



Vaasan yliopisto
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From Strategy to Implementation: How PMOs Create Value in SME`s Project-Based Organizations

School of Technology & Innovation
Master's Thesis in Strategic Project Management

Vaasa 2026

UNIVERSITY OF VAASA**School of Technology and Innovation**

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Title of the thesis: From Strategy to Implementation: How PMOs Create Value in SME`s Project-Based Organizations
Degree: Master of Science in Strategic Project Management
Degree Programme: Master`s Programme in Industrial Engineering and Management
Supervisor: Professor Maqsood Ahmed Sandhu
Year: 2026 **Pages:** 82

ABSTRACT:

This study examines how Project Management Offices (PMOs) contribute to value creation and support the implementation of strategy in small and medium-sized enterprises (SME`s) operating in project-based organizations. The research addresses a common challenge faced by organizations in translating strategic objectives into effective project execution, particularly within resource-constrained SME organization. A quantitative research design was adopted, and primary data were collected through a structured questionnaire from 50 respondents working in SME project-based organizations. The collected data were analyzed using descriptive statistics and regression analysis to examine relationships among key variables. The findings indicate that PMOs play a significant role in defining project goals, standardizing processes, supporting project managers, and enhancing coordination across departments. The results further reveal a strong positive and statistically significant relationship between PMO effectiveness and value creation, as well as between strategic alignment and value creation. Although challenges such as limited resources, unclear roles, and lack of management support were identified, their impact on value creation was found to be insignificant. The study has both theoretical and practical implications. Theoretically, it contributes to the literature by providing empirical evidence that PMOs in SME project-based organizations function as strategic enablers that strengthen strategic alignment and value creation. In practically, the study recommends that SME managers need to enhance PMO functions by establishing clear roles, enhancing communication and training project managers and project teams appropriately. It also shows that SMEs are able to enhance performance of projects, resource use and organizational value by aligning their PMO activities with their business strategy. The originality of this study lies in its focus on PMOs within SME project-based organizations, an area that has received less attention compared to large organizations. By using primary data from SME employees, the study provides context-specific evidence on how PMO effectiveness and strategic alignment contribute to value creation in resource-constrained environments.

KEYWORDS: PMO, Value Creation, Strategy Implementation, SME`s Project-Based Organizations

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List of Abbreviations

PMO	Project Management Office
SME	Small and Medium-sized Enterprise
RBV	Resource-Based View
PLM	Product Lifecycle Management
ERP	Enterprise Resource Planning
IT	Information Technology
OT	Operational Technology
PMI	Project Management Institute
PMBOK	Project Management Body of Knowledge
PPMO	Project Portfolio Management Office
VMO	Value Management Office
ISO	International Organization for Standardization
SPSS	Statistical Package for the Social Sciences

1 Introduction

Organizations are struggling not to devise strategy, but to properly implement it. This is especially so when it comes to small and medium-sized enterprises (SME`s) in the Project-Based organizations, where the lack of resources and operational pressures tend to impede the process of translating strategic objectives into actionable outcomes. Consequently, the strategy-implementation gap has been an unresolved issue that has initiated Project Management Offices (PMOs) to become strategic enablers that facilitate governance, coordination, and alignment of projects and organizational goals. In SME`s Project-Based organizations, PMOs have the potential to play a key role in linking strategy with implementation. Nonetheless, little studies have been conducted regarding the value creation by PMOs in this particular setting. This research paper fills this gap by discussing how the implementation of the support strategy of PMO and their role in value creation in SME`s Project-Based organizations.

1.1 Background of the Study

In a world of global business that is becoming more competitive and dynamic, SME`s Project-Based organizations have found it difficult to tie strategic goals to effective operational performance. The most remarkable of these challenges is the successful execution of organizational strategy into practical programs and projects which are quantifiable in terms of value. The Project Management Office (PMO) has emerged as a key organizational unit that attempts to close this gap between strategy and implementation through governance, standardization, and leadership in the complex project portfolios. The main gap exists between strategy formulation and strategy execution, where organizational goals are not effectively translated into measurable programs and projects. The role of PMO in the academic literature as well as practice has grown beyond its administrative uses to encompass strategic value creation in particular cases where projects are essential to organizational growth, innovation, and resilience (Aaltonen and Kujala, 2016).

The concept of a PMO originates from the need for enhanced coordination of project activities and systematic implementation of project management practices across organizations. A PMO, which is defined broadly, is a centralized unit within the organization that standardizes project management

processes, offers the framework of governance, shares resources, and assists project teams to deliver excellence. PMOs take different shapes and forms, including supportive organizations that provide methodologies and templates, controlling organizations that enforce compliance, or directive organizations that directly control the implementation of the project (Hjelmbrekke et al., 2017). PMOs of any nature are supposed to be used to foster uniformity in the provision of the project and to enable identification of alignment between organizational goals and project deliverables (Too and Weaver, 2014).

The last twenty years have seen the popularity of PMOs in organizations rise by a good number. PMOs are installed by many organizations as strategic intermediaries to integrate fragmented project practices by reducing risks and improving decision-making. The strategic importance of a PMO is further intensified in SME`s Project-Based organizations where resources are usually limited, and product cycles keep on reducing (Sandhu et al., 2024). The types of projects that these organizations often have to deal with - continuous improvement processes, product innovation, etc. - are usually diverse in nature, with a distinct risk profile and expected stakeholder outcomes. A PMO offers the structural integrity that is required in such environments to coordinate, prioritize, and govern initiatives in a manner that promotes sustainable competitiveness (Kerzner, 2025).

The importance of PMOs lies not only in improving project implementation but also in their ability to contribute to strategic outcomes. Studies have shown that integrated PMOs that participate in the processes of strategic planning have a great chance of successful implementation of strategies. In particular, PMOs can add value through the development of project management skills, project performance monitoring and control, organizational learning, better communication, and structural alignment. Such functions can be used to guarantee that not only time, cost, and quality targets are achieved, but that the projects are also strategically aligned to the overall corporate objectives (Muller and Lecoevre, 2014).

Well-functioning PMOs have been reported to produce organizational value through the development of an organizational culture of project management excellence, incorporation of strategic decision-making (Hunde, 2023), and resource optimization. According to a study conducted by PMI, the organizations that boast of well-resource and strategically embedded PMOs are more likely to be

three times higher in performing above the organizations average financially than institutions with low performing PMO`s. This highlights the point that PMOs are not simply administrative cost centers, but they can also be value centers where operational efficiency as well as strategic effectiveness can be facilitated (Morris and Jamieson, 2005).

One of the most important issues, though, is that PMOs should not only enforce standards but also meet the requirements of their organizations, provide flexibility, and be innovative. Research indicates that the most effective PMOs are the ones that are never static and adopt flexible practices in response to the changing market needs, while ensuring the discipline of governance. The twofold nature of this enables PMOs in SME`s Project-Based organizations to be able to deal with complexity without choking out innovation and responsiveness (Huemann and Turner, 2024).

The recent years have seen the Project-Based organizations radically change with the force of globalization, digitalization, and the growing demand to enhance productivity, preserving the quality and sustainability of the products. Specifically, mid-scale Project-Based entities find themselves in a difficult situation since they have to contend with large multinational corporations despite having fewer financial, human, and technological resources to operate (Müller & Martinsuo, 2015). In order to be competitive, these organizations depend more on projects as a means of carrying out strategic projects like process optimization, automation, product development, and supply chain enhancement. Nevertheless, such initiatives can only be successfully implemented when the organization is in a position to match the strategy with the effective project implementation (Aubry et al., 2010).

Even though projects are strategically important to many Project-Based organizations, SME`s organizations are marked by inconsistent performance on their projects, fragmented decision-making, and poor governance structures (Young and Grant, 2015). These issues tend to be brought about by the lack of uniformity in project management practices and low visibility of the contribution made by individual projects to the strategic goals. Consequently, organizations can invest in initiatives that will provide short term deliverables but are not able to provide long term strategic value. This has created focus on the Project Management Office (PMO) as a process of enhancing project coordination, governance, and strategic alignment within the portfolios of projects (Hobbs and Aubry, 2007).

Project-based organizations (PBOs) are organizations in which the majority of work is carried out through projects rather than routine operations. These organizations structure their activities, resources, and decision-making processes around temporary, goal-oriented projects that are designed to deliver specific outputs within defined time, cost, and scope constraints (Hobday, 2000). In PBOs, projects are the primary drivers of value creation, innovation, and organizational growth.

In contrast, traditional (functional) organizations are structured around permanent departments such as marketing, finance, and operations, where work is ongoing, repetitive, and process-driven. These organizations emphasize stability, efficiency, and specialization, with clear hierarchical reporting lines and standardized procedures (Mintzberg, 1983).

The key difference between project-based and traditional organizations lies in how work is organized and executed. Project-based organizations are flexible, dynamic, and temporary in nature, focusing on unique deliverables and cross-functional collaboration. Employees often move between projects, and authority is more decentralized. On the other hand, traditional organizations are more stable and hierarchical, with employees performing specialized roles within fixed departments and focusing on continuous operations rather than temporary initiatives.

According to Hobday (2000), PBOs are particularly suited to industries characterized by complexity, innovation, and customization, such as construction, IT, and engineering, whereas traditional organizations are more effective in stable environments with standardized processes.

The PMOs are also being considered more as organizational abilities that facilitate strategic implementation as opposed to only administrative support units. PMOs allow organizations to rank projects, intelligently organize resources, and track the achievement of benefits by helping them set standardized methodologies, performance measures, and reporting systems. In Project-Based settings, where lean and cost containment are always vital, PMOs may take part in the value generation because they ensure that the projects reflect the lean operations, continuous growth, and innovation goals (Jonas et al., 2012).

Although the idea of PMOs and their research is gaining relevance, it still lacks comprehension about how PMOs can generate value in a specific situation in SME`s Project-Based environments, where

operational priorities and strategic needs may vary between big businesses or project-based organizations (Wolniak, 2022). It explores the alignment of PMOs with strategic objectives, promotion of governance and performance measurement, and resiliency in an organizational setting in response to changing market and technological forces.

SME`s are very important in the economic development of Pakistan as they are a major contributor to GDP, creation of employment and growth in the industry. The Small and Medium Enterprises Development Authority (SMEDA) estimates that SME`s in Pakistan constitute about 90% of all businesses and provide about 40% of the national GDP (SMEDA, 2023). In spite of their significance, SME`s in Pakistan are prone to structural and managerial issues, such as inadequate finances, absence of formal governance systems, and project management skills. These issues have a great influence on their capacity to execute strategies appropriately and attain sustainable development.

Over the past few years, Project Management Offices (PMOs) have become a growing concept of improving project execution and project alignment with an organizational strategy. Although PMOs have become popular in large organizations, and in developed economies, few studies have been conducted to determine the place of PMOs in Pakistani SME`s, especially in project-based settings. This underscores a considerable deficiency in the literature, as SME`s run on varied limitations than large organizations and thus need more adaptable and responsive management ways (Khan et al., 2019).

Project management practices have been relatively slow to adopt in Pakistan, particularly by SME`s. Most of the organizations are yet to use informal processes and have not standardized project management structures. Ahmed and Shafiq (2014) argue that the lack of formal project management systems by Pakistani organizations makes them prone to project delays, cost overruns, and scope management problems. Here, the adoption of PMOs may serve to offer a formal framework which facilitates better coordination, better governance and better implementation of project management practices.

In addition, the issues of governance and strategic alignment are crucial to SME`s in Pakistan. Literature shows that failure of a large number of SME`s is not related to failure in the strategy formulation but rather to failure in strategy implementation (Rashid et al., 2018). PMOs have an important role to play in solving this problem and serve as a connector between strategic planning and project implementation. PMOs can enable the achievement of the contribution of the projects towards the overall organizational goals by ensuring standardization of processes, tracking the performance of projects, and ensuring communication among departments.

Resource constraint is another critical factor in Pakistani environment. Most SME`s have limited financial and human resources that limit their capacity to embrace complex management systems. Thus, the adoption of the large-scale PMO models applied in multinational organizations might not apply to the SME`s in Pakistan. Rather, scientists posit the necessity of lightweight, adaptable, and context-focused PMO designs that can be used in the context of resource constraints and still bring value (Ali & Qureshi, 2020).

