CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY, ISLAMABAD

Impact of Servant Leadership on Project Success with the Mediating Role of Knowledge Creation and the Moderating Role of Organization Learning Culture

by

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I dedicate my dissertation work to my supervisor, family and many friends. A special feeling of gratitude to my loving parents whose words of encouragement and push for tenacity ring in my ears.

CERTIFICATE OF APPROVAL

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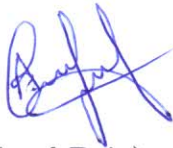Dr. Arshad Hassan
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(Asad Baig)

Abstract

The major goal of this study was to investigate the impact of Servant Leadership on Project Success, with Knowledge Creation serving as a mediating factor and Organization Learning Culture serving as a moderating component. This paper adds to the current literature by establishing links between variables using the SIPT theory. Furthermore, the study shows a positive link between Servant Leadership and project success, as well as a good relationship between Knowledge Creation and project success, which is consistent with the findings of the literature review. Using a quantitative research technique, 385 project team members from IT organizations provided data for this analysis. The questionnaire survey approach was used, and responses were acquired from IT firms. Andrew was used to analyze the data Process Macro version 4.0 in SPSS by F. Hayes, incorporating descriptive statistics, correlation, mediation, and moderation tests. According to the findings of the study, project team resilience strongly mediated the association between team building and project performance, although interpersonal trust was shown to be inconsequential as a moderator. The study recognizes several limitations and advises that future research should pursue time-lag studies with bigger sample numbers for a more complete understanding.

Keywords: Servant leadership, Project Success, Organization Learning Culture, Knowledge Creation

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Abbreviations

KC	Knowledge creation
OLC	Organization learning culture
PS	Project success
SIPT	Social information processing Theory
SPSS	Statistical Package for Social Sciences
SL	Servant leadership

Chapter 1

Introduction

1.1 Background

Leadership is considered as a critical aspect in project success and the formation of conditions favorable to better levels of performance (Asree et al., 2019). While research has looked at the hold of different leadership styles on project performance, the vertical relationship model, which includes transformational and transactional leadership styles, has received the most attention (Asree et al., 2019). The optimum leadership style, however, is still being debated (Stagnaro and Piotrowski, 2014).

In contemporary project management literature, shared and balanced leadership styles have taken significance in addition to vertical relationship-based approaches. As a result, alternative leadership styles, such as humble leadership (Ali et al., 2020) and servant leadership (Krog and Govender, 2015), have been investigated. Servant leadership has emerged as a possible predictor of project success among these approaches. Leaders in various work groups play an important role in meeting employees' desires for individuality and belonging (Nishii and Mayer, 2009).

Servant leadership, as articulated by Nembhard and Edmondson (2006), involves the use of language and actions by a leader or leaders that demonstrate a welcoming attitude and recognition of the contributions made by others. This term has come to refer to leaders who are visible, accessible, and available in their relationships with followers (Atwater and Carmeli, 2009). The contemporary understanding

of servant leadership entails a collection of leadership behaviors that promote a sense of inclusion through the principles of justice and fairness, along with opportunities for supportive decision-making. Moreover, it encourages individuality by endorsing diverse assistance and assisting group members in complete participation (Randel et al., 2018). In contrast to alternative leadership styles, servant leadership places a greater emphasis on individuals, actively fostering support and facilitating a sense of inclusivity while appreciating diversity to cultivate a range of contributions and talents. In today's corporate landscape, projects are viewed not just as technological solutions, but also as tools for business enhancement and change implementation (Andersen et al., 2002).

According to (Jha and Iyer, 2006), project management is intended to assure the success of a project—a subjective phrase depending on the evaluator's perspective. Traditionally, project success has been determined by adherence to cost, schedule, and quality/performance requirements (Barclay and Osei-Bryson, 2010a). Despite their detractors, these proportions, known as the The "iron triangle" remains the major standard for measuring project performance (Papke-Shields et al., 2010). As a result, a focus on these elements implies that project management values organizational efficiency above organizational effectiveness. Poor project management is a key cause in project failure (Schmid and Adams, 2008). Inadequate teamwork results from poor leadership (Zhang and Faerman, 2007), which impedes good outcomes (Kerzner, 2017).

(Keegan et al., 2018) highlight the insufficient attention given to the human side of project management. The recent shift in focus from technical to human aspects underscores the significance of leaders in the context of teamwork and project success. People-centered leadership is closely associated to project success (Mäkilouko, 2004). As a result, good project management demands the integration of many areas of work, with the leader attentive to team members' requirements (Berg and Karlsen, 2007). Servant leadership is appropriate in the project setting because the leader emphasizes individual and team interests before self-regard. Consequently, a servant leader not only dedicates themselves to serving the team but also fosters a collective synergy towards achieving common goals, as noted by various scholars (Hu and Liden, 2011). This emphasis on prioritizing the interests of followers not

only facilitates the personal growth of subordinates but also enhances collaborative efforts (Hunter et al., 2013). As a result, a servant leader develops the essential skills to provide effective support to project teams (Schmid and Adams, 2008). This strategy contributes to enhancing the capabilities of followers, eliminating obstacles, fostering innovation, and empowering creative problem-solving. Consequently, this positively influences organizational dynamics (Gemeda and Lee, 2020). Organizational learning culture is well-defined as a collection of standards and beliefs that govern the operations of a company, with an emphasis on methodical and in-depth techniques to create innovation. Organizational learning is a complicated process that involves the acquisition of new knowledge as well as its ability to impact behavior (Slater and Narver, 1995).

It represents a prolonged course of action that exerts an influence on both individual and organizational behavior over time (Murray and Donegan, 2003). Strong learning cultures excel in knowledge production, acquisition, transfer, and behavior change to match with new knowledge and insights. Hence, organizations emphasizing the cultivation of an organizational learning culture (OLC) need not only acquire but also assess information to grasp its significance and convert it into knowledge. Nevertheless, they should not overlook the crucial aspect of effecting behavioral and cognitive adaptations to translate words into actions. Organizational learning, like organizational culture, is difficult to define due to the diversity of opinions in academic research. According to (Harris, 1990), Organization learning is described as the ongoing process of testing experiences and converting them into knowledge accessible to the entire organization, aligned with its mission (Huber, 1991). Huber characterizes organizational learning as the amalgamation of four key processes: acquiring information, disseminating information, interpreting information, and managing organizational memory. These processes are integral facets of information management within the organizational context. According to (Schön and Argyris, 1996) organizational learning happens whenever organizations gain information by any methods. Knowledge is considered as a critical organizational asset that requires appropriate management for long-term organizational performance and competitive advantage (Obeidat et al., 2016).

Knowledge management is defined as a business process or systematic method to

formalizing knowledge, experience, and expertise in order to help businesses generate new skills. This procedure results in better organizational performance. A component of the knowledge management process, knowledge production, is creating new information or updating current material within an organization's tacit and explicit knowledge. In organizational contexts, these elements are shared, amplified, expanded, and rationalized through social and collaborative processes, as well as through the cognitive processes of individuals (Ajmal and Koskinen, 2008).

1.2   Problem Statement

The passage underscores the vital importance of comprehending the intricate connection between leadership styles and project success within the realm of contemporary project management. The primary objective of the study is to investigate the influence of servant leadership on project success, with a specific focus on the mediating role of knowledge production and the moderating impact of organizational learning culture. While there is an increasing recognition of the importance of servant leadership in fostering positive team dynamics and overall outcomes, the literature lacks a specific investigation of its impact on knowledge creation and its interaction with the broader organizational learning culture within the context of project success. The study tries to overcome this gap by exploring into how servant leadership qualities, knowledge generating methods, and other factors interact and the prevalent corporate learning culture all contribute to or have an influence on project success. This study's findings are intended to give significant insights for project managers, organizational leaders, and researchers. These discoveries are intended to aid in the creation of successful leadership techniques and knowledge management methods that can improve project outcomes in a variety of organizational settings.

The sentence emphasizes a study vacuum on the direct influence of servant leadership on knowledge creation in project settings. Despite growing recognition of servant leadership's positive impact on team dynamics and performance, there has been little research into how servant leadership practices, such as encouraging

open communication, can be specifically applied to contribute to knowledge development by leveraging diverse perspectives in the context of project management in companies where knowledge and information are important. According to the text, servant leaders play an important role in enabling various contributions by actively seeking out other perspectives and methods while building a welcome workplace. They assist team members in fully engaging by identifying their abilities and preferences and inspiring them to bring their entire self to work. Higher performance is expected from leaders who stimulate learning, problem-solving inventiveness, intellectual stimulation, and foster communication, trust, and information sharing. Knowledge creation is an important part of knowledge management operations. The paragraph also advocates investigating the moderating impact of corporate learning culture, since combining it with servant leadership is thought to expedite knowledge management procedures.

1.3   Research Questions

You can construct numerous research questions that will direct your study to investigate the influence of servant leadership on project success with the mediating role of knowledge generation and the moderating function of organizational learning culture. Consider the following research questions:

Research Question 1

Does the connection exists between Servant leadership and Project success.

Research Question 2

Does the Servant leadership increases Project success due to knowledge creation?

Research Question 3

Does Knowledge creation mediate the relationship between Servant leadership and Project success?

Research Question 4

Does Organization learning culture moderate the relationship between Servant leadership and Knowledge creation?

1.4 Research Objectives

The current study's research goals are to examine how the variables relate to one another in light of the proposed model. The objective of the current research is to determine that each of the variables (Servant leadership, Project success, Organization learning culture, Knowledge creation) are connected to one another.

Research objectives are clear, quantifiable goals that guide the research process and aid in the achievement of the research's overarching aim. In the context of your research on the "Impact of Servant Leadership on Project Success with the Mediating Role of Knowledge Creation and the Moderating Role of Organizational Learning Culture," examine the following research objectives:

Research objective 1

To examine the relationship between between Servant leadership and Project success.

Research objective 2

To examine the relationship between Servant leadership and Knowledge creation.

Research objective 3

To examine the relationship between Knowledge creation and Project success.

Research objective 4

To examine the mediating effect of Knowledge creation on Servant leadership and Project success.

Research objective 5

To examine the moderating effect of Organization leadership on the relationship between Servant leadership and project success.

1.5 Significance of the Study

This study is notable because it investigates a novel combination of factors in a specific setting, namely the IT industry: servant leadership, knowledge production, organizational learning culture, and project success. The novelty stems from the

fact that this particular connection has never been explored previously, which adds originality and depth to our understanding of these constructions within the context of the given industry.

The major goal of the study is to look at the influence of servant leadership on knowledge development. It tries to examine the basic elements that impact performance in this manner, so helping to good management. The research aims to investigate and establish the link between servant leadership and knowledge development.

Furthermore, the study fills a significant gap in the current literature, providing a significant contribution to project management is a field. The suggested model adds to the theoretical underpinnings while also providing empirical insights. It also provides practical advice for firms on how to improve their corporate learning culture by using a servant leadership style.

In conclusion, this study has the potential to make a significant contribution by expanding theoretical knowledge, giving empirical data, and having practical consequences for businesses, particularly those in the IT industry.

1.6 Supporting Theory

Alots of opinions and viewpoints have been gathered provided by various researchers to assist with the investigations of Servant leadership, Project success, Organization learning culture, Knowledge creation that are used worldwide in an organization however all the study's variables are included here in like Social information processing theory.

1.6.1 Social Information Processing Theory

The present study is embedded in the social information processing theory(SIPT) (Dodge and Crick, 1990). SIPT is a conceptual perspective that describes how humans process and behave in situations by incorporating social signals and relevant information. It asserts that people's behaviors and attitudes are determined

by their social setting encompassing their relationships with others and the information individuals collect through their surroundings.

