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Analyzing Noise in Contracting Officer Decision-Making

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Abstract

The Federal Acquisition Regulation (FAR) states that contracting officers have authority to enter into, administer, or terminate contracts and make related determinations and findings (FAR 1.602-1, 2023). In performing these duties, contracting officers make decisions necessary for effective contract management, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships. These contracting decisions are based on contracting officers' knowledge and experience in contract management principles more so than by government rigid rules or checklists. In making these decisions, contracting officers are allowed wide latitude to exercise business judgment (FAR 1.602-2, 2023). This wide latitude may result in variability in these decisions, often referred to as "noise" (Kahneman et al., 2021). An agency does not expect individual contracting officer decisions to be entirely free of noise, but when aggregated, often noise is far above the level that agency leaders would consider acceptable. The problem in government contracting is that managers do not account for noise in contracting decision making. The purpose of this research is to investigate the level of noise in contracting officer decisions.

Introduction

The federal government obligates billions of dollars on contracts every year for the procurement of supplies and services (USAspending, 2023). These contracts are planned, awarded, and administered in accordance with statutory and regulatory requirements by formally designated contracting officers. The Federal Acquisition Regulation states that contracting officers have the authority to enter into, administer, or terminate contracts and make related determinations and findings (FAR 1.602-1, 2023). In the performance of these duties, contracting officers make decisions necessary for effective contract management, ensuring compliance with the terms of the contract (FAR 1.602-2, 2023) and safeguarding



the public interests of the United States in its contractual relationships (Cohen & Eimicke. 2008). Although federal government contracts must comply with statutory and regulatory requirements, many contracting officer decisions are based on contracting officers' knowledge and experience in contract management more so than by government rigid rules or checklists (FAR 1.603-2, 2023). In making these decisions, contracting officers are allowed wide latitude to exercise sound business judgment (FAR 1.602-2, 2023). Contracting officers exercising business judgement in decision-making may result in variability in these decisions. That is, different contracting officers may arrive at different decisions when encountered with the identical situation. In addition, the same contracting officer may arrive at a different decision, given different situational factors (day of the week, time of day, mood, ...). This inconsistency of judgment or variability in decisions is referred to as "noise" (Kahneman et al., 2021). Although an agency does not expect contracting officer decisions to be entirely free of noise, it should be concerned if the level of noise is above the level that organizational leaders would consider acceptable. Just as business managers are unreliable decision makers (Kahneman et al., 2016), the problem in government contracting is that contracting officers may also be unreliable decision makers.

Background

Although there has been past research on decision-making and variability in decisions (see, for example, Yoon et al., 2017), the concept of noise and bias in decisionmaking can be attributed to research conducted by Kahneman et al. in 2016. In their Harvard Business Review article, "Noise: How to Overcome the High, Hidden Cost of Inconsistent Decision Making," Kahneman et al. (2016) argue that although organizational leaders expect to see consistency in the decisions of their managers that require judgment, "judgments can vary a great deal from one individual to the next, even when people are in the same role and supposedly following the same guidelines." This variability in decisionmaking can be caused by irrelevant factors (e.g., mood, weather, disposition), which can change one person's decisions from one occasion to another occasion. Kahneman et al. (2016) state that this variability in decision-making is called noise, and it is surprisingly costly to companies, which are usually completely unaware of it. Their research states that variability in decision-making can result in "successful companies to lose substantial amounts of money without realizing it" (Kahneman et al., 2016). In follow-on research by Kahneman et al. published in Noise: A Flaw in Human Judgement in 2021, the researchers broached new ways of explaining why people make bad judgments. Their research examined decades of data on noise, and its profound impact on how we make decisions, and provided compelling reasons to identify and manage its effects. Most of all, their research revealed that organizational noise is more prevalent, persistent, and pernicious than we may think (Kahneman et al., 2021).