Digital transformation is also starting to gain more significance to Pakistani SME`s, especially in the age of Industry 4.0 and the new Industry 5.0 concept. Yet, not all SME`s have the required abilities to cope with digital transformation initiatives. In this respect, PMOs may offer organized assistance through aligning the digital programs with the organizational strategy, risk management, and effective implementation. The assimilation of project management practices, as Zahra et al. (2021) note, is key to enhancing innovation and the adoption of technology in SME`s.

Although these are the possible advantages, there is a dearth of empirical studies on PMO effectiveness in Pakistan. The current research concentrates on the general practice of project management and does not concentrate on the role of PMOs in creating values and strategic alignment. Moreover, longitudinal research studies on the role of PMOs in long-term organizational performance in SME`s are missing. The gap highlights the importance of conducting additional research that examines the possible implementation of PMOs in Pakistani project-based SME`s to help improve performance and sustainability.

1.2 Research Gap

Even though Project Management Offices (PMO`s) are currently being viewed as strategic enablers, the current research is mostly oriented towards large organizations and public-sector organizations, with little emphasis placed on small and medium-sized enterprises (SME`s), especially in the Project-Based sector. Recent research accepts that PMO can be used to help facilitate strategic alignment and organizational performance, but they tend to be vague in terms of how PMO can be used to turn strategic objectives into effective execution in resource constrained SME Project-Based organizations. The existing body of literature focuses a lot on PMO roles, maturity models and governance structures, but there is no empirical evidence on how exactly PMO creates measurable value in Project-Based SME where operational efficiency, production continuity, and cost control is paramount. Moreover, the definition of the term value and its measurement have been found to be inconsistent in the literature with various organizations continuing to grapple with the idea of adopting systematic benefits realization practices that extend beyond project delivery scales. This loophole is clear especially in SME`s where PMO models must be light, flexible, and contextual as opposed to the standardized and large scale models. Secondly, the majority of current research is based on cross-sectional data and short-term performance measures, and longitudinal research studies that look at sustained value creation following strategy implementation are lacking. Since Project-Based SME`s are becoming more and more pressured by digital transformation in the context of Organizations 4.0 and Organizations 5.0, the lack of research on how PMOs can support the execution of these strategic initiatives and guarantee business profitability in the long term is also prominent. Moreover, the empirical research on the role of PMOs in SME`s in the context of Pakistan is missing to a great extent. Although SME`s are the powerhouse of the Pakistani economy, playing a crucial role in terms of employment and economic growth, there is a paucity of research regarding the role of Project Management Offices in SME`s, especially in project-driven setting. SMEDA (2023) reports that in Pakistan the majority of the business organizations are SME`s and there is a shortage of research on strategic alignment, PMO effectiveness, and value creation in the sector. This underlines an urgent research gap, as it is necessary to know how PMOs can help in strategy implementation and value creation among Pakistani SME`s to enhance organizational performance and competitiveness in an ever-changing business world. Consequently, there is a clear need for focused research that investigates

how PMOs in Project-Based SME`s operationalize strategy, adapt governance to organizational constraints, and create tangible value over time.

1.3 Statement of the Problem

The Project-Based organizations are operating in a highly competitive and complex environment that is marked by the swift technological change, cost pressures, supply chain volatility, as well as the rising pressure on operational efficiency and innovation. Although these organizations tend to set solid strategic goals to ensure that they stay competitive, most of them find it difficult to convert the strategies into effective implementation in the form of projects and programs. Continued mismatch between strategic purpose and project implementation often leads to schedule excesses, wasteful resource utilization, a mismatched project portfolio, and the inability to achieve planned business value.

PMO`s have been embraced as organizational designs that aim at enhancing project governance, standardization of project management practices, as well as aid in strategic alignment. Although their rising popularity is supported, it is possible to state that not all PMOs can provide sustained value or are seen as strategic enablers, but as administrative cost center. This challenge is acute especially in the SME`s PMO where resources are limited, project maturity is changing, and balancing the stability in operations with the continuous improvement and innovation programs is necessary.

Moreover, the available literature on PMOs has been mostly based on large businesses or project-driven organizations, and provides very limited information on the role of PMOs in the particular setting of SME`s Project-Based organizations. In such environments there is a lack of empirical research on the contribution of PMOs to strategy implementation, value creation and organizational performance and the PMO roles, capabilities and governance mechanisms that have the most significant impact. Consequently, the SME`s Project-Based organizations may not have a clear indication of how to design, position, and operate PMOs in such a manner that it supports strategic goals and provides

quantifiable value. This study aims to fill this gap by discussing the role of PMOs in strategy-to-implementation translation and the processes by which they bring value in SME`s Project-Based organizations.

1.4 Research Objectives

1. To identify and examine the key roles and functions of PMOs in SME`s Project-Based organizations.
2. To identify the key challenges faced by PMOs and propose practical recommendations to enhance their effectiveness in SME`s Project-Based organizations.
3. To analyze how PMOs enable the alignment of organizational strategy with project implementation and contribute to value creation.

The above research objectives form the basis of the formulation of the research questions. To explore the role of PMOs within SME project-based organizations and analyse their role in the process of strategic alignment and value production, the following research questions are suggested.

1.5 Research Questions

1. What are the key roles and functions of Project Management Offices in SME`s Project-Based organizations?
2. What challenges do PMOs face in implementing organizational strategy, and what practices can enhance their effectiveness in SME`s Project based organizations?
3. How do PMOs support the alignment between organizational strategy and project implementation to create value in SME`s Project-based organizations?

1.6 Definitions of key Concepts

The section defines the main concepts employed in this study to create a clear picture of the main concepts and variables. The theories covered are strategy, strategy implementation, and (PMO), which are at the center of analyzing the relationship between organizational objectives and project implementation in SME project-based organizations.

Strategy refers to a long-term plan of action designed to achieve organizational goals and gain competitive advantage by aligning internal capabilities with external opportunities. In Project-Based SME`s, strategy often focuses on efficiency, quality, cost control, innovation, and market responsiveness, but translating these strategic intentions into operational outcomes remains a key challenge (Johnson et al., 2020).

Strategy implementation is the process through which strategic objectives are translated into actionable initiatives, projects, and operational practices. It involves coordination, governance, resource allocation, and performance monitoring to ensure that strategic plans are executed effectively. Research shows that many organizations fail not because of poor strategy formulation, but due to weak implementation mechanisms (Sandhu et al., 2024).

A Project Management Office is an organizational entity that standardizes project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. In recent literature, PMOs are increasingly viewed not only as control or support functions, but as strategic partners that enable organizations to implement strategy through coordinated project and portfolio management (Varajão et al., 2025).

Value creation in the context of PMOs refers to the generation of measurable benefits that contribute to organizational performance, such as improved efficiency, cost savings, strategic alignment, customer satisfaction, and long-term competitiveness. Modern PMOs research emphasizes a shift from compliance-based performance toward outcomes and benefits realization, particularly in resource-constrained environments (Krul et al., 2025).

Small and Medium-sized Enterprises (SME`s) refer to organizations of small size, resources, and formalities, usually specified in terms of the number of employees and turnover. SME in the European Union have a labor force of less than 250 workers and are important in the production of industries and economic development. The challenge of limited managerial capacity, financial constraints and high operational risk are typical to SMEs Project-Based organizations (Varajao et al., 2025).

Project-Based organizations are organizations which deal with industrial processing of raw materials into finished or semi-finished goods. The distinguishing features of Project-Based SME`s are the orientation towards high production efficiency, quality control, supply chain management, and, most recently, the digital transformation efforts including Organizations 4.0 (Tanane et al., 2025).

Benefits realization is a structured process for identifying, planning, measuring, and sustaining the benefits expected from projects and programs. It ensures that project output lead to strategic outcomes and business value rather than merely delivering scope on time and budget. Benefits realization is widely recognized as a critical capability for PMOs aiming to demonstrate value (Varajão et al., 2025).

Strategic alignment refers to the degree to which projects, programs, and portfolios are consistent with and supportive of organizational strategy. PMOs play a key role in enabling strategic alignment by prioritizing initiatives, allocating resources, and ensuring that project outcomes support strategic objectives, particularly in SME`s where misalignment can have significant consequences (Varajão et al., 2025).

1.7 Structure of the study

The paper starts with an introduction which gives the background of the research topic and the reason why the creation of value by PMO in SME Project based organizations in Projects is significant. This section describes the problem statement, highlighting the challenges SME`s are experiencing in terms of converting strategic plans into practical implementation. It also outlines the purpose of research, objectives and research questions, and demarcates the limits and scope of the research.

The second section is a review of the literature available on the strategy, strategy implementation, project management offices (PMOs), value creation, and SME`s in the Project-Based organizations. It outlines theoretical views and latest research reports, and the way in which the role of PMOs has changed to a strategic enabler as opposed to an administrative support unit.

The third section also determines the gaps in existing knowledge and comes up with a conceptual framework that will be used to guide the study. The study describes the research methodology after

the literature review. This is to be found in research design, philosophical approach and methods of data collection, which may be interviews, surveys, or even case studies. Also in the section is the sampling strategy, methods of data analysis and ethical concerns and how reliability and validity are achieved.

Fourth section is data analysis and findings are then given in the study. Here the data gathered are systematically analyzed and arranged based on the research questions. The results are on the implementation of the support strategy of the PMOs and how they work in the Project-Based SME and how they can generate value in an organization that is quantifiable. The discussion follows after the presentation of the findings, where the results are interpreted in connection with the reviewed literature. It clarifies the way the results either reinforce or do not fit in with prior experiments and discusses their theoretical and practical consequences. The special focus is on the specific background of SME in the Project-Based organizations.

Finally, fifth section of the study concludes by summarizing the main findings and outlining the overall contributions of the research. It gives pragmatic advice to SME Project-Based practitioners and PMO practitioners and recognizes the confines of the study. Recommendations on future studies are also given. This report concludes with a reference list and other relevant appendices with supporting materials (interview guides or survey instruments).

2 Literature Review

The purpose of this chapter is to establish a theoretical foundation for understanding how PMOs support the transition from strategic planning to effective implementation. By reviewing relevant theories, models, and empirical studies, this chapter explores the evolving role of PMOs from operational support functions to strategic enablers of organizational value. Particular attention is given to the challenges faced by Project-Based SME's, including limited resources, governance constraints, and increasing pressure from digital transformation. The chapter also identifies gaps in the current literature, which justify the need for this study and inform the development of the research framework.

2.1 PMOs Key Roles and Functions

Otra-Aho et al., (2019) state that PMOs create value to an organization by playing a combination of controlling, supporting, and coordinating roles. PMOs also contribute to project based organization on the functions that they undertake in organizations. Their study shows that PMOs that strike a balance between governance and flexibility are more efficient in the creation of quantifiable benefits. In SME's Project-Based organizations, the balance enables PMOs to enforce standards and at the same time adapt to the realities of production settings. PMOs enable the enhancement of efficiency, lower the incidence of project failures, and the alignment between operating initiatives and strategic objectives because they add structure with a minimal amount of bureaucracy.

The thought leadership report published by the PMI and PwC (2022) suggests that developed PMOs are required to achieve strategic results and not to handle projects only. Their results indicate that highly developed organizations in terms of PMO are much more successful in project-business strategy alignment and gaining the desired returns. In the case of SME's Project-Based organizations, where resources are forced to be strategically invested in automation, process optimization, and innovation, PMOs serve as a strategic filter, that is, only initiatives that add value will pass through them and be governed appropriately.

International standards and frameworks also depict the move towards organization based project management. The shift out of the strict process to principles-driven and value-driven project management is what is being done by (PMI, 2021). It puts emphasis on customization, involvement of the stakeholders and presentation of results instead of mere outputs. In the same way, ISO (2021) offers guidance which connects the activities of the project with the organizational objectives and the realization of benefits. In the Project-Based setting, these frameworks help PMOs convert strategic priorities of lean operations, digitalization, and sustainability into project structures and performance measurements which can be executed.

A more recent study by Monteiro et al., (2025) builds on this knowledge by mechanically exploring the typologies, types and functions of PMO. They demonstrate that PMOs are of varying maturity and orientation with operational support offices to enterprise-level strategic units. Their analysis indicates that PMOs bring the highest value in cases where they are designed in accordance with organizational context and strategic requirements. In the case of SME`s Project-Based organizations, it presupposes the implementation of hybrid PMO models, which integrate the portfolio management, performance monitoring, and the ability building. These types of PMOs are beneficial in terms of the implementation of strategies as they make projects with the most strategic and operational impact to be prioritized.

