

How Project Managers Handle Individualism and Collectivism: A Preliminary Study

Bárbara Geovanini

UNIRIO - Universidade Federal do Estado do Rio de Janeiro
Rio de Janeiro, Brazil
barbara.geovanini@edu.unirio.br

Gleison Santos

UNIRIO - Universidade Federal do Estado do Rio de Janeiro
Rio de Janeiro, Brazil
gleison.santos@uniriotec.br

Abstract

Context: Hofstede's cultural dimensions framework is widely used to analyze differences among countries and explains how shared societal values influence behaviors, attitudes, and practices in organizational settings. The Individualism vs. Collectivism (IDV) dimension reflects the extent to which individuals see themselves as independent or as a part of cohesive groups. **Motivation:** Although project management approaches acknowledge the relevance of cultural context, they rarely operationalize cultural dimensions, overlooking the need for project leaders to understand how national and organizational cultures shape team dynamics and interactions. **Objective:** We present a preliminary field study to understand how managers deal with individualistic and collectivist team members and organizational contexts in software engineering projects. **Method:** We conducted a qualitative, exploratory field study based on semi-structured interviews. The analysis follows an interpretative approach grounded in participants' professional experiences. **Results:** The findings provide initial evidence on how project managers perceive advantages, disadvantages, and challenges associated with Individualism vs. Collectivism, and how they manage tensions between their own cultural orientations, organizational values, and team members' profiles. **Conclusion:** Results suggest that project managers act as cultural mediators, reproducing their own cultural values while deliberately adopting their behavior in response to team composition and organizational context.

Keywords

Cultural Dimensions, Hofstede, Individualism, Collectivism, IDV, Cultural Values, Project Manager, Software Project Management

1 Introduction

Hofstede's [11] cultural dimensions help analyze differences in collective programming across countries, identifying how shared societal values influence behaviors, attitudes, and practices in personal and organizational environments [1]. The Individualism vs. Collectivism (IDV) dimension reflects the degree to which people perceive themselves as independent rather than interdependent within a larger collective [10]. In individualistic societies, the emphasis is on personal achievement and rights, prioritizing the needs of oneself and one's immediate family. Collectivism places greater importance on the goals, behaviors, and well-being of the group. A collectivist's self-image is defined by "We," and they often prioritize relationships and loyalty over individualism [10].

Lent [14] emphasizes that project management methods and guidelines do not address the context of cultural dimensions and the particularities of projects, only mentioning the importance of knowing the organizational culture as a necessary attribute of the

project manager, as well, as ethical, interpersonal, and conceptual skills to help them analyze situations and interact appropriately. With increasing globalization and the management of projects in multicultural teams, the context of national culture has been discussed in different studies, as well as the importance of understanding the team's mindset [14] and how is reflected on the changes imposed by software projects or processes used [12, 21, 22].

Recently, the eighth version of the PMBOK Guide [16] began to address the need to understand culture as a factor in team and stakeholder engagement. It qualifies both internal environmental factors of the organization (such as values, cultural norms, leadership styles, and organizational practices) and external factors (such as business, social and cultural issues). However, it does not directly mention the dimensions of national culture.

Hofstede's Individualism vs. Collectivism dimension is relevant to software projects because it shapes how leaders make decisions and organize teams [2, 14, 22]. At the individual level, Triandis [20] distinguishes cultural-level orientations from personal tendencies despite sharing a collective cultural identity. As this orientation often unconsciously influences stakeholder behavior, understanding it helps anticipate tensions and adapt leadership styles [14].

Although IDV originates from Hofstede's national culture framework, this study does not seek to characterize national cultures. Instead, it examines project managers' perceptions of individualistic and collectivist orientations expressed by team members and organizational contexts during software projects. Software projects frequently involve managers, team members, and organizations whose Individualism–Collectivism orientations may not necessarily reflect those typically associated with their national context. In this setting, project managers need to understand the individualistic and collectivist orientations present in software projects and adapt their managerial decisions throughout the project lifecycle.

Accordingly, this study sought to understand how software project managers perceive and respond to tensions arising from differing Individualism–Collectivism orientations during software engineering projects, while considering the potentially divergent cultural orientations of the managers themselves, their team members, and their organizations.

To achieve this objective, this study adopts a descriptive, qualitative, exploratory, applied field study approach.

As a result, the positive and negative aspects of individualistic and collectivist cultural values were identified, along with the main challenges and strategies for conducting software projects with individuals who possess both individualistic and collectivist characteristics. The findings reveal that project managers act as cultural mediators, consciously adapting their leadership style, communication, and goal-setting practices to navigate tensions between

organizational culture and the individual profiles of their team members. Therefore, the main academic contribution of this work lies in connecting cultural theory and managerial practice in software engineering, contributing to an underexplored area of the literature by providing empirical insights into how the Individualism vs. Collectivism cultural dimension is reflected in the day-to-day practices of project leadership and how it relates to performance, collaboration, and decision-making. This study offers initial insights that may support project managers in navigating the cultural values of both the organization and its team members.

Apart from the introduction, this paper consists of several sections: Section 2 presents related work; Section 3 details the research methodology; Section 4 reports the findings; Section 5 discusses the findings; Section 6 addresses limitations and validity concerns; and Section 7 concludes with final considerations.

2 Related Work

Several studies have examined how national culture, particularly Individualism vs. Collectivism, shapes software development practices. Ramesh et al. [17] showed that collectivist interaction patterns in China, India, and South Korea can complement or conflict with agile principles. Jaakkola [12] and Welsch et al. [21] analyzed multicultural agile teams (Europe–Asia and Germany–Japan, respectively), reporting differences in communication, hierarchy, decision-making, and risk attitudes, and argued that cultural diversity is a persistent challenge for project leaders seeking to optimize teamwork and product quality.

Regarding requirements engineering, Alsanoosy et al. [1] described how Power Distance and Individualism shape practices and lessons learned in Saudi Arabia, Australia, and cross-national comparisons. Arizon-Peretz et al. [3] extended this cultural lens to safety and privacy in the design of software systems design, proposing a model in which cultural, organizational, and personal factors jointly influence developers' proactive security behavior. Lent [14] focused on project manager performance across traditional and agile contexts, finding that higher collectivism is associated with better performance in research and innovation projects, and that multicultural project success depends on understanding stakeholders' cultural heritage.

In the context of software project leadership, Welsch et al. [21] compared the cultural profiles of two software teams, one in Germany and the other in Japan. They highlighted the differences among Hofstede's six cultural dimensions and concluded that a deeper understanding of cultural influences in multicultural agile software development teams is necessary and presented cultural diversity as a contemporary challenge in the digital age for project leaders, where managing is essential to optimize teamwork and product quality. Lent [14] discusses how cultural dimensions influence the performance of project managers in different cultural contexts, such as in traditional versus agile projects, and concludes that individuals with higher levels of collectivism tend to perform better in managing research and innovation projects, and that managing multicultural projects requires knowledge of the cultural heritage of stakeholders for success from definition to delivery.