We believe that when leaders operate with servant approach, it creates a pleasant and constructive sense of equality and enables efficient information transmission among followers, eventually leading to the effective attainment of project objectives. Servant leadership emphasises increasing openness, effective listening, and flexible forms of communication that can improve team members' social information processing. Consequently, team members can effectively integrate their specific knowledge and experience to comprehend the entire project.The theory suggests that servant project managers can professionally, ethically, and responsively integrate project knowledge among team members. It can enhance the successful project.

According to the (SIPT), the social information environment is a significant factor in how professionals think and act in their daily work (Lord and Maher, 2002). Team members can better understand their roles and responsibilities and make accurate decisions (Hogan and Coote, 2014).Consequently, the value of organizational learning culture in work integration can be considered an information-sharing setting that allows project managers and teams to develop their knowledge and skills successfully. Therefore, the organizational learning culture remains in the sharing of updated knowledge, goals, and ideologies that really can contribute to the growth of project managers and fuel the employees' knowledge creation among project team members (Arditi et al., 2017) that is highly successful in guaranteeing the project's successful completion.

Chapter 2

Literature Review

2.1 Servant Leadership

Servant leadership, as articulated by (Nembhard and Edmondson, 2006), involves the use of language and actions by a leader or leaders that demonstrate a welcoming attitude and recognition of the contributions made by others. This term has come to refer to leaders who are visible, accessible, and available in their relationships with followers (Atwater and Carmeli, 2009).

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2.2 Knowledge Creation

Knowledge is considered as a critical organizational asset that requires appropriate management for long-term organizational performance and competitive advantage (Obeidat et al., 2016). Knowledge management is defined as a business process or systematic method to formalizing knowledge, experience, and expertise in order

to help businesses generate new skills. This procedure results in better organizational performance. A component of the knowledge management process, knowledge production, is creating new information or updating current material within an organization's tacit and explicit knowledge. In organizational contexts, these elements are shared, amplified, expanded, and rationalized through social and collaborative processes, as well as through the cognitive processes of individuals.

The Organizational Knowledge Creation Theory is chosen as a suitable framework for several reasons. Firstly, it enjoys widespread application in management and organization studies, making it familiar to a broad readership. Secondly, it provides comprehensive coverage of sharing and creation processes, allowing for the inclusive incorporation of previous research. Thirdly, the theory encompasses processes, knowledge assets, and organizational context within an explanatory framework, facilitating the identification of areas where leadership influences knowledge creation (Nonaka et al., 2008).

This choice is motivated by the recognition of two weaknesses in prior work. Firstly, there has been a tendency in theory building and empirical research on leadership to adopt a limited view on knowledge processes, often neglecting knowledge assets and organizational context. Secondly, much of the literature on organizational knowledge creation has traditionally treated leadership as a central activity, primarily exercised by a privileged few in the upper echelons of the organization. This identified weakness aligns with past critiques of organizational knowledge creation theory (Gourlay, 2006).

2.3   Project Success

Numerous organizations, both large and small, are actively engaged in global efforts to assist underprivileged populations by providing essential resources such as food, shelter, medicine, education, and clean water. Interestingly, recent research indicates that the success of these organizations, particularly newer ones, is often attributed to effective leadership. True leadership, particularly exhibited by project leaders who spearhead project selection, implementation, and execution through project teams, plays a pivotal role in the rapid progress and substantial

funding secured by these organizations (Heeralall, 2013).

In the realm of project management, (Turner and Müller, 2005) conducted a review on the contribution of project manager competency and leadership style to project success. They concluded that existing literature has somewhat overlooked the impact of leadership on project success.

To establish a foundation for discussing these concepts, it is crucial to define a project and project management. A project is defined as a series of unique, complex, and interconnected activities with a singular goal that must be achieved within a specific timeframe, budget, and according to specified criteria. (Munns and Bjeirmi, 1996) offer an alternate definition, stating that a project aims to achieve a specific objective through a sequence of activities and tasks consuming resources. Project management, in turn, is described as the process of controlling the attainment of project objectives. It's worth noting that controlling and management are directly linked to the operational efficiency of the organization.

Operational efficiency, showcases an organization's capacity to deliver products or services to end consumers in a timely manner and with improved quality. In the context of development organizations, operational efficiency involves how well these institutions allocate input resources, such as assets, subsidies, and personnel, to produce measurable outputs, such as a loan portfolio and outreach to impoverished communities. Given that many development sector organizations operate in vulnerable areas, maintaining operational efficiency is crucial for responsiveness and effectiveness.

2.4 Servant Leadership and Project Success

(Nembhard and Edmondson, 2006) defined servant leadership as leaders' behaviors and words that express an invitation and gratitude for others' contributions. According to (Hantula, 2009), servant leadership is a mutually advantageous scenario characterized by a shared vision of interdependent partnerships. A servant leader as someone accountable for workers at all organizational levels, the role of followers and their view of leadership was underlined. This leader is essential in

developing a servant organization. There are three dimensions to servant leadership: (1) Leaders carefully listen to their colleagues' opinions and accept their blunders, giving assistance when mistakes arise. (2) Leaders prevent jealousy by praising and emphasizing staff training while celebrating triumphs. (3) Managers Treat employees properly, taking into account their requirements, displaying a fair attitude, and guaranteeing equal incentive distribution.

(Carmeli et al., 2011) defined servant leaders as those who are open, approachable, and available to colleagues, with the goal of encouraging creativity and creating a psychologically comfortable atmosphere in which individuals may thrive.can voice opinions that may be considered controversial. Approachable and accessible CEOs encourage staff to discuss concerns and issues freely discovered inclusive leadership characteristics (openness, availability, and accessibility) that were consistent with previous studies, revealing the leader's genuine concern and care for followers, resulting in enhanced employee trust.

According to (Nembhard and Edmondson, 2006), when leaders appreciate and embrace employee ideas, it promotes psychological safety, allowing individuals to speak their viewpoints. In both leadership and follower ship, underlined the need of respect, appreciation, responsiveness, and accountability. The four R's of servant leadership are critical for effective practice because they influence varied team formation, crisis management, change management, and resolving inequities and pressures.The concept of project success is a point of contention in project management literature, resulting in differing viewpoints. Project success is defined as completing all project criteria and attaining the desired objective or need within the restrictions of resources and time.

(Al-Tmeemy et al., 2011) concentrated on meeting the needs and expectations of project stakeholders, which included the project organization and stakeholders (customers and the project team). When a project meets the defined goals and objectives set by project stakeholders, it is considered successful in terms of performance and functionality. In essence, project success is defined by the project's capacity to fulfill stakeholders' functional and performance objectives. Leadership is essential for improving work quality and achieving organizational expectations at all levels. Servant Leadership is considered as a suitable leadership style that

promotes social justice (Foster, 2010). It shows employees that the leader is prepared to take chances and innovate in order to develop something fresh and unique. However, implementing Servant Leadership may encounter problems, as mistakes might have negative effects for the firm. Leaders must consider a variety of issues when offering assistance to workers or appreciating their contributions to a project, including management tactics and organizational policies.

Servant Leadership emphasizes the importance of using the leader's strengths to improve their work.It is critical to provide contextual conditions that are free of bias and to actively listen to employees. A Servant Leader sets new trends in servant conduct by seeking varied viewpoints, examining them without bias in decision-making, and appreciating subordinates' vision and involvement. Gratitude is recognized as a fundamental, simple, and successful approach to reward employees. Appreciation promotes a pleasant work atmosphere by encouraging people to cheerfully follow instructions, become absorbed in their job, and achieve the best results possible with limited resources. Gratitude motivates workers to perform harder and more creatively, resulting in diverse and creative work cultures guided by Servant leaders, in which team members feel linked and supportive of one another (Jalil, 2017).

In project-oriented businesses, when resources are limited Leaders have the problem of encouraging personnel to maintain high organizational quality when employment is largely temporary and contract-based. Servant leaders that can harness the variety of team members and resolve differences amongst groups help to improve employee performance in such difficult circumstances (Dwivedula et al., 2016). Leaders must go beyond legislative and structural changes to create a productive work environment. They should foster a culture of servant leadership, encouraging individuals to reach their greatest potential. Leadership is critical to achieving an organization's goals. Clarity in project duties is critical; leaders must ensure that personnel understand project requirements, with every effort aimed at accomplishing company goals. Contextual settings, tasks, and procedures should all be consistent.with the leader's vision, promoting a creative method for staff to achieve particular project objectives. Leaders' original ideas, various abilities, and accomplishment of optimal results assist organizations. Leaders are frequently

inspiring characters, accountable not only for their own work but also for the collective efforts of their team. Leaders must identify and place the greatest personnel in appropriate locations to ensure that each team member can contribute successfully. Building trust among team members requires being a good listener and exhibiting concern for their well-being (Lloyd et al., 2015). Within the larger framework of leadership theory, listening is acknowledged as a critical managerial talent. Leaders that neglect specific difficulties risk people working around hurdles, resulting in poor performance create increased issues and counter-productivity. A competent leader cares about and listens to his or her people, realizing that listening is an explicit component of leadership that improves knowledge of how leaders impact results. To build deeper ties, leaders must watch and influence their followers' behavior and attitudes. Skilled listening assists in identifying situations that deserve attention, pushing others to act. Work participation that is enjoyable is described by rewarding job-related states of mind such as energy, devotion, and absorption. Leaders confront the task of identifying and resolving the different difficulties that employees may experience in a diverse workforce. It is the obligation of the leader to express gratitude while underlining the significance of workers' decisions to the project. Vigor, defined by high energy levels and a sharp mind, as well as dedication.

H1: Servant leadership have a positive and significant impact on project success.

2.5 Servant Leadership and Knowledge Creation

(Brown and Duguid, 2001) argue that knowledge formation is inextricably linked to social processes that emphasize participant interactions and communication. Individual connection is critical in influencing knowledge production (Montoya-Weiss et al., 2001). Despite the accepted importance of knowledge production, companies frequently under utilize their internal knowledge reservoirs in favor of external information sources (Wang and Noe, 2010). The disrespect for human

interactions and connections inside the business is a significant hindrance to tapping into internal knowledge. Organizational leadership emerges as a significant component impacting employee knowledge sharing, as well as playing a pivotal role in knowledge processes (Bligh et al., 2006).

H2:Servant Leadership and knowledge creation will have significant and positive relationship.

2.6   Knowledge Creation and Project Success

(Brown and Duguid, 2001) argue that knowledge formation is inextricably linked to social processes that emphasize participant interactions and communication. Individual connection is critical in influencing knowledge production (Subramaniam and Youndt, 2005). Despite the accepted importance of knowledge production, companies frequently under utilize their internal knowledge reservoirs in favor of external information sources. The disrespect for human interactions and connections inside the business is a significant hindrance to tapping into internal knowledge. Organizational leadership emerges as a significant component impacting employee knowledge sharing, as well as playing a pivotal role in knowledge processes (Bligh et al., 2006).

Prior research, however, has paid little attention to this element (Von Krogh et al., 2012), leaving a vacuum in understanding how leadership influences knowledge acquisition. Despite some research on the roles of transformational and transactional leadership in knowledge processes, this gap remains. Furthermore, previous research has not sufficiently investigated the critical role of followers in the knowledge creation process, and the importance of people-centric leadership for effective knowledge resource utilization has been understated (Menon et al., 2006). Within the positive psychology movement, the recent change in leadership focus from profit to workers underscores the need for relational and compassionate leadership. Motivate people to participate in the development of knowledge. Recognizing and exploiting an organization's knowledge reservoir is dependent on seeing human resources as a necessary and integrated component of knowledge processes.