According to Chadwick (2025), the PMOs are central in capturing, transferring and institutionalizing project knowledge. The other valuable way in which PMOs generate value is through knowledge management. PMOs avoid knowledge loss by use of lessons-learned systems, community of practice, and standardized documentation; and enhance the learning process across projects. This knowledge-transfer role is utilized in a Project-Based organizations that is in a continuous improvement and technological change, thus facilitating quicker adoption of new processes as well as minimizing the repetition of mistakes, enhancing the overall strategic learning abilities of the organization.

The other significant avenue by which PMOs generate value is governance. According to Spivak (2019), proper PMO governance will provide transparency, accountability, and clarity of decisions within portfolios, programs, and projects. He points out that PMOs are governance centers that are

balanced between control and empowerment. PMOs facilitate the process of cross-functional coordination and disciplined decision-making in SME's Project-Based organizations, which tend to have functional silos among the production, engineering, and quality departments. This role in governance allows to minimize the risk in the project, enhance prioritization and enhance the connection between the strategy and the implementation.

2.2 PMO Strategic Alignment

As Mamabolo and Marnewick (2022) demonstrate, some organizations are not having a problem with the delivery of projects but the achievement of the desired business advantages. An extension of PMO value creation critically is that it is in charge of benefits realization. Their research indicates PMOs as important players in clarifying, monitoring and long term benefits maintenance. In the case of SME's Project-Based organizations, this can be guaranteed to assure that investment in new equipment, ERP systems or process redesign results in quantifiable growth in productivity, cost saving and quality performance. When benefits realization are owned by PMO's, they shift to a higher level where they are strategic performance managers rather than operation managers. In SME's Project-Based organizations, PMOs serve as the connective tissue between the corporate strategy and the implementation in the shop floor.

In a large-scale empirical analysis, Sandhu et al. (2024) prove that the PMOs are effective to the extent of improving the implementation of the strategic plans within the organizations that have projects because of better coordination, prioritization, and governance. Their results affirm that PMOs are structural processes by which strategic goals are broken down into action programs and projects. SME's Project-Based organizations have strategic initiatives, which are often automation-based, process optimization, and product innovation, PMOs provide the formal connection between top management strategy and operational implementation.

In their case study of the defence Project-Based organizations (Paton and Andrew, 2019), the authors revealed the way PMOs enhance Product Lifecycle Management (PLM) by coordinating the projects throughout their design, production, and support cycle. In their study, they find that PMOs deliver value by combining technical and managerial views, which mean that the product strategies are al-

ways put in place over the lifecycle. In the case of SME`s Project-Based organizations, the same coordination is essential when it comes to the organization of new product introductions, equipment upgrades, and the digital transformation projects. PMOs serve as interpreters between strategy and implementation as they apply the strategic priorities in daily project decisions.

2.3 PMO Value Creation

Aubry et al. (2011) proposed that PMO performance should be assessed through its contribution to organizational performance, using a multi-dimensional lens rather than a single metric. They refer to the Competing Values Framework, which underscores that the value of PMO can manifest itself at once in such dimensions as control and stability (standards, governance, compliance) and flexibility and innovation (supporting change, learning, and adaptation). This perspective implies that PMO value creation can be quite paradoxical, e.g.: the implementation of standardization and at the same time allowing agility, and therefore assessment must take into consideration a variety of simultaneous definitions of the concepts of success and value.

PMI (2017) defined PMO value creation to the functions of PMO in the management of portfolios and strategic execution; research on Project Portfolio Management Office (PPMO`s) emphasized that PMO value creation is indirectly associated with an increase in the probability of organizations implementing strategic goals. PMO value in this view is produced when the role of the PMO is identified to be what the organization requires most (e.g., coordination, control, or strategic steering). Empirical PMO/PPMO research findings indicate that the effects of PMO functions may be seen in the improved project portfolio results and enhanced organizational performance, i.e. PMO value delivery is normally found at the portfolio and organization level, rather than at the project level.

In a thorough review presented by Syalevi et al., (2024) PMOs have a positive impact on the performance of an organization through improved performance in terms of governance, alignment, and consistency in project implementation. Their conclusions point towards the fact that PMOs have ceased to remain administrative coordination units but have begun to become strategic partners. This

strategic role is particularly relevant to SME`s Project-Based organizations that are likely to be resource-limited and meet competitive pressure. PMOs assist in making sure that process improvement, automation, and product development projects are directly related to long-term business goals.

According to Zwikael and Huemann (2023), project benefits management is critical towards establishing that projects cause long-term organizational and societal impact. Their work reveals organizations that strategically outline, watch, and actualize benefits have a high chance of attaining strategic goals. PMOs in SME`s Project-Based organizations make benefits management practices institutionalized by connecting the project results to the performance metrics like cost efficiency, reduced lead-times, and innovation capability. This supports the strategic significance of PMOs as value facilitators as opposed to project control agents. PMOs are also related to value creation which is closely associated with benefits management. It also highlights the aspect of the necessity of structured mechanisms to manage change, integrate knowledge, and scale innovations. This form of structure is offered by PMOs as they regulate the adoption of advanced Project-Based projects and makes sure that operational projects incorporate strategic objectives.

Krul et al. (2026) outlined a transition of PMO with its primary emphasis on reporting and control to PMO that was planned to facilitate strategy execution and benefits/value realization. The detailed work by PMI reports that PMOs are better positioned to serve as a bridge between strategy and implementation but may have a problem with defining and proving value, which has seen suggestions that PMOs be repositioned to be more of a bridge between strategic decisions and tangible business results. Other literature suggests a shift of the conventional PMO concept to something more akin to a Value Management Office (VMO) in which the focus is taken off administrative oversight and towards benefits realization, value tracking, and the ownership of outcomes. This stream conceptualizes PMO value creation as: making sure that the right initiatives are chosen, benefits identified and measured, and delivery is held to strategy.

2.4 PMO Value Creation in Digital Era

Gokalp and Martinez (2021) present a maturity model of digital transformation capabilities which allow Project-Based organizations to evaluate the level of their preparedness with respect to governance, processes, and technology. Their model highlights that successful digital transformation requires maturity in their coordination and decision-making mechanisms. PMO is an institutional mechanism of SME Project-Based organizations and aligns digital initiatives with business objectives and coordinates implementation within each department (production, IT, and engineering). Nevertheless, some of the major challenges in PMOs are inadequate governance structures, lack of cross-functional cooperation, resistance to change and lack of strategic integration. To formulate effective recommendations that address these challenges, it is of great importance to identify the challenges, through which effective governance frameworks, role and responsibility clarifications, better communication mechanisms and standardization of project management practices can be developed to enhance PMO effectiveness and successful digital transformation.

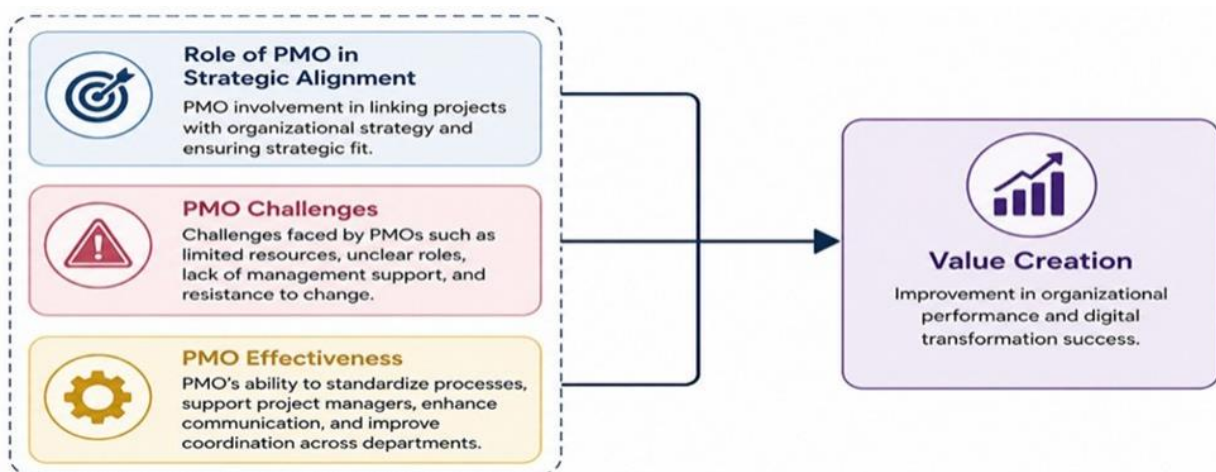


Figure 1: Relationship of PMOs in SMEs and Value Creation

Doe and Smith (2022) described how PMOs evolved to strategic change agents in the digital transformation efforts, that used to be administrative. In this perspective, PMO not only manage execution of projects, but also contribute essentially to the development of dynamic capabilities that can facilitate organizations to respond to digital disruption. Research has shown that PMOs can help in digital transformation by governing digital projects, enhancing alignment of technology investments

with business priorities, and elevating learning processes among teams. To illustrate, PMOs frequently facilitate knowledge exchange and digital skills cultivation and ongoing improvement practices, which enhance organizational responsiveness and agility. Nevertheless, researchers also mention the obstacles of cultural reluctance to new technologies, absence of executive support, and insufficient models of quantifying digital value. To overcome these barriers, it is observed that instituting PMOs within strategic planning procedures, giving them the power to affect decision-making, and providing them with analytics tools to monitor the outcomes of digital performance are regarded as better sources of organizational value in digital settings than conventional, enforcement-based PMOs.

2.5 PMO in SMEs Project-Based Organization

The significance of maturity models is also supported by Mittal et al. (2018), who provide a critical review of smart Project-Based and Organizations 4.0 maturity models, but in the context of small and medium-sized enterprises (SME`s). According to them, SME`s lack sufficient resources, organized governance, and are disjointed in terms of how to implement the projects. PMOs fill these gaps through prioritization of initiatives, standardization of methods, and cross-functional co-ordination. PMOs in SME Project-Based organizations are thus crucial in the transformation of Organizations 4.0 strategies into potential, value-creating initiatives.

George (2024) shows that the use of information technology (IT) and operational technology (OT) is among the major enablers of digital transformation in Project-Based. Nonetheless, this convergence becomes complex in terms of stakeholders, risks and integration of the system. PMOs offer the governance and the coordination mechanisms required to cope with such complexity. Managing the IT/OT project portfolios, PMOs make sure that digital investments are attuned to operational aims in the form of productivity, quality, and safety.

Project-based organizations in SMEs are types of organizations where work is mostly organized and implemented using the project. These are short term, objective projects that aim at producing distinctive product, service, or output within stipulated limits of time, cost and scope (PMI, 2021). PBOs

do not consider projects as mere tools of operation but the main engine of success in terms of attaining strategic goals, innovation, and value creation. There is dynamic allocation of resources among projects and cross-functional teams are common where a variety of expertise is combined to meet complex and customized work (Hobday, 2000).

Traditional organizations, on the other hand, also known as functional organizations, are designed based on long-term departments like marketing, finance, human resource and operations. The work in such organizations is usually repetitive, routine and process-oriented, and is aimed at efficiency, standardization and stability. Power is disseminated in a hierarchical manner and the employees tend to have a functional area of specialization (Mintzberg, 1983). It focuses on on-going operations and not on short term projects.

One of the main differences of project-based and traditional organizations is the way of organization, flexibility, and value-creation. The adaptability and flexibility are the characteristic feature of project-based organizations, which work in the dynamic environment where change, innovation, and solutions, which are customer-specific, are vital. The employees constantly switch projects and the decision making is normally decentralized to increase responsiveness (Turner & Keegan, 2001). On the contrary, conventional organizations focus on control, predictability, and efficiency with formalized processes and centralized decision making.

The other critical difference is associated with the strategy implementation. Project management is a key organizational success capability in project-based organizations since strategy is mainly implemented by projects and programs. This renders arrangements such as the Project Management Office (PMO) very applicable in terms of the alignment of projects with strategic goals. Conversely, traditional organizations adopt strategy by using functional process and long term operational planning in which projects can take a supportive and not a central role.

Moreover, PBOs are especially applicable in industries with complex, innovative and customized features like construction, information technology, and engineering and consulting. They are environments in which organizations need to be fast to adapt to the evolving market needs and technology (Hobday, 2000). On the contrary, conventional organizations will be more efficient in stable environments where efficiency, cost control, and standardization are the main issues.

