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EXAMINING THE IMPACT OF AUTHENTIC LEADERSHIP ON PROJECT SUCCESS

Case Study of Construction Projects

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ABSTRACT

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This study investigates the impact of authentic leadership on construction project success in Sri Lanka. Through interviews with Project Engineers involved in various projects, key dimensions such as Positive Psychological Capital, Relational Transparency, Ethical Behavior and Balanced Processing are explored.

Findings suggest that qualities like optimism, trustworthiness, and fairness are critical for fostering teamwork and achieving project objectives. However, challenges in differentiating authentic leadership and limitations in qualitative analysis are acknowledged. Recommendations for future research include longitudinal studies and cross-cultural examinations of authentic leadership.

This research contributes valuable insights into how authentic leadership can enhance construction project effectiveness, benefiting stakeholders in the industry.

Keywords	Positive Psychological Capital, Relational Transparency, Ethical Behavior, Balanced Processing
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1 INTRODUCTION

1.1 Background and Significance

In the modern project management, the role of leadership is increasingly identified as a necessary determinant of project success. Project leaders bear the important task of not only guiding the course towards projects objectives but also promoting a culture of teamwork and ensuring that available assets are utilized to their fullest potential. One leadership style that is getting attention is authentic leadership, which is about being a real, ethical leader and creating a trustworthy workplace. Even though there is a lot of research on leadership in general, we have not explored how authentic leadership fits into project management.

Assuming a leadership role in project management extends well beyond the standard notions of task delegation and oversight. Effective leaders within project teams are not mere administrators; they are catalysts for inspiration, providing guidance and fostering a collective vision that propels the project forward. In navigating the complexities of project landscapes, leaders become more than coordinators: they emerge as motivators, steering their teams through uncertainties with a clarity of purpose and a commitment to shared success.

Authentic leadership, in the context of project management, transcends the boundaries of a typical leadership approach. It embodies a profound philosophy, placing a paramount focus on core values, such as ethical decision-making, openness and authentic connections with the team. Unlike conventional strategies employed in leadership, authentic leaders prioritize transparent communication, ensuring that integrity and honesty are foundational elements of their approach. Ethical decision-making is not just encouraged; it is integral to building and maintaining trust within the team. Authentic leadership is not a mere methodology; it constitutes a guiding ethos that shapes the culture, values, and interactions within project teams.

The significance of this master's thesis extends far beyond the academic realm, reaching into the practical arena of real-world project management. The study goes beyond theoretical exploration, aiming to understand the tangible impact of authentic leadership on project success. Its primary objective is to bridge existing gaps in our comprehension of how authentic leadership shapes the success of projects. At its core, the focus lies on unravelling the essential key dimensions of authentic leadership that contribute significantly to project success. Furthermore, the study extends its scope to examine the broader implications of authentic leadership on the overall project success. The research method involves a qualitative approach, wherein structured open-ended interviews are conducted with two project engineers for each of the selected three construction projects in Sri Lanka. The information collected is not just answers; it is a full picture of how authentic leadership works in real situations. This will help create a strong plan based on real experiences. Authentic leadership is not just a theory; it is a toolbox for leaders to handle challenges, build strong teams, and create an environment where new ideas can grow.

1.2 Research Problem and Research Gap

This study dives into a crucial question: how do we pick out authentic leadership from the mix of factors that impact project success? In simpler terms, it is figuring out what makes authentic leadership special in the complex world of project outcomes. With so many things impacting project success, it is a challenge to spot and understand the unique aspects of authentic leadership. The research is about unraveling these distinctive qualities, so we can see clearly how authentic leadership plays a specific role in making project successful.

In the realm of project management, there is a missing part in our knowledge puzzle. We know leadership matters for project success, but there is a gap in our understanding of what makes authentic leadership different from other influences. Existing studies acknowledge leadership's importance, but they do not precisely pinpoint the unique characteristics that describe authentic leadership. This research steps in to fill that gap by exploring the key dimensions of authen-

tic leadership, shining a light on what makes it stand out and addressing the need for a more exact understanding in the field.

1.3 Research Objectives

The objectives of this thesis are to

- Identify the key dimensions of authentic leadership which are most appropriate to project success.
- Investigate the impact of authentic leadership on project success.

1.4 Research Question

Based on the research objectives above, the following research question is addressed:

- How does authentic leadership affect the overall effectiveness and success of construction projects?

1.5 Scope

In the contemporary landscape, the significance of authentic leadership in achieving project success has gained substantial attention, with a particular emphasis on its application within the construction projects. This thesis sets out on a comprehensive investigation into the nuanced interplay between authentic leadership and project outcomes, specifically within the construction industry in Sri Lanka. The primary goal is two-fold: firstly, to discern and identify the key dimensions of authentic leadership that hold the most relevance to project success, and secondly, to conduct an in-depth examination of how authentic leadership directly influences the outcomes of construction projects.

To achieve these objectives, a qualitative approach will be employed, employing structured open-ended interviews as a primary research tool. This method allows for a rich exploration of the experiences and perspectives of key individuals intimately involved in construction projects, specifically targeting two Project Engi-

neers for each of the three selected construction projects in Sri Lanka. By focusing on Project Engineers, who play a pivotal role in project execution, the study aims to grasp real-world insights into how authentic leadership directly influences the day-to-day dynamics of construction projects.

1.6 Limitations

While this research aspires to contribute valuable insights to the intersection of authentic leadership and project success, several inherent limitations should be acknowledged. A central challenge lies in the identification and distinction of authentic leadership from other factors influencing project success. The qualitative nature of the study will provide a deep understanding of individual experiences but may limit the generalizability of findings.

Moreover, the exclusive emphasis on Project Engineers, while offering an in-depth view, may not encompass the entire spectrum of perspectives from other stakeholders, such as contractors, clients or regulatory bodies, potentially constraining the breadth of insights. The focus of the study on three construction projects, while chosen deliberately for a detailed examination, may not fully represent the diversity within the broader construction industry in Sri Lanka.

Furthermore, the qualitative approach implies a subjective element in the interpretation of responses, and the depth of analysis for each project is constrained by the available research timeline and resources. External factors beyond the immediate scope, such as economic conditions or unforeseen events, are acknowledged but will not be exhaustively explored in this study.

1.7 Structure of the Thesis

The introduction of this study covers crucial aspects. It begins by laying out the background and explaining why the research is important. It then dives into the identified research problem and the gap in existing knowledge that the study aims to fill. The introduction makes it clear what the study aims to achieve by laying out specific research objectives and also formulates a central research

question, serving as the primary guiding inquiry throughout the investigation. It defines the boundaries of the study, specifying its scope, and acknowledges any limitations.

The literature review delves into main aspects: getting a grasp of what leadership entails, pinpointing specific leadership traits, navigating through the leadership domains, setting up the theoretical framework, drawing connections between project success and dimensions of authentic leadership.

The research methodology outlines the approach taken to investigate the impact of authentic leadership on construction project success. It includes the research design, reliability and validity considerations in the case study, participant selection criteria, data collection and analysis methods, and ethical protocols. This comprehensive framework ensures the study's credibility, integrity, and adherence to ethical standards throughout the research process.

The six participants' comments are carefully arranged and examined one at a time. To identify recurring themes and trends, each participants' responses are carefully examined. Individual viewpoints receive particular attention, demonstrating the wide diversity of answers. Throughout this process, utmost care is taken to ensure alignment with the research objectives.

In the discussion and conclusion section, the theoretical contribution of the study is highlighted, emphasizing the insights gained into the impact of authentic leadership on construction project success. Additionally, the practical implications of these findings are discussed, offering actionable recommendations for project leaders to enhance their leadership practices. Despite the valuable insights obtained, the section also acknowledges the limitations of the study and proposes avenues for future research to address these shortcomings and further deepen our understanding of authentic leadership in project management contexts.

2 LITERATURE REVIEW

2.1 What is Leadership?

Leadership is about directing a group of people toward the accomplishment of a task or the reaching of an endpoint through various ethical means. Leaders direct their energies and the energies of their followers to the achievement of something together. (Rowe & Guerrero 2013, 2.)

Leadership is the combination of characteristics or personality traits in an individual that compels that person to inspire others to achieve goals that, without the leader's motivation, would not normally be accomplished. In an organizational setting, leaders have a clear mental picture of where the organization is; where the organization needs to go; and how the organization is going to get there. Leaders present a clear path for followers to take to accomplish a task or goal. Thus, leaders instinctively seem to know what needs to be done, when it needs to be done, and how it is going to be accomplished; and they get followers to work together to complete the tasks necessary to accomplish the goal. (Bertocci 2009, 7.)

Effective leaders deploy their differences to serve both their own and the team's interests. In effect, they convey the reassuring message that "if you fall, I will catch you." Their people know the leader has the strengths to carry out the task but that he will also step aside and let them develop their own strengths. In effect, this is what typically protects such leaders from the charge of "showing off." (Goffee & Jones 2015.)

Personal power is the influence capacity a leader derives from being seen by followers as likable and knowledgeable. When leaders act in ways that are important to followers, it gives leaders power. For example, some managers have power because their subordinates consider them to be good role models. Others have power because their subordinates view them as highly competent or considerate. In both cases, these managers' power is ascribed to them by

others, based on how they are seen in their relationships with others. (Northouse 2010, 8.)

When groups or organizations are operating in less predictable environments that call for an emphasis on external adaptability, the leader's crucial functions entail problem solving and innovation. The leader must help to create the kind of atmosphere that encourages the sensitivity, flexibility, and creativity that allows the group to deal with the uncertainty of new or complex demands. The leader as a change agent must possess a legitimate authority for influencing followers. That legitimacy flows from the leader's special status. (Chemers 1997, 5.)

If we want to see the results of strong leadership within any work system, we have to let leadership float among all workers. Nearly everyone can lead, whether an entry-level agent or employee, a productive sales advisor, or a vice-president negotiating financial arrangements for the company. Anyone can uniquely position themselves to practice leadership and, through role modeling that creates a safe place for others to lead, they can then develop other leaders. (Dean & D. 2006, 5.)

The nature of the construction industry, the construction process, and the items the industry builds show the need for leadership in the industry. Construction projects typically comprise teams coming from a diverse range of professional backgrounds, countries, cultures, and socio-economic circumstances to undertake a large number of discrete activities. Today, a project manager is dealing with a greater proportion of highly trained workers, and advanced technologies on the construction site. (Ofori & Toor 2021.)

The main body of leadership literature focuses on the characteristics of leaders. This gives it a strong psychological bias. It sees leadership qualities as inherent to the individual. (Goffee & Jones 2015.)

A basic lesson in leadership development is that one should try to know one's followers before attempting to develop them into leaders. The next lesson is that

you should know everything you can about your leader, his talents, strengths, mental model and aspirations. (Avolio 2005, 9.)