Regarding the individual's cultural alignment with the organization and its impact on the individual, Kristof-Brown et al. [13]

discuss the importance of Person-Organization fit when the individual's culture matches the organization's, calling this characteristic "cultural fit" or "congruence of values." According to the authors, cultural fit has a direct influence on the professional's contextual performance, such as individual behaviors within the organization, support for colleagues, compliance with internal rules, and extra effort, than on the performance of tasks that depend on technical skills. Additionally, professionals who align with the organization's values are more motivated to advance the organizational mission.

The cited studies do not jointly investigated the influence of Individualism–Collectivism (IDV) at the individual, organizational, and team levels within software project management. While Welsch et al. [21] emphasize the influence of national culture on software engineering practices, they do not examine how project managers address differences among managers, team members, and organizations within the same national context. Likewise, although Lent [14] discusses cultural diversity in project management, it does not simultaneously explore the positive and negative aspects associated with different IDV orientations or the managerial strategies adopted to address them across these levels. Consequently, although previous studies establish the importance of culture in software engineering, they provide limited understanding of how project managers navigate differing individualistic and collectivist orientations among themselves, their teams, and their organizations.

Considering that Hofstede [9] and Triandis [20] argue that individuals combine both tendencies rather than being purely individualistic or collectivist, this study considers cultural values simultaneously at the individual, organizational, and team levels, rather than isolating national culture or a single group's behavior. By investigating positive aspects, challenges, and managerial strategies, this work provides empirical evidence of how communication, delegation, recognition, and goal negotiation are adapted across organizational contexts.

3 Research Method

This study aims to understand how managers deal with individualistic and collectivist team members and organizations in software projects. The study design and its execution details are presented below.

Study Design. To guide the study, the following research questions (RQ) were defined:

- RQ1: What positive and negative aspects are associated with individualistic and collectivist organizational contexts?
- RQ2: What challenges do managers face in individualistic and collectivist organizational contexts to achieve project objectives?
- RQ3: What strategies are used to achieve project objectives in individualistic and collectivist organizational contexts?

This field study adopts a descriptive, exploratory-qualitative design, and applied approach, employing an inductive method through recorded interviews as the primary data collection method. The epistemological stance is predominantly interpretive, grounded in an analysis of participants' professional experiences.

Participants. The study's participants consists of professionals in leadership positions who work on software projects. Participants were selected through convenience sampling.

To enrich the findings with diverse experiences, we recruited managers from different organizations, many of whom had worked in multiple organizations throughout their careers. This diversity enabled comparisons across different organizational contexts and perspectives. Table 1 presents participants' profile and professional experience. All participants were Brazilian managers; thus, the findings should be interpreted within the Brazilian cultural context.

Data Collection Procedures. Data collection was conducted through semi-structured interviews. The questionnaire consisted of three parts: (i) research contextualization; (ii) questions to characterize the participant; and (iii) open-ended questions related to the research questions. Table 2 presents the open-ended questions used. To facilitate the interview process and obtain participant's consent, a Google Forms form was created. The complete questionnaire is available in the replication package [8].

In the first part of the questionnaire, the research purpose, the informed consent form, and a brief contextualization of the Individualism vs. Collectivism (IDV) dimension in terms of workplace, management style, and individual profile were presented.

Participants were asked to identify which persona they most closely aligned with, based on profiles presented in Table 3. These personas were designed to represent characteristics associated with individualism (i.e., high IDV) and collectivism (i.e., low IDV), as described by Hofstede et al. [11]. This approach was adopted because the terms 'individualism' and 'collectivism' may carry positive or negative connotations beyond their theoretical definitions. To avoid gender bias, both personas represent male profiles. The personas were used solely as a contextualization aid and as a self-identification exercise to characterize participants' perceived Individualism–Collectivism orientation. They were not used as response templates or as a basis for coding participants' narratives. Instead, they helped participants understand the IDV construct in behavioral terms and were intended to reduce interpretation bias by establishing a common understanding of the construct before the interviews. The IDV orientation reported in Table 1 reflects participants' self-perceived orientation based on the personas and was used only for participant characterization.

Whenever misconceptions about the theoretical concepts arose during the interviews, the researcher clarified them by referring back to the theoretical lens. This ensured that participants shared a common understanding of the construct before discussing the characteristics of team members and organizational contexts.

The interviews explored participants' perceptions of their own cultural orientations, the organizational contexts in which they had worked, and their professional experiences. Participants described how they managed software projects involving team members and organizational contexts they perceived as exhibiting individualistic and collectivist characteristics.

A pilot interview was conducted with one participant, who answered all the questions. The participant made minor suggestions to improve the questionnaire, focusing on grammatical corrections, clearer question wording and alignment with the research objectives. We also evaluated the questions' ability to support the study's

objective. Based on this, the questionnaire was revised and used in subsequent interviews. The pilot interview was discarded.

Data Analysis Procedures. For data analysis, we adopted thematic analysis [5]. The interview transcripts were systematically coded, and the resulting codes were iteratively reviewed, grouped, and refined into themes representing patterns of shared meaning across the dataset. The Atlas.TI (<http://www.atlasti.com>) tool was used to support data analysis. Although guided by initial research questions, the analysis was iterative, allowing the questions to be refined and to evolve as new patterns emerged from the data. Examples of the coding process are presented in Section 4, while the complete codebook is available in the replication package [8].

The *first stage* of data analysis involved reading the interview transcripts. In the *second stage*, the relevant parts were initially coded. In the *third stage*, the initial codes were reviewed and grouped according to their meanings, while themes associated with the positive and negative aspects of collectivism and individualism (associated with RQ1) and challenges emerged. In the *fourth stage*, the challenge codes underwent a further review to differentiate general project management challenges from those associated with individualistic and collectivist organizational contexts (as addressed in RQ2). In the *fifth stage*, based on the analysis of these specific challenges, the strategies managers adopted to address them were identified (as part of RQ3). Finally, in the *sixth stage*, we revisited the themes identified across RQ1–RQ3 to identify latent and integrative themes [5, 19]. This higher-level interpretation resulted in Findings #6–#8, which synthesize the role of project managers as cultural mediators, how this mediation is operationalized, and its practical limits (see Section 5).

The coding was performed by the first author and reviewed by the second author in several iterative rounds of discussion. To verify the coherence (i) of the codes with the transcripts and (ii) of the categories with the codes, the second author used the following questions [7]: 'Are there clear, evident connections between the text and the codes?' and 'Are categories internally coherent, consistent, and distinctive?'

Therefore, a negotiated agreement approach was adopted to obtain consensus. This approach is particularly useful in exploratory research, where generating new insights is central, especially when coding requires sensitivity not only to obvious meanings but also to more subtle ones, and when coders have different levels of knowledge in this regard [6].

