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**Beyond the Table: Insights on Negotiated Terms,
Synthetic Scenario Simulations, and Future
Competencies in Contract Management**

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Beyond the Table: Insights on Negotiated Terms, Synthetic Scenario Simulations, and Future Competencies in Contract Management

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Abstract

This paper examines the critical disconnect between heavily negotiated contract terms and those that actually drive successful performance outcomes. Through a comprehensive 2024 study involving over 600 contracting professionals, we demonstrate that government procurement practices remain overly focused on administrative details rather than performance-based terms, potentially costing \$100 billion annually in inefficiencies. We present findings from an exploratory study comparing AI-generated versus human-authored negotiation training scenarios, revealing that generative AI can produce comparable quality materials in minutes rather than hours. Finally, we outline essential competencies for modern contract managers, emphasizing the need for skills in strategic negotiation planning, performance-focused drafting, risk management, and AI-augmented decision-making. This research underscores the importance of aligning negotiation practices with operational realities to foster adaptive, collaborative business relationships that create sustainable value.

Introduction

Contracts are foundational to business relationships, defining obligations, allocating risks, and providing mechanisms for conflict resolution. However, research consistently shows that the terms most heavily negotiated, such as pricing, payment schedules, and indemnification clauses, do not always align with the factors that most influence contract performance (World Commerce & Contracting [WorldCC], 2022). This disconnect points to a gap in negotiation strategies and underscores the need for a more performance-focused approach to contracting.

Agency theory provides an illuminating framework to analyze this phenomenon. As Eisenhardt (1989) explains, negotiated terms often function as tools for addressing risks inherent in agency relationships, such as asymmetric information and moral hazard. For example, pricing terms and limitation-of-liability clauses are frequently used to mitigate financial



risk and manage expectations. This focus also reflects a mindset identified in prior research among legal and contracting professionals, one of "preventism," in which practitioners see their primary role as preventing failure rather than enabling success (Bauman et al., 2019). This mentality results in contracts that prioritize rigid control mechanisms at the expense of adaptability and long-term performance.

However, these provisions often fail to address operational risks, such as coordination breakdowns or delivery challenges, which are far more likely to impact contract outcomes.

Moreover, the prioritization of financial terms over operational details may stem from the bargaining dynamics between parties. Negotiators may focus on highly visible and quantifiable elements, such as cost and penalties, to satisfy immediate concerns or demonstrate value to stakeholders. In doing so, they may neglect less tangible yet equally critical elements, such as the clarity of roles, expectations, and dispute-prevention mechanisms.

Such negotiation practices often result in wasted resources, as companies invest significant time and money haggling over terms that rarely come into play, while overlooking the operational details that truly drive success and value creation. This risk-focused approach not only stifles innovation by prioritizing rigid standards over creative solutions but also damages relationships by fostering an atmosphere of competition rather than cooperation. In this environment, transparency and openness are scarce, leading to contracts that divide rather than unify. Ultimately, by concentrating on self-protection, organizations frequently miss opportunities for mutual gain and long-term value (Cummins & Finkenstadt, 2024).

To bridge this gap, negotiators could adopt strategies that align better with long-term performance objectives. For example, contingency clauses and flexible pricing models could address uncertainties while promoting collaboration and adaptability (Eisenhardt, 1989). Emphasizing coordination provisions, such as shared milestones and transparent reporting structures, can also reduce risks associated with asymmetric information and moral hazard. Value creation in negotiations requires a paradigm shift. As Bazerman (2025) explains, negotiators must identify and prioritize issues that are critical to both parties, enabling trades across those issues to maximize overall gains.

Causes of Contract Conflicts and Disputes

While well-negotiated terms can mitigate risk, the root causes of disputes often lie beyond the surface of contract language. Disputes frequently arise from poorly defined roles, vague performance standards, and unforeseen circumstances. As MacMahon (2018) notes, ambiguity in contract language is a persistent issue, creating misunderstandings and disagreements between parties.

Agency theory adds another layer of understanding to these challenges. Asymmetric information, when one party has more knowledge or control than the other, can lead to opportunistic behavior, where one party manipulates terms to their advantage (Eisenhardt, 1989). Similarly, moral hazard occurs when a party takes risks or makes decisions that impose costs on others, particularly in the absence of effective monitoring. Recent work in relational contracting, especially the articulation of nine core relational principles, provides a complementary lens for understanding how contracts should facilitate long-term collaboration and adaptive administration (WorldCC, 2016).

Strategies for Minimizing Disputes

To prevent disputes, negotiators must go beyond traditional contract terms and address the root causes of conflict. Unforeseen events, such as economic disruptions or supply chain breakdowns, further complicate matters. Incorporating contingency clauses can account for uncertainties, specifying actions and remedies for various scenarios. These measures not only



enhance the resilience of the contract but also promote a spirit of partnership between parties. However, even meticulously negotiated contracts cannot anticipate every contingency, highlighting the importance of incorporating flexible, adaptive terms. For example, dispute resolution clauses, such as mediation or arbitration provisions, provide structured avenues for addressing disagreements before they escalate (Amoah & Nkosazana, 2023).

Building trust through collaborative negotiation is another key strategy. Eisenhardt (1989) emphasizes the importance of aligning incentives and reducing information asymmetry. Transparency and open communication are critical, as are performance-monitoring mechanisms that hold parties accountable. Contracts that prioritize shared goals and clearly define responsibilities are less prone to conflict.

