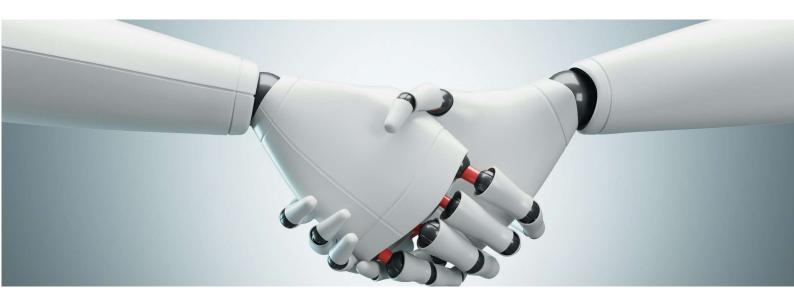
Project Business Management 1,2

Artificial Intelligence (AI) in Project Business Part II: The Customer Side

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"The strong do what they can and the weak suffer what they must."

— Thucydides



Summary

In today's cross-corporate project business environments, artificial intelligence is redrawing the boundaries of power and control — especially when only one party wields it. This article explores the shifting dynamics when contractors use AI to shape outcomes, while buyers remain unarmed. It warns of the growing asymmetry of intelligence and calls for project buyers to rise from passive recipients to strategic orchestrators. AI, when embraced by the buyer, can become a lever of insight, foresight, and control — but only if they build the literacy, roles, and governance mechanisms to match. Without it, they risk being outmaneuvered not just by contractors, but by algorithms.

¹ This is an article in a series by Oliver Lehmann, author of the book "<u>Project Business Management</u>" (ISBN 9781138197503), published by Auerbach / Taylor & Francis. See full author profile at the end of this article. A list of the other articles in PM World Journal can be found at https://pmworldlibrary.net/authors/oliver-f-lehmann.

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What is Project Business?

Many of today's projects are no longer internal endeavors. In a world shaped by global supply chains, outsourcing, and cross-border collaboration, projects are increasingly delivered by networks of companies. These projects are not just technical undertakings – they are commercial ventures.

Project Business arises when two or more companies team up to perform a project under contract. It operates at the boundaries between organizations and often involves diverse legal systems, cultures, and moral compasses. Some project networks are simple; others are complex and fragile ecosystems with dozens, sometimes hundreds of organizations involved.

Though long overlooked, Project Business contributes an estimated 20% to 30% of global GDP and employs more project managers than internal projects. It deserves far more attention – not only for its scale but for the unique challenges it poses.

Traditional project management methods fall short in these settings. Success depends not only on planning and execution, but on commercial acumen, legal awareness, and a deeply cooperative mindset. Trust must be built among parties with differing interests and asymmetric power to enable collaboration toward shared success.

The risks in Project Business go beyond deadlines and deliverables – they include cash flow instability, legal exposure, reputational damage, and contractual disputes. Where information is asymmetrical and objectives diverge, the project manager must act as negotiator, strategist, and builder of partnerships.

This article explores the specific dynamics of cross-corporate project relationships when AI comes on board, shedding light on the unpredictable – and often volatile – nature of cross-corporate project environments.

This article's focus is on the customer side. A previous article explored the contractor side of AI in Project Business.³

AI – the New Team Member, the New Disruptor

It was a routine project steering committee meeting, or so it seemed. The buyer's representative, a seasoned project director, faced the contractor's team with the usual agenda: schedule, budget, and scope.

Then the contractor made an unexpected recommendation: A major milestone would need to be delayed unless the scope was reduced, or the buyer accepted higher costs. The justification seemed to come out of nowhere. No prior warning signs had been raised. Just weeks before, the contractor's reporting had still shown the project on track. There had been no indication of trouble.

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³ (Lehmann, 2025)

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The buyer's team was unprepared. No internal red flags had been triggered. Their tools and dashboards did not indicate that a shift of this magnitude was forthcoming.

The justification for the change was vague but delivered with confidence, accompanied by charts, data, and scenario comparisons that appeared well-prepared. The contractor's team presented their analysis as a fait accompli: no alternatives, no discussion.

What the buyer's team didn't know: the contractor had quietly been using AI in two distinct ways. First, the AI had been used internally to optimize the contractor's portfolio of customer projects. It asked questions such as: Which customer projects justify higher prioritization, and which don't? And: Balancing malus clauses – penalties, liquidated damages, or unpaid incentives – against monetary benefits from high-priority projects, which maluses are worth accepting? The AI concluded that this customer project ranked low in priority. The contractor could afford to delay it or reduce its scope, absorbing any penalties if necessary, in favor of more profitable or strategically important work.