2.2 Leadership Traits

A trait is defined as ‘a distinguishing quality or characteristic’ or ‘a genetically determined characteristic’. The key proposition is that a leader is typically born with these characteristics, qualities or attributes. These would include personality type, temperament and values, which do not change as the individual grows and matures. However, it was later suggested that some of these attributes could be acquired through learning. (Cameron & Green 2017, 11.)

2.2.1 Intelligence

As Northouse (2018b) point out, intelligence is an important trait related to effective leadership.

While it is hard for a person to alter his or her IQ (Intelligence Quotient), there are certain ways for a person to improve intelligence in general. Intelligent leaders are well informed. They are aware of what is going on around them and understand the job that needs to be done. It is important for leaders to obtain information about what their leadership role entails and learn as much as possible about their work environment. (Northouse 2012, 28.)

2.2.2 Confidence

In leadership, practice builds confidence because it provides assurance that an aspiring leader can do what needs to be done. Taking on leadership roles, even minor ones on committees or through volunteer activities, provides practice for being a leader. Building one leadership activity on another can increase confidence for more demanding leadership roles. Those who accept opportunities to practice their leadership will experience increased confidence in their leadership abilities. (Northouse 2018b.)

2.2.3 Charisma

Of all the traits related to effective leadership, charisma gets the most attention. Charisma refers to a leader's special magnetic charm and appeal, and can have a huge effect on the leadership process. Charisma is a special personality characteristic that gives a leader the capacity to do extraordinary things. In particular, it gives the leader exceptional powers of influence. (Northouse 2018b.)

2.2.4 Determination

Determination is another trait that characterizes effective leaders. Determined leaders are very focused and attentive to tasks. They know where they are going and how they intend to get there. Determination is the decision to get the job done; it includes characteristics such as initiative, persistence, and drive. People with determination are willing to assert themselves, they are proactive, and they have the capacity to persevere in the face of obstacles. Being determined includes showing dominance at times, especially in situations where others need direction. (Northouse 2018b.)

2.2.5 Sociability

Being sociable comes easier for some than for others. For example, it is easy for extroverted leaders to talk to others and be outgoing, but it is harder for introverted leaders to do so. Similarly, some individuals are naturally "people persons," while others prefer to be alone. Although people vary in the degree to which they are outgoing, it is possible to increase sociability. A sociable leader gets along with coworkers and other people in the work setting. Being friendly, kind, and thoughtful, as well as talking freely with others and giving them support, goes a long way to establish a leader's sociability. Sociable leaders bring positive energy to a group and make the work environment a more enjoyable place. (Northouse 2018b.)

2.2.6 Integrity

Integrity characterizes leaders who possess the qualities of honesty and trustworthiness. People who adhere to a strong set of principles and take responsibility for their actions are exhibiting integrity. Leaders with integrity inspire confidence in others because they can be trusted to do what they say they are going to do. They are loyal, dependable, and transparent. Basically, integrity makes a leader believable and worthy of our trust. (Northouse 2018b.)

2.3 Areas of Leadership

Specifically, Northouse identified six developing areas of leadership that are increasingly being studied by academics. These developing areas are based more on the process of leadership rather than how a leader influences. (Braham, Waller & English 2022, 10.)

2.3.1 Authentic Leadership

Authentic leadership involves a kind of comfort with self, which is perhaps the hardest aspect of all to attain. This is the internal source from which consistency of role performance is drawn. (Goffee & Jones 2015.)

In organizations, the search for the meaning and cohesion leaders provide has become especially acute. The traditional sources of organizational cohesion have all become weaker. The old world was characterized by elaborate hierarchies, by more or less stable careers (for some, never for all), and by clear boundaries between organizations. All this has changed. Now hierarchies in most organizations are becoming flatter, driven by the need for faster response times and by the competitive pressure to drive down costs. But hierarchies were not just structural coordinating devices in organizations. Rather, and much more significantly, they were sources of meaning. (Goffee & Jones 2015.)

First, authentic leaders display a consistency between words and deeds. Leaders who do what they say- who practice what they preach- are more likely seen as

“genuine” and therefore authentic. Nothing betrays the aspiring leader quite so much as the attempt to persuade others to do things that they would never do themselves. But an ability to do what you say is not enough on its own. (Goffee & Jones 2015.)

The second element of authentic leadership is the capacity to display coherence in role performances. In other words, despite the unavoidable need to play different roles at different times for different audiences, authentic leaders communicate a consistent underlying thread. They display a “real self” that holds these separate performances together. (Goffee & Jones 2015.)

There are three different perspectives of authentic leadership: intra- personal, interpersonal, and developmental. The intrapersonal perspective focuses on what goes on inside the leader- the leader’s self- knowledge, self-regulation, and self-concept. On the other hand, the interpersonal perspective focuses more on the relational, interactional, and reciprocal nature of the leader, and what occurs between the leader and the team. The third perspective, developmental, is related to how authentic leadership needs to be nurtured in a leader. (Braham et al. 2022, 11.)

Authentic leadership, according to Northouse, can be viewed through five dimensions: passion, behavior, connectedness, consistency, and compassion. Passion provides a strong sense of purpose, while behavior drives the strong values related to the right thing to do. This leads to connectedness, which establishes trusting relationships between individuals and groups. That in turn leads to consistency, where self-discipline is demonstrated and people act on their values. Finally, all four of these dimensions lead to compassion, which makes both the leader and the team sensitive to the plight of others. (Braham et al. 2022, 12.)

There are many strengths of authentic leadership. It fulfills the expressed need for trustworthy leadership in society and provides broad guidelines for those who want to become authentic leaders themselves. Authentic leadership also

has an explicit moral dimension, which means it can be developed over time. (Braham et al. 2022, 13.)

Authentic leadership leads people through change and, in the process, empowers them to new levels of communication and performance. It is a win for the leader, the employee and the organization. They are role models for their organizations and society as a whole. (Hollis 2018, 3.)

Authenticity is a term that is used in psychology as well as in sociology and existential philosophy, all of which define authenticity slightly differently. For the purpose of understanding leadership authenticity required in organisations today, authenticity is essentially the degree to which we are true to ourselves, despite external pressures, bearing in mind that we are in a material world where we encounter external forces and influences that might be very different from our own, our beliefs and values. (Wulffers 2017.)

Whilst there are many perspectives about what authenticity is, it is best understood not only by what it is, but also by what it is not. For instance, whilst sincerity can be regarded one of the cornerstones of authenticity in organisations, authenticity is not about sincerity, impression management, or self-monitoring. Whereas sincerity encompasses a lack of pretence, with a feeling of congruence in one's relationships and interactions with others, authenticity, on the other hand, is a self-referential state of being. This is an important distinction; authenticity is about regulating one's behaviour with one's true self. This means knowing and staying true to one's internal compass comprising one's purpose and values, even when there is no one else present. (Wulffers 2017.)

Impression management usually occurs when an inauthentic person aligns his or her behaviour to what they believe is expected of them, rather than being aligned to an internal compass that keeps one true to self. Impression management could be described as a strategic presentation of self, which can change, depending on external influences, with the intention of influencing and

evoking a desired response from others. Impression management might also be the result of a lack of self-awareness of who the self really is, whereas the authentic person will ensure that the impression created is consistent with the true self. (Wulffers 2017.)

Authenticity is not deciding who you are and then rigidly applying this to every leadership situation. Instead, authentic leadership is leading adaptively from your core, choosing who you need to be to serve the greatest good in this moment. (Inam 2015.)

2.3.2 Spiritual Leadership

Leadership studies evidence a growing movement toward integrated and holistic approaches to leadership that emphasizes one's inner self, spirit, and soul, and they focus on maturity, credibility, wisdom and love. Contemporary studies stress the person of the leader and his or her sense of call to serve others and pursue a common vision that affects not just the working environment but personal, family, institutional, and societal environments in an ever-expanding influence of the dedicated leader. Leadership for those who are called to serve others is never static but always dynamic, growing and maturing through stages that enrich one's life as well as one's leadership. (Doohan 2007, 122.)

Spiritual leadership is a model of leadership that unites what we do and how we do it with who we are and what values motivate us in life. It is a form of principle-centered leadership that proposes approaches to others and to organizations that are self-transcending. It draws together personal talents, community-building skills, managerial competence, and organizational renewal within the context of response to the challenges of the spirit. Great leaders are grounded in motivating values such as inner integrity, shared vision, inspiration, pursuit of mission, an awareness of human interdependence, constant humility, service of others, courage, and an enthusiastic challenge of others to be their best. (Doohan 2007, 122.)

2.3.3 Servant Leadership

Servant leaders do many special things for their organizations. One of their major contributions is setting the stage for other people to succeed. Because high numbers of followers achieve success, servant led organizations accomplish great things. (Boone 2019, 1.)

The servant leadership approach is not new; it has been used for thousands of years. However, the term servant leadership was introduced into the modern leadership literature in 1970 when Robert Greenleaf published his seminal essay "The Servant as Leader." Greenleaf spent a long and highly successful career at AT&T working in the fields of management, research, development and education. His essay was based on his personal experiences and offered a unique insight into the nature of leadership and a holistic slant to the behaviours distinguishing excellent leadership. (Boone 2019, 4.)

Among its many features Greenleaf's approach to leading included a dedication to the value of service, a call to personal transformation and an emphasis on community. He recognized the need to produce high-quality work, achieve challenging goals and hold people accountable for their results and behaviours. But his relational and communal emphasis distinguished his ideas from prevailing leadership practice by emphasizing more about the power of love and less about the love of power, more about listening and connecting to others and less about watching and correcting and more about finding out what people want, less about telling people what to do. (Boone 2019, 4.)

Servant leaders do not lead from the top. They do not always visualize themselves at the peak of an organizational pyramid. Instead, servants see themselves in various flexible positions within any hierarchy. As servant leaders they do not force people to follow through authoritarian means but walk among followers, helping them move in a direction that unites all in a common vision by facilitating, educating and coaching them. (Boone 2019, 10-11.)

2.3.4 Adaptive Leadership

Our early ancestors' process of adaptation to new possibilities and challenges has continued over the course of written history with the growth and variation in scope, structure, governance, strategy, and coordination of political and commercial enterprise. So has the evolution in understanding the practice of managing those processes, including in our lifetimes what we call adaptive leadership. (Heifetz, Grashow, & Linsky 2009, 14.)

Adaptive leadership is specifically about change that enables the capacity to thrive. New environments and new dreams demand new strategies and abilities, as well as the leadership to mobilize them. As in evolution, these new combinations and variations help organizations thrive under challenging circumstances rather than perish, regress, or contract. Leadership, then, must wrestle with normative questions of value, purpose, and process. (Heifetz et al. 2009, 14.)