Implications for Contract Negotiation Practices

The misalignment between heavily negotiated terms and contract performance highlights the need for a paradigm shift in negotiation practices. Agency theory suggests that negotiators should prioritize terms that reduce information asymmetry, foster accountability, and promote shared outcomes (Eisenhardt, 1989). For instance, incorporating performance-based incentives or penalties can align parties' interests and improve outcomes. Bazerman (2025) outlines several practical approaches, including building trust, asking targeted questions, and sharing information strategically to foster reciprocity.

By focusing on long-term performance rather than immediate gains, negotiators can craft contracts that are both flexible and robust. Coordination mechanisms, such as regular progress reports and shared decision-making, can further enhance collaboration and mitigate risks. These strategies not only improve the likelihood of successful performance but also strengthen the foundation for future partnerships.

Conclusion

Despite the foundational role of contracts in business relationships, our review reveals a critical misalignment: the terms most heavily negotiated often differ from those that drive conflicts during contract performance. Agency theory offers valuable insights into this phenomenon, highlighting the impact of asymmetric information, moral hazard, and misaligned incentives. Additionally, operational risks, coordination breakdowns, and unforeseen circumstances often exacerbate disputes, underscoring the need for a shift in negotiation priorities and strategies.

In the next section, we present findings from the *2024 Most Negotiated Terms* study, a collaborative research endeavor by the Commerce and Contracting Institute (World Commerce & Contracting and NCMA). This study reveals the stark disconnect between the most negotiated contract terms and those that generate the greatest conflict during performance. Following this, we share results from a short exploratory study examining the potential of generative AI to enhance negotiation scenario planning and prepare teams at scale, aiming to proactively address these challenges.

We conclude with a discussion of the competencies negotiators and contract managers must develop to better align their negotiation focus with contract performance outcomes. By fostering skills in scenario planning, risk management, and collaboration, we can bridge the gap between negotiation practices and performance realities, ensuring contracts serve as tools for sustainable and successful business relationships.



Section 2: Most Negotiated Terms 2024 Study Findings and Analysis

Introduction

Contract negotiations represent the foundation of business relationships, yet recent research reveals a persistent disconnect between what organizations negotiate most frequently and what actually matters for successful business outcomes. The 2024 World Commerce & Contracting study was conducted in collaboration with the National Contract Management Association as part of the new Commerce and Contract Management Institute. The findings, from over 600 contracting professionals with a primary focus on U.S. government procurement and contracting, illuminates this paradox while highlighting the particular challenges faced in negotiations between government buyers and suppliers.

The study reveals that despite significant shifts in the business environment, government procurement remains surrounded by detailed rules and regulations intended to achieve cost control and value while protecting against misuse of funds. In the United States, this has resulted in relatively complicated and inflexible procedures, which constrain freedom of action in the acquisition process, such as limiting negotiation and imposing costly bureaucracy.

This persistence of traditional negotiation focuses becomes particularly problematic when examining the relationship between government agencies and suppliers. The research indicates that approximately 70% of government buyers would welcome greater freedom to negotiate, yet many procurement practices remain adversarial and risk-focused, driven by process rather than outcomes. This dynamic not only affects individual business relationships but has broader implications for supply chain resilience and innovation, as well as substantial cost implications.

The data demonstrates a potential to modernize procurement practices that could reduce costs by as much as 13.3%, translating into \$100 billion in savings. This misalignment between negotiation focus and operational needs suggests an opportunity for fundamental reform in how government approaches contract negotiations.

Methodology and Sample Characteristics

The study's findings are based on responses from more than 600 professionals involved in government procurement and contracting, with a primary focus on the U.S. federal government. The demographic composition of respondents provides a balanced perspective across organization sizes, roles, and sectors.

Data Collection

The survey captured insights from both buyers and suppliers, shedding light on their experiences, challenges, and practices, and the impact these have on contract outcomes.



Sample Demographics



Figure 1: Sample Demographics from Most Negotiated Terms Study

Comparative Analysis: Government Buyer and Supplier Negotiation Dynamics

The study reveals fundamental differences in how government agencies and suppliers approach contract negotiations, both in terms of priorities and preparation capabilities. The data demonstrates a complex dynamic where regulatory frameworks significantly influence not just negotiating power, but the entire approach to contract formation and risk management.

Negotiation Priorities and Power Dynamics

Government buyers consistently prioritize cost reduction or budget management (72%), ensuring compliance with regulations or legal requirements (65%), improving service or product quality (62%), and being able to demonstrate value-for-money outcomes (44%).

This contrasts notably with suppliers, who place greater emphasis on protecting proprietary information, intellectual property rights, and ensuring clarity of scope and obligations. This divergence reflects the fundamental power imbalance in these relationships, with suppliers reporting that government agencies tend to adhere strictly to established terms and regulations, resulting in less room for negotiation.

Most Discussed Terms vs. Most Important Terms

The research reveals a critical disconnect between the terms that are most frequently discussed and those considered most important. Government buyers most frequently discuss:

For government buyers, "Amendments/Changes to Contract" tops the negotiation frequency list (60%), yet ranks only 7th in importance (31%). Similarly, while they frequently negotiate on "Price/Charge/Price Changes" (58%), it ranks just 6th in importance (32%). Most strikingly, "Acceptance, Inspection and Quality Assurance" doesn't appear in the top 10 most negotiated terms but is considered the most important term (58%) by government buyers. This suggests government buyers may be spending negotiation time on administrative matters rather than focusing on their highest-value concerns related to quality assurance and project outcomes. It also suggests that negotiation behaviors may be driven less by outcome optimization and more by the need for control and risk avoidance. The reluctance to engage on cost or performance issues likely reflects a fear of opportunism, which ironically may reinforce the very adversarial behaviors procurement seeks to avoid.

