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An Innovative Approach to Assessing DoD Contracting Workforce Competency

February 26, 2021

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Graduate School of Defense Management

Naval Postgraduate School

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Abstract

The National Defense Authorization Act (NDAA) of 2020 directed the secretary of defense to implement a professional certification program for all members of the acquisition workforce that is based on standards developed by a third-party accredited program based on nationally or internationally recognized standards. In response to this NDAA (2019) requirement, the Department of Defense (DoD) senior procurement executives agreed to the establishment of a new contracting competency model and a single level of certification program based on the National Contract Management Association's (NCMA) Contract Management Body of Knowledge (CMBOK; NCMA, 2019a) and American National Standards Institute—accredited Contract Management Standard (CMS; NCMA, 2019b). The purpose of this research is to develop a new competency assessment instrument based on the NCMA CMBOK and CMS to be used in assessing the DoD's contracting workforce competency. This research will answer the following question: How can the CMBOK/CMS competency structure be used as the basis for developing a survey-based instrument for assessing the competencies of the DoD contracting workforce? An additional research question is: Based on the competency assessment results, in which contract management competencies is the workforce less proficient and less knowledgeable? We conduct this research by developing a survey-based assessment instrument for assessing the competencies of the DoD contracting workforce. We then deploy the assessment instrument to DoD contracting organizations and analyze the assessment results to identify contract management competencies that need additional training emphasis.



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Introduction

The Government Accountability Office (GAO, 2019) continues to list contract management as a high risk and has done so since 1992. Additionally, the Department of Defense (DoD) inspector general has identified contract management as a top DoD management challenge (Office of Inspector General [OIG], 2019). Both agencies identify the need for increased technical competency in the contracting workforce. Furthermore, recent research on organizational climate assessment on the DoD's contracting workforce indicates that competency management is a critical part of ensuring a trained and experienced contracting workforce (Rendon & Powley, 2017). Thus, how an organization's competency framework is structured may have a significant impact on the competence level of its workforce.

Recent legislative initiatives reflect Congress's concerns about the adequacy of the DoD's acquisition workforce training and competency. For example, the Fiscal Year 2016 National Defense Authorization Act (NDAA, 2015) Section 809 required the secretary of defense to establish an independent advisory panel on streamlining acquisition regulations. The Section 809 Panel stated that if the DoD is to achieve its acquisition workforce goals, it will need to prepare and develop its workforce differently (Scott & Thompson, 2019). The Section 809 Panel identified several recommendations for improving the professional development of the acquisition workforce. These recommendations included creating career paths for the contracting functional area that would include those technical competencies and key work experiences as reflected in industry standards. The Section 809 Panel also recommended that the DoD revise its contracting professional development programs to emphasize skills that are transferable across government and industry and focused on a defined set of qualifications connected to contracting positions. Additionally, the panel recommended that the DoD revise its contracting professional development programs to emphasize sufficient domain knowledge, emphasize professional skills, and provide a broad perspective to interact effectively with industry. Finally, the panel recommended that the DoD adopt a common contracting



body of knowledge, which would also enhance communication and collaboration between government and industry (Scott & Thompson, 2019).

Even more recently, in the 2020 National Defense Authorization Act (NDAA, 2019), Congress directed the secretary of defense to implement a professional certification program for all members of the acquisition workforce that is based on standards developed by a third-party accredited program based on nationally or internationally recognized standards (NDAA, 2019).



Purpose of Research

Recent research has shown that the current DoD contracting competency model may not be sufficient in assessing today's contracting workforce (Rendon & Winn, 2017). Additionally, further research found that the National Contract Management Association's (NCMA) *Contract Management Body of Knowledge* (CMBOK; NCMA, 2019a) and the *Contract Management Standard* (CMS; NCMA, 2019b) may be more suitable and effective in assessing the contracting workforce competency in today's dynamic acquisition environment (Rendon, 2019). The purpose of this research is to develop a new competency assessment instrument based on the NCMA CMBOK and CMS to be used in assessing the DoD's contracting workforce competency. This research answers the following question: How can the CMBOK/CMS competency structure be used as the basis for developing a survey-based instrument for assessing the competencies of the DoD contracting workforce? An additional research question is: Based on the competency assessment results, in which contract management competencies is the workforce less proficient and less knowledgeable? Thus, the objective of the research is focused on adopting the CMBOK/CMS contracting competency model as the basis for assessing the DoD contracting workforce.