2.3.5 Followership Leadership

The link between leadership, management and enterprise performance is widely understood and accepted. Improving leadership improves management and raises the probabilities of better performance. That boards often change leaders when enterprises are slipping confirms the importance placed on leadership. The flip side of leadership is followership. It stands to reason that if leadership is important to performance, followership must have something to do with it too. But curiously, followership gets only a small fraction of the airtime that leadership does. (McCallum 2013.)

The label "excellent follower" can be a backhanded compliment. It is not a reputation you necessarily want if you are seeking higher corporate office. There is something of a stigma to followership skills because the practical reality is one does not reach progressively more responsible leadership positions without demonstrating an ability to follow and function effectively in a group. The fact is that in organizations everybody is both a leader and a follower depending on the

circumstances which just adds to the paradox of the followership stigma. (McCallum 2013.)

2.3.6 Discursive Leadership

The traditional leadership psychology literature attempts to determine causality among the cognitive, emotional, and behavioural elements of leader actors, whereas, discursive leadership takes discourse as the object of study to view how we think, see, and attribute leadership. Discursive leadership offers an optimal resource to view the communicative practices involved in the management of meaning and communicative construction of reality, including resilient systems and processes. Thus, we draw everything together now, and introduce practical interventions organisations can implement to foster hope, optimism, and resilience. (Torres & Fyke 2013.)

2.4 Theoretical Framework

The theoretical framework of this thesis centers on authentic leadership and its key dimensions, including positive psychological capital, relational transparency, ethical behavior, and balanced processing. These elements elucidate how leadership practices influence project success in the construction industry. Integrating these dimensions provides a holistic perspective on effective leadership, emphasizing genuine, transparent, and ethical conduct to foster positive team dynamics and drive successful outcomes in construction projects.

Positive psychological capital emphasizes optimism and resilience, key for productivity and adaptability in teams. Relational transparency underscores trust and open communication, crucial for collaboration and problem-solving. Ethical behavior ensures integrity and ethical decision-making, laying the foundation for trustworthy leadership. Balanced processing prioritizes objective analysis and informed decision-making, minimizing biases and optimizing project outcomes.

The Theoretical framework of the thesis is represented in Figure 1, as shown below.

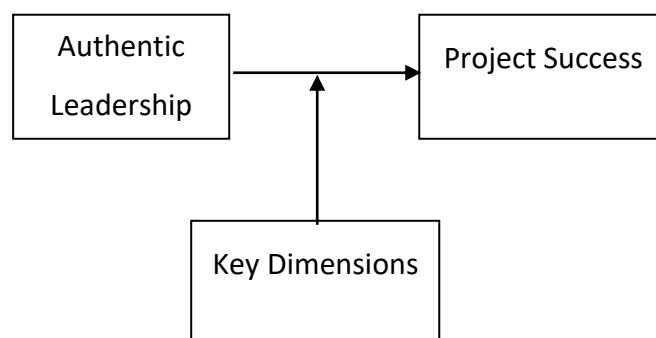


Figure 1. Research Model

2.5 Project Success and Dimensions of Authentic Leadership

The team is equally important for project success. The collaboration within the team and the performance of each individual team member as well as the performance of the team as one unit are critical factors for project success. Without a performing team, it is difficult to secure project success. It is possible that teams successfully organize themselves into a performing unit. There may even be the absence of formal project management as we know it. Every performing team still needs rigid boundaries within its functions. (Juli 2010, 11.) As Shenhar & Dvir (2007, 32) point out, Managers' and team members' attention must be focused as early as possible on the project's objectives, as specified by the company.

Project management provides excellent tools to build this structure. By themselves the tools are not sufficient for project success. Unless you gear them into the right direction, they remain ineffective. (Juli 2010, 11.)

The managerial leadership dimensions of competence resemble the most traditional understanding of management, which is, guiding and controlling people for the effective achievement of objectives. The historical roots of this cluster go back to the behavioural perspective of leadership, which is concerned with generic leadership styles that lead to superior results. Within the triad of managerial, intellectual and emotional competences, the managerial

competences address the basic leadership behaviour. (Müller & Turner 2010, 21.)

The process of going from project definition to construction completion is complex, and accomplishing the task requires a tremendous amount of energy from all of the parties involved. Each expert providing input must be concise and accurate or the plan will be based on a foundation of inaccuracy and misinformation. Without competent, motivated engineers synchronizing the planning and design activities, ensuring that technical requirements are met, ensuring that all stakeholders are involved, and completing all project thrashing early, the process will quickly fall apart. (Brunk 2015, 13.) The duties of a Project Engineer are shown in Table 1,

Table 1. Duties of a Project Engineer (Plummer & Jr. 2007, 10).

Duties of a Project Engineer
<ul style="list-style-type: none"> • Plan and control the basic work. • Lead safety. • Identify, assess, and mitigate risks. • Achieve quality standards. • Control schedule within the plan. • Control costs within the budget. • Control interfaces. • Manage changes. • Solve problems and commercial issues. • Lead the effort.

Woven into the fabric of authentic leadership are fundamental dimensions that collectively sculpt a leader's authentic and influential demeanor, shaping not only project success but also leaving a lasting impact on organizational dynamics.

2.5.1 Positive Psychological Capital

The leadership style of the authentic leader who is in touch with deep wisdom, who is comfortable with uncertainty, and who communicates masterfully and with respect from an “I am OK, you are OK”- position, automatically invites and leads into cooperative leadership. Cooperative leadership, in turn, stands for inclusion, growth, empowerment, positivity, confidence and flexibility. (Heimann 2016, 21.) As Heimann (2016, 21) points out, a leader who leads from a place of authenticity, “knows” himself, has gone inward, knows his ego parts, his conditionings, his sabotaging behaviors, his wounds, and he also knows his strengths, his power, his charisma, his essence.

Organizations have instituted elaborate systems, policies, and procedures that indiscriminately complicate everyone’s life and make them feel micromanaged and untrusted, essentially punishing such things as collaboration or even co-optation, while ignoring placing increasingly greater attention on the higher end best employees in the process. Classic examples include time clocks, online monitoring systems, check-ins with the manager on most everything, impersonal formal performance reviews, standardized training requirements, and so on. These processes and procedures reliably drain positivity and PsyCap from organizations. (Luthans, Youssef-Morgan & Avolio 2015, 9.)

Psychological Capital, or PsyCap, comprises the individual’s self- efficacy (confidence), optimism, hope, and resilience, factors that are crucial to performing in times of stress, adaptation, or challenge. There is a direct positive relationship between authentic leadership and follower PsyCap, and also between follower PsyCap and performance. Individuals draw on their psychological capital when they need to deal with stress, adaptation, or challenge over long periods. (Sweeney, Matthews & Lester 2022, 263.)

2.5.2 Relational Transparency

Relational transparency involves presenting one's true self to others and openly expressing thoughts and feelings to them. It also involves openly sharing information (versus indulging in secrecy and obfuscation) and creating close bonds that are based on intimacy and trust. An authentic leader therefore is clear about feelings "I would like to keep control of this organization in the family, but I realize that more capable persons will likely lead more effectively"- and communicates them to followers. Relational transparency, and the trust that it tends to build in followers, will be particularly important if the leader decides that a relative is indeed the most qualified person for the leadership position. (Jones 2012, 192.)

As Sweeney et al. (2022, 263) point out, an authentic leader's relational transparency is shown by his or her interactions with others in a way that reinforces them to display their true emotions, motives, thoughts, and intentions.

2.5.3 Ethical Behavior

Where there are well-established factions within the organisation, such an approach can also lead to stalemate. However, where the decision is complex, and large amounts of, perhaps conflicting, information has to be processed to reach a decision, the participative approach can yield the best results. However, some leaders may find such participation difficult; it requires considerable confidence in oneself and trust in one's team to be fully participative in decision-making. (Winch 2010, 443.)

2.5.4 Balanced Processing

Balanced processing is also a self-regulatory behavior. Although not completely clear from its title, it refers to an individual's ability to analyze information objectively and explore other people's opinions before making a decision. It also means avoiding favoritism about certain issues and remaining unbiased.

Balanced processing includes soliciting viewpoints from those who disagree with you and fully considering their positions before taking your own action. Leaders with balanced processing are seen as authentic because they are open about their own perspectives, but are also objective in considering others' perspectives. (Northouse 2018a.)

Authentic leaders seek to be judicious and balanced in considering different perspectives/ideas before making judgments. They actively seek out different perspectives, motivating others to challenge how they think, process, and make consequential decisions. Their willingness to listen to others makes them appear more fair in how they handle difficult situations. (Sweeney et al. 2022, 263.)

3 RESEARCH METHODOLOGY

3.1 Research Design and Approach

Qualitative research is a broad umbrella term that covers a wide range of techniques and philosophies, thus it is not easy to define. In broad terms, qualitative research is an approach that allows you to examine people's experiences in detail, by using a specific set of research methods such as in-depth interviews, focus group discussions, observation, content analysis, visual methods, and life histories or biographies. (Hennink, Hutter & Bailey 2011, 8-9.) As Wright (2014, 79) points out, structured interview questions or prompts are designed specifically to match the research goals and objectives and provide structure for the interviewing process.

3.2 Reliability and Validity in Case Study

Validity is the extent of the accuracy of findings. It is closely connected to reliability. As is true with the measurement reliability and validity of quantitative instruments, reliability in qualitative research is a necessary precondition for validity and threats to reliability also threaten validity. (Goodwin & Goodwin 1996, 140.)

History and maturation are two possible threats to internal validity in qualitative research; they can be minimized by the careful recording of baseline data about events, individuals, situations, and contexts. Qualitative researchers recognize that change is a natural part of the phenomena they study, so they do not attempt to control it - just to document it well. Possible observer effects – frailties in instrumentation, concerns about the researcher's personal subjectivity, or dangers inherent in going native – are minimized in ways similar to the way reliability is enhanced: by extensive data collection, use of multiple data- collection methods, and use of multiple researchers for corroboration purposes. (Goodwin & Goodwin 1996, 140.)

3.3 Selection of Research Participants

The main goal of the study was to uncover the intricate connections between authentic leadership and the ultimate success of construction projects. In the selection process, three construction projects were chosen in Sri Lanka, and for each project a pair of Project Engineers were selected. The research was conducted as structured open-ended interviews with these Project Engineers. Central to this study were the structured open-ended interviews, crafted not merely as instruments for collecting data but as a vehicle to empower Project Engineers, enabling them to authentically articulate their experiences for the betterment of construction project success. These interviews were sought to bridge the gap between leadership theories and the real-world impact on construction projects. The study was aimed to demonstrate how authentic leadership practices manifested in the daily grind, impacting the success or challenges faced in their projects. Project Engineers were not confined to providing brief answers; they were encouraged to give a comprehensive picture of how authentic leadership practices shaped not only their professional roles but also their daily experiences. By expressing views, the study was captured the essence of authentic leadership in action, moving beyond theoretical constructs to the practical realities faced on construction projects.