For suppliers, there's better alignment between negotiation focus and importance. "Scope of Work" tops both their negotiation focus (3.0 mean score) and importance ranking (52%). However, "Indemnification" ranks 4th in negotiation frequency but doesn't appear in their top 10 most important terms. Meanwhile, "Intellectual Property and Data Rights" ranks 7th in



negotiation frequency but jumps to 6th in importance (41%). Both buyers and suppliers rank "Contract Type" highly in importance (3rd for both) despite it not appearing in either's top 10 most negotiated terms, indicating a crucial aspect that may be predetermined or underaddressed in actual negotiations.

Preparation and Resource Utilization

The research reveals that government personnel work with a wide variety of suppliers and consequently encounter different levels of sophistication. The two top challenges reported by government buyers relate to supplier knowledge and skills, specifically:

1. Supplier understanding of contract terms (76%)
2. Skills and knowledge of their negotiators (46%)

Only 35% of government participants provide tools or resources to help suppliers understand or negotiate contract terms, primarily in the form of written guides or manuals (24%), templates or standard form contracts (19%), websites (17%), and in-person training sessions (17%).

Impact of Contract Type on Negotiation Practices

Government buyers acknowledge that contract negotiations are impacted by the contract type, due to the influence this has on allocation of risks, responsibilities, and incentives between the parties. While suppliers also acknowledge many of these points, they have different perspectives and concerns.

Risk Allocation Perspectives

Government Buyers: Different contract types distribute risks differently. For instance, in a Firm-Fixed-Price (FFP) contract, the contractor assumes the majority of the cost risk, which may lead to negotiations focusing on higher pricing to mitigate potential losses. Conversely, in Cost-Reimbursement contracts, the government bears more risk, prompting discussions on cost control and oversight mechanisms.

Suppliers: Suppliers emphasize the importance of indemnification clauses, especially in T&M contracts, to mitigate potential liabilities. They express heightened concern over FFP contracts due to the increased risk they bear, necessitating meticulous negotiation of terms like scope and pricing.

Flexibility and Scope Changes

Government Buyers: Contracts like Time & Materials (T&M) or Labor-Hour agreements offer flexibility to accommodate changes in scope. Negotiations for these contracts often involve detailed discussions on hourly rates, labor categories, and mechanisms for managing scope changes to prevent cost overruns.

Suppliers: Suppliers stress the need for precise Statements of Work (SOW) in FFP contracts to prevent ambiguities that could lead to unforeseen costs. They are also attentive to payment structures, particularly in T&M contracts, to ensure timely compensation for services rendered.

Disagreements and Disputes

Both buyers and suppliers concur that roughly 25% of contract negotiations face significant disagreements during performance, though their perspectives on the causes differ somewhat. Government buyers identify the primary dispute sources as changes and modification of terms (51%), acceptance, inspection, and quality assurance (45%), and amendments to contracts (42%), while suppliers similarly rank changes and modification of terms highest but at a lower rate (48%), followed by amendments to contracts (44%) and



acceptance/inspection issues (40%). Notable in both rankings is the consistency of the top five issues, with delivery dates and payment terms completing both lists, though suppliers consistently report higher rates of disagreement on payment options (34% vs. 28%) and delivery terms (36% vs. 31%). A significant disparity exists in the area of intellectual property and data rights, with only 17% of government buyers but 41% of suppliers saying this generates disagreements during performance.

Supplier Cost Impact and Potential Savings

When asked about the impact of non-negotiable terms and complex contracting processes, suppliers estimate that if government agencies were more open to negotiation and simplified their processes, they could reduce their overall transaction costs (pre- and post-award) by an average of 13.3% across all contract types. Based on 2023 Federal spend, this translates to approximately \$100 billion in potential savings. Estimated cost reduction potential varies by contract type, with the highest savings opportunities in Public-private partnerships (18%), Cooperative research and grants (15%), and Other contract types (15%), followed by OTA (14%) and International agreements (13%), while IDIQ requirements, FFP, Single contracts, and FAR-based contracts all show 12% potential savings, and Ordering agreements offer 11% savings potential.

Suppliers identified the following areas for significant cost savings:

1. Lengthy approval and procurement processes (highest concern in Ordering Agreements at 73.7% and FFP at 67.9%)
2. Rigid contract terms with limited negotiation room (particularly challenging in Other at 83.3% and Cooperative Research and Grants at 71.4%)
3. Complex regulatory and compliance requirements (notably problematic in International Agreements at 51.7% and Cooperative Research & Grants at 50.0%)
4. Requirement for extensive documentation and reporting (a major issue in International at 48.3% and Ordering Agreements at 50.9%)
5. Intellectual property rights and data security concerns (prominent in Cooperative Research and Grants at 57.1% and Public-Private Partnerships at 57.1%)

Addressing Power Imbalances

When facing power imbalances, suppliers use various strategies to approach negotiations, though these vary by contract type. The most common strategies include:

1. Applying industry standards or benchmarks in negotiations (50–83% frequency)
2. Emphasizing unique strengths or exclusive advantages of offerings (50–70%)
3. Establishing firm alternatives and clear walk-away thresholds (47–76%)
4. Highlighting potential long-term collaborations or partnership benefits (41–57%)
5. Leveraging personal or professional relationships in the public sector (21–55%)

Importantly, only 7–25% of suppliers report agreeing to terms with the intention to renegotiate post-award, challenging the common perception that suppliers often accept unfavorable terms planning to recover through changes after award. It's also important to note that these dynamics are not unique to the public sector. Similar tensions exist in commercial negotiations, but they are intensified in government procurement by inflexible, rules-based frameworks that limit adaptive problem-solving.