Study Execution. The interviews were conducted between November 18, 2025, and March 21, 2026. The interviews were scheduled remotely and recorded with the participants' permission; each interview lasted between 45 minutes and 1 hour. The data collection remained open for approximately three months to increase participation from managers with diverse backgrounds and organizational experiences. Some interviews were rescheduled due to participants' availability. We do not expect this period to have affected the results, as the study investigates relatively stable perceptions and experiences rather than time-sensitive events. The interviews were transcribed and subsequently anonymized. When necessary, minor adjustments were made to the transcripts to correct linguistic errors that hindered comprehension, but without altering the content.

Table 1: Participants' profile and professional experience

ID	Position	IDV Orientation [†]	Education	Exp. Soft. Eng.	Exp. Project Manager	Org. Sector
P01	Project Manager	Collectivist	Specialization	Over 10 years	Over 10 years	Consultancy/Services
P02	Project Manager	Individualistic	Master's degree	Over 10 years	Over 10 years	Other
P03	PMO	Collectivist	Master's degree	Over 10 years	Over 10 years	Consultancy/Services
P04	Project Manager	Individualistic	Specialization	Over 10 years	Over 10 years	Consultancy/Services
P05	Project Manager	Collectivist	Specialization	Over 10 years	Over 10 years	Consultancy/Services
P06	Project Manager	Collectivist	Master's degree	Over 10 years	Over 10 years	Consultancy/Services
P07	Project Manager	Collectivist	Specialization	Over 10 years	Over 10 years	Consultancy/Services
P08	Project Manager	Collectivist	Higher education	Over 10 years	Between 6 and 10 years	Product development.
P09	Product Owner	Individualistic	Master's degree	Over 10 years	Over 10 years	Other
P10	PMO	Collectivist	Specialization	Between 6 and 10 years	Between 6 and 10 years	Product development
P11	Tech Leader	Individualistic	PhD	Between 6 and 10 years	Between 3 and 5 years	Automation

[†] Based on participants' self-identification using the personas presented in Table 3.

Table 2: Questionnaire

ID	Questions	RQs
1	Please indicate which of the following personas you most identify with. [Persona 1 - High IDV; Persona 2 - Low IDV]	-
2	How do you think your profile (high or low IDV) influences your performance as a project manager?	RQ2
3	Does your organizational culture encourage individualistic behaviors, such as personal recognition and autonomy, more than collective goals and collaboration? What challenges do you associate with these profiles?	RQ1, RQ2, RQ3
4	In your opinion, is it possible for a Project Manager to effectively adapt to an organization with very different IDV values from their own? How does this happen?	RQ2, RQ3
5	If you are on a team with a high IDV profile, do you change your management strategy compared to when you are on a team with a low IDV profile, or vice versa?	RQ2, RQ3
6	Within a team, what types of activities and responsibilities a high IDV person could contribute to software projects? Why?	RQ1, RQ3
7	Within a team, what types of activities and responsibilities a low IDV person could contribute to software projects? Why?	RQ1, RQ3
8	Do you find that the team's cultural context significantly influences how deadlines and goals are set and met in software projects?	RQ1, RQ3

4 Results

As follows, we present the results for each research question.

4.1 Positive and Negative Aspects of Individualism and Collectivism (RQ1)

Table 4 presents the reported positive and negative aspects of individualism and collectivism. The Source column indicates the participants who contributed to identifying these aspects.

4.1.1 Negative Aspects of Individualism.

Toxic environment: Several experiences reported in individualistic organizations point to a highly competitive environment. Participants P03 and P05 mentioned rivalry among coworkers, while another negative aspect is the intense demand for high performance, illustrated by the leader who mentioned feeling obligated to “restrain the pressure and not reveal it to the team” [P02]. Furthermore, there are reports of aggressive negotiations with suppliers driven by pressure to deliver results and performance-based bonuses, a

Table 3: Personas for Participant Association

Profile	Persona
High IDV	Carlos is a project manager in an innovation area at a large energy organization. He values individual autonomy, encourages his subordinates to make their own decisions, and believes that results should reflect each individual's personal merit. Carlos likes clear goals for each person and believes that each employee should be directly responsible for their results. For him, recognition and promotions should be based on individual performance, not collective results. Carlos considers a confrontation a healthy situation, as he believes that the clash of opinions is an opportunity that leads to a higher truth, promotes growth on both sides, and benefits a clear understanding of the team's objectives and goals. He considers that speaking openly is a characteristic of an honest person. For Carlos, the most important characteristics in an organization are: (i) a job that allows him to have enough time for his personal life; (ii) considerable freedom to adapt his work approach; (iii) having a challenging job, a job that provides him with a personal sense of accomplishment. Words that describe him: autonomy, merit, individual performance, healthy competition, freedom.
Low IDV	Mário seeks to foster an environment of strong belonging and cooperation. For Mário, important decisions should be consensual, and recognition should value the group as a whole. He sees himself as part of the team, not above it, and considers harmony and loyalty among colleagues fundamental to the organization's good performance. For Mário, confronting his subordinates is undesirable and is avoided. When it does occur, he seeks to quickly reach a consensus to avoid friction in the relationship and maintain a harmonious team environment, even if he doesn't fully agree with the other person's position. For this manager, the most important characteristics in an organization are: (i) having a job that offers training opportunities (to improve their skills or learn new skills); (ii) having good physical working conditions (good ventilation and lighting, adequate workspace, etc.); (iii) fully utilizing their skills and abilities for the job. Words that describe him: collaboration, harmony, loyalty, consensus, team spirit.

symptom of “a culture of stepping over everyone, [of] an extremely aggressive organization” [P01], which results in a “predatory logic that entails a constant psychological burden due to taking more risks in pursuit of a greater reward” [P10].

Pressure on performance: Participant P04 reported that “deadlines and goals often arrive defined” and the project leader needs to organize their work “without freedom for negotiation”. Due to the organization's competitiveness, “the demands are rigorous to achieve objectives, reach goals, deliver on time and within the expected

Table 4: Positive and negative aspects associated with individualistic (High IDV) and collectivist (Low IDV) contexts

Ctx.	Type	Aspect	Source
High IDV	Neg.	Toxic environment	P01-P03, P05, P10
		Pressure on performance	P02, P04, P07, P09
		Lack of integration	P01, P03-P05, P08-P11
		Rigorous adherence to goals and deadlines	P02-P04, P07, P09-P11
	Pos.	Diverse work environment	P04, P06, P07
Low IDV	Neg.	Direct communication	P01, P02, P04, P10, P11
		Innovation	P04-P07, P09
		Standardized career advancement	P06, P09
		Standardized behavior	P03, P05, P06, P09-P11
	Pos.	Frustration	P04, P05, P07-P09
		Work overload	P03, P05, P06
		Team members' commitment	P01, P02, P04-P10
		Sense of collaboration	P01-P08, P10
		Collegiate decision-making	P01, P03, P06, P10
		Flexibility in negotiation	P02, P03, P09, P10

cost" [P02]. As a result of this pressure, participants P07 and P09 stated that they delegate more challenging tasks and exert greater pressure on team members with a more individualistic profile.

Lack of integration: One of the main impacts mentioned regarding the lack of integration was poor communication among departments of organizations with individualistic values, which "impoverishes the work environment" [P04], can bring "deviations to projects" [P05], causes problems to be "seen at the end of the project" [P08], and means "teams create their own culture and good practices are not shared" [P09]. These impacts are amplified when employees develop "a culture of creating independence from the organization's own objectives" [P01].