The qualitative approach to the study was intentional. This qualitative exploration was not about numbers or statistical analyses; it was about real-life experiences. The interviews with Project Engineers, offering insights into the complexities, triumphs, and struggles they navigated daily. In conclusion, these structured open-ended interviews were become not just a methodological choice but a journey into the authentic experiences of Project Engineers.

Information on the participating Project Engineers is shown in Table 2, as shown below.

Table 2. Information on participating Project Engineers

Con- struction Project	Project Engineer	Gen der	Age	Field	Na- tionali- ty	Years of Experi- ence in the Or- ganiza- tion	Date of In- terview
1	A	Male	30-40	Civil	Sri Lankan	10	11.01.2024
	B	Male	30-40	Civil	Sri Lankan	5	13.01.2024
2	C	Male	40 & above	Civil	Sri Lankan	12	18.01.2024
	D	Male	30-40	Civil	Sri Lankan	9	22.01.2024
3	E	Fe- male	30-40	Civil	Sri Lankan	7	25.01.2024
	F	Male	30-40	Me- chani- cal	Sri Lankan	5	29.01.2024

3.4 Data Collection Method

The interviews were conducted in English on the dates listed in Table 2 as part of the data collection process for this study in an effort to obtain rich and detailed perspectives. The 45-minute duration of each interview was carefully planned for Project Engineers, who were given the questions listed in Appendix 1 and Appendix 2. The objective was to promote open communication of thoughts and

experiences in order to develop a qualitative understanding of authentic leadership in the context of construction projects.

As a main interviewing tool, Zoom meetings were used to support this qualitative investigation. In addition to guaranteeing the comfort and safety of participants, these virtual exchanges offered a lively setting conducive to direct and honest communication. Every interview was videotaped, allowing for the capture of nonverbal clues and nuances in addition to the spoken responses, which helped to provide a comprehensive knowledge of the perspectives of the Project Engineers.

The thorough recordings and arrangement of the gathered information was another aspect of the data gathering procedure's comprehensiveness. The Zoom video records were carefully stored on the computer and labeled so that each interviewee could be distinguished individually. A detailed examination of each respondent's response was conducted with precision, preserving the data's integrity and guaranteeing that every interview could be tracked back promptly.

The interviews were not the end of the process of gathering data. In its place, a post-interview analysis phase was included, during which the Zoom meetings that were recorded were reviewed. The video recordings of Project Engineers' responses were listened once again and were written down on a separate sheet. A comprehensive analysis of the responses was made possible by this extra layer of analysis, which captured not only the content of the answers but also their tone, emphasis and subtleties that contributed to create a more complex understanding.

This methodological approach was designed to guarantee the thoroughness and precision of the information gathered. The study utilized technology to facilitate dynamic interactions and preserve a comprehensive record of the events by utilizing a virtual platform such as Zoom. Ensuring the credibility of the insights gained from the interviews was made possible in large part by the post-interview analysis. It verified that all of the information was recorded completely and acted

as a double-check system. This multimodal method to data collection was, in short, more than just information extraction. The study was developed a comprehensive and deep comprehension of the viewpoints were held by Project Engineers regarding authentic leadership in construction projects.

3.5 Data Analysis Method

The interviews were carefully reviewed, with close attention paid to each question asked. The responses provided by each project engineer were thoroughly examined to gather information about the key dimensions of authentic leadership and their influence on project success in construction. The focus was on analyzing each engineer's insights separately. This allowed us to understand how different aspects of authentic leadership impacted project outcomes according to each individual's perspective. By organizing the data in this way, a comprehensive understanding of the role of authentic leadership in construction projects was gained.

3.6 Ethical Considerations

Ethical guidelines were followed when investigating the impact of authentic leadership in construction projects. Above all, participants were guaranteed a complete comprehension of the study's objectives. The purpose, the methodology and any possible drawbacks or advantages of the study were all explained. Only their voluntary and informed consent was required in order for them to participate in the interviews. Discussions on subjects like project failures and leadership styles were handled delicately because of the possible emotional impact. Throughout the investigation, treating everyone fairly was vital. The participants were informed that their choice to participate would not have an impact on their standing within the projects or the organizations. Another ethical prerequisite was openness regarding the research. It was crucial to communicate clearly about the purpose of the study, the anticipated results and how the information would be used. The participants and the researcher were able to trust each other because of this transparency.

During the interviews, the participants' information sharing had to be kept confidential at all times. Any unintentional harm that might have resulted from the revelation of personal or project-related information was avoided by keeping names and sensitive details confidential. Data protection was of the utmost importance throughout the Zoom video interviews. The gathered data was safely preserved, guaranteeing that it was used exclusively for the objectives disclosed to the involved parties. Preciseness was also very crucial, since the reporting accurately conveyed what the participants had disclosed, untouched by editing.

Structured open-ended interviews were utilized to collect data for this research, ensuring the acquisition of reliable and valid data. The foundation of the interview was based on Literature Review and the Research Question. Project engineers who volunteered were interviewed, and two of them were selected for each of the three construction projects due to their prior knowledge of the research topic. Their involvement increased the reliability of the data, as they were actively engaged in construction projects and could apply the research findings for future project success. Therefore, the project engineers were willing to cooperate and provide accurate information for the analysis of this research. Furthermore, the data provided by them was kept confidential to ensure privacy.

Zoom meetings were used as a main interviewing tool to support this qualitative investigation. During these meetings, notes were taken separately to document what each participant shared. Additionally, every interview was video recorded, enabling the capture of both verbal and nonverbal cues, which contributed to a comprehensive understanding of the Project Engineers' perspectives. The video recordings were meticulously stored on the computer and labeled to differentiate each interviewee. Furthermore, the responses from the Project Engineers were reviewed once more by listening to the video recordings and transcribing them onto a separate sheet, ensuring that all information was accurately recorded and providing a double-check system.

4 DATA PRESENTATION AND ANALYSIS

Table 2 outlines the structured open-ended interviews that were carried out with two Project Engineers from each of the three construction projects. In order to obtain insightful information about the key dimensions of authentic leadership and how it affects project success in the construction sector, these interviews were carefully planned for specific dates. The intention behind the many viewpoints that participants offered was to augment the overall richness of the research by advancing a thorough comprehension of the topic.

4.1 Construction Project 1: Interviewee A

Interviewee A was questioned about the realization of what attributes a leader should have in order to ensure the success of a project and how these attributes linked to the success of the project.

“The most important qualities for a leader in a project include communication skills, effective decision-making and the ability to inspire and motivate the team. These qualities enhance collaboration, keep the project on track, and boost team morale, ultimately contributing to the project's success.”

He gave responses describing certain actions that were taken in a leadership capacity, contributing to his team's success in previous initiatives.

“Regularly scheduled team meetings and updates to ensure everyone is on the same page, aware of project goals, and has a platform to share ideas and concerns. Actively addressing challenges as they arise, involving the team in finding solutions, and adapting the project plan when necessary to overcome obstacles.”

He emphasized how trust between a leader and their team was considered crucial, highlighting its contribution to project success. The need of building a trusting environment was emphasized in connection to the successful results of the project.

“Trust between a leader and their team is crucial for project success as it fosters collaboration, improves communication, and enhances overall team morale. When team members trust their leader, they are more likely to be engaged, motivated, and willing to contribute their best efforts. In my project, I involved in the team in decision-making processes and values others inputs. I communicated openly about the project's direction, challenges, and potential solutions. In this scenario, team members feel their opinions are respected and valued, leading to a higher level of trust.”

He expressed how his leadership style from previous projects was perceived to positively impact various aspects, including team performance and teamwork.

“I always encouraged open communication, valued team members' opinions, and fosters a supportive environment. As a result, I was able to increase team morale, problem-solving abilities and effective communication.”

He, drawing from his experience, explained how looking out for his team's well-being and development was perceived to impact the success of the projects.

“When leaders show genuine concern for the well-being of their team members, it fosters a positive work environment. Team members feel valued, which, in turn, enhances their motivation and engagement with the project”

He explained a time when a tough decision was made as a leader on a project and how it was perceived to affect the overall success of the project.

“I had to change the project scope as the client requested changes. The tough decision was whether to stick to the original scope, potentially delivering a product that doesn't fully meet the client's current requirements, or to embrace a scope change, risking delays and additional resources. As the leader I decided to engage in open communication with the client, acknowledging the evolving needs, and proposing a scope change that aligns with the current requirements. While this decision involves renegotiating timelines and budgets, it's made with the aim of delivering a product that better satisfies the client's needs. In the short

term, this decision may lead to challenges such as extended timelines and potential budget adjustments. However, in the long term, embracing the scope change has several positive impacts”

He explained how being a transparent and open communicator was perceived to have contributed to the success of the projects he has managed.

“Being a transparent and open communicator is crucial for project success as it fosters trust, ensures alignment among team members, and allows for effective problem-solving. During the excavation phase of a construction project, I encountered unexpected soil conditions that were not evident in the initial site assessment. This discovery poses potential delays and cost implications. I decided to address this challenge transparently. I communicated the unexpected soil conditions to the entire project team, including engineers, architects, and contractors, through a project-wide meeting. And then team collectively discusses the implications of the unforeseen conditions and brainstorms solutions. This involves input from geotechnical experts, construction engineers, and other relevant professionals. Cost and Timeline Adjustments: Based on the discussions, I was able to give transparent update to stakeholders, including the client and investors, outlining the potential cost adjustments and revised timeline necessary to address the unforeseen soil conditions.”

He described a project where his leadership was instrumental in helping the team remain resilient in the face of challenges and how this was perceived to contribute to the success of the project.

“In a high-rise building construction project, we faced a significant setback when a key subcontractor went out of business unexpectedly, jeopardizing the timeline and the project's structural integrity. I played a critical role in steering the project back on track. Upon learning about the subcontractor's closure, I quickly assessed the potential impact on the project. Understanding the urgency, we made swift decisions to address the immediate challenges. I openly communicated with the entire team about the situation. They outlined the challenges, explained the po-

tential risks, and assured the team that collective efforts would be essential in overcoming the setback. Recognizing the need for a new subcontractor, I expedited the procurement process. They collaborated with the procurement team to identify suitable alternatives, considering both expertise and availability.”

Eventually, he provided an insight into situations where positive team dynamics, fostered by his leadership style, were perceived to play a significant role in the effectiveness and success of a project.