So, traditional organizations are concerned with stability, efficiency and functional specialization, whereas project-based organizations are concerned with flexibility, innovation and provision of unique outcomes, through projects. This very difference has far reaching consequences on the way organizations can deal with strategy, resources, and performance.

2.6 PMOs Challenges

Chadwick (2025) demonstrates that PMOs are at the heart of project knowledge capture, transfer and institutionalization. Another valuable pathway in which PMOs develop value is knowledge management. PMOs avoid loss of knowledge by use of lessons-learned systems, communities of practice and standardized documentation, which enhance learning among projects. This knowledge-transfer role provides a competitive edge in Project-Based industries where continuous improvement and technological change requirements, by providing quicker adoption of new processes and a decrease in the error rate, increase the strategic learning ability of the organization. Lundqvist (2017) also stated that PMOs turn project implementation into a strategic capability with governance, maturity development, and benefits realization management to help project implementation become competitively driven and sustained.

In a massive empirical study, Sandhu et al. (2024) show that PMOs play a significant role in implementing strategic plans within organizations based on projects by enhancing coordination, prioritization, and governance. Their results affirm the fact that PMOs are structural processes by which strategic goals are broken down to actionable programs and projects. PMOs in SME`s Project-Based corporations, where strategic initiatives can include automation, optimization of processes, and innovation of products, offer the formal connection between the top management strategy and operational implementation.

The dynamic character of the PMOs can also be described by Krul et al. (2025) explaining how the traditional PMOs have been changed to Value Management Office (VMOs). Their methodical review portrays an inclination towards realization of benefits, value monitoring, and strategic contribution. Instead of concentrating on the delivery of projects within deadlines and budgets, the contemporary

PMOs are becoming more accountable in ensuring that projects create real business value. This transition is vital in SME`s Project-Based organizations because making investments in automation, sustainability, and innovation should be measured in ensuring that performance should improve. PMOs play a vital role in the transformation of the top management strategy to the shop-floor in SME`s Project-Based organizations. PMOs will cease to be control functions, and become sources of competitive advantage and sustainable performance when they are designed to suit the size of the organization, organizational culture, and strategic priorities.

2.7 Strategy Implementations

Strategy implementation is a highly important aspect of strategic management process whereby the strategies developed are transformed into action. It involves making organizational goals specific through the development of programs, policies and procedures to generate desired results. According to Johnson, Scholes and Whittington (2008), well developed strategies fail to work unless they are implemented. Therefore, the combination of structural, managerial, and operational aspects is a successful way of implementing strategies.

Environmental scanning is the first and the most important action of the strategic management process. It involves studying of the external and internal environments to identify opportunities, threats, strengths and weaknesses. External scanning focuses on the market trends, competition, technology and economic conditions and internal scanning focuses on evaluation of organizational resources, capabilities and processes (Wheelen and Hunger, 2012). The capacity of the environmental scanning with regard to SME`s might be limited due to poor resources and knowledge, especially in developing countries like Pakistan. However, it is important in ensuring that plans are viable and market-oriented. According to Kamoun (2007), good environmental scanning also helps an organization to forecast changes as well as make good strategic decisions.

The process of formulating long-term strategies, initiating organizational goals and selecting appropriate strategies to achieve competitive advantage is known as strategy formulation. In this step, mission, vision, goals and policies of the organization are defined (David, 2011).

The project-based organization strategy formulation must consider project portfolios and resource allocation. Strategy formulation is not a planned process but an adaptive process that evolves with time in accordance with Mintzberg (1994) recommendation. Strategy formulation in an SME is rather informal and this can lead to a situation where there is no alignment of strategic objectives and operations. So, it needs a certain amount of systematic approaches to introduce sense and purpose. Strategy implementation: This refers to the procedure of executing the planned strategy via project, programme and operating operations. It comprises of resource allocation, leadership, organizational structure, and communication and performance management. This has been perceived as the most difficult step of strategic management (Hrebiniak, 2006).

Strategies need to be implemented in a well-defined organizational structure. It brings about role clarity, responsibility, and reporting. Chandler (1962) theorizes that strategy precedes structure i.e. structure should be in accordance with strategy. Leadership plays a crucial role in leading strategy implementation. Good leadership ensures loyalty, motivates the employees and offers management of change. Research shows that a lack of backing by the top management is one of the major causes that lead to failure to execute the strategy (Kaplan and Norton, 2001). Strategy implementation involves proper distribution of financial, human and technological resources. SME`s are usually faced with resource constraints and they may not be in a position to execute strategies. Therefore, the first priority and proper utilization of the resources is of the essence (Barney, 1991).

Effective communication will ensure that all employees know about the strategic goals and their role in achieving the strategic goals. Departments also need to be coordinated in order to avoid duplication and inefficiencies. According to Hrebiniak (2006), strategy implementation is greatly hindered by poor communication. Some of the governing structures that ensure that the strategies are implemented as planned are policies, procedures and monitoring systems. Project Management Office (PMO) is highly significant in providing governance and standardization in project based organizations (Hobbs and Aubry, 2007).

PMO acts as a mediator between the strategy and the implementation process in aligning the project goals with organizational goals, monitoring performance, and maintaining the same project management methods. It helps project managers, improves the distribution of knowledge, and improves coordination of projects (PMI, 2013). The process of monitoring the implementation process and also measurement of performance in relation to the strategic objectives employed is known as evaluation and control. This action will ensure that any deviations are identified and corrective actions taken. This phase ought to include performance measures, feedback systems and continuous enhancement habits (Wheelen and Hunger, 2012).

The evaluation and control of the SME`s is weak due to lack of formal systems. However, monitoring may significantly boost the organizational performance and project success. According to Kaplan and Norton (2001), performance measurement systems such as the Balanced Scorecard may be helpful in helping organisations to track the progress of their strategy. These problems are more pronounced in the developing economies like Pakistan in which the SME`s are more likely to be in a volatile and unpredictable environment. This means that there is a need to possess flexible and dynamic modes of strategy implementation (Ali and Qureshi, 2020).

When strategy is successfully executed, organizational performance, competitive advantage, and value creation is attained. It ensures that strategic goals are translated into measurable outcomes such as increased profitability, efficiency and innovation (Porter, 1996). Value-generation in project-based organizations is closely related with good project execution. In this way, the harmonization of strategy and projects through such mechanisms as PMOs can significantly enrich organizational performance.

2.8 Theoretical Framework Development

This study`s theoretical framework explains how PMOs create value in Project-Based SME`s by translating strategy into implementation, using three complementary lenses: Strategic Alignment Theory, the PMO as a strategic integrator, and the Resource-Based View (RBV). This figure illustrates the conceptual model of the study by demonstrating how the various theoretical perspectives contribute to the value creation of PMO in SMEs as well as in project-based organizations. The framework starts

with three primary foundations, which are Strategic Alignment Theory, PMO as a Strategic Integrator and the Resource-Based View (RBV). These theories clarify that PMOs assist in linking business plan with project implementation, enhancing governance, standardization, and portfolio coordination, and using company capabilities as strategic assets. The resulting foundations result in the development of the PMO capabilities of governance competence, portfolio decision routines, knowledge sharing and standardized project processes. Consequently, the strategic alignment is enhanced by PMOs that make sure that cost, quality, delivery reliability and innovation priorities are reflected by projects. This also contributes to better implementation effectiveness by better project delivery, reduced overruns and better prioritization. Lastly, these enhancements lead to value creation in SMEs and organizations that are project-driven because of improved operational performance, resource utilization and strategic responsiveness. This framework is substantiated by the prior research which emphasizes the role of PMOs in connecting strategy, projects, organizational resources and performance outcomes (Aubry et al., 2007; PMI, 2012; Pemsel and Wiewiora, 2013).

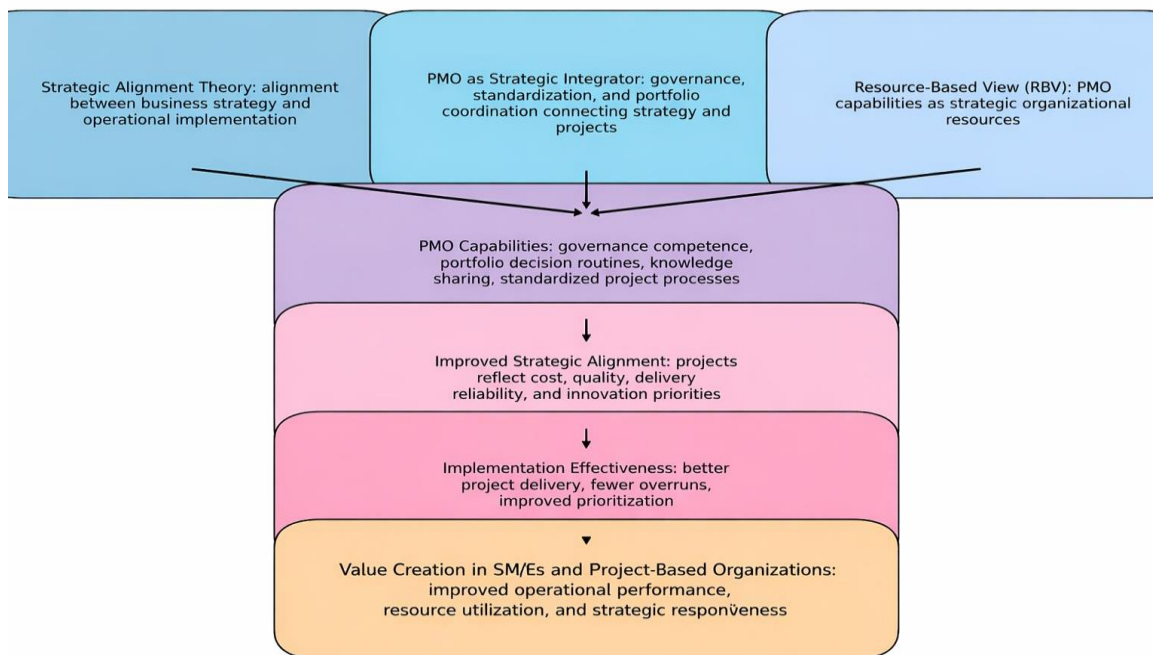


Figure 2: Theoretical Framework Development

(Aubry et al., 2007; PMI, 2012; Pemsel and Wiewiora, 2013)

2.8.1 Strategic Alignment Theory

Strategic Alignment Theory posits that there is improved performance when the business strategy of an organization is aligned with the business operations and enabling capabilities. In this paper, alignment is considered as the extent to which the strategic priorities (e.g., cost, quality, reliability of delivery, innovations, etc.) are systematically reflected in the chosen, financed, managed, and implemented projects. The essence of the matter is that value is not found in the possession of a strategy, but in the decisions made on a day-to-day basis (choices made in a project, resources assigned, standards and controls) being consistent with that strategy (Henderson and Venkatraman, 1993; Luftman, 2000).

Strategic alignment also focuses on the need to coordinate various functions of an organization in order to make sure that strategic goals are converted into work activities. With an effective integration of business strategy, processes and technological capabilities, organizations are well placed to respond to environmental changes and sustain the competitive advantage. Strategic misfit between strategy and operations may result in inefficiencies, wastage of resources, and decreased organizational performance. This means that organizations should constantly assess and realign their structures, processes and technologies to make sure that they are in line with their strategic priorities and long term objectives (Venkatraman, 1989; Kaplan and Norton, 2006).

Besides, strategic alignment helps in making better decisions because the projects and operational initiatives are aligned to the strategic direction of the organization. This congruency assists managers to make investment priorities and invest in projects that generate maximum strategic value. Within project-based organizations, organizations can make better performance outcomes, be more innovative, and more efficient in their operations through aligning project portfolios with the strategic goals. Therefore, those organizations that manage to align their strategies with implementation mechanisms are likely to be able to achieve greater levels of organizational effectiveness and long-term competitive advantage (Johnson, Scholes, and Whittington, 2008).

The second lens fully conceives the PMO as a strategic alignment. This implies that the PMO is not an administrative or reporting department, but a mechanism within an organization, which connects strategy, governance, and execution. This integrative role is undertaken by the PMO using three main

functions which include governance, standardization, and portfolio coordination. Governance involves the establishment of decision rights, lines of reporting, controls and escalation. Standardization entails methods, templates and performance routines. Portfolio coordination involves prioritizing projects, balancing resources, project tracking and alignment (Porter, 1996).