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Methodology

The methodology for this research consists of two components. The first component is the development of a survey-based assessment instrument for assessing the competencies of the DoD contracting workforce. We draw from the workforce competency literature and survey development literature for this component. The second component of the methodology is the deployment of the assessment instrument to DoD contracting organizations and analysis of the assessment results to identify contract management competencies that need additional training emphasis.



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DoD Contract Management Workforce Competency

Recent research compared the DoD contracting competency model with the NCMA CMBOK/CMS (Rendon, 2019; Rendon & Winn, 2017). The CMS has received third-party accreditation by the American National Standards Institute (ANSI) as an ANSI-accredited standard. The CMBOK/CMS is used by both government agencies and industry organizations for managing contracts. The research found that the CMBOK/CMS competency framework may provide an innovative approach for developing and assessing the DoD contracting workforce. The CMBOK/CMS's concise and detailed contract life cycle and greater emphasis and granularity in each of the life-cycle phases and tasks may help develop and fortify the DoD's contracting processes and practices. Providing greater emphasis on each of the contract life-cycle phases and organizing competencies using a hierarchical structure that aligns each competency with processes, tasks, and subtasks would support the development of a professional contracting career path that aligns contracting technical competencies and key work experiences (Rendon, 2019). The recent Section 809 Panel recommended that the DoD create career paths for the contracting functional area that would include such technical competencies and key work experiences as reflected in the CMBOK/CMS.

Additionally, expanding the DoD's contracting workforce knowledge to include industry's side of contracting (e.g., industry operations and processes) as reflected in the CMBOK/CMS will help in developing technical and professional skills that can transfer across government and industry, as well as improve communication and collaboration between government and industry. Including the industry side of contracting would also result in strengthening systems thinking within the contracting workforce (Carlson, 2017). The current DoD contracting competency model may be resulting in linear thinking among the contracting workforce, with contract managers believing that contracting problems have "direct causes and that you can optimize the whole by optimizing each of the parts" (Carlson, 2017). Contract managers using systems thinking will know that contract management "problems can have hidden, indirect causes" and it is the "relationships among the parts that matter the most"



(Carlson, 2017). Adopting the CMBOK/CMS competency framework may provide the DoD contracting workforce with a stronger foundational understanding of not only the complete contract life cycle but also an understanding of the different perspectives in contractual relationships (e.g., buyer, seller, subcontractors, suppliers, end users, etc.). Using systems thinking, contract managers will be able to “see the gaps where complications or opportunities can arise” within the acquisition process and understand how their contracting decisions may impact contractors and subcontractors (Carlson, 2017). Including the industry competencies for the DoD contracting workforce may also strengthen “communication, collaboration, problem-solving, and adaptability” skills (Carlson, 2017). The Section 809 Panel recommended that the DoD revise its contracting professional development programs to emphasize skills that are transferable across government and industry and focused on a defined set of qualifications connected to contracting positions (Rendon, 2019).

Furthermore, there may be value in broadening the current DoD contracting competency model to include disciplines such as business management, financial management, project management, risk management, and supply chain management, as reflected in the CMBOK. The inclusion of these disciplines may enhance the DoD contracting workforce’s critical thinking, problem solving, and analytical skills—bringing increased efficiency to its contracting processes (Rendon, 2019). The Section 809 Panel recommended that the DoD revise its contracting professional development programs to emphasize sufficient domain knowledge, emphasize professional skills, and provide a broad perspective to interact effectively with industry. A recent RAND study found that, within the defense acquisition workforce, knowledge gaps in business acumen, industry operations, and industry motivation exist. The RAND report also found that the lack of standardized definitions and competency model formats obscures the need for knowledge related to business acumen, industry operations, and industry motivation (Werber et al., 2019).

A greater understanding of these CMBOK/CMS disciplines, as well as understanding both government and industry sides of the contracting relationship,



will help develop “T-shaped” acquisition professionals who have both “depth of knowledge in a particular expertise as well as have the ability to work and communicate across disciplines” (Carlson, 2017). T-shaped acquisition professionals will be capable of introducing innovation and process change into the DoD contracting processes. If the DoD would adopt the CMBOK/CMS as its competency framework, it would achieve a desired recommendation from the Section 809 Panel that both the DoD and industry adopt a common contracting body of knowledge, which would also enhance communication and collaboration between government and industry (Rendon, 2019). As previously stated, in the National Defense Authorization Act of 2020 (NDAA, 2019), Congress directed the secretary of defense to implement a professional certification program for all members of the acquisition workforce that is based on standards developed by a third-party accredited program based on nationally or internationally recognized standards.