Rigorous adherence to goals and deadlines. Individualistic organizations value "individual productivity and project delivery" [P11] and treat deadlines and goals rigidly: "deadlines and goals often come pre-set; in my view, there is not much freedom regarding the definition of deadlines and goals" [P04], and the demand for "deliveries within the expected timeframe and cost is more rigorous" [P02]. Organizations with a higher level of individualism tend to have more ambitious deadlines [P03, P09] "because this ends up being a differentiator" [P09] and because "individualists tend to be more aggressive" [P10].

4.1.2 Positive Aspects of Individualism.

Diverse work environment. Individualistic organizations are more likely to value individual behaviors, as reported by P07: "the organizational culture of the consulting organizations I worked for always encouraged individual behaviors (...) personal recognition and autonomy are strong in this type of organization." These individual differences enrich and contribute to the constructive conflict of ideas, as highlighted by participant P04: "I find these differences rich, I like the conflict of ideas in a constructive way (...) It is important to give space for people to express themselves and preserve their individuality (...) so that everyone feels good working."

Direct Communication. Participants highlighted direct communication as a valued characteristic among individuals with individualistic values, who tend to express their thoughts and experiences openly: "[a person] with a high IDV is sometimes very direct

(...) [they] will bring all their experiences (...) they bring their successes and failures, contributing to the new context (...) I believe that this is the greatest contribution [of an individualistic person]" [P04]. Another characteristic is the willingness in saying 'no' directly: "If we think about Americans, [it's easy for them] to say 'no' to you naturally and the friendship continues" [P01]. Similarly, one participant noted: "In the individualistic organization where I worked, matters were approached in a far more open and straightforward manner, and issues related to power concentration were significantly clearer and more distinct among those involved" [P10].

Key Finding #1 – Individualism (RQ1)

Individualistic contexts are associated with a diverse work environment in which constructive conflict of ideas coexists with open communication, as well as innovation driven by recognition. At the same time, they can lead to toxic and highly competitive environments, where rigid goals and deadlines, along with increased pressure on individual performance, hinder integration and knowledge sharing.

Innovation. Participants stated that individuals with individualistic values tend to be more innovative at work as a way to gain recognition: an individualistic person "is likely to contribute to innovation, by consistently seeking alternative solutions" [P05], "will pursue innovation proactively and strive for distinction through novel approaches" [P07], and "will naturally aim for excellence, seek opportunities for continuous learning, and demonstrate their capabilities" [P09]. It was also highlighted that a person with an individualistic profile "may positively influence team performance by motivating colleagues and leveraging outcomes from more critical projects to support both personal and collective growth" [P09].

4.1.3 Negative Aspects of Collectivism.

Standardized career advancement and behavior. In a collectivist environment, professional advancement, recognition, and promotion are standardized, potentially impeding professionals deserving of "greater recognition" [P06] and "encouraging them to avoid taking on more responsibilities" [P09] – a pattern especially prevalent in public organizations with rigid promotion guidelines [P03, P09]. The behavior of team members also tends to be standardized: such professionals collaborate more easily towards the project's and organization's final objectives [P03, P05, P06, P09, P10, P11], however, this may become a problem when managers need to "look at other professionals who have a differentiated performance" [P10]. In this context, it is the project leader's duty to act as a people manager, align team performance, and understand each member's expectations [P05, P06, P09], as "a project is a collective event (...) and the role of management is to make ordinary people do extraordinary things" [P06].

Frustration. Participants P04, P08, and P09 reported personal frustration from adapting to collectivist contexts: "that person won't be happy (...) the person will either leave or be expelled from that environment" [P09]. Participant P04 reinforced this point: "I prefer my individuality [instead of] changing my essence to meet the needs of the organization I'm working for." Participant P08 added that: "I think the individualist will feel betrayed, less valued in a collectivist

organization.” This frustration is also a concern at the team level: “giving unrealistic goals to people with low IDV or giving [easy] goals to people with high IDV [will cause them to become] frustrated and they will not be committed” [P07].

Work overload. In collectivist organizations, some team members may become overloaded with work to meet project deadlines, making it important to have members who can work in multiple roles. This is corroborated by participants who highlighted the importance of collectivist individuals because they “think about [the project’s] delivery and results as a whole” [P05], and “understand the project goals better [and] support colleagues in reaching [the results] together” [P06]. A key risk for managers is having an overloaded member and failing to develop other team members.

4.1.4 Positive Aspects of Collectivism.

Team members’ commitment. Collectivist values foster shared ownership of results, as evidenced by the following statements: “Everyone collaborates towards a final objective and the organization’s result” [P05]; “The organization doesn’t see the people, it sees the project and the collective result” [P06]; “[Collectivism] generates trust (...), openness and [thus, the project manager achieves] the [expected] results more quickly” [P01]; “Regardless of the project, it is the collective [that wins] overall” [P08].

Sense of Collaboration. The results indicate that “in the [collectivist] group, [there is] better collaboration” [P08]. Even participants with an individualistic profile recognize that “a sense of collectivism is very important in teamwork” [P04]. Participant P07 highlighted that he strives to “maintain collaborative teams, never imposing [decisions], despite respecting meritocracy,” emphasizing that “the result belongs to everyone; it is not individual.”

Collegiate decision-making. In collectivist contexts, decisions require respect for hierarchy and authority. According to P01, if the project manager makes “a decision alone, [they] may not be well regarded.” Regarding technical decisions, managers should “always ask the team for their opinion and try to reach a consensus” [P03]. Participant P10 noted that even when organizations promote a sense of ownership, in collectivist contexts, “decisions are made collectively”.

Flexibility in negotiation. Collectivist organizations tend to offer greater flexibility in negotiating deadlines: “I understand that in more collectivist teams, there is a certain flexibility in negotiating deadlines” [P02]; “a more united, more collaborative team tends to give longer deadlines than an individualistic one, because when considering the opinions of many people, you end up extending the deadline” [P03]. Furthermore, “organizations with a collectivist mindset and long-term thinking may be more tolerant of delays and failures” [P09].

Key Findings #2 – Collectivism (RQ1)

Collectivist contexts are associated with strong commitment to outcomes, a sense of collaboration, and greater flexibility in decision-making and negotiation. At the same time, they can lead to standardized recognition and behavior, which may limit differentiation, as well as frustration among some members and work overload for those who assume greater responsibility for collective results.

4.2 Challenges in Individualistic and Collectivist Contexts (RQ2)

Table 5 presents the challenges associated with individualistic (High IDV) and collectivist (Low IDV) organizational contexts.