(Nonaka and Takeuchi, 1995) influential theory of organizational knowledge acquisition posits that organizations generate new information by converting and underplaying tacit and explicit knowledge. Grasping the reciprocal relationship between these knowledge categories is essential for comprehending the knowledge generation process. The SECI model, comprising socialization, externalization, combination, and internalization, underscores that knowledge conversion is a social process occurring among individuals and transcends the boundaries of a single person (Nonaka and Nishiguchi, 2001).According to them, knowledge is frequently subjective, and its meaning is formed by how a notion is defined employed. Knowledge is a construct of reality rather than an objective or universally true entity, as regarded as justified authentic conviction. Knowledge occurs in both explicit and implicit forms, and the development of tacit and effective knowledge demands the presence of an enabling environment, which can be physical, virtual, mental, or a mix of these variables. Rather than being founded in objective truths or things, this environment is dynamic, relational, and action-based, created by the context and persons involved.

The function of servant leadership in supporting knowledge formation has received little attention in prior research on leadership and knowledge creation. Servant leadership is a paradigm change away from individual competitiveness and toward cooperative forms of being. It is focused with the growth and development of followers, with the goal of improving their performance. Competence and happiness. Servant leaders empower their followers to assume leadership roles, creating a collaborative atmosphere for knowledge generation and sharing. Every member of such a system contributes to and forms the collective knowledge view.

The link between servant leadership and knowledge growth is presented via two avenues. To begin with, servant leaders encourage reciprocal influence and shared leadership procedures among their followers. (Pearce et al., 2008) describe shared leadership as "facilitating leadership roles among followers, creating a reciprocal influence and direction process that encourages dialogue between servant leaders and followers." Second, servant leaders contribute to knowledge production by fostering compassionate relationships that encourage others to learn and develop

knowledge. Despite this focus, the particular processes by which shared leadership and caring relationships contribute to knowledge generation remain ambiguous. This gap is addressed by the suggested model, which explains how shared leadership and compassionate relationships enhance knowledge acquisition.

H3: knowledge creation will have positive impact on project success.

2.7 Knowledge Creation Mediate the Relationship between Servant Leadership and Project Success

The competitive advantage of a corporation is intricately tied to its knowledge resources, regarded as valuable, limited, and irreplaceable. Organizations actively adopt knowledge management as a strategic approach to enhance performance by effectively overseeing their knowledge assets. While existing theories often focus on either human factors or technological aspects, Knowledge management is generally described as the capacity to utilize knowledge for achieving corporate objectives (Miković et al., 2020). However, (Hu et al., 2019) argue that knowledge management is a relatively underexplored dimension in project management. As noted by (Chowdhury, 2004), knowledge stands out as the most valuable asset in project management, encompassing everything that can be learned through experience or relevant study. It is crucial to underscore the significance of data accumulation, particularly across different historical periods like the industrial, information, and agrarian ages.

The challenges faced by states and organizations underscore the imperative of efficiently managing knowledge assets to gain a competitive advantage. To enhance competitiveness, innovation, and productivity, companies must actively manage their knowledge resources. The challenge lies in aligning corporate goals with the generation and utilization of new information. Organizational knowledge comprises both explicit and implicit data, and effective leadership plays a crucial role in providing the necessary support for identifying, sharing, and enhancing expertise. Every company must establish processes for knowledge development,

information exchange, and organizational learning (Reich et al., 2012).

Knowledge is essential for project success, and past project experience has a big impact. success in the present one, whether explicitly or implicitly. Interactions with stakeholders, coworkers, project partners, consultants, and specialists generate tacit knowledge. It can be difficult to express tacit knowledge since it is typically cognitive and technical, incorporating viewpoints, attitudes, assumptions, and mental models. Tactic knowledge is developed via inquiry, practice, and contact with others, emphasizing its unintended nature and localized presence. While tacit knowledge may not be easily accessible in books or manuals, it becomes apparent when people apply technical skills or cognitive information in their job . Tacit information, since it is implicit, is less explicit and simpler to recall than explicit knowledge. Informal talks, internships, and storytelling are examples of face-to-face encounters. essential function in changing a major amount of work-related information. When problems develop in a project, consulting with experts becomes critical, as specialists share opinions with employees, offering crucial tacit knowledge that drives decision-making and ensures timely and cost-effective project completion. However, social contact is critical for the formation of tacit awareness because it serves as a platform for knowledge generation, sharing, and transfer, especially in culturally different situations (Gillani et al., 2021).

People of all ethnicities and origins share their perspectives, opinions, and ideas, adding to a rich tapestry of communication. Organizational cultures provide a framework for learning, adaptability, and the creation of an atmosphere in which individuals may exchange creative ideas that benefit the business. The encouragement of members' activities is an important part of organizational culture. Information exchange. Companies may create an environment that encourages employees to use their cognitive ability to learn and discuss new ideas. In this setting, tacit knowledge emerges as a significant aspect in project success, serving as a link between project success and the factors that contribute to it.

H4: Knowledge creation will mediate the relationship between servant leadership and project success.

2.8 Organization Learning Culture Moderate the Relationship between Servant Leadership and Knowledge Creation:

In the late 1970s, (Argyris et al., 1978) introduced the concept of learning as a fundamental organizational activity in their seminal work "Organizational Learning: A Theory of Action Perspective." The idea of a learning organization (LO) gained further prominence through (Senge et al., 1990), "The Fifth Discipline: The Art and Practice of the Learning Organization." Over the last three decades, the concept of LO has remained a significant focus in management, organizational psychology, and human resource development (Song and Kolb, 2013), drawing the interest of researchers, practitioners, and policymakers across various industries. Subsequently, organizations leverage and share their knowledge to enhance operational efficiency and competitiveness (Jyothibabu et al., 2012). The pursuit of becoming a learning organization is crucial for companies aspiring to achieve economic success as it enhances decision-making capabilities, streamlines intellectual capital management, supports organizational transformation, and fosters innovative talents (Hung et al., 2011). The foundation of LO lies in the principle of "learn or die."Learning organizations are distinguished by their personnel's capacity to promote knowledge development, acquisition, transfer, and exploitation. A learning-friendly atmosphere, concrete learning activities and processes, and leadership that encourages learning are the three fundamental components of a learning company. As a dynamic and linked institution, LO necessitates ongoing learning on the part of both the organization and its members. Employees Knowledge in such organizations is derived from the organization's practices, processes, structures, norms, values, and culture. This active participation enables LOs to continually develop, explore, and broaden their capacities (Song and Kolb, 2013). Personal growth, problem-solving abilities, acceptance of change, a culture of excellence, open-mindedness, environmental awareness, team building, cooperation, effective communication, and a strong willingness to learn are all attributes that enable LO.

Nonaka and his colleagues have been instrumental in developing knowledge generation research since the 1990s. Knowledge, according to (Nonaka et al., 2008), has two dimensions: tacit and explicit. Nonverbalized attitudes, ideas, and experiences are classified as tacit in the technical and cognitive dimensions. Technical factors include real abilities, whereas cognitive elements include people's perspectives, paradigms, and mental models. (Nonaka and Toyama, 2005) define contextual components as context-specific and practical talents and knowledge. The explicit dimension, on the other hand, is divided into rule-based and object-based knowledge, which reflect codified and articulated information.

Object-based knowledge occurs in the form of equations, numbers, or words, whereas rule-based information exists in the form of standard operating procedures, protocols, or policies (Nonaka et al., 2008). Knowledge production is still a hot topic in organizational development and human resources (Purcarea et al., 2013). Knowledge generation is divided into two categories by organizational theorists: stock and process. The stock approach stresses the importance of knowledge development for organizational success, with an emphasis on gathering and preserving organizational information. The process approach, on the other hand, holds The creation of knowledge is perceived as an interactive and dynamic process that underscores the interdependence among individuals, communities, and organizations in the generation of new knowledge (Nonaka et al., 2008). In today's knowledge-intensive economy, knowledge production is seen as a critical component for organizations seeking to establish and preserve strategic advantages, innovative capabilities, and competitiveness. As a result, it has emerged as a top priority for business leaders (Capello and Varga, 2013). Regardless of its importance, knowledge development remains a difficult administrative endeavor. The complexity stems from the fact that knowledge is context-specific, dynamic, tacit, and customized. When information sharing extends beyond the physical limits of clearly defined jobs, departments, or divisions, these characteristics become increasingly challenging to manage (BERRAIES and CHAHER, 2014).

Nonetheless, many organizations have managed these hurdles effectively making it possible for people and teams inside a corporation to acquire, communicate, and

profit on information (Nonaka et al., 2006). The dynamic and interactive character of the information generation process in modern corporate contexts is reflected in the expanding landscape of organizational knowledge management.

H5: Organization learning culture will moderate the relationship between Servant leadership and Knowledge creation in such a way that this relationship will be stronger when Organization learning culture is high.

2.9 Research Model
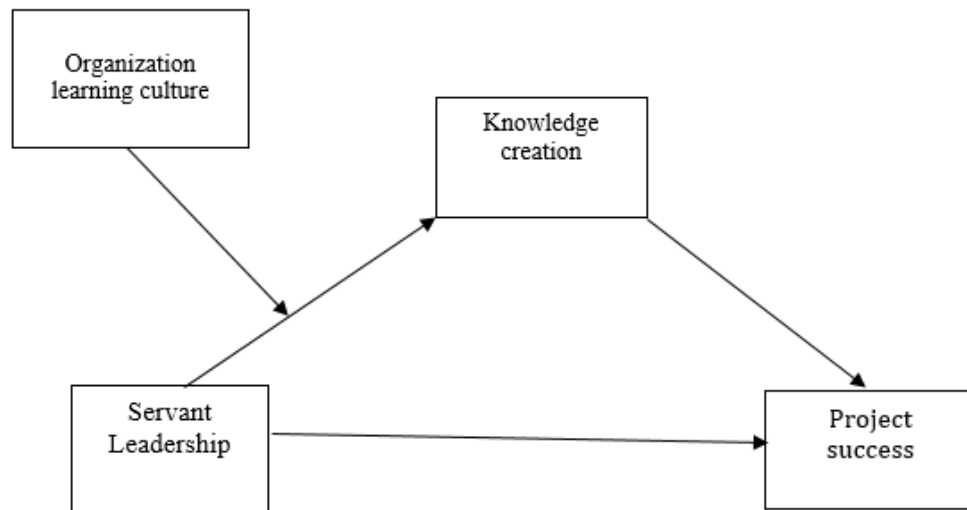
FIGURE 2.1: **Theoretical Framework**

2.10 Hypothesis of the Study

H1: Servant leadership will have significant positive impact on project success.

H2: Servant leadership will have significant positive impact on Knowledge creation.

H3: Knowledge creation will have significant positive impact on Project success.

H4: Knowledge creation will mediate the relationship between Servant leadership and Project success.

H5: Organization learning culture will moderate the relationship between Servant leadership and Knowledge creation in such a way that this relationship will be stronger when Organization learning culture is high.

Chapter 3

Research Methodology

This chapter delves into the methodologies employed to establish the correlation between servant leadership and project success, with knowledge generation serving as a mediator and corporate learning culture as a moderator. The methodology chapter delves into the study design, data collection strategies (both population and sample), measurement, instrument reliability analysis, and other areas of the research process in great depth.

3.1 Research Design

A research design is the structural underpinning for carrying out research. It is a scholars designed blueprint outlining the technique and process for gathering and analyzing relevant material, as defined by (Zikmund et al., 2003).

3.1.1 Research Philosophy

Research philosophy constitutes the comprehensive realm encompassing all elements and perspectives inherent in the knowledge circle. Within this philosophical framework, positivism stands out as a preference due to its emphasis on high dependability. This orientation leans towards the utilization of quantitative techniques such as social surveys, structured questionnaires, and official statistics for their precision and representativeness.

Positivism, as a philosophical stance, exclusively embraces evidence that can be substantiated through logical reasoning, mathematical principles, or scientific methods. In studies guided by positivism, the researcher's sole responsibility lies in the meticulous gathering and analysis of data.