Recommendations and Future Directions

The research findings point to several critical areas for improvement in contract negotiations between government agencies and suppliers, with particular emphasis on practical strategies for creating more balanced and effective relationships.

Contract Simplification Strategies

Government employees recognize several areas for improvement where costs and cycle times could be reduced and outcomes improved:

1. Lengthy approval and procurement processes (66%)
2. Complex regulatory and compliance requirements (51%)
3. Requirement for extensive documentation and reporting (42%)
4. Rigid contract terms with little room for negotiation (40%)
5. Budget constraints or volatility within public sector organizations (28%)

Balanced Risk Allocation and Technology Adoption

The path forward lies in streamlining approval processes, fostering trust-based relationships, and shifting focus from risk avoidance to collaborative value creation. The imposition of standard models fosters a compliance culture in which acquisition professionals equate risk mitigation with conformity. This discourages early-stage engagement on fit-for-purpose models and undermines opportunities for innovation. By balancing regulatory oversight with operational flexibility, agencies can reduce costs and grow the supply market, while improving existing supplier partnerships and delivering greater public value.

Conclusion

The 2024 study reveals a critical disconnect between traditional negotiation practices and successful government procurement relationships, highlighting an urgent need for reform to capture \$100 billion in potential savings. As agencies face pressure to deliver more value with limited resources, success requires balancing risk management with operational practicality through simplified contracts and improved technology. Rather than rigid adherence to traditional terms, the future lies in creating flexible, clear agreements that benefit both government agencies and suppliers.

Section 3: Generative AI in Negotiation Scenario Development: A Comparative Analysis Study

Negotiation is consistently ranked among the most important skills for purchasing and supply management PSM professionals, appearing in 73% of PSM skills studies (Heunis et al., 2024; Stek & Schiele, 2021), and is crucial for both internal organizational relationships and external buyer-supplier interfaces (Saorín-Iborra & Cubillo, 2019). Negotiations are counted as one of the most complex and demanding areas of PSM activity and essential for sustaining competitive advantage for organizations (Carr & Pearson, 2002; Ramsay, 2007). Recent research has highlighted the importance of adaptability in negotiation preparation within PSM contexts using scenario-based training (Heunis et al., 2024). While traditional approaches to developing negotiation scenarios rely on expert knowledge and significant time investment, emerging generative AI technologies may offer new possibilities for creating diverse, adaptable training materials efficiently. Recently published managerial studies indicate that AI-generated scenarios hold significant potential for both general business scenario planning and contingency planning (Finkenstadt et al., 2023; Finkenstadt et al., 2024). This section presents findings from an exploratory study specifically examining the comparative efficacy of AI-generated versus human-authored contract negotiation scenarios.



Research Questions and Study Design

The primary research question addressed in this study was: ***How do AI-generated negotiation scenarios compare to human-authored scenarios in terms of perceived quality, realism, and practical utility?*** Secondary questions explored the relationship between evaluator characteristics (such as industry experience and scenario planning familiarity) and scenario assessments.

The study employed a three-phase approach to develop and evaluate negotiation scenarios. In Phase 1, researchers developed synthetic initial negotiation dialogue and background materials, which underwent expert review by professionals in contracting, supply chain management, and academia who did not participate in the subsequent survey. This review process ensured the foundational materials were robust and relevant for scenario development.

Phase 2 focused on scenario generation, utilizing both AI systems and human authors from the National Contract Management Association (NCMA) Contract Leadership and Management Development Program (CLMDP). Two AI platforms (ClaudeOpus and GPT-4o) were used to generate scenarios, while five CLMDP members with varying levels of experience participated in human scenario development. The CLMDP participants included directors, contract managers, and senior administrators, with experience ranging from 10 to 21 years across government, commercial, defense, and non-profit sectors. Their educational backgrounds varied from bachelor's degrees to advanced graduate degrees, and two participants had prior scenario development experience.

From the five human-developed scenarios, researchers selected two for the comparative study based on time investment and scenario detail level. The selected scenarios (designated as Scenarios 2 and 4) represented the most detailed scenarios produced, taking 3 hours 17 minutes and 2 hours 32 minutes to develop, respectively. This selection process ensured that the AI-generated scenarios would be compared against the most robust human-authored scenarios, providing a meaningful benchmark for quality assessment.

Phase 3 comprised the evaluation of these scenarios. Professional conference participants were randomly assigned to evaluate either AI-generated or human-authored versions of the scenarios. Prior to evaluation, participants received primer coursework on negotiation styles, scenario planning, and if/then analysis to establish a baseline understanding of key concepts. Participants were not aware that the scenarios they were provided may have been generated by AI. There were no distinguishing features of the materials provided that alluded to the source creators of the content to ensure such potential biases were mitigated.