Furthermore, in April 2020, the DoD senior procurement executives decided to establish a new contracting competency model and a single level of certification program. The new competency model is based on the NCMA CMBOK and ANSI-accredited CMS. The new DoD contracting competency model complies with the requirement in Section 861 of the FY2020 NDAA to base a professional certification on standards developed by a third-party accredited program. The CMS uses terms that are relevant and applicable across the DoD, federal agencies, and industry. The model also has an overarching narrative of guiding principles aligned with professional competencies that apply across all phases of the contracting life cycle. The basic top-level structure of the NCMA CMS is reflected in Figure 1 (NCMA, 2019b).



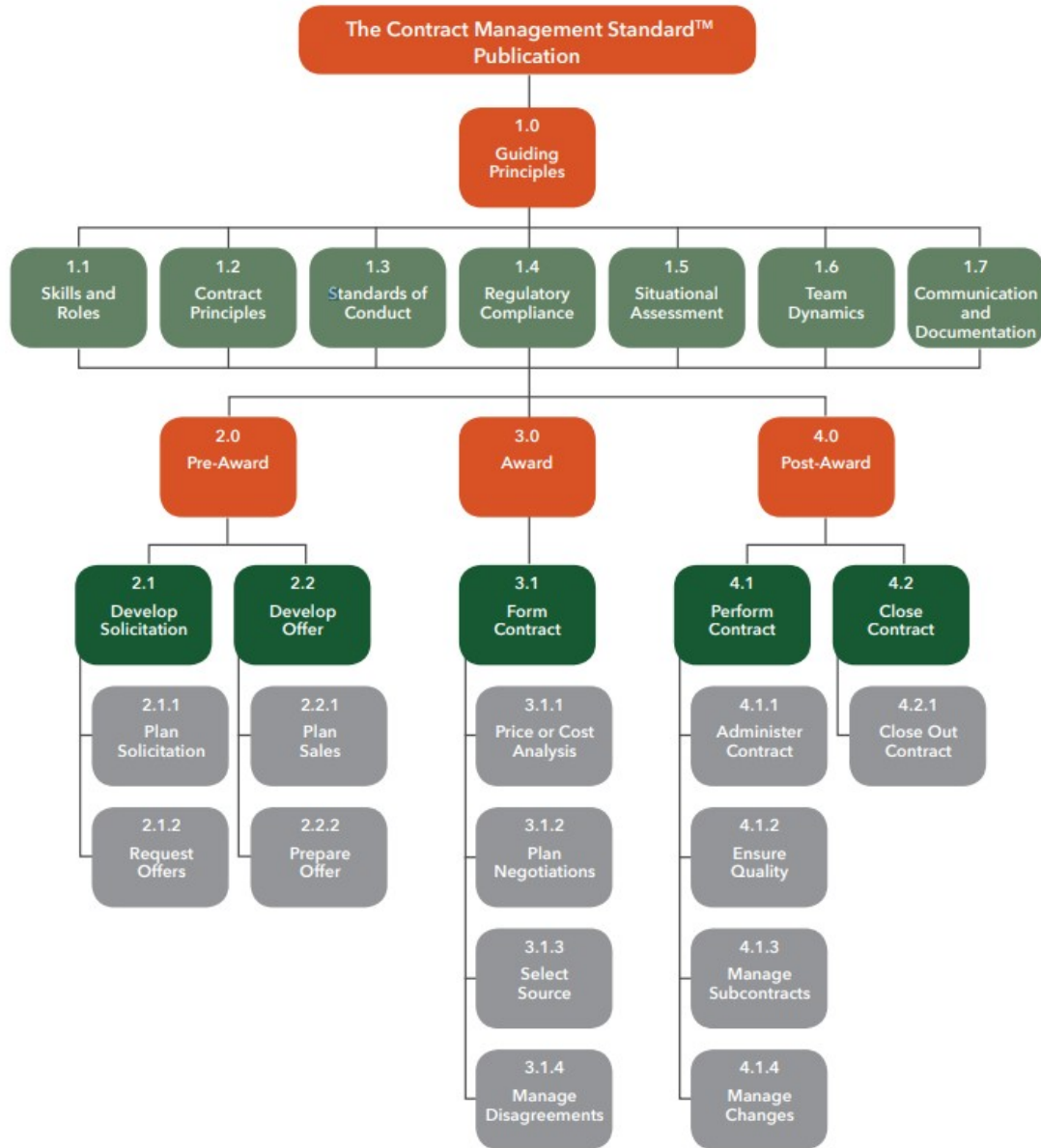


Figure 1. Contract Management Standard (NCMA, 2019b)