3.1.2   Research Method

TThe research approach employed in this study aligns with the hypothetical deductive model, a framework rooted in the scientific method, which seeks to uncover reality through empirical evidence. The formulation of the hypothesis in this investigation was grounded in prior research and established concepts, setting the stage for subsequent empirical validation.

Initiating the study involved crafting a hypothesis derived from existing literature using the hypothetical deductive approach. This hypothesis underwent empirical scrutiny to either affirm or negate its validity, employing various statistical tests on data pertaining to each component used to assess corresponding statements. The verdict on the proposed hypothesis hinges on its alignment with the supporting theory, determining whether it is accepted or rejected based on the findings' consistency with the theoretical framework.

Following this, the research advocates evaluating the descriptive effectiveness of various hypotheses by assessing the accuracy of their predictions. Generally, quantitative techniques are favored for their capacity to encompass a broad population. Consequently, in this investigation, a quantitative approach was adopted to collect data for the variable illustrating the relationship between the study's variables.

3.1.3   Research Approach

Researchers make a deliberate selection between qualitative and quantitative research methods, guided by the specific questions they intend to answer. In the current study, a quantitative approach was adopted as data were collected from participants through questionnaires. Analytical tools like SPSS, among others, were utilized to analyze the gathered quantitative data.

3.1.4   Type of the Study

The purpose of this empirical study is to analyze the impact of Servant leadership on project performance in the IT sector. The study includes a mediator role, especially analyzing the impact of knowledge generation, and it takes into account the moderating influence of organizational learning culture. The study, which is based on the hypothetical deductive research technique, follows a theoretical framework that includes hypothesis creation, testing, and confirmation. The research takes a quantitative approach, employing scales to quantify constructs and allowing the measurement and analysis of variables to reveal their linkages.

3.1.5   Unit of Analysis

The focal point of analysis in this study encompasses members of project teams within the IT industry and the full cohort was asked to participate in the research. The study included project team members working on a variety of initiatives in the IT sector. The IT industry was chosen as the study's focus due to its engagement in several projects and the different tasks allocated to project team members within this sector.

The participants selected for the present research unit are members of the team working for a company involved in projects situated in Islamabad and Rawalpindi. These individuals were chosen due to their direct impact on project performance, execution, and their influence on both the organization and the broader IT/Software-based project industry. The specific subordinates identified as core team members constitute the unit of analysis for this study.

3.1.6   Time Horizon

A cross-sectional time horizon characterizes the temporal span of this investigation. This option is due to the study's short duration, which requires data gathering from all respondents in a single occasion. In contrast to a longitudinal study, in which data is collected from the same respondents at various intervals for comparisons over a lengthy period of time, the current study focused on a single time frame.

The data collecting approach used was cross-sectional, and the entire procedure took around six weeks, culminating in the simultaneous collection of data from the participants.

The data collection for this study spanned one and a half months and was sourced from the IT industry across different locations in Pakistan. The research utilized a cross-sectional method, which was completed within one month. The adoption of the cross-sectional approach was prompted by the time constraints inherent in the research study. In this method, data is gathered from respondents only once, without any repeated measurements for variables.

3.2   Population and Sample of Study

A population is the whole group about which a researcher needs to draw conclusions, whereas a sample is a small subset of that population from which data is gathered. The population in this study included all project team members working in IT organizations. To reflect the larger population, a sample-based research technique was used due to practical difficulties in acquiring data from the full population. The needed sample size of 385 was calculated using an internet calculator with a confidence level of 95The sample was taken from information technology enterprises whose project team members actively participated in project activities. Questionnaires were delivered to 385 project team members using the survey technique of data collecting. The survey approach was chosen for its ease of getting information from a large number of people at the same time. Finally, all 385 project team members who were targeted for data collection responded.

This is the smallest sample size which is determined by using the (**?**) formula is given further in the equation 3.2.1 whenever the population size is unknown and at 5% error of margin and 95% Confidence level.

$$n = \frac{z^2}{4e^2}$$

$$n = \frac{(1.96)}{4(0.05)^2}$$

$$n = 384.16$$

TABLE 3.1: IT Companies

Names	Location
Next Gen	Islamabad
Info Tech Pvt. Ltd	Islamabad
Switch Solutions (Pvt) Ltd	Islamabad
TeReSol Pvt. Ltd	Islamabad
Viral Webbs	Islamabad
ICILtek Pakistan (Pvt) Ltd	Islamabad
WebHive Technologies	Islamabad
Capital Technologies (Pvt) Ltd	Islamabad
Code Engineer	Rawalpindi
A J Developerz	Rawalpindi
MTBC	Rawalpindi
Online Web Design	Rawalpindi
Circular Byte	Rawalpindi

3.3 Sampling Technique

Due to constraints such as time, budget, and other constraints, a non-probabilistic convenience sampling strategy was used for data collection in this study. This well accepted strategy is selected for its effectiveness in eliciting a greater response rate. This strategy, which is especially common in social sciences research, is noted for its time and energy efficiency, allowing for the collecting of desired data and evidence with minimum effort. The study required reaching out to 385 project team members for data gathering, which resulted in 385 answers. Convenience sampling entails picking individuals who are conveniently available, making it a

practical and simple data gathering strategy. The data received from this sample was deemed to be a Within IT firms, true representation of project team members is provided.

3.4 Data Collection Procedure

Data from respondents was collected using self-administered questionnaires produced in Google Forms and delivered to project team members from various IT organizations. Respondents were promised that their personal information would be kept secret and that the data gathered would be used solely for academic reasons. The survey method was chosen because it is a simple method for gathering information from a large number of people at the same time. The questions were provided in English, and no personally identifiable information was requested of participants. The audience responded with 385 replies to the survey.

3.5 Research Instrument

The most challenging aspect of empirical research often lies in data collection. For this study, data were gathered through custom-designed questionnaires created by reputable specialists in the field, and these instruments had been utilized in prior investigations. The questionnaire used a 7-point Likert scale, with respondents expressing their agreement or disagreement on a range of 1 (strongly disagree) to 7 (strongly agree). In addition to Likert scale questions, the forms included four demographic factors—gender, age, qualification, and experience—that were evaluated using closed-ended questions. The questionnaire was divided into five sections that participants were expected to complete:

- Demographics Variables (Gender, Age, Education and Experience)
- Servant leadership
- Organization learning culture
- Knowledge creation
- Project success

Description about the scales used for each variable in this study is given below:

3.5.1   Servant Leadership

The measurement scales for the Servant Leadership list were devised by (Liden et al., 2008). Consequently, a 7-item instrument was formulated by (Liden et al., 2014), with sample items such as "My manager can tell if something work-related is going wrong" and "My manager gives me the freedom to handle difficult situations in the way that I feel is best." Each item was assessed on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

3.5.2   Project Success

Consistent with previous research (Aga et al., 2016), a composite measure of project success was employed. The 14-item measure, developed by (GÜNGÖR and GÖZLÜ, 2016), utilized a 7-point Likert-type scale, where 1 represented "strongly disagree" and 7 represented "strongly agree." An example item includes: "The project was completed according to the budget allocated," and "The project was completed on time."

3.5.3   Knowledge Creation

The creation of knowledge this study's mediator variable is KC, which assesses the efficacy of developing new knowledge in an open innovation framework. It was assessed using four items from a prior study (Zheng et al., 2011). A seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) was utilized by (Stocks, 2011).

3.5.4   Organization Learning Culture

The scale for the Organization Learning Culture was developed by (Chiva et al., 2007), featuring a 14-item measure. Respondents used a seven-point Likert scale, ranging from 1 (Totally Disagree) to 7 (Totally Agree).

TABLE 3.2: Summary of Scale

Variables	Scale	Items
Servant leadership	(Liden et al., 2008)	7
Project success	(GÜNGÖR and GÖZLÜ, 2016)	14
Knowledge creation	(Zheng et al., 2011)	4
Organization learning culture	(Chiva et al., 2007)	14

3.6 Data Collection Technique

Due to constraints such as time, budget, and other constraints, a non-probabilistic convenience sampling strategy was used for data collection in this study. This well accepted strategy is selected for its effectiveness in eliciting a greater response rate. This strategy, which is especially common in social sciences research, is noted for its time and energy efficiency, allowing for the collecting of desired data and evidence with minimum effort. The study required reaching out to 385 project team members for data gathering, which resulted in 385 answers. Convenience sampling entails picking individuals who are conveniently available, making it a practical and simple data gathering strategy. The data received from this sample was deemed to be a Within IT firms, true representation of project team members is provided.

3.7 Method of Analysis

The data for this study were collected through the administration of questionnaires. Subsequent to the data collection phase, the information underwent entry, cleaning, and analysis using the Statistical Package for the Social Sciences-21 (SPSS-21) as the primary analytical tool. The analysis was conducted using Andrew F. Hayes' SPSS-21 PROCESS macro, a versatile tool known for its capability to assess various models. Its user-friendly instructions simplify the testing of intricate data processing and analysis. The following tests were conducted using SPSS:

• Descriptive statistics test for determining the frequencies of demographic variables.

- Descriptive statistics test for determining mean and standard deviation.

- Correlation analysis and reliability analysis.

- Regression, moderation (Model 1), and mediation (Model 4) tests using the PROCESS macro version 4.0 by Andrew F. Hayes.

3.8 Sample Characteristics

3.8.1 Gender

Data from both genders was collected to lessen the impact of gender discrimination. Despite the fact that the current study aimed to maintain gender equality, it was observed that the ratio of male respondents is substantially higher than the ratio of female respondents.
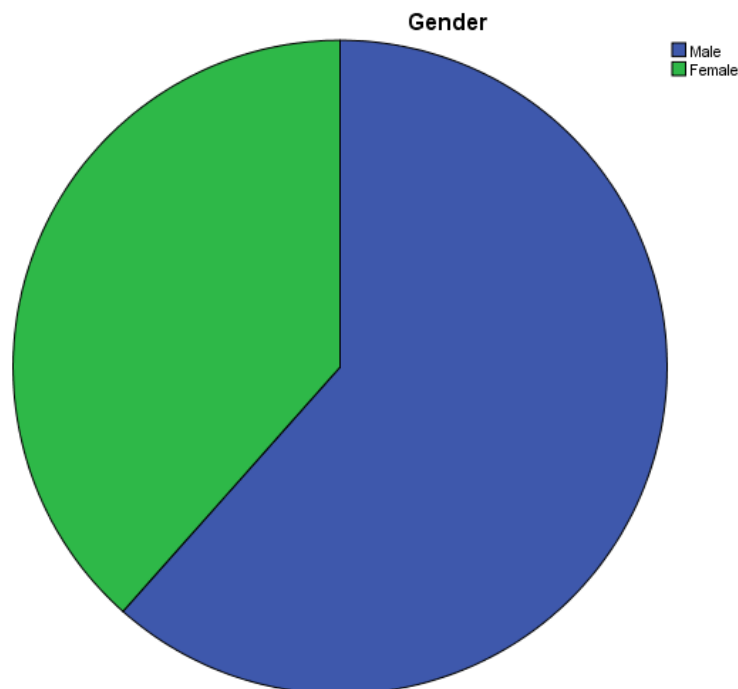
FIGURE 3.1: Gender

As per the information presented in Table 3.3, among the total 385 respondents, 237 were identified as male, while 148 were categorized as female. This data indicates that 61.60 percent of the respondents were male, whereas 38.40 percent were female.

TABLE 3.3: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	237	61.60	61.60	61.60
Female	148	38.40	38.40	100
Total	385	100.0	100.0	

3.8.2   Age

Age is a significant factor in project organizations since it serves as an indirect measure of an individual's experience, expertise, and cognitive capacities. Moreover, it affects employees' self-efficacy, shaping their approach to challenges, responsiveness to leadership, and contributions to the organization's creative success. The Oxford Advanced Learner's Dictionary defines age as the number of years a person has lived. Although age is recognized as a significant demographic factor in research inquiries, respondents may be hesitant to openly disclose their age. To address this, data on respondents' ages are collected using a scale or range, ensuring their comfort and willingness to participate in the survey.

