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PINNACLE STRATEGIES
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Research Report

Training and PMOs Will Not Save Our Projects

The State of Project Management Practice and Effectiveness

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Executive Summary: Practices and Effectiveness

While organizations have dramatically increased project management investments, their return has lagged in two key areas—budget and schedule—prompting many to consider using an execution-focused model to establish a culture of delivery excellence.

Modern project management has existed since the 1950s; however, the last 20 years have seen an explosion in organizational investment in project management. In fact, the number of Project Management Professionals has increased by 1,350 percent, and over 15.7 million project management roles are expected to be added globally from 2010 to 2020.[1]

Report Scope and Goals

With such significant growth, Pinnacle Strategies determined that it would be valuable to identify where, why, and with what success these investments are being made.

The result is this report, which benchmarks current project management practices and results. It identifies today's most common practices, concerns of executives and project managers, and process areas they are working to improve. Its goal is to shed light on the core issues affecting successful project delivery and the areas where practitioners and managers should be applying their efforts.

This report was compiled by analyzing a broad array of recent scholarly and industry research from authoritative sources such as *The Economist*, Accenture, Project Management Institute (PMI), and PriceWaterhouseCoopers (PwC). The research includes surveys of over 4,000 professionals in over 40 industries and countries, as well as interviews with C-level executives in 22 countries.

Results and Recommendations

Managers have recognized the importance of project execution and are investing heavily in project management teams. Namely, they are:

- Providing training for project managers, with teams following the rigor of PMI's Project Management Body of Knowledge (PMBOK®) to build maturity and capability
- Establishing Project Management Offices (PMO) to build project management teams
- Aligning projects to business strategy, putting a business focus on projects at high levels

PM teams believe they are providing "suitable project structures to execute projects," but executives are still not getting the expected payoffs—especially in costs and timelines.

Of the critical success factors, PM skills training results in improvement in only quality, scope, and business benefits. Even worse, the results of implementing a PMO show declining results in budget and schedule performance.

We believe the cause of these results is an over-emphasis on the PMBOK®, which relies heavily on specification and control and offers almost no guidance for executing projects. The solution is for senior executives to create and drive a culture of delivery excellence by using an execution model and framework that emphasize results, yielding on-time, on-budget project completion.

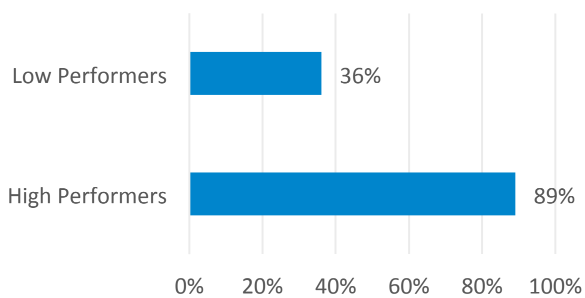
Findings: The State of Project Management

Even though managers are demonstrating commitment, engagement, and support to PM teams—by investing in training, PMOs, and strategy alignment—there are significant gaps between the perceived and actual (though still limited) benefits of today's most common processes and practices.

Current Range of Project Performance

Every executive and project manager agrees that effective delivery is critical for a high-performing organization. However, there is a wide range of success in project performance (see Figure 1), with low-performing organizations wasting nearly 12 times more than high performers. Further, there are relatively few high performers overall.

Figure 1. Successful Project Completions[2]



Perceived Drivers of Project Success

To identify the reasons for this wide range and dearth of high performers, first consider what project stakeholders believe are the core drivers of project success.

Executives, those commissioning projects, believe that detailed planning, leadership skills, and stakeholder engagement are critical. Meanwhile project managers, those doing projects, believe that improved planning, enhanced maturity, better executive sponsorship, well-defined goals, and minimal scope changes are critical.

Actual Drivers of Project Success

When examining the qualities and practices of high and low performers, 10 key elements stand out as being significant positive drivers of project success. Following are each, five for strategy and five for process, ranked in order of correlation to results.

Strategy (Commissioning)

1. Stable schedule
2. Transition from build to operation (EPC)
3. Culture of delivery excellence
4. Timely decision making
5. Ready performance data

Process (Practice)

1. Alignment to organizational strategy
2. Executive sponsorship
3. Skilled leaders
4. Risk management processes
5. Change management

When comparing these elements with those seen as critical by managers, there is a clear disconnect. Many of the processes and practices that managers believe make a difference are not those that actually *do* drive the best results.