Methodology

Scenario Background and Development

The study utilized a complex negotiation scenario involving a high-stakes satellite receiver upgrade project between a satellite development firm (seller) and a government agency (buyer). This scenario was chosen for its multifaceted nature and representation of real-world negotiation complexity. The background materials provided to scenario developers included detailed information about a sole-source arrangement for upgrading three satellites with 12 new receivers, where both parties lacked alternative options and faced a two-month deadline for agreement.

The scenario incorporated multiple negotiation elements requiring consideration, including total project pricing, technical data deliverables, production efficiency targets, and profit structures. The background materials included comprehensive stakeholder perspectives, detailed historical context of the buyer–seller relationship, and specific constraints facing each party. Initial negotiation exchanges were provided to establish the tone and starting positions of



both parties. The scenario was enriched with information about the broader context, including the fact that the satellites represented units 6-8 in a historical series of exchanges between the parties, adding depth to the relationship dynamics.

Both AI systems and human scenario developers from the NCMA CMLDP were tasked with generating additional dialogue exchanges and “if/then” planning statements based on their analysis of the scenario. This parallel approach allowed for direct comparison of how human and AI developers would extend and elaborate upon the initial scenario framework. Developers were provided with a framework of five negotiation styles (competing, avoiding, accommodating, collaborating, and compromising) and were asked to incorporate these styles into their scenarios in specific ways. For instance, developers were instructed to create scenarios where parties might take a collaborative approach to certain technical aspects while maintaining a more competitive stance on intellectual property matters. All developers were required to generate practical planning guidance and anticipate potential negotiation exchanges while deliberately incorporating these varied negotiation styles across different aspects of the discussion.

This scenario design allowed for the evaluation of how different scenario authors (human or AI) would approach complex, multi-variable negotiation planning. The scenario’s structure enabled the development of detailed “if/then” planning approaches while maintaining real-world applicability through its incorporation of common negotiation elements such as pricing, intellectual property concerns, efficiency targets, and payment terms. The comprehensive background enabled developers to create realistic negotiation planning materials that accounted for multiple variables, relationship dynamics, and strategic considerations.

Measurement Development

The study employed a 7-point Likert agreement scale (1 = Strongly Disagree to 7 = Strongly Agree) across eight dimensions of scenario quality. For assessing perceived realism and real-world applicability, the study adapted elements from the Perceived Realism Scale developed by Cho et al. (2012). This established scale was chosen for its validated approach to measuring narrative realism, with modifications made to specifically address negotiation scenario contexts. The measurement instrument was organized into three primary categories, each containing specific items designed to capture different aspects of scenario quality:

1. Realism and Real-World Applicability (derived from Cho et al.’s (2012) Perceived Realism Scale):
 - “The events in the negotiation scenario portrayed possible real-life situations” (Q12)
 - “What happened to the people in the negotiation scenario is what happens to people in the real world” (Q13)
 - “The negotiation scenario was realistic” (Q17)

These items were adapted from the original scale’s typological realism and narrative consistency dimensions, modified to focus specifically on negotiation contexts. The adaptation maintained the core focus on perceived authenticity while adjusting language to reflect professional negotiation situations rather than general narrative contexts.

2. Structural Quality:
 - “The negotiation scenario was coherent” (Q14)
 - “The negotiation scenario was consistent” (Q15)



These measures evaluated the internal logic and narrative flow of the scenarios. The items were designed to assess how well the various elements of each scenario worked together to create a cohesive training tool. While related to Cho et al.'s (2012) narrative consistency dimension, these items were specifically crafted to evaluate the structural elements necessary for effective negotiation training scenarios.

3. Practical Value:

- “This negotiation scenario would be useful for preparing a person or team for a real world negotiation” (Q16)
- “The negotiation scenario provided valuable information” (Q18)
- “The negotiation scenario adds value in decision-making” (Q19)

These items were developed specifically for this study to assess the practical utility of the scenarios in professional development contexts. They were designed to evaluate both immediate training value and broader applicability to decision-making processes in negotiation contexts.

The scale development process included careful consideration of item wording to ensure relevance to the professional negotiation context while maintaining measurement integrity. The 7-point scale was chosen to provide sufficient granularity in responses while maintaining ease of use. The neutral midpoint (4 = Neither Agree nor Disagree) allowed respondents to express uncertainty or ambivalence, particularly important given the novel nature of AI-generated content.

Each category was designed to capture distinct but related aspects of scenario quality, enabling analysis of how AI-generated and human-authored scenarios might differ across these dimensions. The realism measures, adapted from Cho et al.'s (2012) validated scale, provided a theoretical foundation for assessing perceived authenticity, while the structural and practical value measures addressed specific requirements for negotiation training materials.

Data Collection

The study collected evaluation data from 36 professionals across government, aerospace, defense, and related sectors. These evaluators were distinct from the CLMDP members who participated in scenario development during Phase 2. Demographic data included education level, years of experience, industry sector, scenario planning training, and familiarity with various planning tools. Each participant evaluated one of four scenarios (two AI-generated, two human-authored), rating them across the eight quality dimensions.

Results

Scenario Development Efficiency

A notable finding emerged regarding the time investment required for scenario creation. The AI-generated scenarios were developed in 3–4.5 minutes, while human-authored scenarios required 2.5–3.25 hours. This substantial difference in development time did not necessarily correlate with proportional differences in quality ratings.