The perspective is specifically significant in the SME's, where management ability is minimal and projects take resources in contention. Fragmentation and inconsistent decision-making can be counterproductive to implementation in such organizations. PMO can minimize such risks through formalizing project processes, enhancing communication, and increasing departmental visibility. This role is supported by the previous literature that argues that PMOs enhance governance, facilitate organizational learning, and facilitate the implementation of strategic plans by means of coordination and control (Aubry, Hobbs, and Thuillier, 2007; Too and Weaver, 2014; Muller, Gluckler, and Aubry, 2013; Kerzner, 2017

Your results are highly in favor of this interpretation. Descriptive results indicate that the consensus was very high in regard to the fact that the PMO articulates the project goals, offers standard processes, supports project managers, monitors project progress and enhances interdepartmental coordination. These are exactly the processes by which a PMO can be a strategic integrator. Meanwhile, issues with unclear roles, shortage of resources, and lack of management support were also noted by respondents, indicating that the integrative role of the PMO is conditional on the clarity of an organization and the support of the executive.

A significant implication is that PMO effectiveness, is not achieved by control alone. Instead, it is a result of a tradeoff between structure and support. The PMO is valuable in SME organizations that implement projects because it allows the organization to execute its projects in a disciplined way without generating too much bureaucracy. This aspect renders the perspective of strategic integrator particularly appropriate to be used in your research.

2.8.2 PMO as a strategic integrator

In the same line of logic, the PMO has been conceptualized as a strategic integrator- a coordinating role that bridges the gap between corporate strategy and project and portfolio implementation. The

PMO forms the connecting mechanisms between the strategy and implementation by (1) governance (decision rights, escalation paths, portfolio controls), (2) standardization (methods, templates, reporting, performance routines), and (3) portfolio coordination (prioritization, balancing capacity, monitoring delivery across initiatives). The integrator role of PMO is particularly applicable in Project-Based SME`s, due to limited managerial capacity and resources, where it can minimize the level of fragmentation, enhance the level of prioritization discipline, and enhance consistency in implementation of operational improvement and change efforts (Aubry, Hobbs & Thuillier, 2007; Project Management Institute, 2021).

Project Management office (PMO) also plays a role in strategic alignment through institutionalization of governance structures that control the process of selection, monitoring and evaluation of projects. The PMO also ensures that project activities are not out of line with the organizational objectives through formalized governance processes like the portfolio review processes, performance measures, and reporting systems. Such governance systems enhance transparency and accountability and allow top management to make informed decisions when it comes to resource allocation and project prioritization. Consequently, PMO assists organizations to translate top-level strategic plans into integrated project implementation at the departmental and operational levels (Too & Weaver, 2014).

Also, the PMO aids in organizational learning and the growth of capabilities through standardization and sharing of project management practices and knowledge between projects. Through standardization of methods, training and performance appraisal systems, the PMO can help organizations to achieve a consistent project delivery capability in the long run. This is quite crucial to small and medium-sized enterprises (SME`s), where resources and managerial skills might be scarce. The PMO may enhance organizational resilience in these SMEs by enhancing coordination, minimizing unnecessary duplication of effort, and increasing the effectiveness of the organization in implementing strategic initiatives successfully (Müller, Glückler & Aubry, 2013; Kerzner, 2017).

2.8.3 Resource-Based View (RBV)

RBV reinforces the framework by stating the reasons why a PMO can become a source of advantage: it packages and gathers organizational capabilities that could be valuable, hard-to-copy and routinized. PMO capabilities are considered to be strategic resources in this case, including project governance competency, portfolio decision-making routines, codification and learning of knowledge, and repeatable processes that increase the quality and speed of implementation. In the case of RBV, the PMO generates value when its capabilities assist the SME in more efficiently deploying the scarce resources (improved selection, reduced overruns, increased benefits realisation), and develop implementation strength over time, which transforms how we deliver change into a capability that competitors cannot easily replicate (Wernerfelt, 1984).

2.8.4 Relevance of SME`s

The context of SME is especially important to this theoretical framework since the conditions under which small and medium-sized enterprises work are very different, as compared to the case of large organizations. SME`s tend to be short of financial resources, less specialized employees, less institutionalized, and more reliant on effective resource use. Consequently, the strategy-implementation process is more challenging and more critical in SME`s compared to bigger firms. Any slight imbalance between strategy and project implementation in such environments can result in the squandering of resources, decreased effectiveness, and the inability to generate the desired business value (Mittal et al., 2018; Sandhu et al., 2024).

In terms of Strategic Alignment Theory, SME`s tend to be sensitive towards alignment problems due to their inability to invest in projects that do not align with business priorities. Projects in SME`s have to be carefully chosen and directly correlated with such strategic objectives as growth, efficiency, innovation and cost control. This heightens the essence of strategic alignment, as finite resources need greater emphasis and direction (Henderson and Venkatraman, 1993; Kaplan and Norton, 2006).

In the PMO as a Strategic Integrator, PMOs are advantageous to SME`s, as they tend to have loosely structured coordination systems, and their governance is not properly structured. To eliminate this weakness, PMO assists in the introduction of standard processes, enhances communication, supports

project managers, and facilitates interdepartmental coordination. This integrative role is particularly needed in SME`s since the informal management systems might otherwise contribute to fragmentation, duplication of efforts, and poor control of the project (Too & Weaver, 2014; Kerzner, 2017).

Resource Based View (RBV) wise, SME`s are not able to typically compete based on scale or access to high quantity of resources, and therefore they need to establish a competitive advantage by utilizing their existing resources more efficiently. In this respect, PMO capabilities like governance routines, knowledge sharing, project selection and performance monitoring become useful organizational resources. These capabilities enable SME`s to enhance the quality of execution, minimize waste, and create quantifiable value in the long run. In this way, the SME environment makes the RBV more relevant as it emphasizes the importance of internal capabilities in creating sustained performance, and the size is only a part of it (Wernerfelt, 1984; Mittal et al., 2018).

In general, the SME context does not merely give the context to this study; it also enhances the explanatory strength of the theoretical framework. Strategic alignment, integrative PMO roles, and capability-based value creation are further enhanced in the context of constraints and flexibility of SME`s. Thus, the chosen theories are relevant as they not only describe the functioning mechanism of PMOs, but also understand why they are particularly critical in SME organizations that are project-based (Sandhu et al., 2024; Monteiro, Varajao, and Santos, 2025).

Combining these theories, the framework suggests a causal chain: PMO capabilities (RBV resources) facilitates a stronger strategic alignment (Strategic Alignment Theory) through better governance, standardization, and portfolio coordination (PMO as integrator). Better alignment consequently boosts effectiveness in implementation and value is created in Project-Based SME. Value creation can be understood in broad terms as project outcomes and organizational outcomes, including an enhanced on-time delivery of strategic initiatives, better benefits realization, less waste and re-work, better resource utilization, enhanced operational performance (e.g. lead time, quality) and more strategic responsiveness. Concisely, it is theorized that the PMO does not create value by simply controlling projects, but rather by developing an implementation capability that methodically transforms strategy into implemented results.

3 Research Methodology

This chapter explains the research methodology used to examine how Project Management Offices (PMO`s) create value in SME`s Project-Based organizations, particularly in aligning strategy with implementation. The chapter describes the research design, research approach, population, sampling technique, data collection procedure, data analysis methods, reliability, validity, and ethical considerations. The purpose of this chapter is to clearly explain how the data were collected and analyzed in order to answer the research objectives in a systematic and scientific manner.

3.1 Research Design

This study adopted a quantitative research design. Quantitative research focuses on collecting numerical data and analyzing it using statistical methods in order to identify patterns, relationships, and trends (Creswell, 2017). The reason for selecting a quantitative design is that the study aims to measure respondents' perceptions regarding the role of PMOs in strategy alignment, governance, and value creation in SME`s Project-Based organizations.

A structured questionnaire was used as the main research instrument. The close-ended questions in the questionnaire were compared, in a five-point Likert scale, where the respondents were to specify the degree of their agreement with particular statements. The structured questionnaire will provide consistency in the responses and will be easier to analyze the data statistically. Quantitative design was deemed as the most appropriate since the study will be quantitative in that it will be objective in measuring relationships between variables.

3.2 Research Approach

This research followed a quantitative research approach. In quantitative research, the researcher commences with the available theories and literature and then; data is gathered to prove the theoretical concepts (Saunders et al., 2011). The research questions and survey items in this study were formulated on the light of prior literature with respect to the value creation by the PMO, alignment of strategies, governance mechanisms, and digital transformation in SME`s.

The research question was whether PMO assists in aligning digital initiatives with business strategy and whether they help to create tangible organizational value. Thus, the study shifted to theory to data collection that is indicative of a deductive approach. This method is usually applied to quantitative research in which hypotheses or formulated goals are subjected to numerical testing.

3.3 Population of the Study

This study population was composed of employees of SME`s Project-Based organizations that either have a formal PMO or are engaged in organized project management operations. SME`s were chosen as they are an important factor in economic development and are progressively implementing digital transformation initiatives in order to stay competitive.

The respondents targeted were the staff members of PMO, project managers, department heads, and managers in digital or strategic projects. These people were chosen since they have the relevant knowledge on project management practices and know the role of PMO in their organizations. As the paper is about value creation based on the use of PMO, it was necessary to collect the answers of people directly engaged in the execution and implementation of strategic projects.

3.4 Sample Size and Sampling Technique

The number of respondents in this study was 50. The research sample was selected due to the fact that it was accessible and time-wise was limited, which is a typical aspect of MS-level research. Even though the sample size could have been bigger to give more generalized results, a sample of 50 responses is acceptable when giving a simple quantitative analysis and descriptive statistical assessment.

The research employed convenience sampling; a form of non-probability sampling method. In convenience sampling, the participants will be picked on the basis of their presence and their willingness to take part (Sekaran and Bougie, 2016). The approach was suitable as the Project-Based organizations of SME may be difficult to access and the respondents were chosen through the professional

networks and organizational contacts. Convenience sampling can be taken to be a limitation on generalizability, but it is widely applied in scholarly studies when there are only a limited number of respondents that can be accessed.

3.5 Data Collection Method

A structured questionnaire designed with the help of Google Forms was used to collect primary data. Google Forms was chosen as the data collection instrument due to its low cost, convenience in sharing, and automaticity in capturing the responses in a digital format, eliminating data entry errors. The questionnaire link was shared through email and professional networks to employees working in SME`s Project-Based organizations.

The data used in this study were gathered among SME`s in operation in Pakistan, especially the employees who are in the project based organizations. The emphasis on Pakistani SME`s was significant as such organizations tend to be under-resourced, informally governed, and increasingly subject to the pressure to enhance the performance of projects. Thus, data gathered within this context assisted the research in exploring the role of PMOs in aligning strategies, ensuring governance, coordination, and value creation in actual SME-based project organizations in Pakistan. The questionnaire was divided into two parts. The demographic questions that were included in the first section were gender, age, level of education, years of work experience, role within the organization, and the type of organizations. This knowledge aided in knowing the background of respondents.

To obtain data, primary data were obtained among employees working in various SME and project based organizations. The companies that were selected included Prefab Services Limited, Samira Textile Industry, Arcadian Lab, Master Motor Company, Al-Hassan Architecture and Developers, POF industries, KRL Kahuta, National Engineering Services Limited, Lucky Core Industries, Zoom Engineers, Al Raziq Engineering Services Limited, Descon Engineering Services Limited, PTCL and IKAN Engineering Services Limited. The respondents were reached out to via professional, personal networks, such as email, WhatsApp, and direct workplace contacts. A structured questionnaire was made with the help of Google Forms and the survey link was sent to the respective employees and project related staff of these organizations. The subject matter of the study was explained to the participants, who were then requested to volunteer in the research purposes. It was a convenient way of gathering data

across various organizations and offered valuable information on areas of PMO effectiveness, strategy alignment, PMO challenges, and value creation.

The second part contained Likert-scale statements pertaining to three broad categories: the purpose of PMOs in strategy alignment, governance and coordination dilemmas, and PMO adds value. Respondents were requested to give their agreement on a five-point scale, starting with strongly disagree, to strongly agree. This systematic format made the responses to be measured and statistically analyzed.

3.6 Variables of the Study

There were independent and dependent variables in this study. The independent variables were the role of PMO in strategic alignment, clarity of governance, and effectiveness of coordination. These variables depict the structural and managerial facets of PMO operation in the Project-Based organizations of SME.

