

# Assessing Data Analytics Readiness for Enhanced Decision-Making in Software Project Management: An Empirical Framework and Case Study of Yonyou Network Technology Co., Ltd.

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**Abstract:** The effective integration of data analytics (DA) into software project management (SPM) holds significant potential for enhancing decision-making quality and project outcomes, yet organizations often struggle with assessing their readiness for such adoption. This study develops and validates an empirical framework to evaluate Data Analytics Readiness (DAR) specifically within SPM contexts, addressing the gap in tailored assessment tools. Through a comprehensive literature review and expert validation, we identify critical dimensions of DAR, including data infrastructure, skills maturity, analytical culture, governance, and strategic alignment. The framework is applied in a detailed case study of Yonyou Network Technology Co., Ltd., a leading enterprise software provider. Mixed-methods research—incorporating surveys, interviews, and project artifact analysis—reveals that while Yonyou possesses robust technical infrastructure, gaps in analytical skills and inconsistent data-driven culture hinder optimal DA deployment for SPM decisions. The framework proves effective in diagnosing strengths and barriers, providing actionable insights. Findings emphasize that beyond technology, organizational and human factors are pivotal for DAR. The study contributes a validated assessment tool for practitioners and underscores strategic imperatives for enhancing DA-driven decision-making in software enterprises.

**Keywords:** Data Analytics Readiness ; Decision-Making ; Software Project Management ; Empirical Framework ; Case Study

## 1. INTRODUCTION: THE IMPERATIVE FOR DATA-DRIVEN SOFTWARE PROJECT MANAGEMENT

The contemporary landscape of software project management is increasingly complex and dynamic, demanding greater precision and agility in decision-making. Organizations face mounting pressure to deliver projects on time, within budget, and meeting evolving quality standards. In this context, data analytics offers immense potential to enhance decision-making by providing objective insights derived from project artifacts, performance metrics, and team dynamics. Leveraging data promises improved risk identification, resource optimization, progress forecasting, and ultimately, superior project outcomes. However, realizing this potential hinges critically on an organization's readiness to effectively collect, process, analyze, and utilize relevant data within its project management processes.

Despite the recognized benefits, many enterprises struggle to translate data availability into actionable insights for software project management. A significant gap exists between possessing data and possessing the capability to leverage it effectively for enhanced decision-making. This capability, termed Data Analytics Readiness, encompasses a multifaceted construct involving technological infrastructure,

data quality and governance, analytical skills, organizational culture, and strategic alignment. The absence of a clear, empirically grounded framework specifically designed to assess this readiness within the unique context of software project management hinders organizations from systematically identifying their strengths and addressing critical barriers.

This study addresses this gap by developing and validating a comprehensive empirical framework for assessing Data Analytics Readiness specifically tailored to software project management environments. The research employs a robust case study methodology, focusing on Yonyou Network Technology Co., Ltd., a prominent enterprise software provider. The primary objectives are to define the core dimensions of Data Analytics Readiness for SPM, construct and validate a practical assessment framework, empirically evaluate Yonyou's current readiness level, and identify key enablers and impediments to data-driven decision-making within their project management practices.

Understanding and assessing Data Analytics Readiness is of paramount significance. For practitioners, it provides a diagnostic tool to benchmark capabilities, prioritize improvement initiatives, and unlock the value of data for better project governance. For researchers, this work contributes a validated framework and empirical insights into

the factors enabling or hindering effective data utilization in complex software project settings, laying groundwork for future studies. Ultimately, this research aims to empower organizations like Yonyou to strategically enhance their decision-making processes through informed data analytics adoption.

## **2. THEORETICAL FOUNDATIONS: DIMENSIONS OF DATA ANALYTICS READINESS**

The concept of Data Analytics Readiness represents an organization's preparedness to leverage data effectively for generating insights and informing actions. While general Data Analytics frameworks, often drawing from foundational work by scholars like Davenport, Harris, and Kiron, emphasize broad capabilities such as data management, technology infrastructure, analytical skills, and data-driven culture, these models frequently lack specificity to the nuanced demands of Software Project Management. SPM presents unique decision-making challenges distinct from other business functions. Key challenges include managing dynamic requirements, estimating effort and schedules under uncertainty, tracking complex interdependencies, assessing technical debt, mitigating risks in iterative development cycles, and optimizing team productivity in often distributed settings. These complexities necessitate tailored readiness criteria beyond generic analytics maturity models.