“In a construction project with tight deadlines, the project manager emphasized the importance of teamwork and mutual support to meet the aggressive timeline. I actively participated in day-to-day activities, working alongside the team members and fostering a sense of shared responsibility. Also, regular team-building activities were organized, and the leader ensured that achievements, no matter how small, were celebrated. This created a positive and motivating team culture. Despite the challenging timeline, the positive team dynamics contributed to increased efficiency and minimized friction among team members. The project was completed on time, and the sense of camaraderie developed during the project persisted, positively impacting future collaborations.”

4.2 Analysis of Interviewee A

Several important insights into the qualities and behaviours essential to project success were discovered through the examination of Interviewee A's responses. As per the statement provided by Interviewee A, effective communication, decisive decision-making, and the ability to inspire and motivate the team (Chapter 2.5.1 and Chapter 2.5.3) were identified as essential qualities for a project leader. These attributes were found to facilitate collaboration, maintain project momentum, and elevate team morale, thereby contributing to overall success (Chapter 2.5). Furthermore, the importance of trust between leaders and team members was emphasized by highlighting its role in fostering collaboration, enhancing communication, and boosting team engagement (Chapter 2.5.2).

His leadership style, characterized by fostering open communication and valuing team members' opinions (Chapter 2.5.2), was perceived to have positively impacted various aspects, including team performance and teamwork (Chapter 2.5.1). As a result, team morale was boosted (Chapter 2.5.1), problem-solving abilities were enhanced (Chapter 2.5.4), and communication effectiveness (Chapter 2.5.2) was improved.

His focus on the team's welfare was seen as crucial for the projects' success. By caring about their well-being, he created a positive environment where team members felt valued, which boosted their motivation and involvement in the project (Chapter 2.5.1).

He was faced with a tough decision (Chapter 2.5.3) about changing the project scope to meet evolving client needs. Despite potential short-term challenges like extended timelines and budget adjustments, the decision was made with the aim of achieving long-term client satisfaction (Chapter 2.5.3).

He openly addressed unexpected challenges during a construction project, fostering trust and problem-solving (Chapter 2.5.2) within the team. Soil condition issues were communicated transparently (Chapter 2.5.2), with input from relevant professionals, ensuring everyone was on the same page. Transparent updates were shared with stakeholders (Chapter 2.5.3), highlighting his dedication to clear communication and project success.

He was a key player in getting a high-rise building project back on track when a subcontractor unexpectedly went out of business, putting project timelines at risk. Quickly addressing challenges (Chapter 2.5.1), communicating openly with the team, and supporting collective efforts (Chapter 2.5.2) were instrumental in overcoming setbacks. Additionally, the procurement process was expedited, finding suitable alternatives with the right skills and availability (Chapter 2.5.1).

In a project with tight deadlines, the positive team dynamics (Chapter 2.5.2), led by the project manager, were essential for success. Regular celebrations and

team-building activities (Chapter 2.5.2) fostered a supportive atmosphere, leading to efficient work and on-time completion despite challenges.

Overall, the examination of Interviewee A's comments demonstrated how important authentic leadership was to project success and provided specific tips for project leaders to improve their ability to lead.

4.3 Construction Project 1: Interviewee B

Interviewee B was questioned about his understanding of what characteristics a leader should possess in order to assure the success of a project, as well as how these characteristics are related to the success of the project.

“Well, I think decision making in crucial times. Correct decision reduces time delay and further loss of a project.”

He responded by explaining specific measures performed as a leader, which contributed to his team's success in earlier endeavours.

“We make it a point to regularly reconcile the project. This practice assists us in monitoring the project's progress and identifying areas for improvement, allowing us to address potential delays or costs. Ultimately, it helps us stay on course to meet our targets and deadlines.”

He underlined the importance of trust between a leader and their team, as well as its contribution to project success. The need of creating a trustworthy atmosphere was underlined in relation to the successful outcomes.

“In other words, it means honest communication sharing between the team. It creates transparency between members which allows everyone to feel comfortable and safe in their work environment in terms of skills, abilities, and expertise, allowing for easier problem-solving, and better results”

He described how his past project leadership approach was judged to have a beneficial impact on a variety of factors, including team performance and collaboration.

“Actually, Changing responsibilities for individuals in earlier stage of a Project. By this, we can identify the skills and talent of person for the certain responsibilities. After a certain time, we may able to find individual talent and skills and for critical stage, we can assign identified persons for critical task in which they are capable to do smarter.”

He described, based on his experience, how looking after his team's well-being and development was seen to have an impact on project success.

“Things are just going more smoothly now that there have been less safety incidents. It's safer, you know, and that's made everyone more intent on their work. It's like a win-win situation where we're producing more work and it's safer.”

He described an occasion when he made a difficult decision as a project leader that was thought to have an impact on the overall success of the project.

“So, I had to make a tough call when the contractor wasn't meeting deadlines. I set clear deadlines for each part of the project, making sure they kept me updated on their progress. Making that tough decision turned out to be an opportunity, and it really boosted the whole project.”

He described how being a transparent and open communicator was thought to have helped to the success of the initiatives he oversaw.

“For the team as a whole, it is imperative that everyone is aware of the project's true state and circumstances. When team members are knowledgeable, a great work atmosphere is created and people are inspired to strive toward reaching the goals within the allotted time. The combination of motivation and awareness results in a more successful and fruitful project execution”

He discussed a project in which his leadership was critical in helping the team remain resilient in the face of adversity, and how this was believed to contribute to the success of the project.

“This happened during and after the COVID restrictions. After the quarantine period was over, we had to start fresh with an alternative plan to mitigate the project's impact in terms of time and cost. Team members took turns taking responsibility and worked during the challenging time to achieve the project goals.”

Finally, he provided insight into scenarios in which favourable team dynamics, created by his leadership style, were regarded to play an important part in an efficacy and success of the project.

“This occurred during the monthly discussions where team members were free to share their experiences, difficulties, and how they overcame challenges in the past month. Each individual had the opportunity to learn from their experiences and avoid mistakes for the future.”

4.4 Analysis of Interviewee B

Interviewee B emphasized the importance of decision-making (Chapter 2.5.3), particularly during critical moments, in ensuring project success. Correct decisions were made promptly (Chapter 2.5.3), reducing time delays and preventing additional losses in the project's progress.

He provided examples of leadership-related actions (Chapter 2.5.2) that contributed to his team's success in previous projects. Regular reconciliation of the project was undertaken, aiding progress monitoring and identifying areas for improvement, ultimately keeping the team on track to meet goals and timelines (Chapter 2.5). Delays or costs were addressed promptly as a result.

He emphasized the value of trust (Chapter 2.5.2) and how crucial it was to the success of a leader's team. Creating an atmosphere of trust encouraged open communication and transparency (Chapter 2.5.2) among team members, im-

proving comfort and safety at work. This allowed for better results and easier problem-solving (Chapter 2.5.4).

He discussed the ways in which his leadership style had improved teamwork and performance (Chapter 2.5.1) in earlier initiatives. Early on in the project, each person's unique skills and abilities were determined (Chapter 2.5.4), allowing for more intelligent task assignments based on individual capabilities during critically important stages.

He noted that prioritizing his team's well-being and development (Chapter 2.5.1) led to fewer safety incidents, creating a safer and more focused work environment, ultimately increasing productivity.

He recalled a challenging situation where clear deadlines were implemented and progress was closely monitored to address a contractor's failure to meet deadlines. Despite the difficulty of the decision (Chapter 2.5.3), it ultimately benefited the project and contributed to its overall success.

He emphasized how being a transparent and open communicator (Chapter 2.5.2) was perceived to have been crucial for the success of the projects he managed. When team members were well-informed about the project's status and circumstances, it created a conducive work atmosphere and motivated them to achieve goals within the given timeframe (Chapter 2.5.2), resulting in more successful project execution.

During and after COVID restrictions, he was instrumental in leading the team to adapt to new challenges (Chapter 2.5.1), developing alternative plans to minimize project delays and costs. Team members collectively assumed responsibility and persevered through the difficulties (Chapter 2.5.2) to achieve project objectives.

During the monthly discussions, team members were encouraged to share their experiences, difficulties, and how they overcame challenges in the past month, fostering a collaborative and learning-oriented environment (Chapter 2.5.2).

Interviewee B's leadership was marked by decisive decision-making, trust-building, transparent communication, and collaborative teamwork (Chapter 2.5.2 & Chapter 2.5.3), all of which were crucial for project success. By prioritizing these aspects, he effectively mitigated risks, enhanced team morale, and navigated challenges (Chapter 2.5.1), ultimately contributing to project objectives.

4.5 Construction Project 2: Interviewee C

Interviewee C was questioned about his understanding of what qualities a leader should possess in order to assure the success of a project, as well as how these qualities are related to the success of the project.

"It's all about the leader having a deep understanding of the work, you know? Once they've got the nitty-gritty details, they can then guide their team in the right way. It's like having the full picture, so when they give directions to their team, it's spot on and everyone knows what they're doing."

He responded by detailing specific measures made in a leadership capacity that helped his team succeed in past activities.

"The subordinates were struggling to create the structural model for the building, and there were numerous errors. I have superb knowledge in that area, so I corrected it and guided them on how to do it correctly."

He underlined the importance of trust between a leader and their team, citing its contribution to project success. The need of creating a trusting environment was highlighted in relation to the successful outcomes of the project.

"Trust between a leader and the team is must for successful of a project. As example Consider a construction project where the project manager has built a strong foundation of trust with their team members. The manager regularly communicates openly, actively listens to concerns, and values input from all team members. During the project, an unexpected issue arises with the delivery of crucial materials due to a supplier's error. The team, built on a foundation of trust,

feels comfortable bringing this issue to the manager's attention without hesitation.

Because of the established trust, the team and manager collaborate closely to find a solution. They work together to source alternative suppliers, adjust the construction schedule, and reallocate resources to minimize delays. The team members are committed and motivated to overcome this challenge because they trust their manager's leadership and feel empowered to contribute ideas and effort to resolve the issue."

He described how his past project leadership approach was seen to have a favourable impact on numerous factors, including team performance and collaboration.

"In one of the project teams, performance was lacking due to an improperly implemented incentive scheme by the admin department. Although it wasn't my responsibility, I stepped in to address the issue, and the team appreciated my involvement. Despite not receiving their full incentives, they completed the work as I had requested."

Drawing on his experience, he described how looking after his team's well-being and development was believed to have an impact on project success.

"Prioritizing team well-being fosters trust, boosts morale, and cultivates synergy, leading to heightened productivity and innovation. It fortifies resilience, inspires commitment, and propels project success exponentially."

He described a situation in which he made a difficult decision as a project leader and how it was believed to affect the overall success of the project.

"In reallocating resources midway through a project, I prioritized team well-being over aggressive timelines, fostering morale and quality work, ultimately enhancing long-term project success."

He mentioned how being a transparent and open communicator was seen as contributing to the success of the initiatives he led.