Table 5: Challenges associated with individualistic (High IDV) and collectivist (Low IDV) contexts

Ctx.	Challenges	Source
High IDV	Increased pressure on performance Effects of lack of integration Managing rigid goals and deadlines	P01, P02, P04, P05, P07, P09 P01, P03-P06, P08-P11 P01-P04, P06, P07, P09-P11
Low IDV	Project team engagement Individualized motivation	P02, P03, P06, P07, P09, P10 P02, P05, P06-P09, P11

4.2.1 Challenges in Individualistic Organizational Contexts.

Increased pressure on performance. Participant P02, who identifies as having a high IDV, reported that he does not transfer the pressure for results directly to the team. For him, it is important to recalibrate communication and leadership, adopting a more empathetic approach and ensuring that the team remains motivated, even while maintaining a strong focus on delivering results. For participant P09, increased accountability is a way to “drive the rest of the team.” In this sense, identifying the most individualistic employee represents an opportunity to allocate them to innovation activities that require research, and it is up to managers to strategically leverage this potential. This situation occurs “because, due to their profile, this person will naturally aim for excellence, seek opportunities for continuous learning, and demonstrate their capabilities” [P09] and take ownership of a more critical project. Participants P01 and P05 reported prior experience in individualistic organizations that institutionalize competition and demand maximum productivity from their employees. However, due to competitive behavior that harmed collaboration and integration, employees’ mental health was affected over time. These participants criticized the management and the way in which practices to achieve results were implemented and encouraged by these organizations. Although, both valued the contribution of this experience to their professional development and learning, over time, they chose to seek work in organizations with a collectivist profile.

Effects of lack of integration. Participants P06 and P08 reported working in strongly meritocratic, competitive, and performance oriented cultures without allowing these characteristics to undermine the necessary collaboration on the project. Participants P02, P03, P06, P07, P08, and P09 emphasize that, in highly competitive teams, managers need to encourage a culture of cooperation to reduce friction more diligently, and that a lack of communication and information sharing among individualistic teams harms the work environment and organizational efficiency.

Participant P07 highlights his experience in large multinational consulting organizations, associated with individualistic values, “The organizational culture (...) I worked always encouraged individualistic behaviors (...). Personal recognition and autonomy are strong in this type of organization. I tried to maintain a collaborative environment, encouraging [individualistic members] to stand out individually, but trying not to overshadow the team as a whole.”

It was also identified that communication gaps between departments within the same organization negatively affects customers, as mentioned by participant P04, *“it’s a challenge, because at certain times we miss the collective. [For example,] I work in the support area for clients who contract the product and the support service. [Currently,] the migration of ERP functionalities to artificial intelligence is novel [for everyone in the organization]. We notice the areas competing with each other, [for example] the consulting area competing with the support area, even to the point of not sharing with everyone some technical information that [a certain area] discovered. This behavior harms the relationship and productivity (...) [But] the organization lets this happen and has no initiative to try to promote collectivity for the greater good of the organization.”*

Managing rigid goals and deadlines. In contexts where goals and deadlines are rigidly defined, managers face the challenge of balancing strict performance expectations with team dynamics. In these environments, the management style becomes more directive for participants P01, P02, P03, and P07, characterized by clear goals, rigid deadlines, and intense demands on individual deliverables. This requires greater interpersonal skill to balance the dynamics of competition and collaboration. Participant P02 reinforces that, due to competitiveness, there is greater demand, pressure, and less flexibility for deliverables within the expected deadlines and costs. As a result, managers must navigate limited tolerance for delays while sustaining team engagement, as individualistic cultures tend to associate performance with reward and punishment, reinforcing commitment to cost, deadlines, and scope [P03, P06, P07, and P09].

Key Findings #3 – Individualistic Contexts (RQ2)

In individualistic environments, managers face challenges in balancing performance pressure and rigid goals with collaboration, as competitiveness can hinder integration and knowledge sharing.

4.2.2 Challenges in Collectivist Organizational Contexts.

Project team engagement. Participants P02, P03, P06, P07, and P09 identified individual engagement with project objectives as a key challenge in collectivist environments, where delivery depends on team collaboration. Despite this, participants reported frustrations over unequal effort and a lack of indirect recognition [P09]. As an example, participant P09 highlighted the context of public organizations, whose structure can allow demotivated individuals to *“hide from the work,”* highlighting the relevance of individual engagement. Participants P02, P09, and P10 stress the importance of *“adjusting the approach”* [P10] and treating collectivists and individualists differently *“to extract the best performance from each team member”* [P09], and understanding that *“in low IDV cultures, individual performance will not be as visible or rewarded as in high IDV environments”* [P02]. *“Navigating more competitive environments and adapting to the meritocratic game without abandoning the focus on collaboration are challenges for project leaders,”* as summarized by participant P07.

Individualized motivation. In collectivist environments, group goals and recognition predominate, reinforcing the idea that the outcome belongs to the team rather than to specific individuals [P05,

P07]. Addressing individual motivation is a characteristic that every manager needs to understand and actively manage, so that activities occur as planned, as highlighted by participant P02. Participant P05 states that the concept for project success *“is the team delivering as a whole,”* but warns about motivational issues and defends the need for individual recognition to maintain the project’s morale and pace. She also understands the need to indirectly compensate her subordinates and points out that egalitarian management of team members is a challenge, considering that people are not the same and that managers should address these differences.

Participant P05 underlines the importance of respecting team members’ individuality and avoiding treating them uniformly. Even in organizations where there is no direct recognition, participants acknowledge that some professionals are willing to dedicate more effort to the project. In such contexts, they adopt indirect strategies to motivate and support team members with high IDV, such as allocating them to innovation and research activities and providing greater autonomy. *“The challenge is that [team members] don’t act in the same way (...) Because even though you treat them collectively, people are individuals (...) Some work more, some work less. (...) to address these differences, [it’s necessary to encourage] some indirect recognition [otherwise the employee] will lose motivation.”*

These practices allow such professionals to excel and develop without harming the organization’s culture. In individualistic organizational contexts, participants P07 and P09 explore recognition, challenges, visibility, and differentiated goals to manage motivation and recognition. *“For [team members] with a high IDV, they will have differentiated goals, and they will be held accountable for those goals. Because if they don’t have differentiated goals, [they] will become demotivated and perhaps demotivate the entire team. (...) The IDV [of the team members] will always significantly influence how you define deadlines and goals. It has to influence, otherwise failure is likely [P07].* Participant P09 argues that *“in collectivist organizations, professionals with an individualistic profile can adapt, but tend to show demotivation and feel underutilized. (...) In contrast, in individualistic contexts, recognition based on personal performance expands the opportunities for appreciation and recognition of these individuals. In this sense, the participant emphasizes that professionals with differentiated performance should be encouraged.*

Key Findings #4 – Collectivist Contexts (RQ2)

In collectivist environments, managers face challenges in sustaining individual motivation within group-oriented structures, where standardized recognition can obscure individual contributions and lead to uneven engagement.

4.3 Management Strategies in Individualistic and Collectivist Contexts (RQ3)

The four strategies used to achieve project objectives in individualistic and collectivist organizational contexts are discussed below.