Development of Competency Assessment Instrument

The development of the contracting competency assessment instrument included structuring contracting competency statements for each of the contract management phases (pre-award, award, post-award), as well as from both contracting perspectives (buyer and seller). More specifically, the contracting competency statements reflect the contracting competencies and the specific job tasks for each contract management phase and for each perspective as reflected in the CMS. The competency statements would be rated by the contracting workforce members using a Likert scale reflecting different levels of proficiency for performing the buyer job tasks and a Likert scale reflecting the different levels of knowledge of the seller job tasks. The proficiency rating scales, for performing buyer job tasks, are identified and defined below:

1. **Aware:** Applies the competency in the simplest situations and requires close and extensive guidance.
2. **Basic:** Applies the competency in somewhat difficult situations and requires frequent guidance.
3. **Intermediate:** Applies the competency in difficult situations and requires little or no guidance.
4. **Advanced:** Applies the competency in considerably difficult situations and generally requires no guidance.
5. **Expert:** Applies the competency in exceptionally difficult situations and serves as a key resource and advises others.

N/A: Not applicable/not needed in my job.

The knowledge rating scales, for understanding seller job tasks, are identified and defined below:

1. **None:** I am not aware of this Contractor competency.
2. **Aware:** I am aware, but have no knowledge of this Contractor competency.
3. **Basic:** I have some basic level knowledge of this Contractor competency.
4. **Intermediate:** I have intermediate level knowledge of this Contractor competency.



5. Advanced: I have advanced level knowledge of this Contractor competency.

Deployment of Competency Assessment Instrument

Upon development of the survey instrument, the assessment survey was deployed to the Marine Corps Systems Command (MCSC) contracting organization. The assessment survey was deployed using the Naval Postgraduate School (NPS) open-source survey tool LimeSurvey. The web-based LimeSurvey allows participants to respond anonymously to the self-assessment items. The MCSC contracting workforce population consists of 220 government civilian (GS 1102) and military equivalent contracting professionals.

Findings

Of the MCSC 220 government civilian and military contracting professionals, 43 contracting professionals completed the assessment, equating to approximately 19.5% of the MCSC contracting workforce. The demographic data of the responding population are reflected in Table 1. As can be seen in Table 1, the majority of the respondents were DAWIA Contracting Level 3 certified and had at least 9 years of contracting experience.

Table 1. MCSC Contracting Workforce Competency Assessment Demographics

DAWIA Contracting Certification Level	Number		Years of Contracting Experience	Number
None	1		3 or Less	5
Level 1	3		4 to 8	5
Level 2	5		9 to 13	21
Level 3	41		14 to 18	4
			19 or more	17

Buyer Proficiency

Figure 2 reflects the assessment results of the Buyer Proficiency component of the competency assessment. The figure reflects the categories of buyer tasks, as



reflected in the NCMA Contract Management Standard (CMS), along with the average proficiency rating, based on the buyer proficiency rating scales. As can be seen in Figure 2, the average buyer proficiency ratings range between 3.34 (Intermediate) and 4.20 (Advanced). Additionally, the Pre-Award and Award competency rating averages are higher than the Post-Award competency rating averages. Finally, the lowest proficiency rating average was 3.34 for the Manage Disagreement competency.