“Transparent communication fosters trust, alignment, and collaboration among team members. Clear updates and open discussions encourage understanding and collective problem-solving. For instance, sharing project milestones and challenges openly led to proactive adjustments, enhancing efficiency and achieving shared goals more effectively.”

He discussed a project in which his leadership was critical in assisting the team to remain resilient in the face of adversity, and how this was believed to contribute to project success.

“In spearheading a tech upgrade, I fostered open communication, acknowledged concerns, and delegated tasks effectively. By empowering team members, addressing obstacles together, and maintaining morale, we navigated challenges smoothly, fostering resilience that fuelled our project's success.”

Eventually, he provided insight into scenarios in which favourable team dynamics, created by his leadership style, were judged to play an important part in project effectiveness and success.

“Yes, by promoting open communication, trust, and collaboration, my leadership cultivated a cohesive team environment. This unity led to efficient problem-solving, boosted morale, and ultimately contributed to the project's success, enhancing productivity and outcomes remarkably.”

4.6 Analysis of Interviewee C

The significance of a leader having a comprehensive comprehension of the project's complexities was underscored by Interviewee C. With this knowledge, the leader can effectively guide the team (Chapter 2.5.1 and Chapter 2.5.2), ensuring that directives are precise and everyone is clear on their tasks.

In a leadership capacity, errors were corrected, and guidance (Chapter 2.5.2) was provided to struggling subordinates during the creation of the structural model for the building project, leveraging his superb knowledge in the area.

He described trust between the leader and the team (Chapter 2.5.2) was crucial for project success. In a construction project, the manager's open communication and valuing of input (Chapter 2.5.2) were key in building trust. When an issue arose, the team felt empowered to address it, collaborating to find solutions and minimize delays (Chapter 2.5.4). Their commitment stemmed from trusting the manager's leadership.

In a previous project, his leadership style was perceived to positively impact various aspects, including team performance and teamwork (Chapter 2.5.1). Despite an improperly implemented incentive scheme affecting team performance (Chapter 2.5.1), he intervened and the team appreciated his involvement, ultimately completing the work as requested.

He, drawing from his experience, explained how prioritizing his team's well-being and development was perceived to have impacted the success of the projects. By prioritizing team well-being (Chapter 2.5.1), trust was fostered, morale was boosted, and synergy was cultivated (Chapter 2.5.1 and Chapter 2.5.2), leading to heightened productivity and innovation. This approach also fortified resilience, inspired commitment, and propelled project success exponentially.

He described a tough decision (Chapter 2.5.3) where team well-being was prioritized over aggressive timelines, fostering morale and quality work (Chapter 2.5.1 and Chapter 2.5.2), ultimately contributing to long-term project success.

He emphasized that transparent communication was perceived to have contributed to project success by fostering trust, alignment, and collaboration among team members (Chapter 2.5.2). Open discussions and clear updates were instrumental in facilitating proactive adjustments and collective problem-solving,

enhancing efficiency and achieving shared goals effectively (Chapter 2.5.1 and Chapter 2.5.2).

He was instrumental in leading a tech upgrade project by fostering open communication, acknowledging concerns, and delegating tasks effectively (Chapter 2.5.2). Team members were empowered, and obstacles were addressed together, maintaining morale and fostering resilience (Chapter 2.5.1 and Chapter 2.5.2), ultimately contributing to project success.

His leadership was characterized by promoting open communication, trust, and collaboration, fostering a cohesive team environment (Chapter 2.5.2). This unity was instrumental in facilitating efficient problem-solving (Chapter 2.5.4), boosting morale (Chapter 2.5.1), and significantly contributing to the project's success, enhancing productivity and outcomes remarkably.

Interviewee C's leadership style was characterized by prioritizing team well-being, fostering trust through open communication, and guiding the team (Chapter 2.5.1 and Chapter 2.5.2) with a comprehensive understanding of project complexities. These actions were perceived to positively impact team performance (Chapter 2.5.1) and contribute to remarkable project outcomes, including enhanced productivity and boosted morale (Chapter 2.5.1). Transparent communication (Chapter 2.5.2) and proactive problem-solving (Chapter 2.5.4) further solidified team cohesion and success under Interviewee C's leadership.

4.7 Construction Project 2: Interviewee D

Interviewee D was asked to reflect on the essential attributes a leader should possess to guarantee project success and how these qualities are interconnected with the overall success of the project.

"I think, teamwork skills that will be important in working with all stakeholders to achieve the project objectives"

He provided insights into specific leadership actions taken in previous roles, which played a pivotal role in driving his team's success in past initiatives.

"Just got to keep on reminding about the stuff that's still pending to make sure we hit those deadlines. And whenever there's an issue, we sort it out by talking with everyone involved, you know, to minimize any disputes."

He stressed the importance of trust between leaders and their teams, emphasizing its critical role in achieving project success. Building a trusting environment was highlighted as essential for realizing successful project outcomes.

"A team needs its members to have a strong sense of trust in their leader and to think highly of them for their dependability and accountability. The team leader must take charge of the group's tasks, stand up for the group, and act as a shield, supporting and protecting the group no matter what obstacles they face. Establishing trust and giving the team confidence that their leader is looking out for their best interests are key."

He conveyed how his leadership approach in past projects was seen to positively influence several areas, such as team performance and collaboration.

"You know, each member of my team brought a unique work ethic to the table. Therefore, in order to get the best work out of each member individually, I got involved and put in some elbow grease. It all came down to recognizing each person's unique skills and enabling them to shine."

Based on his experience, he elaborated on how prioritizing his team's well-being and growth was seen as a factor influencing the success of the project.

"When we allowed the team members to work in their comfort zones, their productivity really took off. It was all about letting them operate in a space where they felt most at ease and could bring their A-game. When they were in that sweet spot, we saw a significant boost in efficiency and the quality of work – everyone was in their element, getting things done smoothly."

He recounted a scenario where a challenging decision was made as a leader during a project, discussing its perceived impact on the overall success of the project.

“Yeah, so, a few team members were given some clear guidelines on how to do their work. It did have an impact on how everyone got along, but you know what? It actually made the work a whole lot smoother and more efficient. Sometimes you had to trade a bit of comfort for efficiency.”

He detailed how his transparent and open communication style was perceived to have played a role in the success of the projects he has overseen.

“You know, back then, people felt way more confident when everything was out in the open and transparent. It just made working together so much easier. When everyone knows what's going on, it's like we're all on the same page, and things just flow more smoothly. Transparency was the key to boosting confidence and making collaboration a breeze.”

He recounted a project where his leadership played a crucial role in fostering resilience within the team amid challenges, which was seen as a contributing factor to the success of the project.

“So, in the past, it was all about managing things effectively with the clients to keep the pressure from transferring to the team. I had to find that balance, you know? Make sure the clients were happy, but at the same time, shield the team from unnecessary stress. It was all about juggling and navigating to keep everyone on track and feeling supported.”

In the end, he shed light on instances where positive team dynamics, nurtured by his leadership approach, were seen as pivotal in driving the efficiency and triumph of a project.

“Absolutely. It was about maintaining a positive work environment, you know? No shouting or conflicts among the team. Back then, it was all about creating a

space where everyone felt comfortable and could focus on their tasks without unnecessary tension. Keeping things positive really made a difference in how smoothly the team operated.”

4.8 Analysis of Interviewee D

Teamwork skills (Chapter 2.5.1) were emphasized as crucial by Interviewee D, highlighting their importance in collaborating with all stakeholders (Chapter 2.5.2) to achieve project objectives and ultimately ensuring project success.

He described actions that were taken in a leadership capacity (Chapter 2.5.2), emphasizing the importance of reminding about pending tasks to meet deadlines and resolving issues through open communication (Chapter 2.5.2) to minimize disputes among team members.

He stressed the importance of trust between a leader and their team (Chapter 2.5.2), emphasizing its role in project success. Building a trusting environment involved the leader taking charge, supporting the team, and acting as a shield against obstacles, ultimately instilling confidence in the team's leader and fostering a sense of security (Chapter 2.5.2).

In previous projects, his leadership style (Chapter 2.5.1) was perceived to have positively impacted various aspects, including team performance and teamwork. Each team member's unique skills were recognized and enabled to shine through his active involvement, contributing to a collaborative and productive environment (Chapter 2.5.2).

When team members were allowed to work in their comfort zones, productivity was significantly boosted as they operated in spaces where they felt most at ease and could perform at their best (Chapter 2.5.1). This approach led to a notable increase in efficiency and work quality, with everyone excelling in their respective roles (Chapter 2.5.2).

Clear guidelines were given to some team members, impacting team dynamics (Chapter 2.5.2) initially but ultimately resulting in smoother and more efficient work (2.5.1). Despite some discomfort, the decision (Chapter 2.5.3) led to improved efficiency.

He described transparent communication (Chapter 2.5.2) was perceived to have contributed significantly to project success, boosting confidence and making collaboration smoother (Chapter 2.5.2). When everyone was informed and on the same page, work flowed more smoothly, ultimately enhancing productivity.

He emphasized client interactions were effectively managed to prevent undue pressure on the team, balancing client satisfaction with team well-being (Chapter 2.5.1), ultimately contributing to project success.

Positive team dynamics (Chapter 2.5.2) were fostered through a supportive work environment devoid of conflicts, ultimately contributing to enhanced team performance (Chapter 2.5.1) and project success.

Teamwork skills were emphasized by Interviewee D as crucial for achieving project objectives. Open communication and trust-building were facilitated, leading to a collaborative environment (Chapter 2.5.2). Individual skills were recognized, resulting in increased productivity (Chapter 2.5.2), while clear guidelines (Chapter 2.5.4) and transparent communication (Chapter 2.5.2) streamlined processes. Effective client management and positive team dynamics (Chapter 2.5.2) further contributed to project success.

4.9 Construction Project 3: Interviewee E

Interviewee E was asked what qualities they believe a leader should possess to guarantee project success and how these qualities are connected to the achievements of the project.

“The way a leader led the team and established the direction they went in has always seemed to me to be crucial. The team was more motivated to give it their

all and produced much better work when they were comfortable working together.”

She talked about specific actions she took as a leader that helped her team succeed in past projects.

“In order to keep the project going forward, I got in when problems arose and quickly found answers. In previous projects, I made sure the work complied with engineering requirements by bringing in my technical expertise.”

She stressed the importance of trust between a leader and their team, noting how it significantly contributed to the success of the project. She emphasized the need to create a trusting environment to achieve successful outcomes.

“My team felt strong and secure in their work back then, when there was trust. I trusted my team as a project engineer, and you know what happened? They returned my work with considerably better outcomes than I had anticipated. Everything fell into place because of our shared faith in one another.”

She talked about how her leadership style in previous projects was seen as positively affecting team performance and teamwork.