Research Purpose and Methodology

The purpose of this exploratory research is to investigate the level of variability (noise) in contracting officer decisions. Our primary research question is "To what extent does variability in decisions (noise) exist in the contracting officer/contract manager workforce?" The methodology for this research included the deployment of a Qualtrics-based survey to a small sample population of contract management professionals. The survey consisted of 11 short scenario questions requiring a contracting decision. Each scenario included multiple options, with one option to be selected by the respondents. The scenarios and questions are the type that there is no one correct answer. The survey was voluntary and anonymous. The survey also included demographic questions. An analysis



was conducted of the respondents' selected options to the scenarios by determining the level of variability (noise) in the respondents' answers.

Population Demographics

The number of survey responses ranged from 40 to 43 responses. We intentionally did not target a specific demographic (e.g., buyer versus seller, government versus industry) and the assessment instrument was deployed in forums that are populated largely by members of the National Contract Management Association (NCMA; 2023). The NCMA (2023) is the premier professional association for the contract management profession and consists of members from both the buying and selling communities in all employment sectors.

In terms of experience, 50% of the survey population had 20 or more years of experience in the contract management field. Seven percent had 4–8 years of experience, and no respondent had fewer than 3 years of experience. Overall, the population had a substantial level of experience in the CM profession. Forty-two percent (42%) of respondents held a contracting officer warrant. That statistic likely understates the level of decision-making authority respondents had, as approximately 50% of the sample are currently working in the private sector and may never have worked for a public sector agency as a warranted contracting officer.

In terms of professional certifications, 70% of respondents held one or more NCMA certifications. That number appears high, but the sample, as mentioned, was weighted toward contract management professionals that were active in NCMA-related activities or forums. Over half of the population (53%) were Defense Acquisition Workforce Improvement Act (DAWIA) or Federal Acquisition Certification-Contracting (FAC-C) certified. We did not attempt to measure respondents who may be enrolled in the new DAU Back to Basics single entry-level certification program.

Findings

While the survey data generated in this study is not amenable to in-depth quantitative analysis, it does inform us about how decision makers differ when faced with a choice of solutions to common contracting scenarios. No one would expect a survey where all the respondents chose the same solutions. But most of us have a feel for how much variance in decision making is acceptable, particularly if we believe there is one correct answer. Below, we offer analysis of the responses to a few scenarios simply to offer an example of one way to interpret the data.

In Scenario 1, the respondent is asked to review the facts about a contractor claim related to a specification interpretation and decide to dismiss the claim, pay the contractor what they ask, or decide the claim has merit but would require a negotiated settlement. Almost 70% of the respondents said they would negotiate the claim with the contractor, but 28% said they would dismiss the claim outright. If you were a manager who felt strongly that the facts in the case warranted negotiation with the contractor, you may be somewhat surprised that 28% of the contracting professionals surveyed would summarily dismiss the claim. While there is no guarantee that a contractor will pursue further legal remedies when a claim is dismissed, the potential for a lengthy appeal process is a distinct possibility.

Scenario 3 posed a situation where the contract schedule was impacted by unusually severe weather. The severity of the weather is not in doubt as the amount of rainfall during a critical month on the schedule was three times greater than the historical average for that month. Respondents were asked if they would offer a no cost time extension or pay the



contractor additional monies to accelerate the effort and complete the contract on schedule. Although there is no way to tell which alternative is correct (we don't have information on what a delay would cost the government), we do know that accelerating the contractor will cost \$300,000. What is interesting in this finding is the distribution of responses which suggests that most respondents (58%) felt a no cost 60-day time extension was the best choice for the government. But a sizable minority of respondents (42%) valued maintaining the original schedule, even though it would cost the project an additional \$300,000. One argument for the variability in decisions is that 58% of the respondents prioritized cost over time and 42% felt that saving schedule was more important than cost. Yet, the two groups had the same initial data. This is a noisy decision, but it is probably not occasion noise. When we are faced with a time–cost trade-off we all bring a conceptual framework to the decision process, and that framework likely reflects a bias toward either time or cost. (Note that in formal source selections, the trade-off may be between cost technical approach or past performance, but the argument for implicit bias would still remain.) This may be a simple case of professionals who disagree based on their interpretation of the facts.