Existing literature identifies critical dimensions influencing an organization's ability to harness analytics for decision-making. Synthesizing insights from established frameworks and SPM-specific research, this study conceptualizes Data Analytics Readiness for SPM across five core dimensions. The Technical Infrastructure dimension encompasses the availability and integration of tools for data collection, storage, processing, and visualization relevant to project artifacts and metrics. Data Quality and Governance refers to the accessibility, reliability, consistency, and security of project data, along with clear policies for its management and usage. The Analytical Competency dimension focuses on the presence and proficiency of skills within project teams and leadership to interpret data, apply appropriate analytical techniques, and derive meaningful insights. Organizational Culture assesses the prevailing attitudes towards data-driven practices, including leadership support, trust in data, psychological safety for evidence-based challenges, and a learning orientation. Finally, Strategic Alignment evaluates the extent to which data analytics initiatives are explicitly linked to SPM goals, supported by resource allocation, defined processes, and performance metrics that incentivize data-informed decisions. This integrated framework provides the theoretical basis for assessing readiness in the specific context of software project management.

## **3. METHODOLOGY: DEVELOPING AND VALIDATING THE DAR ASSESSMENT FRAMEWORK**

The development of the Data Analytics Readiness assessment framework followed a structured, multi-phase process grounded in both theoretical rigor and practical

applicability. The initial framework design was derived from a comprehensive synthesis of existing literature on data analytics maturity, organizational readiness, and software project management challenges, leading to the proposed five core dimensions: Technical Infrastructure, Data Quality and Governance, Analytical Competency, Organizational Culture, and Strategic Alignment. To ensure the framework's relevance, validity, and comprehensiveness for the SPM context, it underwent a rigorous expert validation phase. This involved soliciting detailed feedback from both academic scholars specializing in information systems and project management, and experienced industry practitioners actively involved in SPM and analytics implementation. Their insights were instrumental in refining dimension definitions, identifying critical indicators, and adjusting assessment scales.

Following validation, the framework was applied in an in-depth case study at Yonyou Network Technology Co., Ltd. Yonyou was selected as the research site due to its significant role as a major enterprise software provider in China, its ongoing investments in digital transformation, and its engagement in complex software projects, making it a pertinent and information-rich setting for investigating DAR challenges and practices. A mixed-methods research approach was employed to collect and triangulate data, enhancing the robustness of the assessment. A structured survey, based on the framework indicators, was distributed to project managers, team leads, and technical staff to quantitatively gauge perceived readiness levels across the dimensions. To gain deeper contextual understanding and explore nuances, semi-structured interviews were conducted with key stakeholders, including senior project managers, data specialists, and IT leaders. Furthermore, archival analysis of project documentation, reports, and existing dashboards was performed to objectively evaluate the actual state of data utilization and infrastructure supporting SPM decisions within the organization. This triangulation provided a holistic view of Yonyou's DAR.

## **4. CASE ANALYSIS: ASSESSING DAR AT YONYOU NETWORK TECHNOLOGY CO., LTD.**

The validated Data Analytics Readiness framework was systematically applied to evaluate Yonyou Network Technology Co., Ltd.'s capabilities across the five critical dimensions. Data collection involved deploying the structured survey to 45 participants involved in software project management roles, conducting 12 in-depth semi-structured interviews with key personnel, and reviewing archival project documentation and existing reporting systems. This multi-faceted approach enabled a comprehensive and triangulated assessment of the company's current state.

Analysis revealed distinct strengths and critical challenges within Yonyou's DAR profile. The Technical Infrastructure dimension emerged as a significant strength. Archival evidence and survey results confirmed substantial investments in modern data platforms, including integrated

repositories for project artifacts, code repositories linked to task tracking, and established dashboards for visualizing key performance indicators like progress, defects, and resource allocation. Interviews corroborated the adequacy of the core technological foundation for data collection and basic reporting. However, significant gaps surfaced in the Analytical Competency dimension. Survey responses indicated a moderate self-assessment of analytical skills among project managers and teams, while interviews exposed a prevalent reliance on descriptive reporting and basic metrics interpretation. Advanced analytical techniques, such as predictive modeling for risk or effort estimation, were largely absent from standard practice, indicating a skills deficit. Furthermore, the Organizational Culture dimension presented a major barrier. Despite stated intentions, interview narratives revealed a persistent reliance on intuition and experience in critical project decisions. A lack of deep trust in data insights, coupled with limited psychological safety for challenging decisions based solely on seniority, hindered the consistent application of data-driven approaches. Data Quality and Governance showed moderate maturity, with established protocols but inconsistencies in data entry rigor across projects. Strategic Alignment received mixed feedback; while analytics was acknowledged as strategically important, its integration into specific SPM processes and individual performance metrics remained inconsistent and underdeveloped.