Results of Current Practices within KPI Factors

With this disconnect in mind, consider the results of current practices in relation to the KPI factors needed for project success: scope, quality, business benefit, budget, and schedule.

Scope

Improvements in training and management have led to significant improvements in satisfying scope requirements for most projects. In addition, an emphasis on planning and improved communication prior to launch, along with the adoption of more iterative planning methods, have led to more established project boundaries and improved compliance.

The PMBOK® guide, the basis of the project management certification, details how to manage scope through the project lifecycle, which includes planning, collecting, defining, creating the work breakdown structure, validating, and controlling. This has improved managers' success in the scope KPI.

Quality

The increased emphasis on effective planning has also improved organizations' ability to reliably and consistently produce results that satisfy customer requirements. Teams now spend more time reviewing customer needs to ensure they are clear, concise, and understood. Management then continually communicates and reviews the requirements with the team throughout the process, and discrepancies are resolved in a timely fashion.

The PMBOK® guide details how to manage project quality through lifecycle planning, controlling, and performing. In addition, the guide addresses how to control supplier quality through the procurement management process, which includes planning, conducting, controlling, and closing procurements. This guidance, along with training and certification, has yielded improvement in the quality of project outcomes.

Business Benefit

Organizations have been successful in reaching their business benefit targets, including predicting and executing the project value to meet key stakeholders' expectations.

The PMBOK® guide provides extensive guidance for project managers to improve business benefit through project initiation and stakeholder management, which is a key communication process throughout the project lifecycle.

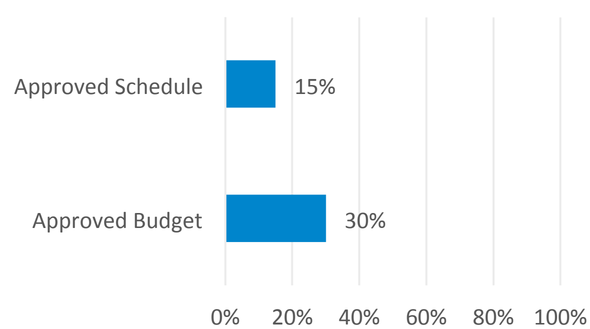
Budget

While improvements have been seen in areas of the scope, quality, and business benefit KPIs, similar progress has been absent in budget and schedule performance.

The PMBOK® guide provides guidance on how to organize, manage, and control the project team, as well as how to manage risk and cost. Yet, it provides little guidance on these items relative to project execution.

According to survey data, less than 70 percent of projects are completed within budget (at best),[3] and only 30 percent of organizations are meeting their target budget for all projects (see Figure 2).

Figure 2. Companies Meeting Targets for All Projects[4]



As a result, companies are spending more than planned, reducing the expected return on investment and negatively affecting the bottom line.

The increased emphasis on project control, scope control, stakeholder analysis, and risk management—while beneficial in relation to other KPIs—adds to project resources and overall project cost. In addition, further cost increases often occur as organizations attempt to accelerate the schedule by starting work in parallel, which can lead to an iterative process of rework that increases engineering and supply chain costs.

The most commonly added resources, while projects are being executed and issues identified, are schedulers and planners. These unplanned resources provide more visibility, but they add cost and do not improve project execution.

The limitation and lack of availability of resources (people and materials) can lead to cost overruns, which affect overall costs. However, overruns are typically planned for with PMBOK® processes early in the project, and understanding of costs and risks based on these limitations have been improved by project management methodology and project controls.

Schedule

According to survey data, over 35 percent of projects are finished late,[5] and only 15 percent of organizations are meeting their target schedule for all projects (see Figure 2).

These delays negatively impact an organization's results in various ways:

- Growth of unhappy customers
- Loss of market share and reputation
- Delayed time to market
- Delayed return on investment
- Lower productivity
- Higher costs
- Increased turnover (management and workforce)
- Divisive and costly litigation due to delays and cost overruns

In construction projects, engineering and engineered products have the highest occurrences of schedule delays and the largest impact on projects.

Today's Trends in Project Management: Results

The disconnect between the practices that managers believe make a difference and those that actually do can also be seen in today's three most common areas of project management investment, shown in Figure 3.