Adapting individual profiles to organizational culture. Organizational culture pressures managers to adapt to the environment, influencing their daily behavior [P03, P06, P08-P10], but personal values and cultural mindset limit this adaptation when ethical principles are at stake or personal satisfaction limits are

exceeded [P01, P02, P04, P06, P09]. Participants P01, P02, P04–P06, P08–P10 express that adapting to organizational culture is essential to meeting expected objectives and may require professional maturity, without necessarily changing core values. As P09 highlighted, *“the [project leader’s] leadership ends up being situational. You have to understand the environment you’re in, your team, your peers, your organization and adapt as much as possible. If it doesn’t violate any values, I think it’s natural to adapt there to make things happen.”*

Managers need to modulate the focus between collective results and individual contributions, adjusting leadership, communication, delegation, and goal setting according to the organization’s and team’s IDV level [P01, P02, P04, P06, P09, P11]. Although adaptation is often possible, it is not neutral – it involves internal negotiations (e.g., values and identity) and external negotiations (e.g., management practices, goal setting) that directly impact how software projects are conducted [P01–P03, P06–P11]. Participant P06 reinforces adaptability as a core competency: *“a project manager must necessarily be an extremely adaptable person (...) [If I am in a] highly competitive team and I need to generate project results, I need to manage those people, making them work collectively, because management is collective. And the opposite is also true.”*

Another group of participants [P04, P05, P07, P09] is more skeptical and believe that when the IDV profiles of manager and organization diverge significantly, adaptation is limited: the individual tends to feel undervalued (high IDV in a collectivist environment) or uncomfortable with competition (low IDV in an individualistic context). As participant P09 pointed out: *“you will fight against a culture (...) either you will leave, or you will be expelled from that environment.”* Participant P04 adds: *“I prefer my individuality to changing my essence to fit the place I’m working.”* Participant P07 concludes: *“the person’s profile has to match the organization’s profile (...) the individualistic member will feel betrayed, less valued in an organization [with] collective values. And the opposite [also occurs].”*

Adapting the way deadlines and goals are defined and enforced according to team members’ profiles. The first step is to identify who is more individualistic and who is more collectivist, so that leadership style, communication methods, and accountability can be tailored to each member [P01, P05, P06, P08, P09], with focus on consensus in collectivist contexts and on autonomy in individualistic ones [P01, P08, P11]. The manager’s approach adapts the tone (i.e., more empathetic or more directive) and the intensity of pressure according to each member’s profile and sensitivity [P03, P07, P08, P10, P11]. For participant P09: *“it’s [important] to understand each person’s motivation (...) What motivates me may not be what motivates you. It could be financial motivation, but it could also be about having more visibility, learning a new skill, or having more free time for family (...) The project manager has a duty to ‘tighten that little screw’ that will make the person more productive.”*

To manage individualistic professionals in collaborative environments, participants P02, P06, P07, and P09 reported directing them towards technical, complex tasks or innovation initiatives, so they can stand out without disrupting team cohesion. As P07 describes: *“I’ve always had a team that had some star person, someone who wanted to be in the spotlight, and to whom I delegated more tasks and demanded much more.”* Participants P05 and P09 assign differentiated challenges to high IDV professionals, holding them responsible for innovation and more visible initiatives while raising

accountability expectations: *“[the individualistic member] wishes to be rewarded, so they will seek visibility and take advantage of outcomes from a more critical project to grow. The manager needs to leverage this opportunity effectively”* [P09].

In collectivist teams, participants report greater use of collaborative estimation, negotiation of deadlines, and flexibility in accountability, which can result in longer deadlines but with greater group buy-in. In individualistic contexts, goals tend to be more rigid, with a strong focus on meeting deadlines, costs, and scope, and intense pressure on individual performance [P02, P03, P07, P08]. Individuals who seek prominence and take on ambitious goals are held to higher standards, while collectivist team members receive support to keep up with the group’s pace, avoiding chronic overload or complacency. Thus, the management of deadlines and goals serves as a mechanism to align individual behaviors with organizational objectives [P04, P06, P07, P09].

Allocating tasks according to team members’ motivational profiles. The reports show a recurring strategy of allocating tasks aligned with each team member’s motivational profile [P02, P06, P08, P09]. For more individualistic team members, participants P02, P03, and P06 reported assigning them to tasks that provides focus and autonomy, such as software development, specialized technical activities, or innovation initiatives with a well-defined scope. Participants P06 and P07 also assign visible challenges, more demanding goals, and responsibilities that offer recognition for individual performance, leveraging competitiveness as a driver of performance and delivery.

Regarding more collectivist team members, participants reported roles that demand greater interaction, group support, and a holistic perspective, such as requirements/business analysis, acting as Scrum Master, or coordinating and supporting the team [P02, P03, P07, P08]. These professionals are used as references within the work team, entrusted with essential tasks that maintain the project’s flow and help colleagues meet deliverables [P06, P07, P08]. This intentional distribution enhances performance across profiles and reduces friction between individual expectations and project demands [P02, P03, P06, P07]. Participant P06 emphasizes that it is the leader’s duty to address behavioral disparities to maintain team cohesion, while P07 seeks to encourage subordinates to stand out individually without overshadowing the team: *“We have to adjust (...) if you don’t adapt your management style so that these people have the freedom and autonomy to work, because these people demand it, there’s no way around it.”*

Ensuring collaboration in individualistic environments. In more individualistic environments, participants P02, P06, P07, and P08 use a more collaborative style, seeking to motivate the group as a whole, distributing recognition collectively, and still valuing team members who takes on the heaviest workload: *“I tried to maintain a collaborative environment, trying to hold back a little on these stars, encouraging [the professionals] to stand out individually, but trying not to overshadow the team as a whole”* [P07].

Participants P01, P03, P06, P07, P08, and P09 emphasize that, regardless of the organizational profile, executing a project requires, above all, collaboration, and that results are achieved collaboratively. Participants P01, P05, and P07 highlight that, based on their previous experiences, they currently prefer to work in environments where the goal is collective. The ability to manage people is essential

[P06], and since no two people are alike, it is the leader's duty to understand each team member's aspirations [P03]. Furthermore, the leader must prioritize consensus, make decisions collaboratively, and foster team cohesion [P06, P08, P10].

Key Findings #5 – Management Strategies (RQ3)

Project managers adopt adaptive strategies to navigate individualistic and collectivist contexts, adjusting leadership, communication, goals, and task allocation to team members' cultural and motivational profiles. They also promote collaboration, particularly in competitive environments, to sustain team cohesion.

5 Discussion

The results indicate that software project management involves continuous mediation across national, organizational, and individual cultural levels. Rather than reflecting fixed national characteristics, the interview accounts show that managers interpret and respond to context-dependent Individualism–Collectivism (IDV) orientations expressed by themselves, their team members, and their organizations. This extends Hofstede's [11] national-level propositions to the organizational and individual contexts and corroborates Triandis' [20] argument that idiocentric and allocentric tendencies coexist within the same individual and are activated according to situational context. This suggests that IDV behaviors in software teams are not fixed national traits but dynamic, context-sensitive orientations that directly shape how project managers interpret and respond to their team members' conduct.