Value creation was the dependent variable in this study, specifically with the digital transformation success and improvement of organizational performance. The study was seeking to find out whether increased PMO participation in strategic alignment and governance results in increased value creation in SME. Through these variables, the study tried to comprehend the relationship between implementation of strategies and quantifiable organizational returns.

3.7 Data Analysis Techniques

Descriptive statistical techniques were used to analyze the collected data. Descriptive statistics are used to describe numerical data and present it in a form of understanding (Field, 2024). It involved frequency distribution, percentage, and the mean scores of each Likert-scale item were calculated. The techniques aided in determining overall tendencies in the perceptions of the respondents.

Moreover, Cronbach Alpha was used to perform the reliability analysis to evaluate the internal consistency of questionnaire items. The acceptable Cronbachs Alpha value of 0.70 or higher is typically deemed as satisfactory in conducting research (Sekaran and Bougie, 2016). Statistical analysis was performed with the help of SPSS software (or Microsoft Excel in case of its availability).

3.8 Reliability and Validity

The consistency and stability of research instrument is known as reliability. The reliability was also tested in this study through Cronbachs Alpha in order to ascertain that the Likert-scale items were always able to measure the intended constructs. Moreover, the reliability analysis is needed to make sure that the measurement instrument yields similar results on various items and respondents. In general, a Cronbachs alpha coefficient of 0.70 and higher is considered to be acceptable in a social science study which implies a good internal consistency (Nunnally, 1978). The reliability test in this study established that the scale items to measure the PMO effectiveness, strategic alignment, and value creation were consistent and reliable. This enhances the validity of the data and makes the findings to be founded on consistent and valid measurements.

Validity is the ability of the questionnaire to measure what it is supposed to measure. The content validity was guaranteed by designing items on the questionnaire out of the existing literature on PMO effectiveness, strategy alignment, and digital transformation. Review of the research instrument was done to identify its clarity, relevance, and congruity with the objectives of the research. Moreover, validity is very important in the identification of the accuracy of the research instrument. Construct validity was validated by matching the items of the questionnaire to the most established theories and previous research on the functions of PMO and organizational performance. Sekaran and Bougie (2016) state that a valid instrument has to be sufficient enough to measure the theoretical meaning of the constructs under investigation. The framework of the questionnaire on the basis of the previous literature and close consideration of the items will help this study to guarantee that the instrument will capture effective concepts related to strategic alignment, the governance, and value creation, which will further improve the overall quality and credibility of the research results.

3.9 Ethical Considerations

The research process was conducted in a way that upheld ethical standards. The survey was voluntary and the respondents were made aware of the aim of the study prior to filling the questionnaire. No personal data were gathered (guaranteeing anonymity and confidentiality). Data gathered was not disclosed to third parties and was only used academically.

4 Results and Discussion

This chapter presents the analysis and interpretation of the data collected from the respondents to achieve the objectives of the study. The findings are presented in two broad parts: descriptive statistics, and inferential analysis. The former section gives the demographic information of the respondents such as gender, age, education, work experience, organizations sector and organizational position and perceptions of the respondents about the position and relevance of the Project Management Office (PMO). The second section is devoted to statistical tests (descriptive statistics, correlation, and regression analysis) to explore the relationships between PMO effectiveness, challenges, strategic alignment and value creation. The results are elaborated to outline major trends, patterns and implications in relation to PMO performance and its role in organizational success.

4.1 Demographics Information's

Table 1 presents the distribution of respondents based on gender. The data shows that the majority of respondents were male, comprising 49 individuals (98.0%). In contrast, only 1 respondent (2.0%) was female. No participants selected the option "prefer not to say."

Table 1: Gender

Gender	Frequency (<i>f</i>)	Percentage (%)
Male	49	98.0
Female	1	2.0
Prefer no to say	0	0.0
Total	50	100%

Table 2 illustrates the distribution of respondents based on their age groups. The majority of respondents fall within the age group of 30–39 years, accounting for 30 individuals (60.0%). This is followed by the 20–29 age, while only 2 respondents (4.0%) are aged 50 years and above.

Table 2: Age

Age	Frequency (<i>f</i>)	Percentage (%)
20-29	10	20.0
30-39	30	60.0
40-49	8	16.0
50 and above	2	4.0
Total	50	100.0

Table 3 presents the distribution of respondents based on their educational qualifications. The majority of respondents hold a Bachelor’s degree, comprising 29 individuals (58.0%). This is followed by those with a Master’s degree, accounting for 19 respondents (38.0%). A small proportion of respondents (2 individuals, 4.0%) fall under the “Others” category, while none of the respondents reported having a PhD (0.0%).

Table 3: Qualifications

Qualification	Frequency (<i>f</i>)	Percentage (%)
Bachelor’s Degree	29	58.0
Master’s Degree	19	38.0
Phd	0	0.0
Others	2	4.0
Total	50	100.0

Table 4 shows the distribution of respondents based on their work experience. The largest group of respondents has 6–10 years of experience, comprising 18 individuals (36.0%). This is followed by those with more than 10 years of experience, totaling 16 respondents (32.0%), and those with 3–5 years of experience, accounting for 15 respondents (30.0%). Only 1 respondent (2.0%) reported having less than 3 years of experience.

Table 4: Working experience

Work Experience	Frequency (<i>f</i>)	Percentage (%)
Less than 3 years	1	2.0
3-5 years	15	30.0
6- 10 years	18	36.0
More than 10 years	16	32.0
Total	50	100.0

Table 5 presents the distribution of respondents based on their organizations sector. The largest group of respondents is from the Construction sector, with 14 individuals (28.0%), followed by IT/Technology with 13 respondents (26.0%) and Manufacturing with 12 respondents (24.0%). The Services sector accounts for 10 respondents (20.0%), while only 1 respondent (2.0%) belongs to the “Others” category.

Table 5: Organizations Sector

Organizations Sector	Frequency (<i>f</i>)	Percentage (%)
Manufacturing	12	24.0
IT/ Technology	13	26.0
Construction	14	28.0
Services	10	20.0
Others	1	2.0
Total	50	100.0

Table 6 showed the distribution of respondents based on their position in the organization. The majority of respondents hold senior management positions, totaling 22 individuals (44.0%), followed closely by Project Managers, with 20 respondents (40.0%). P|MO staff account for 5 respondents (10.0%), while Department Heads represent the smallest group with 3 respondents (6.0%).

Table 6: Position in organization

Position in organization	Frequency (<i>f</i>)	Percentage (%)
P MO staff	5	10.0
Project Manager	20	40.0
Department Head	3	6.0
Senior Management	22	44.0
Total	50	100.0

Table 7 presents the distribution of respondents based on whether their organization has a formal Project Management Office (PMO). The majority of respondents, 48 individuals (96.0%), reported that their organization has a formal PMO, while only 2 respondents (4.0%) indicated that their organization does not have one.

Table 7: Organization have formal PMO

Formal PMO	Frequency (<i>f</i>)	Percentage (%)
Yes	48	96.0
No	2	4.0
Total	50	100.0

4.2 Roles and Functions of PMO in SME`s

Table 8 shows respondents perceptions of whether the PMO clearly defines project goals and objectives. The majority of respondents strongly agree with this statement, totaling 27 individuals (54.0%), while 20 respondents (40.0%) agree. A smaller portion of respondents are neutral, comprising 2 individuals (4.0%), and only 1 respondent (2.0%) strongly disagrees. No respondents selected "Disagree."

Table 8: The PMO clearly defines project goals and objectives

Clearly defines goals and objectives	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	1	2.0
Disagree	0	0.0
Neutral	2	4.0
Agree	20	40.0
Strongly Agree	27	54.0
Total	50	100.0

Table 9 presents respondents views on whether the PMO provides standard project management processes in the organization. The majority of respondents either strongly agree (24 individuals, 48.0%) or agree (23 individuals, 46.0%) with this statement. A small number of respondents are neutral (1 individual, 2.0%), while 2 respondents (4.0%) strongly disagree. No respondents selected “Disagree.”

Table 9: The PMO provides standard project management processes in the organization

The PMO provides standard project management processes	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	0	0.0
Neutral	1	2.0
Agree	23	46.0
Strongly Agree	24	48.0
Total	50	100.0

Table 10 illustrates respondents opinions on whether the PMO supports project managers in completing projects successfully. The majority of respondents agree with this statement, with 31 individuals (62.0%) selecting “Agree” and 15 individuals (30.0%) selecting “Strongly Agree.” A smaller portion of respondents are neutral (2 individuals, 4.0%), while 1 respondent (2.0%) strongly disagrees and 1 respondent (2.0%) disagrees.

Table 10: The PMO supports project managers in completing projects

Supports project managers in completing projects successfully	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	1	2.0
Disagree	1	2.0
Neutral	2	4.0
Agree	31	62.0
Strongly Agree	15	30.0
Total	50	100.0

Table 11 presents respondents' perceptions of whether the PMO monitors project progress and performance regularly. The majority of respondents agree with this statement, with 32 individuals (64.0%) selecting "Agree" and 16 individuals (32.0%) selecting "Strongly Agree." A small portion of respondents, 2 individuals (4.0%), strongly disagree, while no respondents selected "Disagree" or "Neutral."

Table 11: The PMO monitors project progress and performance regularly.

The PMO monitors project progress and performance regularly.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	0	0.0
Neutral	0	0.0
Agree	32	64.0
Strongly Agree	16	32.0
Total	50	100.0

Table 12 explained respondents views on whether the PMO improves coordination between different departments. The majority of respondents strongly agree (24 individuals, 48.0%) or agree (22 individuals, 44.0%) with this statement. A smaller portion of respondents are neutral (2 individuals, 4.0%) or strongly disagree (2 individuals, 4.0%), while no respondents selected "Disagree."

Table 12: The PMO improves coordination between different departments

The PMO improves coordination between different departments	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	0	0.0
Neutral	2	4.0
Agree	22	44.0
Strongly Agree	24	48.0
Total	50	100.0

4.3 Challenges and Effectiveness of PMO in SME`s

Table 13 presents respondents perceptions regarding whether the PMO faces challenges due to unclear roles and responsibilities. The largest group of respondents agrees with this statement, totaling 24 individuals (48.0%), while 8 respondents (16.0%) strongly agree. A smaller portion of respondents are neutral, comprising 12 individuals (24.0%), whereas 4 respondents (8.0%) strongly disagree and 2 respondents (4.0%) disagree.

Table 13: The PMO faces challenges due to unclear roles and responsibilities.

The PMO faces challenges due to unclear roles and responsibilities.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	4	8.0
Disagree	2	4.0
Neutral	12	24.0
Agree	24	48.0
Strongly Agree	8	16.0

Total	50	100.0
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Table 14 illustrates respondent’s views on whether limited resources affect the performance of the PMO. The majority of respondents agree with this statement, with 20 individuals (40.0%) selecting “Agree” and 17 individuals (34.0%) selecting “Strongly Agree.” A smaller portion of respondents are neutral (7 individuals, 14.0%), while 5 respondents (10.0%) disagree and 1 respondent (2.0%) strongly disagrees.

Table 14: Limited resources affect the performance of the PMO

Limited resources affect the performance of the PMO	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	1	2.0
Disagree	5	10.0
Neutral	7	14.0
Agree	20	40.0
Strongly Agree	17	34.0
Total	50	100.0

Table 15 shows respondents’ perceptions regarding whether a lack of management support creates difficulties for the PMO. The majority of respondents agree with this statement, with 20 individuals (40.0%) strongly agreeing and 19 individuals (38.0%) agreeing. A smaller portion of respondents are neutral (6 individuals, 12.0%), while 3 respondents (6.0%) strongly disagree and 2 respondents (4.0%) disagree.

Table 15: Lack of management support creates difficulties for the PMO.

Lack of management support creates difficulties for the PMO.	Frequency (f)	Percentage (%)
Strongly Disagree	3	6.0
Disagree	2	4.0
Neutral	6	12.0
Agree	19	38.0
Strongly Agree	20	40.0
Total	50	100.0

Table 16 presents respondents' opinions on whether better communication would enhance PMO performance. The majority of respondents strongly agree with this statement, comprising 35 individuals (70.0%), while 13 respondents (26.0%) agree. A small number of respondents, 2 individuals (4.0%), strongly disagree, and no respondents selected "Disagree" or "Neutral."

Table 16: Better communication would improve PMO performance.