TABLE 3.4: Age

	Frequency	Percent	Valid Percent	Cumulative Percent
20-30	78	20.3	20.3	20.3
30-40	176	45.7	45.7	66.0
40-50	95	24.7	24.7	90.6
50 and Above	36	9.4	9.4	100.0
Total	385	100.0	100.0	

The Table 3.3 provided below demonstrates that out of 385 respondents, 78 fell within the age range of 20-30, constituting 20.3
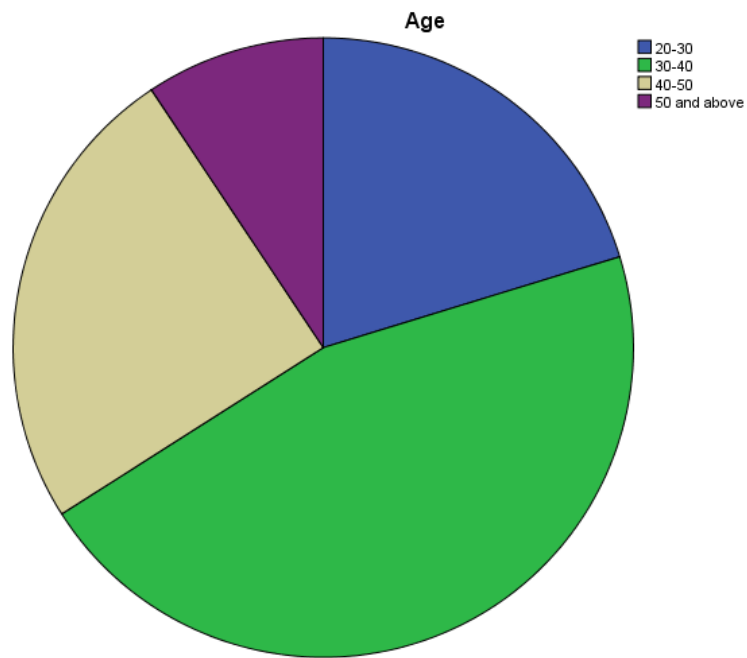
Figure 3.2: Age

3.8.3 Qualification

In research investigations, qualification is an important demographic variable since it indicates an individual's talents, abilities, manner, and performance. Different degrees of schooling serve as separate phases for extensive data collection. Qualification is classified into seven categories in this study to properly reflect the participants' diverse educational backgrounds and qualifications. This classification is intended to give a more nuanced understanding of how different levels of education may impact research variables and outcomes.

Table 3.5: Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Below Bachelors	86	22.3	22.3	22.3
Bachelors	178	46.2	46.2	68.6
Masters and above	121	31.4	31.4	100
Total	385	100.0	100.0	
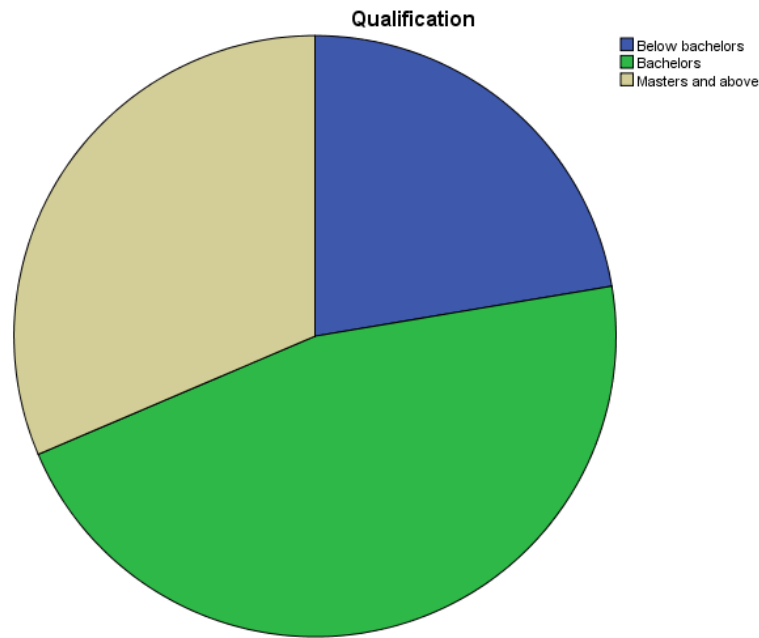
FIGURE 3.3: Qualification

Analyzing Table 3.5 reveals that 86 respondents, constituting 22.3 percent of the total, possessed educational qualifications below a bachelor's degree. Furthermore, 178 respondents, accounting for 46.2 percent, held a bachelor's degree, while 121 responses, representing 31.4 percent of the total respondents, came from individuals with master's or higher qualifications.

3.8.4 Designation

In research investigations, Designation is also an important variable since it indicates an individual's position in an organization. As with the help of this organization differentiates and allocate duties of the employees as of their field of study.

Analyzing Table 3.6 reveals that 192 respondents, constituting 49.9 percent of the total, comes under line management team. Furthermore, 176 respondents, accounting for 45.7 percent, held a middle management designation, while 17 responses, representing 4.4 percent of the total respondents, were come in top management list

TABLE 3.6: Designation

	Frequency	Percent	Valid Percent	Cumulative Percent
Line Management	192	49.9	49.9	49.9
Middle management	176	45.7	45.7	95.6
Top Management	17	4.4	4.4	100
Total	385	100.0	100.0	
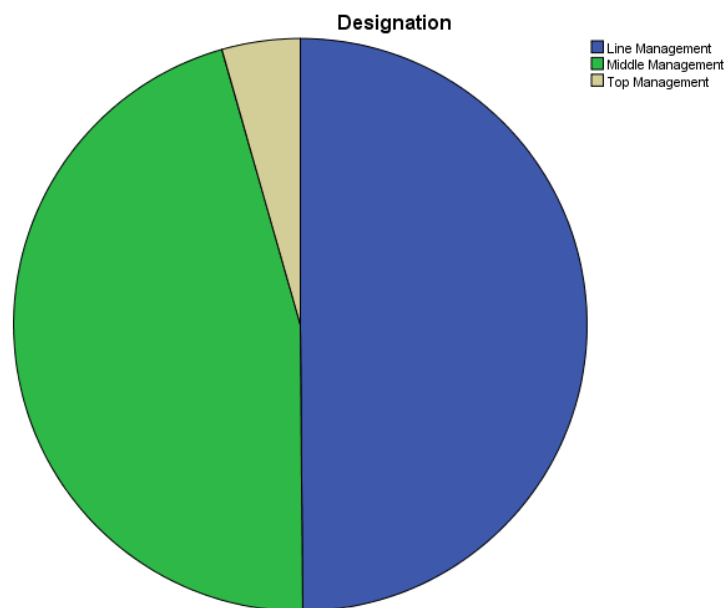
FIGURE 3.4: Designation

3.9 Pilot Testing

Indeed, prior to conducting a full analysis, researchers typically undertake a pilot study to evaluate the reliability of the scales intended for assessment in the proposed research project. This preliminary inquiry usually utilizes approaches and methodologies that are similar to those intended for the real data analysis. A pilot research is designed to evaluate the validity of variables (Van Teijlingen and Hundley, 2001). A pilot research is conducted prior to gathering real data to test respondents' viewpoints and determine if the scale items are readily comprehended. This stage is critical for refining and fine-tuning the research instruments

to ensure that they collect the necessary information and are well-received by study participants.

3.10 Reliability Analysis

The goal of reliability analysis is to determine how internally consistent the variables are. It demonstrates how distinct variables are connected to one another. According to (Colom et al., 2006), a scale is considered credible if its Cronbach's alpha value is greater than 0.7.

TABLE 3.7: Reliability Analysis

Variables	No. of Items	Cronbach Alpha
Servant leadership	7	0.895
Sharing		
Project success	14	0.926
Knowledge creation	4	0.829
Organization learning culture	14	0.927

According to Table 3.6, each variable's Cronbach's alpha is more than 0.7. Cronbach's alpha is 0.895 with 7 components for Servant leadership. Cronbach's alpha is 0.926 with 14 elements for project success. Cronbach's alpha is 0.829 for knowledge generation with 4 items. With 14 components, the Cronbach's alpha value for Organization learning culture is 0.927. According to this data, all of the numbers are within an acceptable range (i.e., more than 0.7), indicating that we may proceed with our study.

3.11 Data Analysis Techniques

After collecting data, the analysis focused on the relevant and fully completed dataset, comprising 384 responses that exhibited no duplications or missing values. SPSS 26 served as the tool for data analysis, with the following procedural steps:

1. The initial step involved selecting the appropriate set of questions for analysis.

2. Codification of the collected data was performed, and these codified variables were utilized in the subsequent data analysis.

3. A frequency table was generated to describe the characteristics of the sample.

4. Numerical values were employed to measure descriptive statistics.

5. Cronbach's alpha was calculated for each variable to assess its reliability.

6. A correlation analysis was conducted to examine and determine significant relationships between variables.

7. The correlation analysis was employed specifically to establish significant relationships among the variables.

8. Simple linear regression analysis was conducted to illustrate the suggested relationship between independent and dependent variables.

9. Mediation between independent and dependent variables was facilitated using (Preacher and Hayes, 2008) technique.

10. The presence of a moderator between an independent variable and a mediating variable was determined through the macro process methodology.

11. Evaluation of the Preacher and Hayes method, along with correlation analysis, was undertaken to validate and analyze the acceptance or rejection of the hypothesized relationships.

3.12 Research Ethics

High ethical standards were consistently maintained throughout the completion of this research thesis, particularly in the data collection process. Prior to obtaining

responses, participants were thoroughly briefed on the study's objectives, and their input was sought and incorporated into the subsequent data analysis. To ensure the confidentiality of respondents, anonymity was guaranteed, especially since subordinates were required to complete a project team members incivility questionnaire, which had the potential to create issues for them.

Furthermore, data collection occurred in authentic settings, and participants were not compelled to provide immediate responses. Adequate time was allotted for convenience, and respondents were not subjected to any pressure to produce specific responses.

Despite encountering challenges, such as instances where some respondents misplaced or failed to return questionnaires, all responses demonstrated appropriate behavior, with no instances of inappropriate language or misconduct.

Chapter 4

Data Analysis and Results

The focal point of this chapter is the comprehensive presentation of the entire set of results, elucidating whether the hypotheses were accepted or rejected. Detailed information is provided on mean values and standard deviations. The outcomes of various tests, including correlation analysis, mediation analysis, moderation analysis, and moderated mediation analysis, were executed on the complete dataset utilizing SPSS. The results are systematically compared against each hypothesis, and their presentation is accompanied by the requisite justifications.

This chapter places a strong emphasis on the execution process, outlining the methodology employed in SPSS to conduct the analyses. It serves as a central repository for the complete findings derived from the research.

4.1   Descriptive Statistics

Descriptive analysis serves multiple purposes, including revealing data distribution, identifying errors and outliers, and recognizing patterns among variables. It plays a crucial role in determining whether the data is suitable for further statistical analysis. This analysis aids in interpreting and summarizing data points, unveiling patterns that characterize each aspect of the data. Mean values offer valuable insights into the overall trend of the data, providing a concise summary of where the majority of responses lie. In Table 4.1, the mean values for each variable consistently fall within the range of 6, indicating that a substantial number

of respondents expressed a neutral stance—neither agreeing nor disagreeing with the statements in the questionnaire. Specifically, the mean value for Servant leadership in the table is 5.7859, indicating that a majority of respondents agree with the questions related to team-building methods. The Standard Deviation column in Table 4.1 delves into the distribution's structure, illustrating how closely individual data values align with the mean. Standard deviation provides insights into how well the sample mean represents the true mean of the population. Analyzing both the mean and standard deviation together paints a clearer picture than examining the mean in isolation. The purpose of standard deviation analysis is to gauge the range or spread of data around the mean, with negative standard deviation being an uncommon occurrence. This comprehensive approach to descriptive analysis aids in better understanding the characteristics of the dataset.