This mediation is operationalized through people management strategies aimed at aligning individual performance with project and organizational objectives. Managers reported identifying who is more individualistic and who is more collectivist and adapting their leadership style, communication methods, and demands accordingly. Managers' posture is described as flexible, adjusting the tone (i.e., more empathetic or more directive) and the intensity of pressure according to each member's profile and sensitivity. These findings are consistent with prior work suggesting that professionals tend to reproduce their own cultural values [14], as managers describe conscious strategies for behavioral adjustment in response to the organizational context and team composition.

Key Finding #6 – Cultural Mediation

Software project management involves continuous mediation across cultural levels. Project managers act as cultural mediators by interpreting Individualism vs. Collectivism-based values and behaviors and adjusting management practices accordingly, such as role definition, goal setting, and recognition mechanisms aiming at project success.

However, this adaptation is neither neutral nor unlimited. Managers continuously negotiate between their own cultural orientation and the expectations imposed by the organizational environment. When there is a strong misalignment between the manager's cultural profile and the organizational context, signs of distress, feelings of devaluation, and burnout emerge [13]. Reports show

that managers respond differently depending on whether their profile aligns with or diverges from the organizational context. For example, managers with a collectivist profile in strongly individualistic environments describe efforts to contain destructive competition and preserve team cohesion, often absorbing tensions without transferring them to the team. Conversely, managers with an individualistic profile in collectivist organizations adjust expectations regarding recognition and personal visibility, accepting collective goals while maintaining a focus on delivery and performance. These adjustments require continuous negotiation between the manager's cultural identity and contextual demands, suggesting that successful adaptation involves technical skills, emotional resilience and cultural self-awareness [4, 17].

Key Finding #7 – Limits of Cultural Adaptation

Managers adapt to different IDV profiles, but this adaptation is not unlimited. Strong misalignment between the manager's cultural orientation and the organizational context can lead to tension, emotional strain, and reduced well-being, requiring not only managerial strategies but also emotional resilience and cultural self-awareness.

Evidence shows that the interaction between national and organizational culture is a dynamic, complex process in which they mutually influence each other in ways that are not always predictable, corroborating Šmite et al. [22], who argues that national culture shapes and sometimes conflicts with organizational culture, creating barriers or opportunities for transformation. This reinforces the need to treat culture not only as a control variable but as a constitutive element of managing software projects.

Together, these observations suggest that professionals, consciously or intuitively, construct a mental model of fit between their motivational profile and task type [13]. In the context of software engineering, where agile methods emphasize self-organization and collaboration [22], managers act as "social architects," structuring the work environment so that diverse cultural profiles can coexist and contribute in complementary ways. This differentiated management extends to the definition and enforcement of goals: in high IDV contexts, deadlines are more rigid, goals are more aggressive, and the demand for individual performance is intense; in low IDV environments, greater flexibility is observed in negotiating deadlines and jointly building estimates, though at the risk of complacency or a dilution of responsibilities, aligned with Hofstede et al. [11] proposal that collectivist cultures prioritize harmony and consensus over efficiency or speed, which can directly affect the productivity and outcomes of projects.

Managers across IDV profiles converge on viewing projects as inherently collective activities, in contrast to high-IDV organizational cultures that emphasize internal competition. This suggests that project management practices carry implicit cultural values (collaboration, transparency, self-organization) that may conflict with individualistic environments [22]. Leaders thus act as cultural translators between the logic of the development method and organizational practice, helping explain both the successes and difficulties of adopting agile practices across different cultural contexts [15, 17].

Key Finding #8 – Managing Cultural Diversity

Managers operationalize the cultural mediation by aligning tasks, goals, and collaboration with team members' cultural profiles. Individualistic contexts emphasize autonomy and performance, while collectivist contexts prioritize collaboration, flexibility, and consensus.

6 Limitations and Threats to Validity

Following the validity criteria proposed by Recker [18] for qualitative case study research in software engineering, four dimensions of validity were considered in this study.

Regarding *credibility*, the coding process was performed by the first author and reviewed by the second author through multiple iterative rounds of discussion, adopting a negotiated agreement approach to reach consensus and ensure that findings accurately reflect the participants' accounts. Another issue identified was the interpretation of the cultural value of 'Individualism' within its context, as some interviewees initially associated it with selfishness, egocentrism, ambition, and vanity. Hofstede et al. [11] highlight that such interpretive bias is a known phenomenon. Since the interviewees were born and work in Brazil, which is considered a collectivist country (IDV score of 38) [10], similar biases could influence their responses. To mitigate this threat, the interviewer clarified the meaning of Individualism–Collectivism at the national, organizational, and individual levels whenever misconceptions arose, following the interpretations presented by Hofstede et al. [11] and Triandis [20]. Moreover, to reduce interpretation bias stereotype effects, the interview protocol used behavioral personas based on Hofstede's definitions (Table 3), and participants' self-identified IDV orientation (Table 1) provided additional context for interpreting their perspectives. During coding and data analysis, the classification of reported behaviors as manifestations of Individualism or Collectivism was guided by Hofstede's theoretical definitions rather than by participants' own interpretations or evaluations of these cultural values.

To address *transferability*, participants were deliberately selected from different organizations and required to have professional experience across multiple organizations throughout their careers, so that diverse perspectives could enrich the study material and extend the applicability of findings beyond a single organizational context. *Dependability* was supported by the use of a structured, semi-structured interview protocol, a pilot interview to validate the instrument, and the use of Atlas.ti for systematic coding, ensuring that the analytical process was consistently documented and traceable. *Confirmability* was addressed through the use of direct participant quotations throughout the results section, allowing readers to trace the connection between the raw data and the interpretations drawn by the researchers, minimizing the influence of researcher assumptions on the reported findings.

Finally, this study has limitations, including the number and context of participants, which limit the generalizability of the findings to other organizations, countries, or software sectors.

7 Conclusion and Future Work

This study explored how software project managers balance individualism and collectivism, taking into account personal cultural backgrounds, company culture, and team members' profiles. Findings show considerable diversity among individuals and organizations, suggesting that relying solely on national culture for interpretation may be misleading.

From a practical perspective, these findings indicate that successful project management in culturally diverse environments requires integrating both individual and collective recognition mechanisms and refining communication, delegation, and goal-setting procedures by demonstrating how team performance and cohesion can be improved through the diagnosis of individualism–collectivism profiles. Accordingly, organizations are encouraged to formally acknowledge the diversity of IDV profiles within their teams and establish hybrid recognition frameworks that encompass individual and group achievements, rather than adopting singular models that prioritize one end of the spectrum [14, 17]. The results also highlight recurring challenges in project management, such as balancing performance demands, team engagement, and stakeholder expectations, especially in environments with diverse cultural orientations. In this context, the role of the project manager emerges as central to mediating these tensions, requiring adaptability skills, people management, and an understanding of group dynamics.