Second, the same AI tool had been used to generate the forecasts and optimize the messaging for the change request presented at the meeting. The contractor presented text, numbers and diagrams that were only to small degree rooted in project reality but in the algorithm's ability to interpret actual facts and hallucinated fantasy. The customer's people were not the only ones to not understand the report, the contractor's people had also difficulties to grasp it fully.

The tool had also assembled a flood of documentation – pages of tables, diagrams, simulations, and alternative scenarios. The volume was overwhelming. It would have taken the buyer's team days to sort through the material and understand its logic. But the decision had to be made now. Behind the scenes, the contractor's AI even tested the proposed change request against the full 500-page contract in seconds, identifying justifications and possible loopholes to support the recommendation. The AI had analyzed project dynamics and modeled several outcomes, selecting the one most likely to be accepted by the buyer.

No mention of AI was made in the meeting. The buyer had no basis to challenge the analysis. Outmaneuvered, they approved the change order.

But what if the buyer had come prepared with their own AI?

An AI system could have scanned the contractor's documentation in real time, flagged inconsistencies, and cross-checked against earlier reports. It could have recognized that the forecasted delay contradicted prior commitments or that cost assumptions had quietly shifted.

Al might have proposed a work-around. Or a plan B. Or even a plan C. It could have quickly tested the change request against the same 500-page contract the contractor had analyzed, surfacing clauses that contradicted the proposed changes or provided stronger alternatives for negotiation. Perhaps the contract defined clearer escalation procedures, or gave the buyer more control over scope changes than the contractor acknowledged. The AI might have revealed that the buyer was under no obligation to approve the request in the proposed form and could have insisted on a different course of action — one better aligned with both the letter and spirit of the agreement. This would have shifted the balance of power in the meeting, turning a one-sided presentation into a negotiation among equals.

Perhaps one that phased delivery differently, reallocated critical path items, or leveraged existing buffers. It might have even shown that no change was needed at all.

Instead, the buyer had only one option: agree, or risk being labeled the cause of the delay. The AI advantage had been used – but only by one side.

The Risk: Asymmetry of Intelligence

The adoption of Artificial Intelligence (AI) in project management is a topic that is commonly discussed.^{4, 5, 6} However, such discussions are rare for the cross-corporate world of Project Business, where the trust among the parties, but also the power balance, are at stake, and with them the success of the project.

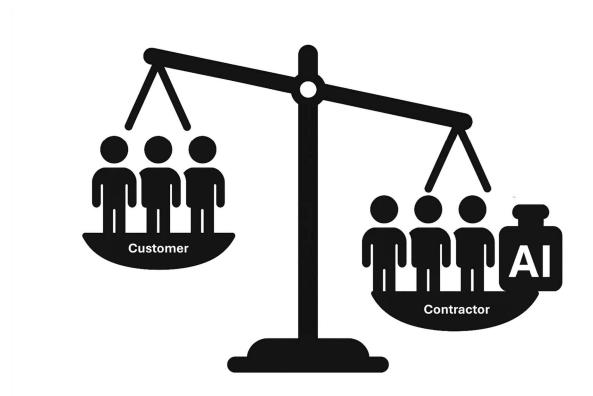


Figure 1: KI shifts the balance

When contractors adopt AI before buyers do, the balance of power shifts. AI tools can shape the narrative, justify changes, and frame choices in ways that serve vendor interests. This creates a new and dangerous asymmetry in project business.

Contractors can gain information dominance, using data and predictive tools to take the upper hand in negotiations. Their decisions may be based on AI logic so complex that buyers are unable to verify or contest the outcomes. Buyers without their own AI tools are forced into a reactive stance, relying on trust where scrutiny is needed.

⁴ (Burdakov & Ahn, 2025)

⁵ (Reznikov, 2025)

⁶ (Bradee, 2025)

The result is a loss of control. The buyer no longer steers the project – the algorithms do.

The Opportunity: Strategic AI Enablement for Buyers

However, the same technology can also empower buyers – if they choose to engage. Al offers powerful opportunities for those who know how to use it well.

Buyers can deploy AI in procurement to evaluate supplier risk, price realism, and the likelihood of future change orders. During contract preparation and execution, natural language processing can help scan for missing clauses, loopholes, and enforcement gaps. AI models can also forecast contractor behavior, enabling buyers to challenge exaggerated risk scenarios and unrealistic cost forecasts with their own independent projections.