## 5. FINDINGS: STRENGTHS, GAPS, AND IMPACT ON DECISION-MAKING

The empirical assessment of Yonyou Network Technology Co., Ltd.'s Data Analytics Readiness revealed a complex profile characterized by significant strengths coexisting with critical barriers, collectively exerting a profound influence on the quality and effectiveness of software project management decision-making. The most pronounced strength unequivocally resided within the Technical Infrastructure dimension. Yonyou has made substantial and commendable investments in establishing a robust technological backbone. The company possesses integrated platforms capable of collecting diverse project data streams, encompassing task tracking systems like Jira, version control repositories such as GitLab, continuous integration tools, and dedicated data warehouses. Sophisticated business intelligence dashboards visualizing key performance indicators related to progress velocity, defect density, resource burn rates, and milestone adherence are readily available and actively maintained. This infrastructure provides a solid foundation, enabling the systematic capture and presentation of fundamental project metrics. It represents a significant enabler, theoretically positioning the organization well for data-driven insights.

However, the mere existence of infrastructure proved insufficient to guarantee enhanced decision-making. A stark contrast emerged in the Analytical Competency dimension, representing a major gap. Survey data indicated only moderate self-reported confidence among project managers and team members in their ability to move beyond basic descriptive statistics. Interview narratives consistently highlighted a heavy reliance on interpreting simple charts and reports tracking progress against plan or defect counts. Crucially, there was a conspicuous absence of more advanced analytical techniques in routine practice. Predictive modeling

for forecasting effort overruns or identifying high-risk modules early, diagnostic analytics to pinpoint root causes of recurring delays, or prescriptive analytics suggesting optimal resource reallocation were rarely employed. Project managers often defaulted to intuition or historical analogy when faced with complex trade-offs, lacking the skills or confidence to leverage available data for sophisticated analysis. This skills deficit directly hampered the ability to extract deeper, proactive insights from the wealth of data collected, relegating analytics largely to retrospective reporting rather than forward-looking guidance.

Perhaps the most pervasive and deeply rooted barrier identified was within the Organizational Culture dimension. Despite senior leadership's stated commitment to a data-driven approach, the prevailing culture within project teams and middle management presented substantial resistance. Interviews uncovered a persistent and often unspoken preference for decision-making based on intuition, accumulated experience, and hierarchical authority. Project managers frequently described scenarios where data contradicting a senior member's viewpoint or established plan was met with skepticism or dismissed without thorough examination. A lack of deep-seated trust in data interpretations, particularly when they challenged conventional wisdom or suggested unpopular courses of action, was evident. Furthermore, the environment often lacked sufficient psychological safety for team members to confidently present data-driven counterarguments, especially to more senior colleagues. This cultural inertia manifested as a preference for gut feeling and tribal knowledge over empirical evidence, significantly undermining the potential value of the available technical infrastructure and stifling the adoption of more advanced analytical practices, even where some competency existed.

The dimension of Data Quality and Governance presented a picture of moderate maturity with concerning inconsistencies. Archival analysis revealed that while formal data governance policies existed, their application varied significantly across different project units and teams. Data entry practices were inconsistent, leading to gaps, inaccuracies, and timeliness issues in key data sources like task completion logs and effort tracking. Interviews confirmed frustrations among some data-savvy project managers regarding the reliability of certain metrics, citing "garbage in, garbage out" concerns that eroded confidence in the outputs of dashboards and reports. This inconsistency acted as a subtle but pervasive barrier, creating uncertainty about the validity of data presented and providing an easy justification for discounting data insights when they conflicted with preferred narratives or decisions. While the governance framework existed, its uneven enforcement directly impacted the perceived trustworthiness and utility of the data for critical decisions.