From a theoretical perspective, this research deepens our understanding by examining the Individualism–Collectivism framework at the level of day-to-day interactions and emphasizing how managers interpret and apply it in their routines. Rather than viewing leaders as impartial actors, the findings demonstrate that they serve as dynamic cultural intermediaries who adapt, reinterpret, and reshape cultural standards within project management. Ultimately, the study underscores that managing projects in culturally diverse settings cannot rely solely on normative models; a nuanced appreciation of the interplay among individuals, teams, and organizations is essential, contributing to ongoing discussions on culture and project management in software engineering. Future research should validate these findings across organizational contexts, while also examining the influence of Individualism vs. Collectivism on software engineering practices beyond project management.

Artifact Availability

The replication package, including the codebook and supporting materials, is available at [8].

Declaration of Use of AI

Claude Opus 4.5 and ChatGPT 5.2 were used for drafting and text refinement. All suggestions were reviewed by the authors to ensure accuracy and alignment with the collected data.

Acknowledgements

The authors sincerely thank the participants who voluntarily contributed with this study without compensation, reflecting their commitment to advancing academic research. The authors are grateful for financial support from UNIRIO (Grant PPQ-UNIRIO 04/2024), CNPq (Grant 311676/2025-1), and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Finance Code 001.

References

- [1] Tawfeeq Alsanoosy, Maria Spichkova, and James Harland. 2018. Cultural Influences on the Requirements Engineering Process: Lessons Learned from Practice. In *2018 23rd International Conference on Engineering of Complex Computer Systems (ICECCS)*. IEEE Computer Society, Los Alamitos, CA, USA, 61–70. doi:10.1109/ICECCS2018.2018.00015
- [2] Tawfeeq Alsanoosy, Maria Spichkova, and James Harland. 2019. A Detailed Analysis of the Influence of Saudi Arabia Culture on the Requirement Engineering Process. In *Communications in Computer and Information Science (CCIS)*, Vol. 1023. Springer Nature. doi:10.1007/978-3-030-22559-9_11
- [3] Renana Arizon-Peretz, Irit Hadar, and Gil Luria. 2022. The Importance of Security Is in the Eye of the Beholder: Cultural, Organizational, and Personal Factors Affecting the Implementation of Security by Design. *IEEE Transactions on Software Engineering* 48, 11 (2022), 4433–4446. doi:10.1109/TSE.2021.3119721
- [4] Hajer Ayed, Benoit Vanderose, and Naji Habra. 2017. Agile cultural challenges in Europe and Asia: insights from practitioners. In *2017 IEEE/ACM 39th International Conference on Software Engineering (ICSE-SEIP)*. IEEE Computer Society, Buenos Aires, Argentina, 10. doi:10.1109/ICSE-SEIP.2017.33
- [5] Virginia Braun and Vitoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3, 2 (2006), 77–101. doi:10.1191/1478088706qp063oa
- [6] John L. Campbell, Charles Quincy, Jordan Osserman, and Ove K. Pedersen. 2013. Coding In-depth Semistructured Interviews: Problems of Unitization and Inter-coder Reliability and Agreement. *Sociological Methods & Research* 42, 3 (2013), 294–320. doi:10.1177/0049124113500475
- [7] Daniela S Cruzes and Tore Dyba. 2011. Recommended steps for thematic synthesis in software engineering. In *2011 international symposium on empirical software engineering and measurement*. IEEE, 275–284.
- [8] Bárbara Geovanini and Gleison Santos. 2026. Replication Package for “How Project Managers Handle Individualism and Collectivism: A Preliminary Study”. doi:10.17605/OSF.IO/9NJ2Y
- [9] Gert Hofstede. 2001. *Culture’s consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Sage Publications.
- [10] Gert Hofstede. 2013. Why is culture so important? [https://geerthofstede.com/](https://geerthofstede.com/Acesso em 25 de maio de 2025)
- [11] Gert Hofstede, Gert Jansen Hofstede, and Michael Minkov. 2010. *Cultures and Organizations: Software of the Mind. Intercultural Cooperation and Its Importance for Survival* (3rd ed.). McGraw-Hill.
- [12] Hannu Jaakkola. 2012. Culture sensitive aspects in software engineering. In *Lecture Notes in Computer Science*. Vol. 7260. Springer-Verlag Berlin Heidelberg, Berlin, Heidelberg, 291–315. doi:10.1007/978-3-642-28279-9_20
- [13] Amy L. Kristof-Brown, Ryan D. Zimmerman, and Erin C. Johnson. 2005. Consequences of Individuals’ Fit at work: A meta-analysis of Person-Job, Person-Organizations, Person-Group and Person-Supervisor Fit. *Department of Management and Organizations, University of Iowa* 58 (2005), 281–547. doi:10.1111/j.1744-6570.2005.00672.x
- [14] Bogdan Lent. 2015. Key Success Factors in Multicultural Projects. In *Proceedings of the International Conference on ICT Management (ICTM 2015)*, Vol. SSRN-id2679370. 3rd International Conference on ICT Management for Global Competitiveness and Economic Growth in Emerging Economies (ICTM), Wroclaw, Poland, 150. doi:10.24451/arbor.7719
- [15] Michael Neumann, Klaus Schmid, and Lars Baumann. 2024. What You Use is What You Get: Unforced Errors in Studying Cultural Aspects in Agile Software Development. In *EASE 2024: 28th International Conference on Evaluation and Assessment in Software Engineering. Salerno, Italy*. Association for Computing Machinery, New York, NY, United States, 405–410. doi:10.1145/3661167.3661229
- [16] Project Management Institute. 2025. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Eighth Edition and The Standard for Project Management*. Project Management Institute, Inc.
- [17] Balasubramaniam Ramesh, Lan Cao, Jongwoo Kim, Kannan Mohan, and Tabitha L. James. 2017. Conflicts and complements between eastern cultures and agile methods: an empirical investigation. *European Journal of Information Systems*, 26(2) 26 (2017), 206–235. doi:10.1057/s41303-016-0023-0
- [18] Jan Recker. 2013. *Scientific Research in Information Systems: A Beginner’s Guide*. Springer Berlin Heidelberg, Berlin, Heidelberg. doi:10.1007/978-3-642-30048-6
- [19] Johnny Saldaña. 2013. *The coding manual for qualitative researchers* (2nd ed.). SAGE Publications.
- [20] Harry C. Triandis. 1995. *Individualism and Collectivism*. Westview Press.
- [21] Daniel Welsch, Luisa Burk, David Motefindt, and Michael Neumann. 2024. Navigating Cultural Diversity: Barriers and Benefits in Multicultural Agile Software Development Teams. In *SAC ’24: 39th ACM/SIGAPP Symposium on Applied Computing. Ávila, Spain*, Vol. 39. Association for Computing Machinery, New York, NY, United States, 818–825. doi:10.1145/3605098.3635988
- [22] Darja Šmite, Darja Gonzalez-Huerta, and Nils Brede Moe. 2020. “When in Rome, Do as the Romans Do”: Cultural Barriers to Being Agile in Distributed Teams. In *Lecture Notes in Business Information Processing*, Vol. 383. Springer, Copenhagen, Denmark, 145–161. doi:10.1007/978-3-030-49392-9_10