Better communication would improve PMO performance.	Frequency (f)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	0	0.0
Neutral	0	0.0
Agree	13	26.0
Strongly Agree	35	70.0
Total	50	100.0

Table 17 illustrates respondents' views on whether training and skill development would enhance PMO effectiveness. The majority of respondents strongly agree with this statement, totaling 27 individuals (54.0%), while 20 respondents (40.0%) agree. A small number of respondents are neutral (1 individual, 2.0%), and 2 respondents (4.0%) strongly disagree. No respondents selected "Disagree."

Table 17: Training and skill development would increase PMO effectiveness.

Training and skill development would increase PMO effectiveness.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	0	0.0
Neutral	1	2.0
Agree	20	40.0
Strongly Agree	27	54.0
Total	50	100.0

4.4 PMO Strategic Alignment and Value Creation

Table 18 presents respondents' perceptions regarding whether the PMO ensures that projects align with the company's strategic goals. The largest group of respondents strongly agree, totaling 23 individuals (46.0%), while 16 respondents (32.0%) agree. A smaller portion of respondents are neutral (8 individuals, 16.0%), 2 respondents (4.0%) strongly disagree, and 1 respondent (2.0%) disagrees.

Table 18: The PMO ensures that projects support the company's strategic goals.

The PMO ensures that projects support the company's strategic goals.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	1	2.0
Neutral	8	16.0
Agree	16	32.0
Strongly Agree	23	46.0
Total	50	100.0

Table 19 illustrates respondents' views on whether the PMO assists in selecting the right projects based on business priorities. The largest group of respondents strongly agree, with 19 individuals (38.0%), followed by 15 respondents (30.0%) who agree. A smaller portion of respondents are neutral (9 individuals, 18.0%), 5 respondents (10.0%) disagree, and 2 respondents (4.0%) strongly disagree.

Table 19: The PMO helps select the right projects based on business priorities.

The PMO helps select the right projects based on business priorities.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	5	10.0
Neutral	9	18.0
Agree	15	30.0
Strongly Agree	19	38.0
Total	50	100.0

Table 20 presents respondents' perceptions regarding whether the PMO helps in selecting projects based on organizational strategy and business priorities. The majority of respondents agree with this statement, with 27 individuals (54.0%) selecting "Agree" and 15 individuals (30.0%) selecting "Strongly Agree." A smaller portion of respondents are neutral (3 individuals, 6.0%), 3 respondents (6.0%) disagree, and 2 respondents (4.0%) strongly disagree.

Table 20: The PMO helps select projects based on organizational strategy and business priorities.

The PMO helps select projects based on organizational strategy and business priorities.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	3	6.0
Neutral	3	6.0
Agree	27	54.0
Strongly Agree	15	30.0
Total	50	100.0

Table 21 illustrates respondents' views on whether projects managed by the PMO create measurable benefits for the organization. The majority of respondents agree with this statement, with 27 individuals (54.0%) selecting "Agree" and 15 individuals (30.0%) selecting "Strongly Agree." A smaller portion of respondents are neutral (7 individuals, 14.0%), while only 1 respondent (2.0%) strongly disagrees. No respondents selected "Disagree."

Table 21: Projects managed by the PMO create measurable benefits for the organization

Projects managed by the PMO create measurable benefits for the organization.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	1	2.0
Disagree	0	0.0
Neutral	7	14.0
Agree	27	54.0
Strongly Agree	15	30.0
Total	50	100.0

Table 22 presents respondents' perceptions regarding whether the PMO improves overall organizational performance and efficiency. The majority of respondents strongly agree with this statement, comprising 23 individuals (46.0%), while 20 respondents (40.0%) agree. A smaller portion of respondents are neutral (4 individuals, 8.0%), and 3 respondents (6.0%) strongly disagree. No respondents selected "Disagree."

Table 22: The PMO improves overall organizational performance and efficiency.

The PMO improves overall organizational performance and efficiency.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	3	6.0
Disagree	0	0.0
Neutral	4	8.0
Agree	20	40.0
Strongly Agree	23	46.0
Total	50	100.0

Table 23 showed that respondents' views on whether the PMO helps optimize resource utilization and project outcomes. The majority of respondents strongly agree (24 individuals, 48.0%) or agree (22 individuals, 44.0%) with this statement. A smaller portion of respondents are neutral (2 individuals, 4.0%) or strongly disagree (2 individuals, 4.0%), while no respondents selected "Disagree."

Table 23: The PMO helps optimize resource utilization and project outcomes.

The PMO helps optimize resource utilization and project outcomes.	Frequency (<i>f</i>)	Percentage (%)
Strongly Disagree	2	4.0
Disagree	0	0.0
Neutral	2	4.0
Agree	22	44.0
Strongly Agree	24	48.0
Total	50	100.0

4.5 Data Analysis

4.5.1 Descriptive Statistics

The summary of the answers given by the respondents was done using descriptive statistics as a means of providing a general picture of the main research variables. These findings were used to determine the general trends, the average answers and the difference in perceptions towards the effectiveness of PMO, strategic alignment, challenges and value creation. This analysis presented a clear basis upon which further regression analysis can be done.

Table 24 Descriptive Statistics

No	Statement	N	Min	Max	Mean	Std. Deviation
1	Gender	50	1	2	1.02	.141
2	Age	50	1	4	2.04	.727
3	Educational	50	1	4	1.50	.707
4	Experience	50	1	4	2.98	.845
5	Organizations Sector	50	1	5	2.50	1.129
6	Position in Organization	50	1	4	2.84	1.113
7	organization formal PMO	50	1	2	1.04	.198
8	PMO clearly defines project goals and objectives.	50	1	5	4.44	.760
9	PMO provides standard project management processes in the organization.	50	1	5	4.34	.872
10	PMO supports project managers in completing projects successfully.	50	1	5	4.16	.766
11	PMO monitors project progress and performance regularly.	50	1	5	4.20	.808
12	PMO improves coordination between different departments.	50	1	5	4.32	.891
13	PMO faces challenges due to unclear roles and responsibilities.	50	1	5	3.60	1.069
14	Limited resources affect the performance of the PMO.	50	1	5	3.94	1.038
15	Lack of management support creates difficulties for the PMO.	50	1	5	4.02	1.116
16	Better communication would improve PMO performance.	50	1	5	4.58	.859
17	Training and skill development would increase PMO effectiveness.	50	1	5	4.40	.881

18	PMO ensures that projects support the company's strategic goals.	50	1	5	4.14	1.030
19	PMO helps select the right projects based on business priorities.	50	1	5	3.88	1.154
20	PMO helps select projects based on organizational strategy and business priorities.	50	1	5	4.00	.990
21	Projects managed by the PMO create measurable benefits for the organization.	50	1	5	4.10	.789
22	The PMO improves overall organizational performance and efficiency.	50	1	5	4.20	1.030
23	The PMO helps optimize resource utilization and project outcomes.	50	1	5	4.32	.891
	Valid N (listwise)	50				

The descriptive statistics based on 50 respondents indicate a fairly consistent sample with limited variation in demographic characteristics such as gender (Mean = 1.02) and age (Mean = 2.04), while respondents generally possess moderate education levels and work experience. The results show that almost all organizations have a formal PMO (Mean = 1.04). High mean values (above 4) for statements related to PMO effectiveness—such as defining project goals, providing standard processes, supporting project managers, and improving coordination—suggest strong agreement that PMOs play a significant and effective role in organizations. However, moderate mean scores for challenges like unclear roles (Mean = 3.60), limited resources (Mean = 3.94), and lack of management support (Mean = 4.02) indicate that these issues still affect PMO performance. Respondents strongly agree that better communication (Mean = 4.58) and training (Mean = 4.40) can enhance PMO effectiveness. Furthermore, PMOs are seen to contribute positively to strategic alignment and project selection, as well as to value creation, including improved performance, efficiency, and resource utilization (means above 4). Overall, the findings suggest that PMO effectiveness positively influences value creation in SME's, with generally consistent responses across participants.

4.5.2 Regression Analysis

The regression analysis was performed to investigate how the main independent variables influence the creation of the value of PMO. The analysis assists in finding out whether there is a strong correlation of factors like PMO challenges, strategic alignment, and PMO effectiveness predicting value

creation in SME based organizations on projects. The results also indicate the strength of each relationship in terms of beta values, significance levels, R2 values, and F-values. Hence, regression analysis gives a better insight into the contribution of these factors to the creation of value by PMOs.

Table 25: Regression Analysis of PMO Challenges and PMO Value Creation

Variables	Correlation (r)	Beta (β)	t-value	Sig.	R ²	F-value
PMO Value Creation	0.870	0.870	12.217	0.000	0.757	149.262
PMO Challenges	—	0.297	0.297	0.768	—	—

This table presents the combined results of correlation and regression analysis. PMO challenges shows a strong positive and significant impact on value creation ($r = 0.870$, $\beta = 0.870$, $p < 0.001$), explaining 75.7% of the variance ($R^2 = 0.757$), while challenges have an insignificant effect ($p = 0.768$).

Table 26: Regression Analysis of PMO Strategic Alignment and PMO Value Creation

Variables	Correlation (r)	Beta (β)	t-value	Sig.	R ²	F-value
PMO Value Creation	0.828	0.828	10.233	0.000	0.686	104.715
PMO Strategic Alignment	—	-0.502	-0.502	0.618	—	—

The regression analysis presented in Table 26 examines the impact of PMO strategic alignment on PMO value creation. The results indicate a strong positive relationship between the variables, as reflected by the high correlation coefficient ($r = 0.828$). Similarly, the beta coefficient ($\beta = 0.828$) shows

that strategic alignment has a substantial and direct effect on value creation within the PMO, suggesting that improvements in alignment significantly enhance organizational outcomes. The t-value (10.233) is considerably high, and the significance level ($p = 0.000$) is well below the standard threshold of 0.05, confirming that the relationship is statistically significant. Furthermore, the R^2 value of 0.686 implies that approximately 68.6% of the variation in PMO value creation can be explained by strategic alignment, indicating a strong explanatory power of the model. The F-value (104.715) also supports the overall significance of the regression model.

Table 27: Regression analysis of PMO value creation and PMO effectiveness

Variables	Correlation (r)	Beta (β)	t-value	Sig.	R^2	F-value
PMO Value Creation	0.863	0.863	11.847	0.000	0.745	140.353
PMO effectiveness	—	0.107	0.107	0.915	—	—

The analysis shows a strong positive and statistically significant relationship between PMO effectiveness and PMO value creation ($r = 0.863$, $p < 0.001$). The regression model is significant ($F = 140.353$, $p < 0.001$), explaining 74.5% of the variance in PMO value creation ($R^2 = 0.745$), which indicates high predictive power. The standardized coefficient ($\beta = 0.863$, $t = 11.847$, $p < 0.001$) confirms that PMO effectiveness has a strong positive effect on PMO value creation. The constant term is not significant ($p = 0.915$), indicating that the effect is primarily driven by PMO effectiveness.

5 Discussion and Conclusion

This chapter presents the discussion, key findings of the study and provides a comprehensive conclusion based on the analysis conducted in the previous chapter. It summarizes the major results related to the effectiveness of the Project Management Office (PMO), its role in value creation, and the challenges affecting its performance. The chapter also interprets these findings in relation to the research objectives and highlights their practical implications for organizations. Furthermore, it offers conclusions drawn from the overall study and may include recommendations for improving PMO performance, as well as suggestions for future research. Through this, the chapter aims to provide a clear understanding of how PMOs contribute to organizational success and areas where improvements are needed.

5.1 Discussion

The results of this research are valuable information on how the Project Management Office (PMO) can contribute to the improved organizational performance and value creation. The demographic findings show that most of the respondents are experienced professionals and mostly male with age group of 30-39 years and with high work experience and educational backgrounds. This implies that the responses have been informed making the findings reliable.

The findings indicate that the majority of the organizations have developed a formal PMO, which shows the increasing significance of PMOs in the contemporary organizational design. This observation is in line with other earlier reports which underscore the growing trend of PMOs as a strategic activity at the organizational level (Hobbs and Aubry, 2007). The fact that 96 percent of the organizations sampled have PMOs shows that PMOs are highly considered as a critical measure of enhancing the governance and performance of projects.

The descriptive analysis indicates that there is a high level of agreement among the respondents on the effectiveness of PMOs. The fact that the mean score of variables like defining project goals, provision of standardized processes, supporting project managers, and improving coordination are high (greater than 4.0) suggest that PMOs contribute greatly to project success. These results support the

study presented by PMI (2017), which emphasizes that the standardized practices of project management lead to better project performance and efficiency within an organization. On the same note, Aubry et al. (2010) contend that PMOs can lead to improved coordination and control of projects which is evident in the high level of consensus in this research.