Quality Ratings and Exploratory Findings

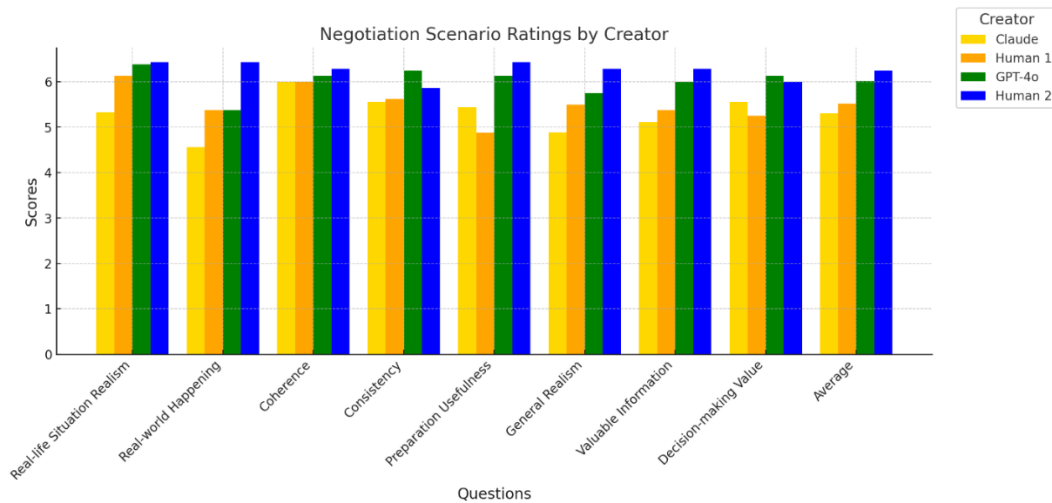


Figure 2: Negotiation Scenario Quality Ratings by Author Type

Table 1: Average Respondent Scores Per Scenario Item by Creator Source

Question/Item	Scenario 1, Claude	Scenario 2, Human 1	Scenario 3, GPT4o	Scenario 4, Human 2
Real-life Situation Realism	5.33	6.13	6.38	6.43
Real-world Happening	4.56	5.38	5.38	6.43
Coherence	6	6	6.13	6.29
Consistency	5.56	5.63	6.25	5.86
Preparation Usefulness	5.44	4.88	6.13	6.43
General Realism	4.89	5.5	5.75	6.29
Valuable Information	5.11	5.38	6	6.29
Decision-making Value	5.56	5.25	6.13	6
Average	5.31	5.52	6.02	6.25

The study revealed several intriguing patterns in scenario evaluation scores. While the sample size precludes definitive statistical conclusions, the exploratory findings suggest notable trends in perceived scenario quality across different dimensions.

The human-authored scenario created by an experienced professional (Scenario 4) achieved the highest overall average rating (6.25 on the 7-point scale), indicating strong agreement with positive quality attributes across all dimensions. This scenario particularly excelled in real-world applicability (6.43) and usefulness for preparation (6.43), suggesting that the author's professional experience may have contributed to creating highly practical training materials.

Notably, the AI-generated scenario using GPT-4o (Scenario 3) achieved the second-highest average rating (6.02), performing particularly well in coherence (6.13) and consistency (6.25). This strong performance is especially remarkable given the scenario's creation time of just 3 minutes, compared to 2.5 hours for the top-rated human-authored scenario. This finding, while preliminary, suggests potential for AI tools to generate quality training materials with unprecedented efficiency. These findings are consistent with previous research by Jensen and Cummins (2023), which showed that generative AI use in contracting improved negotiation speed and economic value, indicating real-time applicability beyond training and planning.

Analysis of Specific Quality Dimensions Revealed Interesting Patterns

Real-world applicability demonstrated the largest variance among quality dimensions (scores ranging from 4.56 to 6.43), with the greatest differentiation between AI-generated and human-authored scenarios. The lower scores for AI-generated scenarios in this dimension (4.56 for Scenario 1, 5.38 for Scenario 3) might reflect limitations in AI systems' ability to fully capture nuanced real-world dynamics, though the GPT-4o scenario still achieved relatively strong ratings.

Coherence showed remarkable consistency across all scenarios (scores ranging from 6.00 to 6.29), suggesting that both AI and human authors could create logically structured scenarios. This finding is particularly noteworthy for AI-generated content, as it indicates strong capability in maintaining narrative consistency even in complex negotiation scenarios.

Usefulness for preparation showed notable variation (scores ranging from 4.88 to 6.43), with an interesting pattern where scenario development time did not necessarily correlate with perceived utility. The longest development time (Scenario 2, 3 hours 17 minutes) received the lowest usefulness rating (4.88), while the AI-generated Scenario 3 (3 minutes) received a strong rating (6.13).

Decision-making value ratings (ranging from 5.25 to 6.13) suggested that both AI and human-authored scenarios could provide valuable strategic insights, though human-authored scenarios maintained a slight edge in this dimension.

Demographic Influences

Analysis of demographic data revealed several potential influences on scenario evaluations. Mid-career professionals (11–20 years of experience) generally provided higher ratings across scenarios. Industry alignment appeared to influence perceptions of realism and applicability, with scenarios closely matching the evaluator's industry background receiving higher ratings in these dimensions.

Interestingly, formal training in scenario planning did not consistently correlate with higher ratings, suggesting the scenarios' effectiveness transcended specialized training. However, familiarity with various scenario planning tools showed a positive correlation with higher appreciation of scenarios' informational and decision-making value.

