis is false. At the same time, our general objective is finished in this way. The micro-management in the management of projects based on Information and

Communication Technologies for Costa Rica is qualitatively determined.

## V. CONCLUSION

In the research process, it was possible to identify the presence of micro-management within project management and how this negatively impacts work teams. This process was carried out using three research categories, each reflecting a specific objective, and the fourth clear objective, which corresponds to the research instrument and its use to identify findings.

### A. Organizational Climate

Indirectly the interpersonal and organizational systems influence a common language used to create the project management processes, influencing the practices employed by the leadership in such a way that it affects the motivation and morale of the team. Thus, it converges in an impact on the individual system, with findings that demonstrate symptoms of discomfort associated even with burnout syndrome as effects of the presence of micro-management.

Based on the findings and the analysis carried out, the three main organizational elements that influence the presence or not of micro-management are determined: a) benefit policies, b) reward and punishment policies and processes, c) communication and interaction between different hierarchical levels.

It is necessary the declaration of processes to optimize the placement, retention, incorporation, supervision, evaluation, development, and reward of employees, processes that influence the processes of acquisition, development, and management of teams within team management, promoting the mitigation of the risk of staff turnover due to multiple circumstances, and at the same time helps to establish guidelines and processes for improvement and early detection in a deterioration or affectation in the personal, interpersonal and organizational systems, preventing or correcting the micro-management in case of the possibility of its existence.

### B. Leadership

It is determined that leadership is the most directly related to micro-management. All findings point to a direct relationship in that poor practices at the project leadership level can lead to micro-management, presenting multiple symptoms of negative impact on projects.

Communication, mentoring, and assignment management are probably essential elements in this research. That help to conclude the presence of micro-management, observing that all findings, mainly the data obtained from team members, point to the direct relationship of these elements with staff turnover, demotivation, and negative impact on productive performance, coinciding with multiple theoretical references, and considering that these symptoms correspond to an explicit manifestation of micro-management. One of the most important findings is the detection of burnout syndrome, which is manifested according to the data obtained mainly by leadership problems. At the same time, it is an effect of micro-management, relating both concepts thanks to the existing literature, which allowed the identification of symptoms and associated scenarios. It is possible to relate the

necessary capacities for project management, in contrast with the findings obtained, in such a way that it can be determined that: a) mentoring, b) assertiveness, c) empathy, d) communication, e) self-control, f) trust in others, g) flexibility and h) providing support to others; are detected as the most important and the ones that influence the presence of micro-management within the projects.

It is also detected that staff turnover is related to motivation, morale, benefit systems, leadership, and organizational culture, supported by the findings that express a relationship between this problem and the triggers described.

As a result of the findings that mention the use of agile methodologies, it is concluded that the use of this type of development methodologies helps us to avoid micro-management and counteract the effects caused by this, whereby its process forces leaders to have greater involvement in communication processes, mentoring, and consideration of the team in decision making, at the same time, helps empowerment, and motivation, elements that according to the existing literature about micro-management, help to correct and avoid micro-management.

### C. Management Frameworks

Although this research focuses on the processes related to the areas of resource knowledge and control, it details how the project is systemically affected when suffering any change within the productive performance, relating practices that affect motivation and the quality of deliverables, whereby lowering the rate, risks are incurred, which can affect the scope and time, thus affecting with over allocation or an effort to resources, and therefore costs, additionally, also encourages demotivation and give room for a presence of micro-management.

The excess of control or monitoring and control tools causes negative symptoms in the teams, where most of the participating project leaders or managers and team members agree that it is unnecessary, absurd, and even explicitly micro-management, a circumstance that agrees with what is described by the existing literature on micro-management, stating that the excess of control, and even more so when it affects the productive performance of the team, is a micro-management practice.

Although traditional management frameworks propose the intensification or rapid execution of deliverables when there is an increase in scope, for various reasons, within a project with limited resources, this leads to an affectation towards the team, mainly in the intensification, which can cause serious adverse effects on the work team, and that can lead to micro-management.

The use of agile frameworks such as Scrum or Kanban can generate empowerment, involvement, and motivation of the team through the processes of retrospective, refinement, and planning; likewise, these methodologies establish a quick and daily monitoring to identify ailments in the productive performance and know the current status quickly and without affecting the team's time, so that monitoring and control are optimal, minimal and efficient.

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