Figure 3: Current Trends in Project Management

1. Providing Training for Project Teams

Executives worldwide recognize the need for qualified project management professionals, so they have invested heavily in project team training. Indeed, since 1990 the number of Project Management Professionals has increased from 431 to over 590,000, and universities offering degrees in project management have increased from one to 350.[6]

Impact on Project Success

While this training has led to improvements in some areas, it has had a neutral or negative effect on several key success factors. For instance, of the five KPI project success factors, it has resulted in improvement in only three: quality, scope, and business benefits. And when compared to teams without PM training, it has resulted in a decline in performance relative to the budget and schedule KPIs (see Figure 4).[7]

Despite leadership commitment and hundreds of millions of dollars invested in improving project performance since 1990,[8] project management professionals continue to struggle to deliver improved results in budget and schedule performance.[9]

According to survey data, only 39 percent of all projects are succeeding (delivered on time, on budget, with required features and functions). Meanwhile, 43 percent are challenged (late, over budget, and/or with less than the required features and functions), and 18 percent are failing (cancelled prior to completion or delivered and never used).[10]

Comparing to Use of Typical PM Approaches

Survey data shows that organizations using just their typical PM approach are meeting or exceeding their quality standards 93 percent of the time. Further, these organizations are delivering within project scope 92 percent of the time and meeting or exceeding the projected business benefits 89 percent of the time (see Figure 5).

However, like those following the rigor of the PMBOK® guide, these organizations are also experiencing lower performance levels in project schedule and budget. In these areas, project objectives are missed approximately 30 percent of the time (see Figure 5).

Figure 4. Training Impact on Project Success Rates, by KPI[11]

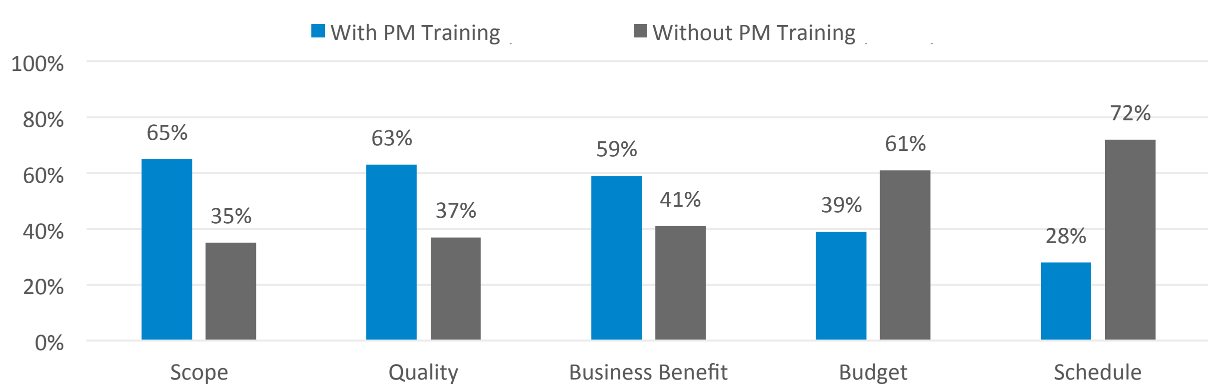
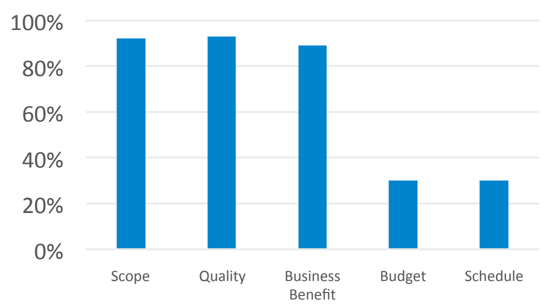


Figure 5. Success of Typical PM Approaches, by KPI[12]



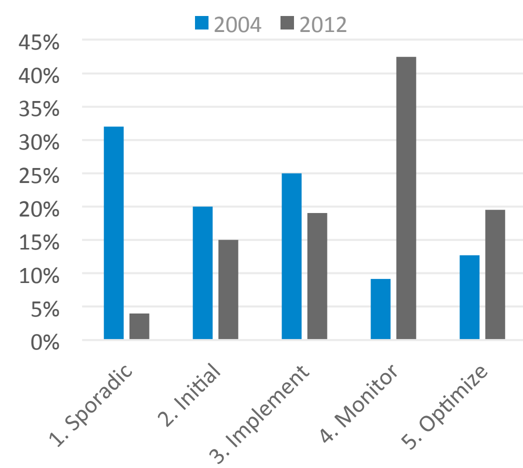
Results of Increased PM Maturity

As part of training provided for project managers and their teams, organizations are having teams follow the rigor of PMI's PMBOK® guide and certifications to build maturity and capability.