Discussion

While the sample size (n=36) limits the statistical power of the findings and precludes definitive conclusions, several compelling patterns emerged that warrant further investigation. The exploratory results suggest that AI-generated scenarios can achieve quality ratings comparable to human-authored scenarios in multiple dimensions, particularly in areas such as coherence and informational value. The efficiency advantage of AI generation (3–4.5 minutes versus 2.5–3.25 hours) combined with strong quality ratings suggests significant potential for rapid development of diverse training materials.



The pattern of ratings across dimensions offers interesting insights into the relative strengths of AI and human scenario development. While human-authored scenarios maintained an edge in real-world applicability and practical utility, AI-generated scenarios demonstrated strong performance in structural elements such as coherence and consistency. This suggests that AI tools might be particularly valuable for quickly generating well-structured baseline scenarios that could then be refined with human expertise to enhance real-world relevance.

The success of the experienced human author's scenario (Scenario 4) highlights the continued value of expert knowledge in scenario development. However, the strong performance of the GPT-4o generated scenario (Scenario 3) suggests that AI tools might serve as effective supplements to human expertise, particularly when time constraints are significant.

Limitations

Several important limitations should be considered when interpreting these results:

The small sample size ($n=36$) limits statistical power and the ability to detect subtle differences between scenarios. This also constrains the generalizability of findings and increases sensitivity to individual responses. The distribution of participants across scenarios (ranging from 8–10 per scenario) further limits the ability to control for confounding variables and conduct meaningful subgroup analyses.

Research Design Efficacy

Despite these limitations, the study demonstrated the effectiveness of its three-phase research design for comparative analysis of AI and human-authored scenarios. The combination of expert review, controlled scenario development, and structured evaluation provides a robust framework for larger-scale investigations. The incorporation of demographic data collection enabled preliminary exploration of factors influencing scenario perceptions, though larger samples would be needed for definitive conclusions.

Future Research Directions

This exploratory study suggests several promising areas for future research:

1. Large-scale replication studies with sufficient sample sizes for statistical validation of preliminary findings.
2. Investigation of optimal human–AI collaboration methods in scenario development, potentially combining the efficiency of AI generation with human expert refinement.
3. Examination of how different AI models perform in generating scenarios for specific industries or negotiation contexts, with additional focus on the use of text-to-video generative models, such as OpenAI's recently released Sora, to enhance realism.
4. Exploration of how various demographic and experience factors influence perceptions of AI-generated versus human-authored scenarios.
5. Development of standardized quality metrics for negotiation scenarios, building on the adapted narrative realism scale used in this study.
6. Investigation of the long-term effectiveness of AI-generated scenarios in actual negotiation training programs.

Practical Implications

The findings suggest potential for using generative AI to supplement traditional scenario development methods, particularly in situations requiring rapid development of diverse training materials. Building on recent work highlighting the importance of strategic adaptability in negotiation training (Heunis et al., 2024), AI-generated scenarios might offer a scalable



approach to creating varied, adaptable training materials. The recent developments in immersive AI-generated video offer additional opportunities to explore realism using visual simulations and should be explored.

The comparable quality ratings between AI-generated and human-authored scenarios, particularly when considering the dramatic difference in development time, suggest potential for expanding access to high-quality negotiation training materials. This could be especially valuable for organizations lacking extensive expert resources for scenario development.

Conclusion

While preliminary in nature, this study provides valuable insights into the potential role of generative AI in negotiation scenario development. The research design demonstrated effectiveness for comparative analysis of AI and human-authored scenarios, establishing a foundation for larger-scale investigations. The dramatic efficiency advantage of AI generation, combined with promising quality ratings, suggests significant potential for expanding access to diverse, adaptable negotiation training materials. Future research with larger samples will be crucial for validating these initial findings and exploring optimal methods for integrating AI tools into negotiation training development.

Section 4: The Competencies We Need

The findings of this research underscore the need to treat negotiation as a recurring process rather than a discrete event. Successful outcomes require upfront planning for ongoing renegotiation and change, supported by frameworks that manage, rather than resist, evolution. This section explores the competencies organizations need to navigate modern contracting challenges and opportunities, aligning them with the NCMA Contract Management Body of Knowledge (CMBOK) framework.

Competencies Mapped to CMBOK

1. Pre-Award (Acquisition & Sales) Competencies

Strategic negotiation planning is essential for modern contract managers, requiring an understanding that goes beyond traditional price and liability discussions. Negotiators must adopt a holistic approach that incorporates operational risks, coordination mechanisms, and performance-driven contract terms. The ability to conduct scenario-based planning is critical, leveraging tools like generative AI to simulate potential negotiation dynamics and outcomes. Additionally, expertise in market and risk analysis ensures informed negotiation strategies that align with both short-term and long-term business objectives.

Stakeholder collaboration and engagement are also pivotal during the pre-award phase. Contract managers must navigate complex relationships between large enterprises and SMEs, working toward balanced agreements that foster long-term partnerships rather than short-term wins. Strong communication and negotiation skills are required to advocate for contract simplification strategies, ensuring that terms are clear, fair, and effective. In this context, professionals must also manage multi-stakeholder interests, ensuring that contractual goals align with broader business outcomes. Modern contract managers must function as integrationists. As commercial and operational complexity increases, so too does the need to reconcile competing interests across legal, technical, financial, and mission-focused stakeholders. This shift demands a move from rules-based execution to judgment-based navigation. A guiding principle in this transformation might well be: "From rules-based to judgment-based."