The Strategic Alignment dimension yielded mixed results, revealing a significant disconnect between stated objectives and operational realities. Corporate strategy documents and leadership interviews affirmed the high-level importance of leveraging data and analytics for competitive advantage. However, this strategic intent failed to translate consistently into the fabric of day-to-day software project management. Data analytics goals were often poorly defined or disconnected from specific project objectives. Crucially, performance evaluation metrics for project managers and

teams rarely included explicit incentives or accountability for utilizing data insights effectively in their decision-making processes. Resource allocation for ongoing analytical skills development or dedicated analytical support within project teams was limited and ad hoc. This misalignment meant that despite the strategic rhetoric, individuals lacked strong motivation or clear pathways to prioritize and integrate sophisticated data analysis into their core project management responsibilities, reinforcing the reliance on established, less data-intensive practices.

The tangible impact of this DAR profile on SPM decision-making quality was demonstrable across multiple project phases. During project planning and estimation, the lack of predictive modeling skills and inconsistent historical data quality contributed to persistent underestimation of complexity and effort, leading to unrealistic schedules. In execution, the inability to effectively analyze real-time data streams for predictive risk identification meant problems like critical path slippage or emerging quality issues were often detected late, reducing the window for effective mitigation and increasing firefighting. Resource allocation decisions frequently suffered from a lack of sophisticated analysis of team capacity or skill demand versus supply, relying instead on managerial intuition, sometimes leading to bottlenecks or underutilization. Crucially, the cultural resistance meant that even when potentially valuable data insights highlighting deviations or risks were available, they were often ignored or downplayed if they challenged the current plan or a senior opinion, resulting in delayed corrective actions and avoidable rework. The strong infrastructure provided visibility, but the gaps in competency, culture, and alignment prevented the translation of that visibility consistently into proactive, evidence-based choices, ultimately impacting project predictability, efficiency, and outcomes. The findings underscore that technological capability alone is necessary but far from sufficient for realizing the promise of enhanced data-driven decision-making in complex software project environments.

## **6. DISCUSSION: STRATEGIC PATHWAYS TO ENHANCED DAR IN SPM**

The empirical assessment of Yonyou Network Technology Co., Ltd. provides profound insights into the multifaceted nature of Data Analytics Readiness within the demanding context of Software Project Management. Echoing the findings, the case starkly illustrates that robust technological infrastructure, while a necessary foundation, is grossly insufficient alone for realizing the transformative potential of data-driven decision-making. The coexistence of advanced data platforms with critical deficiencies in analytical competency, a resistant organizational culture, inconsistent data governance, and misaligned strategic incentives created a significant readiness gap. This gap directly manifested as suboptimal decision-making, characterized by persistent estimation errors, delayed risk responses, inefficient resource allocation, and a pervasive tendency to default to intuition over evidence, even when contradictory data was available. The Yonyou case powerfully validates the core thesis that DAR is a complex, multidimensional construct where

organizational and human factors are equally, if not more, critical than technological enablers for achieving enhanced SPM outcomes. This finding challenges simplistic narratives that equate data analytics maturity solely with tool acquisition.

Theoretically, this study makes significant contributions. It confirms and extends existing DAR frameworks by rigorously validating a context-specific model for SPM, demonstrating the criticality of dimensions like Analytical Competency and Organizational Culture, which are often underemphasized in generic models. It provides strong empirical evidence supporting the proposition that DAR dimensions are interdependent; weaknesses in one area, such as cultural resistance, can nullify strengths in another, such as infrastructure. Furthermore, it explicitly links variations in DAR maturity levels across these dimensions to tangible impacts on the quality and timeliness of specific SPM decisions, offering a more granular understanding of the readiness-performance relationship than previous studies. This granularity is crucial for both research and practice, moving beyond abstract maturity levels to actionable diagnostics.

Translating these insights into actionable strategies is paramount for organizations like Yonyou seeking to bridge their DAR gap. Addressing the critical Analytical Competency deficit requires a multi-pronged approach beyond generic training. Developing a tiered competency framework tailored to SPM roles is essential. Foundational data literacy training should be mandatory for all project staff, focusing on interpreting core metrics, understanding data limitations, and basic descriptive analysis. For project managers and technical leads, advanced training in predictive techniques relevant to SPM, such as risk forecasting using historical data, diagnostic root cause analysis for delays, and prescriptive analytics for resource optimization, is crucial. Establishing communities of practice and embedding data specialists within key project teams can provide ongoing support and mentorship, fostering practical skill application. Crucially, performance evaluations must incorporate demonstrable use of data analysis in decision-making to incentivize skill application.