In Scenario 10, an offeror submits a paper copy and an electronic copy of their proposal in accordance with the solicitation instructions to offerors. The paper copy of the proposal is timely, but the electronic submission is corrupted or otherwise unreadable. How should the government treat that offeror? Approximately 5% of respondents favored disqualification of the offer, thus the decision to either allow a corrected version to be submitted or simply evaluate the paper copy strongly suggests the contractor's proposal will be evaluated without penalty. But the breakdown of the proposed government reaction is revealing. While 57% of respondents would require that a corrected electronic version of the proposal be submitted, a significant number of respondents, 38%, would simply evaluate the paper copy. Given that the electronic copy of the offer is a requirement of the solicitation, a decision to simply dismiss the requirement is disconcerting. We have to assume that there was a reason an electronic version of the proposal was required and waiving the need for the electronic version raises questions about why the requirement was initially stated in the solicitation. If the offeror were to win the contract and the waiver become public knowledge, are there grounds for a post-award protest?

Implications of Findings

Although this was an exploratory investigation on noise in contracting officer/manager decision-making with a very limited population sample, our preliminary findings indicate that perhaps there is some variability (noise) in the decisions made by our respondents. Although most contracting professionals, especially government contracting officers, complete a structured and regulated contracts training program to be selected as warranted contracting officers or contract managers (FAR 1.603-2, 2023), there appears to still be some level of variability in contracting decisions. As previously stated, contracting officers/managers make decisions based on judgement and interpretation of contracting policies and statutes. Because many contracting decisions are based on judgment and policy interpretation, it would not be expected to have no noise or zero variability in contracting officers' use of judgment and policy interpretation. The problem facing organizational leadership may be more of acknowledging that noise or variability in contracting decisions exists, having an appreciation for the potential causes of variability (e.g., types of biases), and determining how to limit the extent of unwarranted or unwanted noise in contracting decisions.



Conclusion

The purpose of this research was to investigate the level of noise in contracting officer decisions. Based on our research findings, the wide latitude given to contracting officers may be resulting in noise in contracting decisions. The importance of noise is only revealed when organizations take the necessary steps to isolate decisions and compare them objectively and, ideally, from a number of different perspectives. As we have observed, noise is not always obvious or observable on the surface of a contract management organization's day to day operations. But it is likely present, and it may have a significant, if silent, impact on the myriad of decisions that contracting professionals make in the performance of their duties. While you may not be able to identify and quantify noise across the organization, you could probably examine discreet decision processes for evidence of variability. If the variance is unwarranted and unwanted, you have a manageable problem to mediate, and you will have a new lens to view the decision-making mechanics of your organization.

References

Cohen & Eimicke. (2008). The responsible contract manager: Protecting the public interest in an outsourced world.

Federal Acquisition Regulation (2023). https://www.acquisition.gov/browse/index/far

- Kahneman, D., Rosenfield, A. M., Gandhi, L., & Blaser, T. (2016). *Noise: How to overcome the high hidden cost of inconsistent decision making*. <u>https://hbr.org/2016/10/noise</u>
- Kahneman, D., Sibony, O., & Sunstein, C. R. (2021). *Noise: A flaw in human judgment* (1st ed.). Little, Brown Spark.
- National Contract Management Association. (2023). *Contract management body of knowledge* (7th ed.).

USAspending. (2023). https://www.usaspending.gov/

Yoon, S., Vo, K., & Venkatraman, V. (2017). Variability in decision strategies across descriptionbased and experience-based decision making. *Journal of Behavioral Decision Making*, 30(4), 951–963. <u>https://doi.org/10.1002/bdm.2009</u>





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