2. Award (Formation & Execution) Competencies

Once a contract is awarded, performance-focused contract drafting becomes crucial. Organizations need professionals who can develop terms that emphasize clear performance expectations, shared milestones, and collaborative problem-solving mechanisms. The inclusion of well-crafted contingency clauses helps account for operational uncertainties, allowing for flexibility and resilience in contract execution. Moreover, structuring performance-based incentives fosters alignment between parties, ensuring that all stakeholders remain committed to achieving mutual success while minimizing disputes.

Legal and regulatory acumen plays a significant role during contract formation and execution. A thorough understanding of global legal frameworks is necessary, especially when dealing with international negotiations that require compliance with various Common Law and Civil Law traditions. Additionally, with the rise of AI-assisted contract creation and automated contract analysis, contract managers must remain vigilant about the legal implications of these technologies. Compliance with industry-specific regulations and standards further adds to the complexity, necessitating deep regulatory expertise.

While legal and regulatory expertise is foundational, it is no longer sufficient. Success now requires integration of market intelligence, finance, and economic insights. Knowing the rules is necessary, but understanding the market, supplier drivers, and opportunity costs is what differentiates effective contract outcomes. Ironically, these legal and compliance elements are the most likely to be automated by AI in the coming years.

3. Post-Award (Performance & Closeout) Competencies

Risk management and dispute resolution are essential competencies for ensuring contract success post-award. Contract managers must be adept at identifying and mitigating operational risks that could impact contract execution. A proactive approach to dispute resolution, including expertise in mediation and arbitration techniques, can help resolve conflicts before they escalate. Effective contract monitoring is also critical, enabling professionals to track performance and make necessary adjustments to maintain value creation and compliance.

Technology plays an increasingly important role in contract life-cycle management, making proficiency in contract life-cycle management (CLM) tools valuable competency. These tools allow contract professionals to track performance metrics, assess risk exposure, and ensure regulatory compliance. Furthermore, AI-powered contract monitoring and predictive analytics can help identify potential issues before they become major problems, enabling organizations to maintain efficiency and transparency in their contract management processes.

Emerging Competencies Beyond CMBOK

While the CMBOK provides a strong foundation for contract management competencies, emerging trends necessitate additional skill sets beyond traditional models. One such area is AI-augmented negotiation and decision-making. Contract professionals must develop the ability to critically assess and integrate AI-generated insights into their negotiation strategies. Understanding the strengths and limitations of AI in contract scenario development and risk analysis is crucial for leveraging technology effectively without compromising human judgment.

Behavioral economics and negotiation psychology are also becoming increasingly relevant. Negotiators must be aware of behavioral biases that can impact contract structuring and negotiation dynamics. Applying principles from behavioral economics enables professionals to craft agreements that drive long-term success rather than short-term gains.

Ethical contracting and ESG (Environmental, Social, and Governance) integration represent another critical area of emerging competencies. Organizations must align contract structures with ESG goals, ensuring that business practices remain sustainable and ethical.



Contracts should promote fair labor conditions, responsible sourcing, and sustainability initiatives, requiring contract professionals to incorporate ESG considerations into their negotiation and contract management processes.

Professional Development and Certification Pathways

To develop these competencies, professionals can pursue specialized training and certifications offered by NCMA and WorldCC. Structured training provides a foundation, a license to practice, but cannot keep pace with change alone. AI will increasingly deliver baseline technical knowledge on demand. What will differentiate professionals is emotional and adaptability intelligence (EQ and AQ), which drive sustained value through relationship and outcome management.

The NCMA Certified Professional Contract Manager (CPCM) program provides advanced knowledge in contracting, including negotiation strategy and risk management. The Certified Federal Contract Manager (CFCM) certification is particularly useful for professionals working in government contracting, emphasizing regulatory compliance and legal frameworks. Similarly, the Certified Commercial Contract Manager (CCCM) certification focuses on best practices for private-sector negotiations.

WorldCC also offers several programs designed to enhance contract management expertise. The Contract and Commercial Management (CCM) Certification equips professionals with the skills needed to align contracts with business strategy while improving negotiation effectiveness. The Supplier Relationship Management (SRM) Certification addresses collaboration and risk-sharing strategies essential for contract performance. Additionally, WorldCC provides Negotiation Masterclass Programs that deliver practical training in advanced negotiation skills, including scenario-based planning and behavioral negotiation techniques.

Conclusion

As organizations navigate complex business landscapes, developing competencies that align contract negotiation practices with performance outcomes is essential. The findings from this research highlight the need for strategic negotiation planning, performance-focused contracting, effective risk management, and the integration of AI and behavioral economics into contract processes. Through professional development opportunities offered by NCMA and WorldCC, contract professionals can enhance their ability to craft agreements that drive value, mitigate risks, and foster long-term, sustainable business relationships. Ongoing research ensures that practitioners receive the up-to-date knowledge and methods they need to navigate constant change and uncertainty. The joint venture between WorldCC and NCMA is intended to become the platform that delivers these evolving insights, helping the profession anticipate rather than follow change.

Research and Authorship Disclaimer

This report was produced by the Commerce and Contract Management Institute, a collaborative initiative between World Commerce & Contracting and NCMA. The research employed a hybrid methodology combining human expertise with AI capabilities, with all sources and findings independently validated by human researchers. The report was co-authored through collaboration between human experts and AI tools, with final human editorial oversight.

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