“Back when COVID hit, the construction site had a bunch of problems. Remote work was tough because we needed on-site inspections. I organized transport for some, not everyone, to come to the site twice a week, following the restrictions in Colombo. We sorted out the other issues through Zoom meetings, discussing the site problems together.”

She shared how taking care of her team’s well-being and development was seen as influencing the success of the projects based on her experience.

“It just improved the atmosphere at work when everyone was having a good time and felt supported. Morale and productivity both increased since it appeared as though everyone was in agreement.”

She talked about a difficult decision she made as a leader during a project and how it was seen to impact the overall success of the project.

“So, back then, I made this tough call. I told my team to submit progress reports every week, or the contractors wouldn't be in the loop. Surprisingly, the team followed through, and that meant I could handle site issues, sorting them out with the contractors. It was a bit of a gamble, but it turned out to be a smart move.”

She described how being honest and open in communication was seen as contributing to the success of the projects she led.

“So, when the team felt cool about speaking up, I could jump on issues right away. Less confusion, less redoing stuff, and things just flowed better, making the construction projects a success.”

She talked about a project where strong leadership helped the team stay strong when facing challenges, which was seen as crucial for the success of the project.

“When COVID hit hard, I was there for the team, guiding and supporting through the challenges. My encouragement made a big difference in overcoming obstacles and keeping the project on track. Together, we faced it and came out on top.”

In the end, she shared examples where her leadership style helped create positive team dynamics, which were seen as key to the success of the project.

“Back then, talking about project issues with stakeholders and the team was a game-changer. It wasn't just about fixing things; it was a joint effort. This really boosted how well the project ran and how successful it turned out to be.”

4.10 Analysis of Interviewee E

Interviewee E emphasized that the leader's role in guiding the team and setting direction was pivotal. According to their perspective, the team's motivation and productivity were influenced by the leader's approach (Chapter 2.5.2). When

team members felt comfortable collaborating, they were more likely to exert greater effort, leading to improved work quality (Chapter 2.5.2).

She described actions taken in a leadership capacity, where she intervened promptly to address problems and ensure project progress (Chapter 2.5.2). Additionally, her technical expertise (Chapter 2.5.4) was utilized to ensure that the work complied with engineering requirements in previous projects.

The importance of trust between leaders and their teams (Chapter 2.5.2) was underscored by interviewee E, with its pivotal role in project success highlighted. A trusting environment was fostered, resulting in strong teamwork and better-than-expected outcomes (Chapter 2.5.1), showcasing the power of mutual trust and confidence (Chapter 2.5.2) among team members.

She described that the leadership style from previous projects was perceived to have positively impacted various aspects, including team performance and teamwork (Chapter 2.5.1). When COVID hit, transport arrangements were organized for essential personnel to visit the construction site twice a week, complying with restrictions in Colombo, while other issues were addressed (Chapter 2.5.1) through Zoom meetings, showcasing adaptability (Chapter 2.5.2) and effective communication (Chapter 2.5.2) strategies.

A positive work environment was fostered, where team members felt supported and enjoyed their work, resulting in increased morale and productivity (Chapter 2.5.1 and Chapter 2.5.2). This atmosphere suggested a shared sense of satisfaction and alignment among team members (Chapter 2.5.1 and Chapter 2.5.2), contributing to project success.

She described how a challenging decision (Chapter 2.5.3) was made as a leader, necessitating weekly progress reports from the team to keep contractors informed. Despite initial uncertainty, the team's compliance (Chapter 2.5.2) facilitated effective handling of site issues, ultimately proving to be a strategic and successful decision (Chapter 2.5.1).

She highlighted how a culture of transparency and open communication (Chapter 2.5.2) was instrumental in swiftly resolving issues within the team, resulting in reduced confusion, minimized rework (Chapter 2.5.1), and smoother project workflows, ultimately contributing to project success.

Her supportive leadership was instrumental in guiding and supporting the team through challenges (Chapter 2.5.1 and Chapter 2.5.2), ultimately contributing to the project's success despite the adversities posed by COVID-19.

Eventually, Project issues were addressed by interviewee E through collaborative efforts (Chapter 2.5.2) with stakeholders and the team, significantly improving the project's efficiency and success.

Interviewee E's effective leadership was demonstrated through prioritizing team well-being, fostering trust, and leveraging technical expertise. Her proactive approach, emphasis on transparency, and collaborative efforts were instrumental in ensuring project success despite challenges like COVID-19. Overall, her supportive leadership style (Chapter 2.5.1) and effective communication strategies (Chapter 2.5.2) were reflected in the efficient project workflows and positive outcomes achieved.

4.11 Construction Project 3: Interviewee F

Interviewee F was asked about the essential attributes a leader should possess to ensure project success and how these attributes are connected to the overall success of the project.

“A successful project leader has clear goals, communicates well, makes wise choices, and adjusts to changing circumstances. They help their team, assign duties, work together to solve difficulties, and maintain team motivation. Essential characteristics for project success include accepting accountability, adhering to plans, exhibiting flexibility, and efficiently managing one's time.”

He provided insights into specific actions he took in a leadership role that contributed to his team's success in past projects.

"Effectively managed projects from their initial stages to completion, ensuring strict adherence to relevant codes, standards, and regulations throughout the entire process."

He highlighted the critical role of trust between leaders and their teams in ensuring project success, emphasizing the need to cultivate a trusting environment for achieving successful outcomes.

"When the leader and the team trust each other, it's like having a superpower that makes communication easy, teamwork smooth, and problem-solving a breeze. People feel confident and happy, so they work well together and come up with great ideas. It's like being part of a strong and happy team, and that's what makes the project a big success. Personally, I Developed and maintained strong relationships with clients, architects, and contractors to facilitate smooth project execution"

He explained how his previous leadership style positively influenced team performance and teamwork in various aspects.

"When the building's AC went haywire, being a good leader was the game-changer. I kicked things off by letting the whole team in on the issue, keeping everyone in the loop. Then, we had this brainstorm session, making sure every single person's idea got some airtime. Knowing each team member had their unique strengths, I divvied up tasks based on what they rocked at. This way, everyone felt like a VIP, and together, we cooked up a solution. It was like giving everyone a chance to shine and sprinkle their magic to make things better."

He highlighted the importance of prioritizing his team's well-being and development, linking it to the success of the projects.

“Ensuring the team felt good and developed their skills was crucial for the success of MEP projects—those with Mechanical, Electrical, and Plumbing work. When the team was happy and learning, they collaborated well and tackled challenges more effectively. Supporting their well-being fostered a positive environment, and with the right skills, everyone performed their roles more efficiently. A team that felt valued and continued improving was more likely to make MEP projects successful.”

He described a challenging decision he made as a leader and its impact on project success.

“Back on the project, there were times when I had to make tough calls as the leader. Imagine the team wanted changes to the plan, but I had to weigh factors like time, money, and impact on our work. If the changes didn't seem essential, I had to say no, even if it was hard. This decision kept us on our original plan, ensuring the project stayed on course, even if it disappointed some initially. In the end, making choices that contributed to the project's success was key.”

He discussed the importance of transparent communication in project success.

“Being transparent and open in communication played a huge role in managing projects, especially when we were building a sewer treatment plant. It built trust among the team and stakeholders, creating a collaborative and well-informed vibe. This open approach really contributed to the overall success of managing and building the sewer treatment plant.”

He highlighted a project where his leadership aided the team's resilience in overcoming challenges, contributing to project success.

“My leadership played a vital role in helping the team tackle challenges while distributing sewer and wastewater in a large sloped area. I promoted open communication, discussing the difficulties of the steep terrain and encouraging everyone to share ideas. Working together, we devised smart solutions for the slopes. Assigning tasks based on individual strengths, I kept everyone informed of our pro-

gress. This boosted the team's morale and enhanced our problem-solving skills. Our adaptability and collaborative efforts, supported by my leadership, ensured a smooth sewer and wastewater distribution in the hilly area, leading to project success."

He discussed how positive team dynamics, influenced by his leadership, were crucial for project effectiveness and success.

"In different projects, I helped the team work well together, and it made a big difference. By encouraging everyone to talk and share ideas, we came up with smart solutions and made things run smoothly. The team felt motivated and managed to finish work on time even when it was challenging. When unexpected problems popped up, we stayed positive, learned from mistakes, and changed our plans when needed. Our focus on making clients happy and celebrating good work also played a role in the projects turning out really well. We were creative, adaptable to changes, and always looking to get better. Basically, the good vibes and teamwork, thanks to my leadership, made the projects successful."

4.12 Analysis of Interviewee F

Interviewee F emphasized that a successful project leader was characterized by clear communication, adaptability, and effective time management (Chapter 2.5.3). They noted the importance of fostering teamwork, maintaining motivation (Chapter 2.5.1 and Chapter 2.5.2), and accepting accountability (Chapter 2.5.3), all crucial aspects for project success.

In his description, projects were effectively managed from start to finish, demonstrating a strong commitment to uphold relevant codes, standards, and regulations at each phase (Chapter 2.5.3). This dedication highlights an ethical approach and adherence to industry standards and best practices throughout the process (Chapter 2.5.4).

According to his perspective, trust between the leader and the team (Chapter 2.5.2) was established, making communication easy and problem-solving effort-

less (Chapter 2.5.2), contributing to project success. Strong relationships were developed and maintained with clients, architects, and contractors (Chapter 2.5.1 and Chapter 2.5.2), ensuring smooth project execution.

His leadership style was instrumental in addressing challenges effectively, as demonstrated by his proactive approach (Chapter 2.5.1) when dealing with the building's AC issue. By involving the entire team in problem-solving discussions and leveraging each member's strengths, a collaborative environment was fostered where everyone felt valued and empowered to contribute (Chapter 2.5.2). This inclusive leadership approach not only enhanced team performance but also fostered a sense of belonging and motivation among team members, ultimately leading to successful outcomes (Chapter 2.5.1).

Drawing from his experience, he emphasized how prioritizing his team's well-being and development (Chapter 2.5.1) was perceived to impact the success of MEP projects—those involving Mechanical, Electrical, and Plumbing work. When the team was supported and empowered to enhance their skills, they collaborated effectively and addressed challenges efficiently (Chapter 2.5.1 and Chapter 2.5.2). This approach fostered a positive environment where team members felt valued and motivated, ultimately contributing to the success of MEP projects (Chapter 2.5.1 and Chapter 2.5.2).

He emphasized there were times on the project when tough decisions (Chapter 2.5.3) had to be made as a leader. Factors such as time, budget, and project trajectory were carefully considered (Chapter 2.5.4), and decisions were made to prioritize the project's original plan (Chapter 2.5.3). Despite initial disappointment, these decisions ultimately contributed to the project's success (Chapter 2.5.1).