Used effectively, AI allows buyers not only to manage projects but to govern them with foresight. It becomes a tool not for reaction but for anticipation, enabling better negotiations and more resilient contracts.

Al can also analyze incoming deliverables and performance reports for consistency and completeness. Instead of relying on manual spot checks, the buyer's team can use Al to monitor every data stream – progress reports, cost updates, schedule revisions – for patterns that suggest manipulation, delay tactics, or brewing disputes.

Beyond defensive use, AI opens the door to proactive opportunity discovery. For example, it can identify underutilized vendor capabilities, missed cost-saving chances in contract clauses, or alternative delivery approaches that better serve business needs. It can also support multi-project portfolio optimization — analyzing the interdependencies of several ongoing projects to reallocate resources dynamically.

Moreover, AI facilitates more confident, data-backed interactions with internal stakeholders and external auditors. It reduces reliance on intuition and anecdote, replacing them with traceable insights and scenario-based reasoning.

In this sense, AI does not just level the playing field between buyer and contractor – it elevates the buyer into a position of strategic control, where decisions are faster, firmer, and more informed.

Al also has a role in dispute prevention. Patterns in communication, performance indicators, and schedule changes can signal looming conflict triggers – such as scope misunderstandings, cost overruns, ambiguous contract terms, or creeping delays. Buyers who detect these early can intervene before a disagreement escalates into a costly and damaging conflict.

But there is a catch: Humans must have the last word. They must decide which of Al's work results can be used as is, which need alterations and completion, and which must be omitted. Without these activities, humans become slaves of Al and the algorithms' failures jeopardize the projects' successes.

From Buyer to Strategist: Redefining the Role

In this new environment, the role of the buyer is evolving from a primarily transactional function to a strategic leadership role. Traditionally, buyers in project business were responsible for drafting specifications, managing procurement, and enforcing contractual terms. Their success was often judged on cost control, adherence to schedule and completeness and correctness of deliveries.

But the introduction of AI shifts that focus. Now, strategic buyers are expected to anticipate future challenges, extract actionable insights from data, and proactively shape cross-corporate collaboration. They become orchestrators of value rather than mere administrators of compliance.

Al enables buyers to operate with a broader lens. Rather than reacting to contractor actions or project hiccups, they can take a long-term view — spotting trends across a portfolio of projects, identifying systemic risks, and continuously refining sourcing and delivery strategies. Al supports scenario analysis and risk simulations that help buyers make decisions grounded in foresight rather than hindsight.

Being a strategist also means being accountable for more than scope, cost, and schedule. Buyers must now influence outcomes such as innovation, resilience, ethical alignment, and sustainability. This requires deeper engagement with the contractor's business model, the supply chain landscape, and the legal-technological interplay of Al-driven execution.

Buyers must also lead within their own organizations. They must communicate clearly with executives, legal counsel, finance officers, and project managers. They must also advocate for the intelligent integration of AI, explaining its risks and benefits, guiding policy development, and helping to set the tone for digital transformation.

This requires capability. Buyers must establish a broader set of roles within their organizations to succeed in this expanded function. Key roles include:

- Al-Aware Commercial Strategist someone who understands how Al influences commercial models, pricing strategies, and risk allocation.
- Contract Intelligence Analyst a role focused on interpreting and applying insights from contract analysis tools and aligning them with project realities.
- Data Steward responsible for data quality, governance, and integrity across systems feeding into AI tools.
- Ethics & Compliance Advisor ensures that AI-driven decisions align with legal, contractual, and societal expectations.
- Cross-Functional Integrator someone who can coordinate among legal, technical, and operational stakeholders to ensure cohesive governance.
- Portfolio Optimizer a role focused on applying AI across the project portfolio to prioritize efforts, balance risks, and maximize strategic impact.

These roles don't necessarily require new headcount, but they do require new skills and awareness within existing teams.

The project manager plays a pivotal role in this transformation. No longer just a scheduler or coordinator, the project manager becomes a translator between AI insights and project execution. They must be able to interpret AI-generated forecasts, challenge contractor data when needed, and escalate issues using both technical understanding and contractual leverage. They also serve as the human checkpoint – balancing what the AI suggests against what the contract permits, what stakeholders expect, and what reality demands on the ground.