These efforts have allowed project managers to make substantial strides in maturity, based on the current planning-focused model. For example, in PwC's 2004 global survey on the state of project management, over 50 percent of organizations rated their PM maturity model as a one (sporadic) or two (initial). By PWC's 2012 survey, over 60 percent rated their model as a level four (monitor) or five (optimize). See Figure 6.

However, as previously noted, increasing PM maturity has had a limited effect on project results, as most projects continue to be completed late and over budget.

Figure 6. Organizational Levels of PM Maturity[13]



2. Establishing PMOs

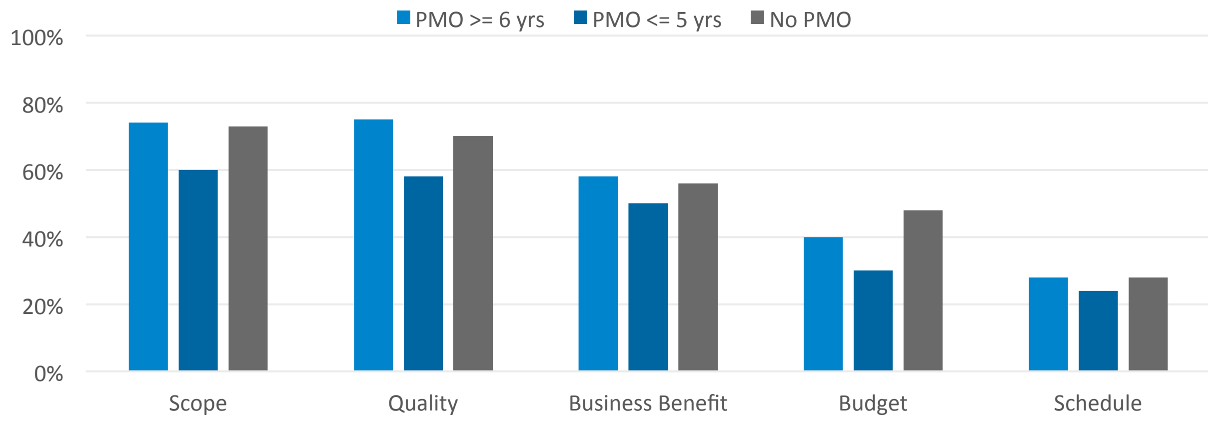
In addition to training, executives have been overwhelmingly supportive of establishing PMOs for standards setting and project and program delivery management. In fact, about 70 percent of organizations surveyed now have a PMO, compared with 61 percent in 2006.[14]

However, while establishing a PMO is having some positive impacts on project performance, PMI has found that the overall difference in performance between organizations with and without a PMO is only 1 percent.[15]

Further, research shows that organizations implementing a PMO are experiencing declines in all five KPI project success factors (see Figure 7).[16] Even organizations that have used a PMO for over six years are experiencing similar or lower success in each KPI, when compared to those without a PMO.

As with training, survey data highlights an *inverse* relationship to having increased maturity (exemplified by a PMO) and delivering on time and budget.

Figure 7. Project Success Rates, by KPI and Length of Time Using a PMO



3. Aligning Projects to Business Strategy

Organizations have also been aligning projects to business strategy, providing a business focus on projects at high levels. But despite this effort, they are still struggling to effectively complete strategic initiatives.