He explained that transparent and open communication (Chapter 2.5.2) were instrumental in managing projects, particularly during the construction of a sewer treatment plant. This approach cultivated trust among team members and stakeholders (Chapter 2.5.2), fostering a collaborative and well-informed envi-

ronment that was significant in contributing to the overall success of the project (Chapter 2.5.3).

In the distribution of sewer and wastewater across a large sloped area, open communication was promoted by him, discussing the difficulties of the terrain and encouraging idea sharing (Chapter 2.5.1 and Chapter 2.5.2). Smart solutions for the slopes were devised through collaborative efforts, with tasks assigned based on individual strengths (Chapter 2.5.1 and Chapter 2.5.2). This approach boosted morale (Chapter 2.5.1) and problem-solving skills (Chapter 2.5.2), ensuring a smooth distribution process and project success, supported by his leadership (Chapter 2.5).

In various projects, positive team dynamics were cultivated through open communication (Chapter 2.5.2) and idea sharing (Chapter 2.5.1), fostering innovation and efficient execution. Despite challenges, the team remained motivated (Chapter 2.5.2) and adaptable, learning from mistakes (Chapter 2.5.1) and prioritizing client satisfaction. Overall, effective teamwork facilitated by leadership (Chapter 2.5.1) was instrumental in achieving project success.

Interviewee F emphasized that clear communication (Chapter 2.5.2), adaptability (Chapter 2.5.1), and effective time management (Chapter 2.5.4) were essential attributes for project leaders. Trust was established among team members and stakeholders (Chapter 2.5.2), contributing to smooth project execution. His proactive leadership approach (Chapter 2.5.1) ensured challenges were addressed efficiently (Chapter 2.5.4), enhancing team performance (Chapter 2.5.1) and motivation (Chapter 2.5.2). Team well-being was prioritized (Chapter 2.5.1), and transparent communication (Chapter 2.5.2) and open idea sharing (Chapter 2.5.1) were fostered, leading to project success. Despite obstacles, the team remained resilient (Chapter 2.5.1), emphasizing client satisfaction. Overall, effective teamwork and leadership (Chapter 2.5.1) were instrumental in achieving project accomplishments.

A summary of the findings from the interviewees is displayed in Table 3,

Table 3. Summary of the Findings

Interviewee	Key Dimensions of Authentic Leadership			
	Positive Psychological Capital	Relational Transparency	Ethical Behavior	Balanced Processing
A	Team performance and teamwork, elevated team morale, addressing challenges, and identifying suitable alternatives leveraging the right skills	Emphasized trust between leaders and team members, cultivated collaboration and open communication, and developed team dynamic skills	Highlighted the necessity of making difficult decisions to meet client requirements and providing transparent updates	Demonstrated balanced processing through proactive problem-solving and aligning team objectives
B	Improving team performance and fostering team well-being, adapting to new challenges, and boosting team morale	Established trust via transparent communication, collaboration, and a focus on motivating the team	Focused on ensuring client satisfaction through accurate decision-making	Showcased balanced processing through analyzing situations and developing alternative plans
C	Enhanced team performance and work, prioritized team well-being, fostered optimism, boosted morale, and effectively addressed challenges	Fostered trust through transparent communication, valuing guidance, and fostering collaboration	Making difficult decisions	Demonstrated balanced processing through considering diverse perspectives

D	Enhanced team-work, performance, and well-being within the team	Highlighted the significance of trust and open communication in promoting collaboration and enhancing team dynamics skills	Highlighted the importance of decision making	Demonstrated balanced processing through analyzing situations and leveraging team strengths
E	Team work, productivity, morale, and problem-solving capabilities within the team	Encouraged trust, communication, adaptability, motivation, problem-solving, and collaboration within the team	Demonstrated ethical conduct through decision making	Showcased balanced processing through addressing challenges efficiently and leveraging technical expertise
F	Enhanced team-work, improved team performance, prioritized team well-being, and effectively adapted to new challenges	Established trust through open communication, motivated the team, and addressed problems effectively	Demonstrated accountability through decision-making at each phase	Demonstrated balanced processing through adherence to industry standards, budget considerations, and effective time management.

5 DISCUSSION & CONCLUSION

In the discussion and conclusion section, the study will delve into its theoretical contributions, practical implications, limitations, and future research recommendations. This includes aligning findings with existing theories, applying them in real-world scenarios, addressing any constraints, and suggesting avenues for further study.

5.1 Theoretical Contribution

Research Question: How does authentic leadership affect the overall effectiveness and success of construction projects?

The key dimensions such as positive psychological capital, relational transparency, ethical behavior, and balanced processing represents a robust and multifaceted approach to leadership within construction projects (Chapter 2.5.1- Chapter 2.5.4). Each dimension contributes unique elements that, when combined, form a comprehensive framework for guiding project teams towards success.

Positive psychological capital encompasses optimistic attitudes and self-belief among project leaders, providing them with the mental fortitude to tackle challenges with resilience and adaptability (Sweeney, Matthews & Lester 2022, 263). Leaders with a strong positive psychological capital can inspire confidence and motivation within their teams, driving productivity and fostering a can-do attitude even in the face of adversity (Heimann 2016, 21).

Relational transparency is crucial for building trust and fostering open communication within project teams (Jones 2012, 192). Leaders who prioritize transparency create an environment where team members feel valued, heard, and respected. By encouraging honest dialogue and sharing information openly, relational transparency cultivates a culture of collaboration, cooperation, and collective problem-solving (Jones 2012, 192).

Ethical behavior forms the foundation of trustworthy leadership in construction projects (Winch 2010, 443). Leaders who demonstrate integrity, honesty, and a commitment to ethical decision-making earn the respect and trust of their team members and stakeholders (Winch 2010, 443). Upholding ethical standards not only fosters a positive work environment but also ensures the long-term sustainability and reputation of the project and the organization.

Balanced processing involves the thoughtful consideration of diverse perspectives, data analysis, and informed decision-making (Sweeney et al. 2022, 263). Leaders who employ balanced processing techniques weigh various options objectively, assess risks, and seek input from stakeholders before making critical decisions. This approach minimizes biases, enhances problem-solving capabilities, and increases the likelihood of successful project outcomes (Northouse 2018a).

By integrating these dimensions into their leadership approach, project leaders can create a synergistic environment where teamwork thrives, innovation flourishes, and project goals are achieved efficiently and effectively. This holistic leadership framework addresses the multifaceted challenges inherent in construction projects and provides a roadmap for driving success in the dynamic and complex construction industry.

5.2 Practical Contribution

The practical contribution of this research lies in its ability to provide actionable insights for project leaders and stakeholders in the construction industry. By identifying key dimensions of authentic leadership, such as positive psychological capital, relational transparency, ethical behavior, and balanced processing, this study offers practical strategies for enhancing project success and effectiveness.

Positive Psychological Capital: Project leaders can focus on fostering optimism and self-efficacy among team members through training and development programs. By nurturing a supportive work environment that promotes resilience and

adaptability, leaders can boost team morale and productivity, ultimately leading to improved project outcomes.

Relational Transparency: Encouraging open communication and trust-building initiatives within project teams can foster a culture of transparency and collaboration. Implementing regular feedback mechanisms and forums for team members to express their ideas and concerns openly can enhance team dynamics and decision-making processes.

Ethical Behavior: Establishing clear ethical guidelines and standards for decision-making processes within the organization is crucial. Providing ethics training and workshops for project leaders can enhance their awareness of ethical dilemmas and equip them with the skills to navigate such situations effectively. Fostering a culture of ethical conduct by recognizing and rewarding behaviors that align with organizational values can promote trust and integrity within project teams.

Balanced Processing: Encouraging leaders to adopt a balanced approach to decision-making by considering multiple perspectives and analyzing data objectively can lead to more informed and effective decision-making. Providing decision-making frameworks and tools that support balanced processing, such as decision matrices and scenario analysis techniques, can empower project leaders to make strategic decisions that drive project success.

Overall, the practical contribution of this research lies in its ability to equip project leaders with the knowledge and tools necessary to foster authentic leadership practices within their teams, ultimately leading to improved project outcomes and stakeholder satisfaction.

5.3 Limitations and Future Research

Limitations of this study included the challenge of precisely distinguishing authentic leadership from other factors influencing project success. The qualitative nature of the research was valuable for gaining insights into individual experiences but may have limited the generalizability of findings. Additionally, focusing

exclusively on Project Engineers meant that perspectives from other stakeholders were potentially overlooked, thus restricting the breadth of insights. While the study examined three construction projects in detail, it may not have fully captured the diversity within the broader construction industry. Moreover, the subjective interpretation of responses and the constrained depth of analysis due to time and resource limitations were acknowledged. External factors such as economic conditions or unforeseen events were recognized but were not extensively explored.

In light of the limitations of the study, several recommendations for future research emerge. Long-term studies could help us understand how authentic leadership continues to affect construction projects over time. Comparing authentic leadership with other styles would also be helpful in figuring out what works best. We could also look at how authentic leadership impacts different levels, from individual teams to entire organizations and even the industry as a whole. It would be interesting to see how authentic leadership plays out in different cultural settings within the construction industry. Practical studies that aim to develop authentic leadership skills among project leaders could provide valuable insights. Also, including input from more people involved in construction projects and using both qualitative and quantitative methods would give us a more complete picture. Finally, exploring how technology can support authentic leadership in construction teams could offer new ways to improve project outcomes. These recommendations aim to fill the gaps we have identified and deepen our understanding of authentic leadership in construction project management.

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APPENDICES

APPENDIX 1.

The format for collecting basic information from project engineers was utilized in the following manner.

1. What is your gender?
 - Male
 - Female

2. What is your age?
 - 20-30
 - 30-40
 - 40 & above

3. What field does your position belong to?
 - Civil
 - Mechanical
 - Electrical

4. What is your nationality?
 - Sri Lankan
 - Other

5. Years of experience in the Organization?

APPENDIX 2.

The questions directed towards the project engineers were as follows:

1. What do you think are the most important qualities for a leader to have when working on a project, and how do these qualities relate to making the project successful?
2. Can you give examples of specific things you've done as a leader that helped your team succeed in past projects?
3. How do you believe trust between a leader and their team contributes to the success of a project? Provide example?
4. Could you explain from your previous projects where your leadership style positively affected how well the project went, such as team performance or teamwork?
5. In your experience, how has looking out for your team's well-being and development impacted the success of your projects?
6. Tell me about a time when you had to make a tough decision as a leader on a project, and how it affected the project's overall success?
7. How do you think being a transparent and open communicator has helped projects you've managed succeed, and can you provide an example?
8. Can you describe a project where your leadership helped the team stay strong in the face of challenges, and how did that contribute to the project's success?
9. Have you seen instances where positive team dynamics, fostered by your leadership style, played a significant role in the effectiveness and success of a project?