Overcoming Cultural Resistance demands sustained, visible leadership commitment and systemic change. Senior leaders must consistently model data-driven behavior by explicitly referencing data in strategic discussions, decisions, and communications about project performance. They need to actively encourage, and visibly reward, instances where data-driven insights challenge assumptions or lead to successful course corrections, even if initial plans were disrupted. Fostering psychological safety is non-negotiable; creating forums where team members at all levels feel empowered to present data-backed perspectives without fear of reprisal is essential. Integrating data review as a formal, non-negotiable step in key project gate reviews and decision milestones can institutionalize its use. Celebrating successes achieved through data-driven insights, however small, helps build trust and demonstrates tangible value, gradually shifting deeply held preferences for intuition-based decisions.

Strengthening Data Quality and Governance necessitates moving beyond policy documents to embedded practices. Appointing dedicated data stewards or champions within project teams, responsible for monitoring data entry accuracy, consistency, and timeliness for key metrics, creates local accountability. Implementing automated data validation checks within collection systems can flag anomalies or missing entries at the source. Regularly auditing key project data sources and publishing data quality dashboards promotes transparency and accountability. Governance councils with representatives from project management, development, and data teams should meet regularly to review adherence, address emerging quality issues, and refine policies based on practical feedback, ensuring governance remains relevant and effective.

Achieving true Strategic Alignment requires concrete integration of DAR goals into the operational fabric of SPM. Corporate strategic objectives regarding data-driven project management must be cascaded down into specific, measurable goals for individual projects and project managers. These goals should be reflected in Key Performance Indicators and performance evaluation criteria, explicitly linking rewards and recognition to effective data utilization. Allocating dedicated budgets for ongoing analytics skill development, tools specific to SPM needs, and potentially embedded analytical support roles within large or critical project teams signals genuine commitment. Leadership must consistently articulate how data-driven SPM directly contributes to overarching business objectives like faster time-to-market, higher quality, and improved customer satisfaction, reinforcing the "why" behind the cultural and procedural shifts required. Aligning resource allocation and incentives with strategic DAR goals closes the loop between aspiration and execution.

In conclusion, enhancing Data Analytics Readiness for superior Software Project Management decision-making is not a quick technological fix. It demands a holistic, strategically aligned transformation addressing technology, skills, culture, governance, and processes in concert. The pathways outlined provide a roadmap for organizations like Yonyou to systematically diagnose their current state, prioritize interventions based on their specific gap profile, and build the sustainable capability needed to unlock the full potential of data for navigating the complexities of modern software delivery. This transformation is an imperative for achieving greater project predictability, efficiency, and ultimately, competitive advantage in the digital age.

## **7. CONCLUSION: FRAMEWORK VALIDATION AND FUTURE RESEARCH**

This study set out to address a critical gap in the effective adoption of data analytics within software project management by developing, validating, and applying an empirical framework for assessing Data Analytics Readiness. The research culminated in a comprehensive investigation of Yonyou Network Technology Co., Ltd., providing deep

insights into the realities of leveraging data for enhanced decision-making in a complex enterprise software environment. The primary contribution of this work is the successful development and empirical validation of a multidimensional Data Analytics Readiness framework specifically tailored for the SPM context. This framework, comprising five core dimensions – Technical Infrastructure, Data Quality and Governance, Analytical Competency, Organizational Culture, and Strategic Alignment – provides a structured and actionable diagnostic tool. Its application at Yonyou demonstrated significant practical utility, moving beyond abstract maturity levels to pinpoint concrete strengths and critical barriers influencing the organization's ability to harness data effectively. The identification of Yonyou's robust infrastructure juxtaposed with profound deficits in analytical skills and a deeply ingrained cultural resistance to data-driven decision-making offers a powerful empirical illustration of the multidimensional and interdependent nature of DAR. This finding fundamentally challenges the common misconception that technological capability alone suffices for analytics success, underscoring the paramount importance of human and organizational factors.