TABLE 4.1: Descriptive Statistics

Variables	Mean	Std. Deviation
SL	5.7859	0.84359
PS	5.7408	0.78845
KC	5.5851	0.98495
OLC	5.6625	0.82635

N=385

Table 4.1 presents the study variables in the first column, mean values in the second column, and standard deviation values in the third column. These figures, reflecting respondents' observations on specific variables, encapsulate the essence of the responses. Servant leadership had a mean value of 5.7859 and a standard deviation of 0.84359. The average value of project success was 5.7408, with a standard deviation of 0.78845. Knowledge creation had a mean value of 5.5851 and a standard deviation of 0.98495. Organization learning culture had a mean value of 5.6625 and a standard deviation of 0.82635.

4.2 Correlation Analysis

To characterize the relationship between the variables, I used the Pearson correlation test. The relationship is defined by a single number; using this test, I can describe how strongly variables are linked to one another. Correlation is excellent in the -1 to +1 range. The strength of relationships between variables is commonly evaluated using correlation coefficients. Following Cohen, West, Aiken's (2014) guidelines, values between 0.10 and 0.29 indicate a weak or negligible association, 0.30 to 0.49 suggest a moderate correlation, and values between 0.50 and 0.80 signify a substantial correlation. Values exceeding 0.80 may imply a strong relationship, potentially raising concerns about multicollinearity. In the current study, the correlation between servant leadership and project success is 0.849, indicating a significant and strong positive correlation. This suggests that enhancing servant leadership is likely to contribute positively to project success. Similarly, the correlation between servant leadership and knowledge creation is 0.589, suggesting a strong association, implying that an increase in servant leadership may lead to higher levels of knowledge creation. The correlation coefficient between knowledge creation and project success is 0.822, indicating a considerable relationship between these elements. Additionally, the correlation between servant leadership and organization learning culture is 0.854, signifying a substantial relationship. This favorable outcome suggests that fostering servant leadership can have a positive impact on the organization's learning culture. Moreover, the correlation coefficient between organizational learning culture and knowledge creation is 0.873, pointing to a substantial relationship between these factors. This strong link suggests that an improved corporate learning culture is likely to result in increased knowledge production. The significance levels (P values) in the analysis are crucial for determining the reliability of the observed relationships. A P value less than 0.01 suggests a highly significant association, with a 1 percent chance of data error. In the presented table, values marked with "**" indicate associations with less than 1 percent inaccuracy, emphasizing a 99 percent significance level for those relationships. It is imperative to address any potential multicollinearity issues and interpret the findings with consideration of the significance levels to ensure the robustness of the study's results.

TABLE 4.2: Correlation Analysis

Variables	SL	PS	KC	OLC
SL	1			
PS	0.84**	1		
KC	0.58**	0.82**	1	
OLC	0.85**	0.92**	0.87**	1

N = 385

**. Correlation is significant at the 0.01 level (2-tailed).

SL = Servant Leadership

PS = Project Success

KC = Knowledge creation

OLC = Organization learning culture

According to the findings of this study, all of the assets are strongly and positively associated with one another. The results support our idea, and more research will be conducted to test it.

4.3 Regression Analysis

In this study, correlation analysis served as a tool to ascertain whether there existed a relationship between the variables. However, recognizing the limitations of correlation, we acknowledged that it merely indicates the presence of a relationship between variables without elucidating the extent to which one variable is dependent on another.

To address this limitation, we conducted regression analysis, aiming to determine the degree of dependence of one variable on another. It is essential to note that values considered significant in correlation analysis may turn out to be insignificant in regression analysis.

The predicted relationships between variables were tested using Andrew F. Hayes' 2016 PROCESS Macro. This tool employs the bootstrapping technique, where random samples are drawn from the data to generate projected statistics in each sample (Preacher and Hayes, 2008). The fourth model of the Process Macro was utilized to examine the relationship between Servant leadership and project success, the link between Servant leadership and Knowledge creation, the association between Knowledge creation and project success, the mediating effect of Knowledge creation on the relationship between Servant leadership and project success, and the moderating effect of Knowledge creation on the relationship between Servant leadership and project success. Furthermore, to analyze moderated mediation and knowledge acquisition in the constructed model, model 1 of the Process Macro was employed to assess the mediating effect of the mediator on the relationship concerning servant leadership.

4.3.1 Direct Effect of Servant leadership on Project Success:

In the initial phase, we examine the relationship between the Servant Leadership variable and the dependent variable Project success, represented as the route "c." This assesses the direct impact of team-building strategies on project performance in this context. In Table 4.3, the variable related to team-building methods is represented by the letter "X," while project performance is denoted by the letter "Y."

TABLE 4.3: Direct Effect of Servant leadership on Project Success

Predictors	β	SE	T	P	LLCI	ULCI
SL to PS	0.5224	0.0205	25.4964	0	0.4821	0.5627

N = 385, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit

According to the results presented in Table 4.3 and Figure 4.1, the p-value of 0.000, which is less than 0.05, signifies the significance of the link between the variables. Additionally, the absence of zero between the Lower Limit of Confidence

Interval (LLCI) at 0.4821 and the Upper Limit of Confidence Interval (ULCI) at 0.5627 underscores the importance of the relationship. Consequently, it can be inferred that servant leadership has a substantial direct impact on project success. Therefore, the validation of our first hypothesis, which posits a positive relationship between Servant Leadership and project success, is supported. The first hypothesis, "Servant leadership Has a Significant Impact on Project success," is supported in light of the findings.

H1: Servant leadership has significant relationship with Project success.
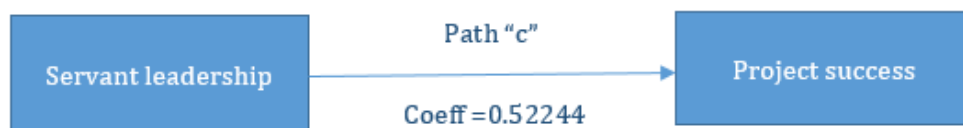
FIGURE 4.1: Direct Effect of X on Y

4.4 Mediation Analysis

In the second step, we examine the relationship between servant leadership and knowledge creation, denoted as path "a." According to the data presented in Table 4.4 and Figure 4.2, the p-value is less than 0.01, and the values of the Lower Limit of Confidence Interval (LLCI) and Upper Limit of Confidence Interval (ULCI) (0.5932, 0.7828) do not overlap. This finding indicates a substantial link between these factors. Servant leadership is responsible for a change in knowledge creation of 68.80 units, according to the coefficient value of 0.6880. The positive standard error (SE) figure indicates that as Servant leadership grows, so does knowledge creation. is expected to rise. As a result, our second hypothesis, indicating a favorable relationship between Servant leadership and Knowledge creation, is supported.

The coefficient mentioned in Table 4.4 is 0.6880. This means that 1 unit change in Servant leadership was bring 68.80 unit changing in Knowledge creation.

H2: Servant leadership and Knowledge creation are supported/connected with each other.

TABLE 4.4: Direct Effect of X on M

Predictors	β	SE	T	P	LLCI	ULCI
SL(X) to KC (M)	0.6880	0.0482	14.2735	0.000	0.5932	0.7828

N = 385, LL = Lower Limit; UL =Upper Limit; Cl = Confidence Interval.
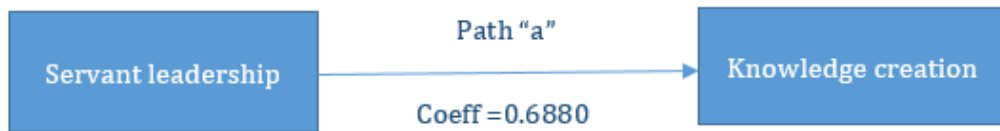
FIGURE 4.2: Direct Effect of X on M

The third step investigates the relationship between knowledge creation and project success, designated as path "b." As shown in Table 4.5 and Figure 4.3, the p-value is 0.00, which is less than 0.01. Furthermore, no overlap exists between the Lower Limit of Confidence Interval (LLCI) and Upper Limit of Confidence Interval (ULCI) values (0.3601, 0.4291), indicating a substantial association. The coefficient value, 0.3946, indicates that a change in Knowledge creation of 39.46 units is connected with project success. The positive coefficient value suggests that increasing knowledge generation is likely to result in increased project success. As a result, our third idea that there is a favorable relationship between knowledge generation and project success has been confirmed.

H3: Knowledge creation have supported with the Project success.

TABLE 4.5: Direct Effect of M on Y

Predictors	β	SE	T	P	LLCI	ULCI
KC (M) to PS (Y)	0.3946	0.0175	22.4851	0.000	0.3601	0.4291

N = 385, LL = Lower Limit; UL =Upper Limit; Cl = Confidence Interval.

The value of coefficient and value of P describes that Knowledge creation have a significant impact on Project success since hypothesis third is supported.
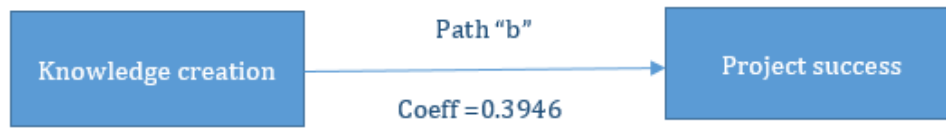
FIGURE 4.3: Direct Effect of M on Y

The indirect impact of Servant leadership on project success through knowledge creation, referred to as path "c," is deemed significant. This conclusion is supported by bootstrapping data, where the Lower Limit of Confidence Interval (BOOT LLCI) is 0.1009 and the Upper Limit of Confidence Interval (BOOT ULCI) is 0.2742, with no zero in between. Both positive outcomes validate the existence of mediation in the model. The overall effect is computed by combining the direct and indirect effects. In this case, the indirect effect is 0.1869, and its positive nature implies that the presence of a mediator enhances the overall effect values.

H4: Knowledge creayion mediates the significant relationship between Servant leadership and Project success.

TABLE 4.6: Indirect Effect of Mediator

Predictors	β	Boot SE	Boot LLCI	Boot ULCI
X to M to Y	0.2715	0.0302	0.2115	0.3288

N = 385, LL = Lower Limit; UL =Upper Limit; Cl = Confidence Interval.

As a result, the observed values of the indirect impact are regarded significant based on the data reported in Table 4.6 and Figure 4.4. As a result, my fourth hypothesis is supported, confirming that Servant leadership serves as a mediator in the link between Servant leadership and project success.