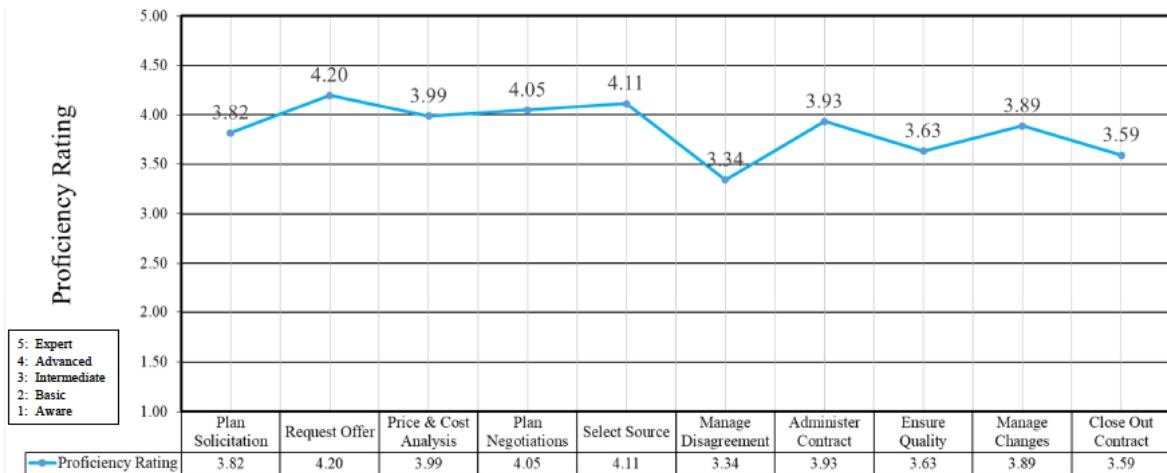


Figure 2. MCSC Contracting Workforce Competency Assessment Buyer Proficiency

Seller Knowledge

Figure 3 reflects the assessment results of the Seller Knowledge component of the competency assessment. The figure reflects the categories of seller tasks, as reflected in the NCMA Contract Management Standard (CMS), along with the average knowledge rating, based on the seller knowledge rating scales. As can be seen in Figure 3, the average seller knowledge ratings range between 2.95 (Aware) and 3.68 (Basic). Additionally, the Pre-Award and Award competency averages are higher than the Post-Award competency averages. Finally, the lowest proficiency average rating was 2.95 for the Manage Disagreement competency.



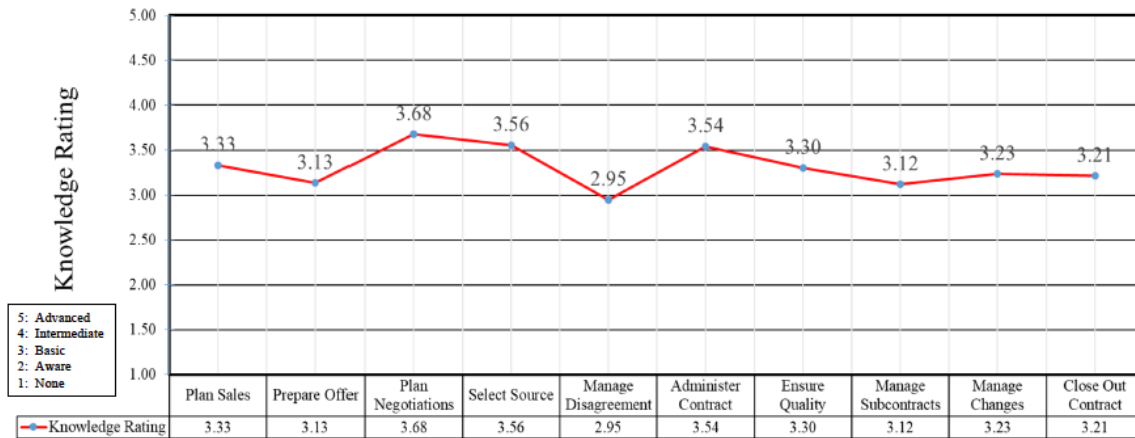


Figure 3. MCSC Contracting Workforce Competency Assessment Seller Knowledge

Discussion

The overall findings from the competency assessment indicate that the organization’s competency levels for the buyer proficiency tasks are higher than the organization’s knowledge levels of seller’s tasks. Specifically, based on the competency assessment, the majority of the buyer proficiency competency ratings are at an Intermediate level, with seven out of 10 competencies rated within this range. The remaining three competencies received ratings of an Advanced level. Additionally, when these competencies are analyzed by contract life-cycle phases, the average pre-award phase competency level is Advanced whereas the average award and post-award phases are both at an Intermediate level. The lowest rated competency was that of Manage Disagreements in the Award phase.