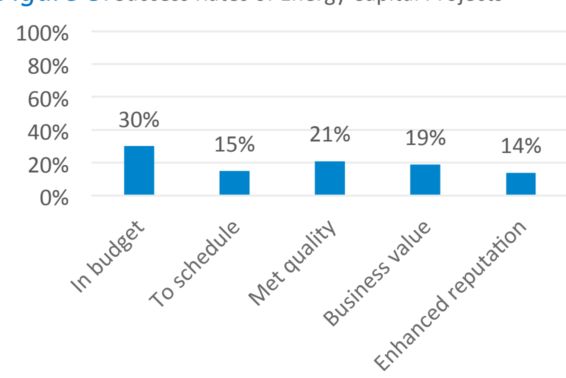
Only 56 percent of strategic initiatives are meeting their original goals and business intent, resulting in organizations losing $109 million for every $1 billion invested in projects and programs.[17]

Industries that rely heavily on large, capital-intensive projects are struggling even more. For example, Accenture's 2012 survey of the energy sector found that projects meet budget and schedule (within 25 percent range of initial plan) only 30 percent and 15 percent of the time, respectively (see Figure 8).

With the energy industry projected to spend $38 trillion on capital projects through 2035, the financial costs of poor project performance are significant.

Energy companies typically have well-established project management methodologies and tools, and 87 percent of industry executives believe that delivery performance is critical to high performance.[18] And with expected increases in the size and complexity of energy projects, higher demand, and increased regulation, the importance of performance is growing. However, most companies have investment ratios less than one, indicating that they have not been maintaining the asset base needed to meet the rising global demand for energy.

Figure 8. Success Rates of Energy Capital Projects[19]



Analysis: A Missing Emphasis on Project Execution

With the PMBOK® lacking emphasis on project execution, organizations must find a different path to more effectively execute their plans—allowing them to leverage their improvements in project discipline and gain the financial benefit of true delivery excellence.

Positive Results of the PMBOK® Guide

The PMBOK® guide's primary emphasis is on achieving more discipline in stakeholders' analysis, planning, scope, quality, risk management, communications, and monitoring and control. Therefore, it is not surprising that skills in these areas have improved, leading to subsequent improvements in scope, quality, and overall business benefits.

Negative Results of the PMBOK® Guide

However, the key areas of budget and schedule continue to confound executives and project management professionals—the result of a lack of clear principles and best practices in project execution.

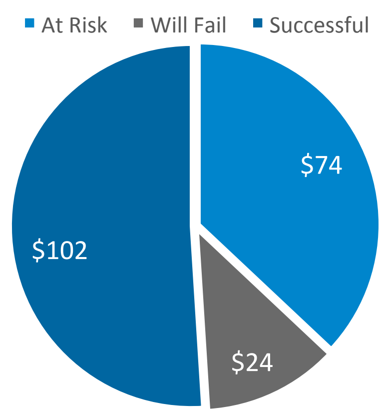
Less than 10 of the over 450 pages in the PMBOK® guide reference project execution, and the definition of it is limited to "the process of performing the work defined in the project management plan." When execution is mentioned, the techniques and tools are specified as "expert judgment" and PM Information Management Systems, respectively. Simply, the PMBOK® leaves project execution fully to the expertise and experience of each project manager.

There is significant value in setting high standards for project management skills training; however, this alone is insufficient to ensure successful project performance.

Financial Effects of Project Execution

The financial impacts of poor project performance are major. On average, firms are managing $200 million in projects each year. Of these, $74 million are at risk of failing and $24 million are failing (see Figure 9).[20]

Figure 9. Annual Cost of Project Results (in USD millions)



As a result, organizations are increasing their resources and budget to recover the remaining projects. These additional costs are having a significant, negative effect on the return on investment and profitability of these projects, as well as those of others that share the same resources.

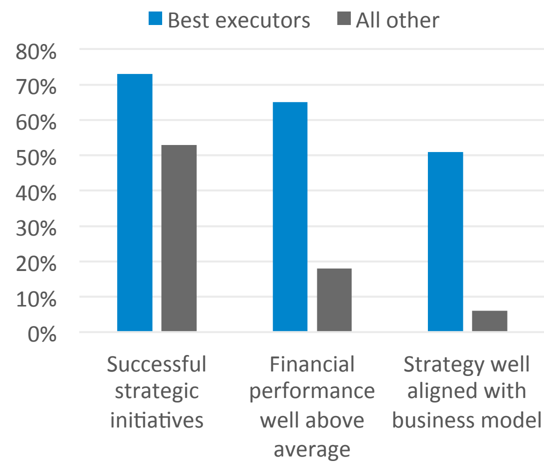
Ultimately, while projects have improved in several performance areas, this improvement has come with an increase in project overhead and a reduction in value and innovation. Improvements in budget and schedule are necessary to ensure these additional investments are rewarded.