According to Table 4.6 and Figure 4.4, shows that values is significant so that my fourth hypothesis is "Knowledge creation mediates the significant relationship between servant leadership and project success" us supported.
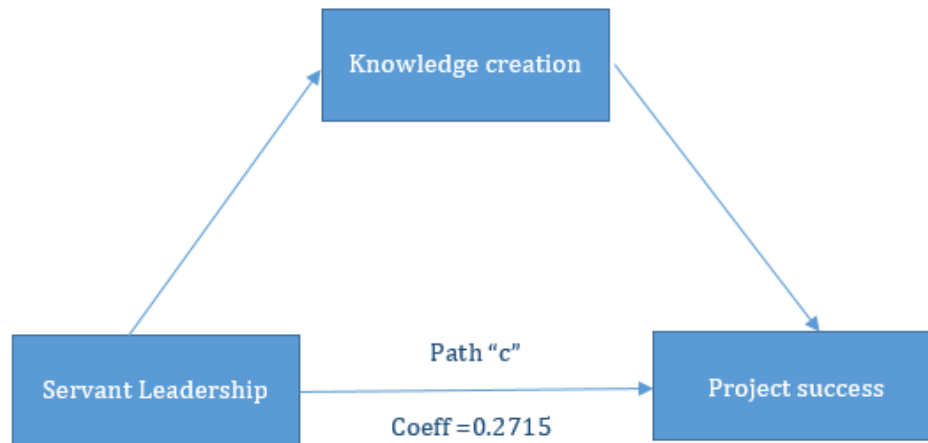
FIGURE 4.4: Mediation Analysis

4.4.1 Moderation Analysis

The Lower Limit of Confidence Interval (LLCI) and Upper Limit of Confidence Interval (ULCI) values are (-0.6899) and (0.6255), respectively, and there is no overlap between these two values, as shown in Table 4.7. Furthermore, the p-value is 0.9233, which above the significance criterion of 0.01. These findings imply that the moderator has no statistical relevance. As a result, the results do not support the fifth hypothesis, which states that Organization learning culture moderates the link between Servant leadership and Knowledge creation in such a way that an increase in Organization learning culture increases the association.

TABLE 4.7: Moderation Analysis

	β	SE	T	P	LLCI	ULCI
Constant	-0.0322	0.3345	-0.0963	0.9233	-0.6899	0.6255
Int-1	-0.0228	0.0118	-1.9292	0.0545	-0.0461	0.0004

N = 385, LL = Lower Limit; UL =Upper Limit; Cl = Confidence Interval.

According to the table, moderation hypothesis is not supported. As shows in the table value of interaction Term and the value of β = -0.0228, the value of p = 0.0545 which indicates insignificant influence of organization learning culture. For

checking the effect of moderation lets check the LLCI and ULCI, if there is zero lies or not between the both the limits. Here the value of LLCI = -0.0461 and ULCI = 0.0004, so there is zero lies between the both the limits. So we conclude that moderation effect doesnot exist.

4.4.2 Moderated Mediation

In order to test the moderated mediation to check the effect of Organization learning culture on project success by enhancing the Knowledge creation as a mediator, PROCESS macro Model 7 was run. As below table 4.5, the BootLLCI and BootULCI and there value is -0.0115 and 0.0069. Index of moderated mediation effect the Organization learning culture is -0.0040. So according to the table 4.8

TABLE 4.8: Moderation Mediation

Predictors	Index	Boot SE	Boot LLCI	Boot ULCI
Project Complexity	-0.0040	0.0046	-0.0115	0.0069

N = 385, LL = Lower Limit; UL =Upper Limit; Cl = Confidence Interval.

the zero is between lower and upper confidence interval which indicates that Moderated mediating effect of Organization learning culture is insignificant. Hence the hypothesis H5 is not supported.
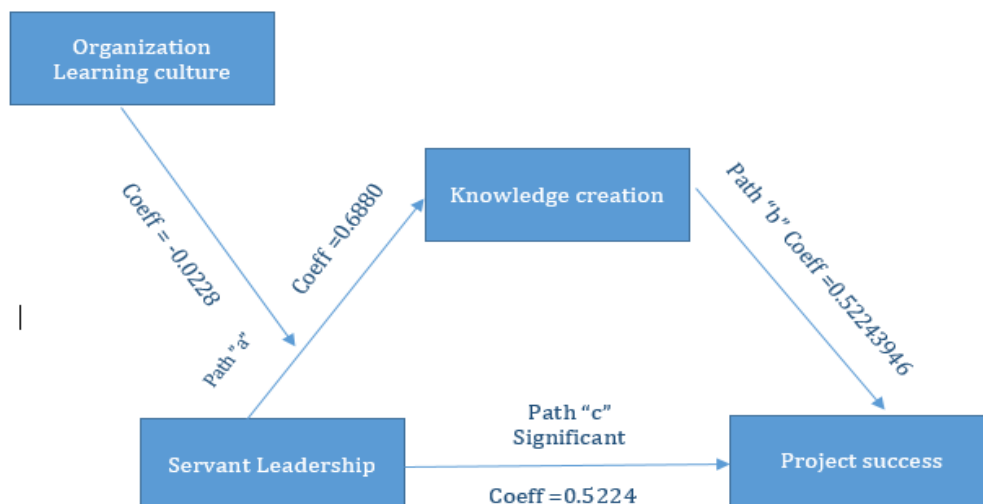
FIGURE 4.5: Moderated Mediation Impact of Organization learning culture

4.5   Hypothesis Results

TABLE 4.9: Results of Hypothesis Summary

Hypothesis	Statement	Results
H1	Servant leadership has significant relationship with Project success.	**Supported**
H2	There is significant relationship between Servant leadership and Knowledge creation.	**Supported**
H3	There is a significant relationship between Knowledge creation and Project success.	**Supported**
H4	Knowledge creation mediates the significant relationship between Servant leadership and Project success.	**Supported**
H5	Organization learning culture moderates the significant relationship between Servant leadership and Knowledge creation	**Not Supported**

Chapter 5

Discussion and Conclusion

5.1 Introduction

Discussion of the research's findings is included in this chapter. Discussions of the hypotheses, their acceptance and rejection, their theoretical and practical implications, their strength and weaknesses, their limitations, and their future directions are also included. This chapter presents the study's overall conclusion.

5.2 Discussion

This chapter examines the importance and relevance of the research in regard to the current literature. It goes into the findings, investigating how the study adds to current knowledge and identifying any gaps in the existing literature. The study was led by theoretically informed assumptions, with the primary goal of investigating the link between servant leadership and project performance. The moderating influence of corporate learning culture and the mediating role of knowledge development were also investigated. The chapter progresses by refuting and clarifying the links established in the previous chapter, specifically the tie between Servant Leadership and Knowledge production, as well as the link between Knowledge creation and project success. It emphasizes the importance of knowledge generation as while discussing the conclusion that corporate learning culture did not emerge as a significant moderator, a mediator was used. A thorough examination of the

observed linkages and data results is offered, providing insights into the study's implications in the context of previous research. The chapter finishes by relating the findings to previous research and evaluating the results' comparability and divergence. It creates a link between the study's objectives, tested hypotheses, and the subsequent debate, opening the way for theoretical contributions and practical ramifications.

The findings of the data research strongly support the fundamental premise of a positive association between Servant leadership and project success. As indicated in Table 4.3, the statistical analysis indicates a significant link with a p-value of 0.000, which is less than the conventional significance criterion of 0.05. Moreover, the confidence interval between the lower limit (LLCI) of 0.4821 and the upper limit (ULCI) of 0.5627 suggests that Servant leadership has a substantial direct effect on project performance in IT organizations, emphasizing the importance of recognizing and appreciating contributions to initiatives. Potential obstacles, such as management methods and organizational policies, should be navigated with a focus on achieving project success.

The assumption was accepted. Analysis and the results of the current research shows that the significant relationship.

$$\beta = 0.5224, t = 925.4964, p = 0.000 \tag{5.1}$$

The h1 hypothesis of the current research was that Servant leadership has a significant effect on the Project success. The first hypothesis of the study is based on the analysis performed on the data gathered from the respondents working in project-based IT organizations being supported.

It turns out that Servant leadership has a significantly impact on the Project success.

The second hypothesis developed for the current study established that the Servant leadership has a significant impact on Knowledge creation.

$$\beta = 0.6880, t = 14.2735, p = 0.000 \tag{5.2}$$

The statistical analysis significantly supports the second offered hypothesis, which asserts a favorable association between servant leadership and knowledge generation. The p-value in Table 4.4 is less than 0.01, and the confidence interval (CI) between the lower limit (LLCI) and upper limit (ULCI) does not contain zero, indicating that there is a very significant link between these two variables. The coefficient score of 0.6880 supports this, implying that implementing team-building practices connected with servant leadership leads in a significant rise of 68.80 units in knowledge generation for every unit increase in Servant leadership. Prior study has highlighted leadership's crucial role in knowledge processes, emphasizing the relevance of this link. Unlike other research, this one focuses on how leadership promotes knowledge growth. The study adds by underlining the critical role of servant leadership in the application of knowledge resources. Traditional leadership techniques, such as transformational and transactional leadership, have been investigated in connection to knowledge processes, but there is still a significant vacuum, particularly in understanding the essential function of followers in the knowledge generating process. The current change in leadership focus from business to workers, fueled by the positive psychology movement, emphasizes the need of relational and empathetic leadership in motivating people to participate in the knowledge generation process. Recognizing human resources as an important component of knowledge processes becomes critical for recognizing and exploiting an organization's knowledge reservoir, coinciding with scenarios in which human resources are judged necessary for optimal knowledge use.

The third hypothesis, which states that there is a positive association between knowledge creation and project success, is highly supported by both the literature and the statistics reported in Chapter 4. The p-value of 0.00, less than 0.001, together with confidence interval values (LLCI and ULCI) that do not include zero, indicates a robust and statistically significant relationship between knowledge creation and project success in Table 4.5. The confidence interval range of 0.3601 to 0.4291, as well as the coefficient (coeff) value of 0.3946. This positive coefficient implies that as knowledge development grows, so will project success. of knowledge, both explicit and tacit, in delivering great project performance. Tacit knowledge includes values, attitudes, assumptions, and mental models gained from talks with

stakeholders, coworkers, project partners, and specialists. Explicit knowledge, on the other hand, is codified and kept in databases, webpages, emails, and documents. The study emphasizes the value of expert consultations and knowledge sharing among professionals in leveraging both explicit and tacit knowledge in problem-solving and decision-making.

$$\beta = 0.3946, t = 22.4851, p = 0.000 \tag{5.3}$$

The study uses Nonaka's SECI model to further investigate knowledge generating techniques in health projects, emphasizing the enormous and pervasive influence of health initiatives on a country. This study incorporates knowledge development as a mediator and project success (as judged by customer pleasure) as a dependent Variable by expanding Todorovi et al.'s model. While although project efficacy has been extensively addressed in the literature, further research is required to uncover crucial success elements influencing health project success. The work adds to this understanding by expanding on current models and advancing knowledge in the subject.

The data reported in the preceding chapter support the fourth study hypothesis, which proposes that knowledge production mediates the link between servant leadership and project success. The lack of zero between the bootstrapping values in Table 4.5 (BOOTLLCI = 0.2115 and BOOTULCI = 0.3288) indicates a significant indirect influence of servant leadership on project success through knowledge generation. Both values are positive, indicating that mediation exists in the model. According to Andrew F. Hayes (2016), mediation can occur even if the direct effect between the elements is strong.

$$\beta = 0.2715, p = 0.000 \tag{5.4}$$

In a broader context, (Hu et al., 2019) identified knowledge management in a project setting as a relatively underexplored topic in project management. Knowledge is acknowledged as a valuable asset. According to (Chowdhury, 2004), an asset in project management encompasses everything learned through experience

or relevant study. The historical significance of data and information is emphasized in understanding the challenges faced by governments and organizations. Effectively and strategically managing knowledge resources is crucial for organizations to remain competitive, innovative, and productive.

The interaction of explicit and implicit information is underlined in organizational knowledge, with firm leadership playing a critical role in supplying vital information for recognizing, sharing, and expanding expertise. To successfully manage their knowledge resources, organizations must build processes for knowledge production, information sharing, and organizational learning. Knowledge, whether explicit or tacit, plays a significant role in projects, with previous project success serving as a driving factor for success in subsequent initiatives further projects. Tacit knowledge, which is developed through debates and experience, can be difficult to describe yet is critical to organizational development and success.