The project manager ensures that the buyer's strategy is implemented daily, making them essential in bridging strategic intent with project delivery. Without them, the buyer will struggle to match the sophistication of AI-enabled contractors.

Too often, contractors introduce AI into the relationship without buyers being aware or adequately prepared. When one side is playing 4D chess and the other is still opening the box, the result is inevitable.

The Ethical and Contractual Dimensions

The use of AI in project execution raises fundamental questions for the buyer. These are not just technical matters – they are legal, ethical, and reputational concerns that go to the heart of trust in project business.

One major dilemma is transparency. If a contractor uses AI to generate forecasts, simulate scenarios, or even shape communication strategies — as seen in our story — should that be disclosed? Without disclosure, buyers are negotiating against invisible logic. This creates not only a power imbalance but a lack of accountability.

There is also the issue of auditability. Should buyers have the right to audit the decision-making logic behind Al-generated recommendations? If a claim arises, and the justification was Al-driven, how can the buyer verify or challenge it? Current contracts rarely contain clauses that allow for algorithmic audit – yet without them, the buyer may be locked out of critical evidence.

Intellectual property rights raise further concerns. When deliverables are generated, in whole or in part, by tools licensed to the contractor – who owns the output? Can the buyer modify or reuse it? What if the deliverables embed AI-specific code or data structures that are proprietary to the vendor? The line between service and software becomes blurry.

Bias and fairness introduce ethical complexity. All systems trained on biased data may perpetuate discriminatory decisions – such as favoring certain subcontractors or disadvantaging suppliers from specific regions. If these systems influence procurement, staffing, or risk classification, the buyer may unknowingly become complicit in unethical outcomes.

Finally, there is the matter of liability. If a decision recommended by AI leads to project failure, who is accountable? The lines of responsibility become murky in a multi-party project environment. Is it the customer who acted on the AI's recommendation? The contractor who integrated the AI into their project delivery? The vendor who developed the AI software? Or perhaps a subcontractor who trained or configured the model for project-specific use? In many cases, all four parties are involved, yet none may hold clear

contractual liability. Current legal frameworks offer few answers, and most project contract templates have not yet evolved to allocate risk or responsibility in the context of AI-driven decisions.

Contracts must evolve. They should explicitly define the role of AI, set boundaries for its use, and include mechanisms for transparency, audit, and redress. Without this, AI becomes a source of opacity rather than clarity — a legal and ethical blind spot in high-stakes project business. Leaving these questions open invites conflict and undermines trust.

Hidden Costs and Dark Sides: Where AI Can Help

Projects – especially in project business – are rarely as clean or controlled as operational work. Unlike routine operations, projects are fertile ground for complexity, volatility, and human friction. This makes them vulnerable to hidden costs and darker dynamics that are often hard to detect until they've already caused damage. These issues are not just financial – they are organizational, cultural, and ethical.

Some of the most pervasive examples include:

- Operational disruptions Projects often interfere with ongoing operations, introducing unintended downtime, rework, or dependency clashes. These costs are frequently buried in reduced output, higher error rates, or intangible process fatigue.
- Misunderstandings Different parties in a cross-corporate project interpret the same requirements differently. Cultural gaps, terminology mismatches, and unspoken assumptions are fertile ground for misalignment. These misunderstandings often grow into disputes unless spotted and corrected early.
- Conflicts between parties Disputes can escalate over scope, responsibility, quality, or payment. In multi-party setups, where subcontractors and suppliers add complexity, a single mismanaged issue can ripple outward, affecting trust and delivery timelines.
- Corruption In operations, standard procedures and routine audits make corruption
 easier to detect through the anomalies it causes. In projects, everything is an
 anomaly and exception. Every budget item is unique, every schedule is situational,
 and oversight often struggles to keep up. Corruption can hide in inflated change
 orders, unjustified risk premiums, or opaque subcontracting arrangements.

Al can help buyers identify these issues long before they spiral. By analyzing structured and unstructured project data – emails, reports, invoices, communication threads, and performance metrics – Al tools can:

- Detect language patterns that indicate eroding trust, blame-shifting, or emerging defensiveness.
- Correlate changes in schedule forecasts with specific contractor actions or resource shifts.
- Identify inconsistencies between financial claims and actual project progress.

 Benchmark contract language and delivery patterns against known fraud indicators or legal exposure risks.

More importantly, AI can aggregate weak signals across multiple domains – behavioral, technical, financial – to generate a holistic risk picture. This gives buyers a proactive grip on issues that traditionally only surfaced after damage was done.