The Value of Improved Execution

While organizations that invested heavily in skills training and PMOs are having many positive results, the level of success executives were hoping for remains elusive. To find that success, organizations must learn to more effectively execute their plans, improving execution to leverage the improvements they made in planning.

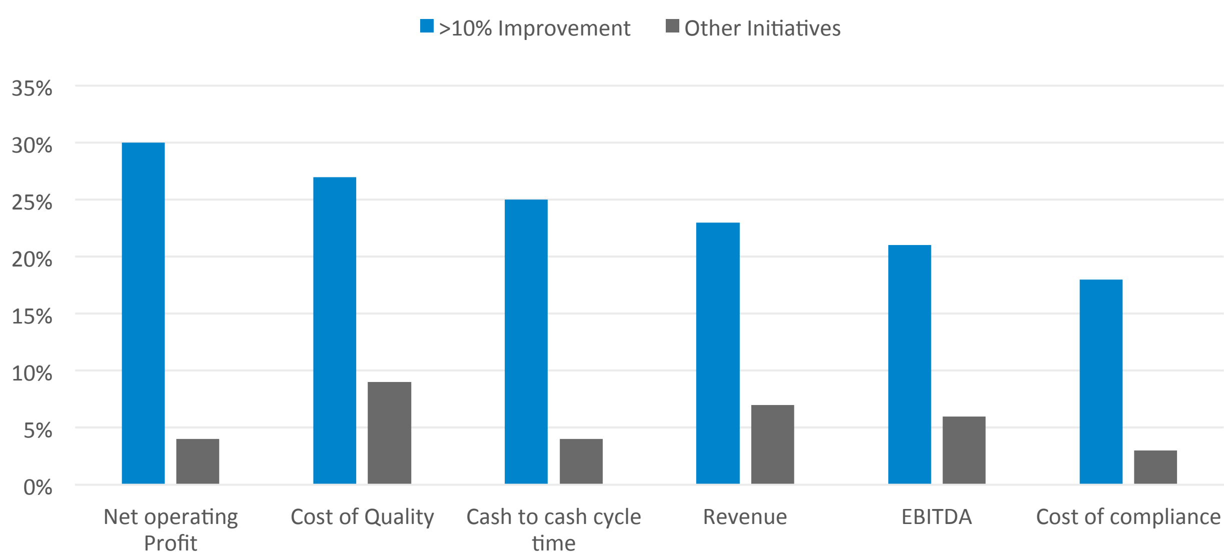
The value of improved execution is staggering. In fact, survey data shows that 65 percent of companies with high-quality project execution rank their financial performance as well above average, compared to only 18 percent of all other companies (see Figure 10). The companies also rank the success of their strategic initiatives and alignment of strategy with business model well above average.

Figure 10. Benefits of Improving Project Execution[21]



Further, improved on-time and on-budget performance results in significant financial gains. As illustrated in Figure 11, companies that have improved *either* metric by more than 10 percent are far more likely to improve in every financial metric.

Figure 11. Impact of >10 Percent On-Time or On-Budget Improvement on Financial Performance[22]



Recommendations: Building a Culture of Delivery Excellence

To unlock the performance opportunity in projects, organizations must build a culture of delivery excellence—driven by senior executives—that aligns projects to strategic objectives, makes on-time delivery a primary performance measurement, and emphasizes both execution and planning results.

To build a culture of delivery excellence, organizations must develop the processes to execute well and establish appropriate governance to reinforce behaviors that drive results.

However, there is a gap between project execution practice and project execution knowledge.

To address this relatively unexplored area in the PMBOK®, organizations wanting to improve their capabilities must address three questions:

1. Are there execution best practices?
2. What are the principles we can employ?
3. How do we put them into practice?

The most successful organizations will be those that effectively identify and implement principles and processes that drive on-time, on-budget project execution.

These methodologies must give executives the ability to effectively engage, resource, and focus project teams in a collaborative environment—while providing visibility and accountability into the project delivery processes.

Further, they must provide an executive governance structure and clear view into the portfolio of projects, providing focus for executives and project teams. This aligns both project objectives and project outcomes with the overall organizational objectives.

For More Information

To learn more about the information in this report, or if you want to experience how Pinnacle Strategies can improve your on-time and on-budget performance of major projects, contact us at info@pinnacle-strategies.com.

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