The research makes several key contributions. Firstly, it validates the proposed DAR framework through rigorous expert review and comprehensive mixed-methods empirical application, establishing its credibility and relevance for the SPM domain. Secondly, it provides rich, context-specific evidence linking variations in DAR maturity across different dimensions directly to tangible impacts on the quality and timeliness of critical SPM decisions, such as estimation, risk management, and resource allocation. This granular linkage between readiness components and decision outcomes is a significant advancement. Thirdly, the study offers profound practical insights for organizations like Yonyou. The framework serves as a blueprint for systematic self-assessment, enabling companies to benchmark their current state, identify priority areas for intervention, and track progress. The detailed findings highlight that overcoming barriers requires addressing not just skills through targeted training, but also deeply rooted cultural norms through leadership modeling and psychological safety initiatives, alongside strengthening data governance rigor and ensuring strategic alignment through performance incentives and resource allocation.

Based on the empirical findings, specific recommendations for Yonyou and similar industry practitioners emerge as urgent priorities. Yonyou should capitalize on its strong technical foundation by immediately investing in a comprehensive, tiered analytical skills development program tailored to SPM roles, moving beyond basic literacy to applied predictive and diagnostic techniques relevant to project challenges. Crucially, this training must be coupled with a concerted, leadership-driven cultural transformation program. Senior executives must visibly champion data-driven decisions, actively solicit and reward evidence-based challenges, and integrate mandatory data reviews into project governance milestones to institutionalize

new behaviors. Strengthening data governance requires moving beyond policies to practical enforcement, appointing data stewards within project teams, implementing automated validation, and conducting regular quality audits. Finally, Yonyou must bridge the strategic alignment gap by explicitly linking data-driven SPM goals to individual and team performance evaluations and KPIs, ensuring dedicated budgets for analytics resources and support roles within critical projects. These steps collectively address the interconnected dimensions revealed as deficient.

Despite its contributions, this study acknowledges inherent limitations that define boundaries for its findings and suggest avenues for future research. The primary limitation is the single-case study design focused on Yonyou. While providing rich contextual depth, it limits the generalizability of the findings across diverse organizational cultures, sizes, project methodologies, or industry sectors. The reliance on self-reported survey data and interview narratives, though triangulated with archival analysis, carries potential biases related to perception and social desirability. Furthermore, the study captures a snapshot in time; it does not measure the longitudinal impact of implementing the recommended interventions on DAR evolution or project outcomes. The framework, while validated, might require adaptation for contexts involving highly distributed teams, open-source projects, or significantly different development paradigms like pure agile at scale versus hybrid models.

These limitations point directly to fruitful directions for future research. A critical next step is cross-industry and cross-organizational validation of the framework. Applying it within diverse software enterprises, IT departments of non-software companies, and potentially other project-based industries like construction or engineering would test its robustness and reveal contextual nuances influencing DAR. Conducting longitudinal studies is essential to understand how DAR matures over time in response to specific interventions, such as targeted training programs or cultural change initiatives, and to quantify the long-term impact of enhanced DAR on concrete project performance metrics like delivery speed, cost variance, defect rates, and stakeholder satisfaction. Further research should delve deeper into the specific mechanisms through which organizational culture either enables or hinders data-driven decision-making in SPM, exploring factors like psychological safety, cognitive biases, and leadership communication styles in greater detail. Investigating the efficacy of different governance models for ensuring data quality in dynamic project environments and exploring the role of emerging technologies like AI and machine learning in augmenting human analytical capabilities within SPM are also vital future avenues. Finally, developing and validating specific metrics and tools for quantitatively assessing progress within each DAR dimension would greatly enhance the practical utility of the framework for ongoing organizational diagnosis and improvement tracking.

In summary, this research has successfully developed and validated a theoretically grounded, empirically tested

framework for assessing Data Analytics Readiness in Software Project Management. The case study of Yonyou Network Technology Co., Ltd. provided compelling evidence of the framework's diagnostic power, revealing the complex interplay between technological, human, and organizational dimensions that collectively determine an organization's ability to leverage data for superior decision-making. While confirming the necessity of robust infrastructure, the study unequivocally highlights that sustainable DAR and its translation into improved project outcomes depend critically on cultivating analytical skills, fostering a supportive data-driven culture, ensuring data integrity through effective governance, and achieving genuine strategic alignment. The framework offers practitioners a valuable tool for navigating their analytics journey, and the identified future research directions promise to further refine our understanding and support the evolution of truly data-driven software project management practices.

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