With these capabilities, AI becomes not just a performance enabler, but a governance instrument – making the hidden visible and the unspeakable measurable.

Becoming an Al-Literate Buyer

For buyers in project business, AI literacy is no longer optional. It begins with a mindset shift: seeing AI not as a black box operated by someone else, but as a set of tools and methods that must be understood, evaluated, and governed.

To become Al-literate, buyers must start with awareness. Key stakeholders in procurement, legal, finance, and project management must understand what AI can do, where it is being used, and what the implications are. This includes understanding basic AI concepts – like machine learning, natural language processing, and predictive analytics – as well as the typical limitations, such as data bias, opacity, and overfitting.

Next comes education. Organizations should invest in training their staff – not to build AI, but to critically assess it. This includes interpreting AI outputs, asking the right questions, and knowing when to push back. Formal training, peer learning, and scenario-based workshops can all contribute.

Al literacy also means knowing the limitations of Al. Understanding what Al can't do is as important as knowing what it can. Common limitations include:

- Bias in training data AI models can inherit and amplify existing prejudices from historical data.
- Lack of context awareness AI often struggles with nuanced human judgment and context-specific reasoning.
- Overfitting AI may perform well on training data but poorly in real-world conditions.
- **Explainability challenges** Many AI systems, especially deep learning models, act as black boxes with opaque decision logic.
- **Dependence on data quality** Inaccurate, incomplete, or manipulated data can distort AI outputs.
- **Static logic in dynamic environments** AI models may not adapt well to changing project conditions without frequent retraining.
- **False confidence** AI can produce highly confident but incorrect recommendations, misleading decision-makers.

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Being Al-literate means recognizing these risks and building safeguards into processes and decisions.

Al literacy also requires interdisciplinary collaboration. Legal, technical, and commercial experts must work together to write Al-aware contracts, define data governance policies, and assess vendor claims. Silos kill insight — especially when facing intelligent machines.

A truly AI-literate buyer will implement practical governance mechanisms. This includes establishing internal policies on the use and acceptance of AI-driven advice, setting requirements for vendor transparency, and ensuring that any AI involved in project execution is auditable and explainable.

Finally, AI literacy involves participation in AI development and use. Buyers should not wait passively for vendors to present AI-generated decisions. They should co-develop models, control data quality, and retain decision rights. Participating in pilot projects and internal proofs of concept can build this experience.

Transparency must be demanded. Contractors should be required to disclose their use of AI and the influence it may have on reports, decisions, or deliverables. Contracts need to reflect this reality, establishing clear provisions on liability, audit rights, and ethical standards.

But the buyer should also see AI as a tool for partnership – not just for control. Used collaboratively, AI can help align interests and deliver better outcomes for both sides of the table.

Conclusion: AI is Redrawing the Lines of Control

In cross-corporate project business, where success depends on coordination, contracts, and mutual accountability, AI is a force multiplier. It doesn't just make work faster or cheaper. It changes who has the upper hand, how truth is constructed, and where decisions are made.

Buyers who remain passive in this transformation will find themselves disempowered. Those who engage, who build capability, and who integrate AI into their project governance, will not only level the field – they'll lead it.

Al is no longer just a technical feature. It's a commercial, legal, and strategic game-changer. The question for every project buyer is no longer if Al matters – but whether they will master it, or be mastered by it.

References

Bradee, J. (2025) *Advanced AI Project Management Tools*, [Online]. Available from: https://pmworldjournal.com/article/advanced-ai-project-management-tools.

Burdakov, A. & Ahn, M.J. (2025) *Is PMBOK Guide the Right Fit for AI? Re-evaluating Project Management in the Face of Artificial Intelligence Projects*, [Online]. Available from: https://arxiv.org/abs/2506.02214 (Accessed: 30 July 2025).

Lehmann, O.F. (2025) 'Artificial Intelligence (AI) in Project Business Part I: The Contractor Side', *PM World Journal*, July [Online]. Available from: https://pmworldlibrary.net/wp-content/uploads/2025/07/pmwj154-Jul2025-Lehmann-AI-in-Project-Business-1-Contractors-side.pdf (Accessed: 30 July 2025).

Reznikov, R.B. (2025) Enhancing Project Management Success through Artificial Intelligence, [Online]. Available from:

https://www.researchgate.net/publication/388378047_Enhancing_Project_Management_Success through Artificial Intelligence.

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