The inquiry results do not support the fifth research hypothesis, which proposes that organizational learning culture moderates the link between servant leadership and knowledge development, with an expanding organizational learning culture enhancing the correlation. According to the results, the LLCI and ULCI values are -.6899 and .6255, respectively, showing that there is no significant difference between these two values. This suggests that there is no moderated mediation in the model, as the value of 0.0545 is greater than 0.01. As a result, there is no evidence that corporate learning culture moderates the link between servant leadership and knowledge development. Learning organizations (LOs) are distinguished by an organizational strategy that ensures the right people are hired, learning takes place at the appropriate time and place, and information is shared. Shared and used to improve organizational operations and performance. While being a learning company is important for economic success, creating a learning-friendly environment requires real learning activities and procedures, as well as leadership that encourages learning.

A learning organization's guiding philosophy is "learn or die," stressing constant learning and progress. LOs make knowledge creation, acquisition, transfer, and

exploitation easier. The three components of LO are a learning-friendly environment, concrete learning activities and processes, and learning-reinforcing leadership. Employees in such companies are constantly learning from the organization's practices, processes, structures, norms, values, and culture. Employees actively seek out and solve problems, therefore contributing to the organization's continual development, innovation, and capability expansion. Personal development, problem-solving, and change are all characteristics that contribute to a learning organization acceptance, an excellence culture, open-mindedness, environmental connectedness, team building, cooperation, communication, and a desire to learn are all required.

5.3 Research Implications

5.3.1 Practical and Theoretical Implications

This study has played a critical role in advancing the rapidly expanding discipline of project management, gaining prominence as the demand for projects increases. The research has made noteworthy contributions in several key areas: firstly, it proposed a connection between Servant leadership and project success, a link supported by the study's findings. Secondly, the results affirmed the association between servant leadership and knowledge generation. Thirdly, there was empirical support for the correlation between knowledge development and project success. Fourthly, the study enhanced the understanding of how Servant leadership fosters project success through knowledge growth, a relationship substantiated by the research findings. Lastly, the study examined the moderating effect of organizational learning culture. Consequently, organizational learning culture was assessed in relation to project success. The study demonstrated that knowledge production plays a mediating role in project success, similar to the role played by organizational learning culture. The implications of these findings have significant repercussions for the corporate landscape. This study recognizes the challenges posed by diverse team members with varying knowledge levels and distinct perspectives, building on prior research indicating that servant leaders cultivate diverse and

creative workplaces, fostering a sense of connection and support among employees (Javed et al., 2017). Effective project leaders must manage diversity and navigate in project-oriented firms with rich resources but confined project natures, which are generally defined by contractual and temporary employment(Dwivedula et al., 2016). To improve employee performance, use group conflicts. From a theoretical standpoint, the study is new and adds to a better understanding of the psychological dynamics that shed light on servant leadership and its influence on project success. Furthermore, it broadens the conceptual framework by bringing the social information processing theory into the discourse on knowledge creation. I've previously emphasized the need of IT firms prioritizing project team growth, highlighting the critical role of servant leadership in project success. This emphasizes the vital importance of developing servant leaders inside businesses. Leaders must get training that instills servant leadership traits such as empathy, active listening, and ongoing support for their team members. The recognition of the substantial relationship between servant leadership and project success emphasizes the need of adopting a leadership style that prioritizes team members' well-being and professional advancement. Such an approach has the potential to improve project outcomes, boost team morale, and increase overall success. Furthermore, by identifying knowledge production as a mediator, companies may develop strategies to promote it. a culture of constant learning and information sharing. This might include programs to encourage staff to produce new ideas, document best practices, and collaborate on developing innovative solutions. Such measures contribute to a dynamic and flexible organizational climate that fosters long-term project success.

5.4 Limitations of Research

My study, like any other research project, has limits, admitting the inherent issue of thoroughly addressing all variables. Despite these limitations, my research has made an important contribution by filling a vacuum in the current literature. The limits are mostly due to practical reasons such as time and resource constraints. The study examined the correlations between characteristics in project team members inside IT organizations. Due to time constraints, data collection was limited

to a few organizations in Rawalpindi and Islamabad that operate within Pakistan. This geographical constraint may have an influence on the study's results' greater generalizability. Some of the study's conclusions deviated from previous studies, underlining the subject's complexities. Furthermore, the use of a convenience sampling approach, as mandated by Time and economic factors may induce biases. Using Google Forms, data was collected at random from several IT organizations. Furthermore, the involvement of project team members, who were frequently busy with project tasks, caused difficulty in getting correct data. Many respondents answered questions without completely reading the remarks, resulting in a low response rate and restricting the study's generalizability. To address this, future study should investigate the use of a time-lag strategy for data collecting rather than a cross-sectional design, thereby lowering biases related with conventional technique difficulties. The study's approach included the use of SPSS for data analysis. In the future, researchers may investigate using more advanced analytical methods, like as M Plus or Smart PLS, to go further into the study of complicated data models. These techniques may provide more subtle insights and contribute to a broader grasp of the study topic.

5.5 Future Direction of Research

The study sought to ascertain the link between servant leadership and project success, with knowledge production serving as a mediator and organizational learning culture as a moderator.

• In the future, a study using diverse leadership styles as an independent variable might be done.

• Future research investigations can use a different unit of analysis.

• For more reliable results, future research should use a bigger sample size.

• While the present study used a cross-sectional approach to collect data, longitudinal studies should be undertaken in the future.

• Future studies can put these links to the test in other cities in Pakistan or other nations.

• The research will provide the indepth knowledge to the software houses that by using the servant leadership style they will create knowledge and in turn the project success will be achieved.

5.6 Strengths of the Research Outcome

The benefits of studying are listed below:

1. In order to report and gather data, 385 significant individuals who work for Islamabad and Rawalpindi-based software companies were contacted.

2. The tool SPSS is used for data analysis.

3. Collected the data from the team members for the variables i.e., SL, PS, OLC, KC.

4. Knowledge creation is the mediating variable of the research and it is mediating between servant leadership and project success.

5.7 Conclusion

This research is a pioneer in recognizing the link between Servant leadership and project performance in IT organizations, with a particular emphasis on the function of knowledge production. Individuals working as project team members at IT businesses provided information, resulting in a large dataset of 385 replies. Building on prior research that highlights the vital relevance of servant leadership in attaining project success in enterprises, this study proposes assumptions and hypotheses that have been supported by our findings. The fundamental premise, indicating that Servant leadership has a beneficial influence on project performance, is consistent with our study findings, demonstrating the significance of this leadership style in the context of IT enterprises. Furthermore, one of our stated assumptions contends that Servant leadership has a our research supports the favorable influence on knowledge production. Furthermore, the study confirms the scientifically verified relationship between servant leadership and project success. Importantly, when knowledge generation is included as a moderator, both

the hypothesis and the moderator are statistically significant. However, including the moderating component, corporate learning culture, has no influence. The first four assumptions are accepted in the context of the Pakistani framework, and they are supported by both past evidence and theoretical foundations. However, our data do not support the fifth hypothesis, which is about the moderating impact of organization learning culture. This in-depth grasp of the connections between Servant leadership, knowledge production, and project success adds significant insights to the current corpus of knowledge in IT project management

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Appendix A

Research Questionnaire

Dear respondent,

My name is Asad Baig student of MS Project Management. My topic for research is "Impact of Servant Leadership on Project success with the Mediating Role of Knowledge Creation and the Moderating Role of Organization learning culture". As a MS research scholar at Capital University of Science & Technology (CUST), Islamabad, you can help me in filling the attached questionnaire you will feel quite interesting or also help me in collecting data for my research thesis, I will appreciate your participation. I assure you that data collected from you will be strictly kept confidential and will only be used for academic purposes only. Please keep in mind the data will be collected a general basis not on an individual basis. Please read the instructions before filling the questionnaire. Thanks a lot for your help and support!

Sincerely,

Asad Baig

MS (Project Management) Research Scholar

Faculty of Management & Social Sciences

Capital University of Science & Technology (CUST),

Islamabad

TABLE 1: Section-1: Demographics

Gender	Male	Female		40-50	50-above
		20-30	30-40		
Qualification	Below bachelors	Bachelors	Masaters and above		

TABLE 2: Section-2: Servant ledaership

	Servant leadership	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
01	My leader can tell if something work-related is going wrong	1	2	3	4	5	6	7
02	My leader makes my career development a priority.	1	2	3	4	5	6	7
03	I would seek help from my leader if I had a personal problem.	1	2	3	4	5	6	7
04	My leader emphasizes the importance of giving back to the community.	1	2	3	4	5	6	7
05	My leader puts my best interests ahead of his/her own.	1	2	3	4	5	6	7
06	My leader gives me the freedom to handle difficult situations in the way that I feel is best.	1	2	3	4	5	6	7
07	My leader would NOT compromise ethical principles in order to achieve success.	1	2	3	4	5	6	7

TABLE 3: Section-3: Project success

	Project success	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
01	The project was completed on time.	1	2	3	4	5	6	7
02	The project was completed according to the budget allocated.	1	2	3	4	5	6	7
03	The outcomes of the project are used by its intended end users.	1	2	3	4	5	6	7
04	The outcomes of the project are likely to be sustained.	1	2	3	4	5	6	7
05	The outcomes of the project have directly benefited the intended end users, either through increasing efficiency or effectiveness.	1	2	3	4	5	6	7
06	Given the problem for which it was developed, the project seems to do the best job of solving that problem.	1	2	3	4	5	6	7
07	I was satisfied with the process by which the project was implemented.	1	2	3	4	5	6	7
08	Project team members were satisfied with the process by which the project was implemented.	1	2	3	4	5	6	7
09	The project had no or minimal start-up problems because it was readily accepted by its end users.	1	2	3	4	5	6	7
10	The project has directly led to improved performance for the end users/target beneficiaries.	1	2	3	4	5	6	7
11	The project has made a visible positive impact on the target beneficiaries.	1	2	3	4	5	6	7

	Project success	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
12	Project specifications were met by the time of handover to the target beneficiaries.	1	2	3	4	5	6	7
13	The target beneficiaries were satisfied with the outcomes of the project.	1	2	3	4	5	6	7
14	Our principal donors were satisfied with the outcomes of the project implementation	1	2	3	4	5	6	7

TABLE 4: Section-4: Knowledge creation

	Knowledge creation	Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
01	My organization is able to generate technological knowledge.	1	2	3	4	5	6	7
02	My organization is able to generate Marketing knowledge.	1	2	3	4	5	6	7
03	My organization is able to generate Managerial knowledge.	1	2	3	4	5	6	7
04	My organization is able to generate Service/process knowledge.	1	2	3	4	5	6	7

Table 5: Section-5: Organization learning culture

OLC		Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
01	People here receive support and encouragement when presenting new ideas.	1	2	3	4	5	6	7
02	Initiative often receives a favorable response here so people feel encouraged to generate new ideas	1	2	3	4	5	6	7
03	People are encouraged to take risks in this organization	1	2	3	4	5	6	7
04	The system involved real-time data processing	1	2	3	4	5	6	7
05	It is part of the work of all staff to collect, bring back, and report information about what is going on outside the company.	1	2	3	4	5	6	7
06	There are systems and procedures for receiving, collating and sharing information from outside the company.	1	2	3	4	5	6	7
07	People are encouraged to interact with the environment: competitors, customers, technological institutes, universities, suppliers etc.	1	2	3	4	5	6	7
08	Employees are encouraged to communicate.	1	2	3	4	5	6	7
09	There is a free and open communication within my work group	1	2	3	4	5	6	7
10	Managers facilitate communication	1	2	3	4	5	6	7
11	Cross-functional teamwork is a common practice here.	1	2	3	4	5	6	7

	OLC	Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
12	Managers in this organization frequently involve employees in important decisions	1	2	3	4	5	6	7
13	Policies are significantly influenced by the view of employees	1	2	3	4	5	6	7
14	People feel involved in main company decisions	1	2	3	4	5	6	7