Nevertheless, the research also reveals that there are a number of issues that impact the performance of PMOs such as inadequate roles and responsibilities, scarcity of resources and management support. These variables have moderate mean values indicating that PMOs are effective but they are limited operationally. These results are in line with earlier studies by Muller et al. (2013), who discovered that the lack of effective governance structures and resources may impede the performance of PMO.

Surprisingly, the respondents strongly concurred that better communication and training would help a lot to boost PMO performance. This is in line with previous research that has highlighted the significance of organizational communication and capability building in enhancing the project outcomes (Kerzner, 2019). With proper communication, the stakeholders are better coordinated and training improves the competencies of the project teams which will eventually result in optimal performance of PMO.

Extrapolating the results to Pakistan setting, it is implied that the organizations that are based on SME's projects should enhance the functions of PMOs in order to enhance the performance of the project, its strategic alignment, and value creation. As the findings indicate that the effectiveness of PMO is strongly related to value creation, to enhance the performance of Pakistani SME's, the establishment of formal PMO structures, definition of roles and responsibilities, enhancement of communication and training of project teams are recommended. The research also reveals that standardized project management processes, enhanced coordination and enhanced management support can assist SME's in Pakistan to overcome resource constraints and operational bottlenecks. Thus, Pakistani SME's are encouraged to use more flexible and context-dependent PMO models, which can serve the small resources of the company and still be able to support the implementation of strategies and long-term performance in the organization.

Moreover, regression analysis was performed in order to further investigate the effect of PMO effectiveness on value creation. The findings indicated a significant positive correlation ($r = 0.863$) with a statistically significant p-value ($p < 0.001$) that indicates that change in PMO effectiveness is correlated with higher value creation. The regression analysis even adds more weight to the findings by showing that there is a strong and statistically significant relationship between PMO effectiveness and value creation ($r = 0.863$, $p < 0.001$). This implies that PMO effectiveness is one of the key predictors of value creation in the organization. This outcome is in line with prior research including Unger et al. (2012), who discovered that sound project portfolio management practices are great contributors to strategic success and value generation.

Likewise, the outcome demonstrates the existence of a strong positive correlation between strategic alignment and value creation ($r = 0.828$, $p < 0.001$) and proves that PMOs are an important part of aligning projects with organizational purposes. This observation reinforces the notion by Martinsuo (2013) that strategic alignment is key to ensuring that projects help to drive overall business purposes.

On the other hand, the analysis shows that challenges have an insignificant effect on value creation ($p = 0.768$). This implies that amidst challenges, organizations can still attain value in the process of undertaking good PMO practices. This observation is contrary to some of the earlier researches, which indicate that challenges may be a major impediment to the performance of PMOs (Aubry et al., 2010). Nevertheless, it can also imply that the organizations have devised strategies to cope with these issues well.

On the whole, the results of the current research prove that PMOs are crucial to project success, better organizational performance, and value creation. The high positive correlations identified during the regression analysis have shown the significance of PMO effectiveness and strategic alignment in accomplishing organizational objectives. These findings are in agreement with the general body of literature on project management and support the importance of PMOs as a strategic activity in contemporary organizations.

5.2 Conclusion

This research concludes that PMOs are a crucial and strategic aspect towards better organizational performance and value generation. The results indicate that successful PMOs play an important role in the success of projects by offering organization, standardization, and encouragement to project management procedures. Organizations with proper and effective PMOs are in a better position to achieve their strategic goals and enhance overall efficiency.

The strong relationship between PMO effectiveness and value creation highlights the importance of investing in PMO capabilities. On the same note, strategic alignment will help to ensure that the projects are not only carried out effectively but also add on long-term organization objectives. Despite the obstacles, their low severity implies that organizations can address the challenges and handle them very well. All in all, PMOs are not only units of operation but also strategic enablers that assist organizations to gain a competitive advantage in terms of improved project outcomes and value delivery.

The given study is especially significant in the context of Pakistan, as SME`s contribute significantly to the economic growth, creation of jobs, and development of businesses. Nevertheless, most Pakistani SME`s have few resources, are informal and have poor project governance systems. Hence, the results indicate that the Pakistani project-based SME`s need to implement adaptable and situation-driven PMO models that will suit the size of the organization, resources at disposal, and the business environment. Rather than the big organization PMO models, SME`s in Pakistan require lightweight PMO models able to facilitate the implementation of a strategy, enhance the coordination of projects, and generate quantifiable value.

In general, PMOs cannot be considered solely as administrative or operational units. Instead, they are to be viewed as strategic enablers that can assist organizations in getting competitive advantage by delivering better project results, resource utilization, support digital transformation, and value delivery in the long-term. This study finds that an enhancement of PMO practices among Pakistani project-based SME`s can be of great help in enhancing the performance of an organization and help in achieving sustainable business growth.

5.3 Recommendations

According to the results of this research I clearly answers of the research questions and achieved all the objectives, the following recommendations can be made:

- The roles and responsibilities in the PMO should be clearly spelt out in the organization to minimize ambiguity and enhance efficiency.
- Departmental and project team communication should be promoted to enhance coordination and decision making.
- They should have continuous training programs to improve the skills of PMO staff and project managers.
- The top management must be proactive in PMO initiatives to give resources and strategic direction.
- The organizations must make sure that all projects are aligned to business goals to create maximum value.
- PMOs should be provided with sufficient resources to increase their performance and efficiency.

5.4 Limitations

Although this study has its contributions, it has a number of limitations:

- The number of respondents (50) was also small and might impact the generalizability of the results.
- The research targeted certain Organizations, which might not be a perfect representation of all organizations.
- Self-reported questionnaires were used in data collection, which can be biased.
- The research was cross-sectional and it failed to reveal how things change with time.

5.5 Future Directions

This research can be extended in future research by:

- Increasing the sample and extending the organizations.
- Longitudinal studies to analyze the fluctuations in performance of the PMO with time.
- Conducting further analyses on other variables including organizational culture, leadership style and technology adoption.
- Comparison of PMO effectiveness among various countries/ regions.
- Exploring how digital transformation can help improve PMO performance.

5.6 Practical Implications

This research has valuable practical implications to managerial, PMO practitioner, and decision-makers within SME project-based organizations. The results indicate that PMOs play a vital role in setting the project objectives, standardization of project management, assisting project managers, tracking project status, enhanced inter-departmental coordination, and alignment of projects to organizational strategy. These functions imply that PMOs cannot be viewed as administrative or reporting units only, but as strategic mechanisms that assist organizations to transform the strategy into implementation and value creation that could be measured.

In the case of SME organizations, they are informed practically that the enhancement of the PMO capability may help to enhance the project performance as well as the overall organizational performance. Because the research revealed that the effectiveness of the PMO and value creation had strong positive correlations, as well as strategic alignment and value creation, SME managers need to make sure that the PMO is strategically placed to facilitate project selection, prioritization, governance, and monitoring of performance. Practically, it could imply assigning the PMO a clear role in ensuring that the projects are aligned with business priorities to ensure that the limited organizational resources are channeled into those projects that produce the greatest strategic and operational value.

The findings further indicate that there are a number of areas that organizations can do to enhance the effectiveness of PMO. Some of the identified challenges included unclear roles and responsibilities, lack of resources, and management support, and respondents strongly agreed that the performance of PMO could be enhanced by means of improved communication and training. Thus, to enhance the effectiveness of PMO, organizations must specify the duties and responsibilities of PMO, enhance communication at the interdepartmental and project team levels, invest in training and skill development, and have top management actively endorse PMO initiatives by providing strategic direction and sufficient allocation of resources. Such measures can assist SME's to break the internal barriers and enhance the consistency and effectiveness of project delivery.

The other pragmatic implication is that SME's ought to be more strategic in project governance. Instead of gauging the PMO success by compliance, reporting, or project completion, organizations need to measure PMO success in terms of its contribution to quantifiable benefits in terms of enhanced efficiency, better use of resources, greater coordination, and improved organizational performance. In the SME setting, in particular, where financial and managerial resources are limited, it is vital that every project must add value to business objectives and long-term value. To this end, the PMO can act as a strategic enabler and enable SME's to compete better with the help of disciplined performance, enhanced alignment, and utilization of internal capabilities.

On the whole, this research offers useful recommendations to SME executives on the design, position, and strengthening of PMOs to facilitate the implementation of the strategy and the creation of value. With the help of PMOs, SME's can not only manage the projects more efficiently but also improve organizational effectiveness and the attainment of sustainable competitive advantage by improving the governance structures, communication practices, training systems, and strategic project alignment.

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Appendix 1

11 March 2026

Dear Esteemed Participant,

Survey Participation Request

This letter is an invitation to participate in a **questionnaire** for a research study. I am **Usama Naveed**, a graduate student in the Master's in Strategic Project Management Programme in the University of Vaasa. Currently, I am conducting a research study aimed at *"From Strategy to Implementation: How PMOs Create Value in SME's Project-Based Organizations"*. This study is under the supervision of Dr. Maqsood Sandhu.

The filling of the questionnaire is voluntary, and there are no known or anticipated risks to participating in this survey. Moreover, the collected information is of no conflict and does not reflect the opinion of your affiliated organization, but rather your own professional expertise.

The collected information through the questionnaire would be treated confidentially, not transferred to a third party and merely used for the research purposes of this study; no reference to you or your organization is mentioned in any part of this study. For the sake of anonymity, your email address or organization's website will not be mentioned.

I appreciate your willingness if you could kindly share your expert opinion to enrich my Master's dissertation. The questionnaire takes roughly about 20 minutes to complete.

Thank you in advance for your interest and assistance with this research.

Usama Naveed

Strategic Project Management Programme, University of Vaasa

usama.edu2468@gmail.com

PART - I

Demographic Information

1. Gender

Male Female Prefer not to say

2. Age

20–29 30–39 40–49 50 and above

3. Highest Educational Qualification

Bachelor's Degree Master's Degree PhD other

4. Years of Work Experience

Less than 3 years 3–5 years 6–10 years More than 10 years

5. Organizations Sector

Manufacturing IT/Technology Construction Services Other

6. Position in Organization

PMO Staff Project Manager Department Head Senior Management

7. Does your organization have a formal PMO?

Yes No

PART - II

Roles and Functions of the Project Management Office (PMO) in SME`s

This part raises the question

“How does the presence of a Project Management Office (PMO) influence project coordination, governance, and strategic alignment in SME organizations?”

Based on your work experience or knowledge of project management practices, kindly evaluate the significance of each criterion that can be used to measure the effectiveness of PMO roles and functions within SME organizations.

Criterion	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The PMO clearly defines project goals and objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The PMO provides standard project management processes in the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The PMO supports project managers in completing projects successfully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The PMO monitors project progress and performance regularly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The PMO improves coordination between different departments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART – III

Challenges and Effectiveness of the Project Management Office (PMO) in SME`s

This part raises the question

“What are the key challenges faced by the Project Management Office (PMO) in SME organizations, and how do these challenges affect its effectiveness in managing projects and supporting organizational objectives?”

Based on your work experience or understanding of project management practices, kindly evaluate the significance of each criterion that may be used to identify the major challenges faced by PMOs and the possible ways to improve their effectiveness in SME organizations.

Criterion	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The PMO faces challenges due to unclear roles and responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Limited resources affect the performance of the PMO.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Lack of management support creates difficulties for the PMO.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Better communication would improve PMO performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Training and skill development would increase PMO effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART - IV

Strategic Alignment and Value Creation through the Project Management Office (PMO)

This part raises the question:

“How does the presence of a Project Management Office (PMO) support the alignment of organizational strategy with project implementation and contribute to value creation in the organization?”

Based on your work experience or understanding of project management practices, kindly evaluate the significance of each criterion that may be used to measure how effectively the PMO supports strategic alignment and organizational value creation.

Criterion	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Strategic Alignment					
1. The PMO ensures that projects support the company’s strategic goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The PMO helps select the right projects based on business priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The PMO helps select projects based on organizational strategy and business priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Value Creation					

4. Projects managed by the PMO create measurable benefits for the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The PMO improves overall organizational performance and efficiency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The PMO helps optimize resource utilization and project outcomes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Further Comments and Notes (if any):