Additionally, based on the competency assessment, seller knowledge competency ratings are at a Basic level with all 10 competencies scoring in this range. When these competencies are analyzed by contract life-cycle phases, the pre-award, award, and post-award phases all rate at a Basic level. The lowest-rated competency was that of Manage Disagreements in the Award phase, which is closely followed by the competency of Prepare Offer in the Pre-Award phase.

The Advanced and Intermediate average competency levels for the Buyer tasks may be related to the background of the surveyed workforce. The majority of



respondents are DAWIA Contracting Level 3 certified and have an average of at least nine years of contracting experience. This level of training and experience may indicate a higher competency level in performing the buyer tasks reflected in the CMS. Additionally, the higher average competency ratings for the pre-award and award competency categories may also be related to past Naval organizational contract management process maturity assessments based on the Contract Management Maturity Model (CMMM). Those CMMM process assessments indicate that Naval contract management process maturity is higher for pre-award and award contracting processes compared to post-award contracting processes (Rendon, 2015).

The higher competency levels for the buyer tasks (Advanced and Intermediate) compared to the lower knowledge levels of the seller tasks (Aware and Basic) may reflect the scope and focus of the contracts training received by the DoD acquisition workforce. The contracts training provided by the Defense Acquisition University (DAU) and based on the current DoD contracting competency framework reflects only the buyer processes and related tasks, specifically dictated by the Federal Acquisition Regulation (FAR). The DAU contracts training courses do not cover the seller (industry) processes and related tasks.

Finally, the consistency in lower proficiency and knowledge levels of the Manage Disagreement competency category for both buyer and seller tasks is indeed an interesting finding. This CMS competency area specifically deals with the seller tasks of submitting protests and appeals and the buyer tasks of responding to protests and appeals. The low proficiency and knowledge levels from the surveyed population in this competency area may reflect a deficiency in the knowledge, skills, and abilities related to these contract management tasks.

Based on these competency assessment findings, our research provides recommendations for the assessed organization for competency development. These recommendations can be used by the organization for developing a training roadmap for targeting competencies and knowledge areas needed for improvement within the contracting workforce.



Recommendations for Competency Development

Based on the findings and discussion on the results of the MSCS competency assessment findings, there are a couple of targeted recommendations for the assessed organization. Additionally, there are a number of recommendations for areas of further research as well as suggestions for uses of the competency assessment as a tool to aid contract management supervisors.

Targeted Recommendations

The first recommendation for the assessed organization is to develop a curriculum for the existing training program focused on the seller processes and job tasks (NCMA, 2019b). Because the survey results indicate only a Basic level of knowledge for all seller tasks, the new curriculum should incorporate seller task information from the CMBOK for all the contract life-cycle competencies (NCMA 2019a). Additional emphasis could also be placed on the Post-Award phase since the results indicate an overall lower knowledge level as compared to the Pre-Award and Award phases.

The second recommendation for the assessed organization is to develop and/or revise the training module covering managing disagreements. This recommendation is based on the survey results indicating that the Manage Disagreements task within the Award phase was the lowest score for both buyer task proficiency and seller task knowledge. Development of this training module could start by incorporating information from section 5.4 of the CMBOK, Manage Disagreements (NCMA, 2019a). Additional information from the CMBOK could also be incorporated to improve skills such as critical thinking, problem solving, and decision-making related to managing and resolving protests and appeals. Specifically, the CMBOK covers information on these skill sets within the Leadership, Management and Guiding Principles Competencies (NCMA, 2019a).

Areas for Further Research

The primary area for further research is to deploy the currently developed survey instrument to additional contracting activities throughout the DoD. This would



increase both the sample size of survey responses and collect data from activities with more diverse contracting mission sets. For example, the organization surveyed for this research, MCSC, has a primary mission focused on Pre-Award and Award tasks for procuring major weapon systems for the Marine Corps. Conducting surveys of organizations whose mission is either procuring base support functions or administering awarded contracts would likely show data results with different levels of proficiency of buyer tasks and knowledge of seller tasks and produce different targeted recommendations.

Another area for further research would be to revise the existing survey instrument to add questions about the levels of contracting experience in the private sector. The additional information could demonstrate correlation between that level of experience and the data results regarding the level of knowledge of seller job tasks and associated knowledge gaps.

The final area for further research could be conducted once the DoD has established and implemented the new contracting competency model and single level of certification program. The research would compare the buyer and seller tasks of the CMS (NCMA 2019b) with the objectives of the new certification program to identify any differences or gaps that could be addressed.

Suggestions of Tools for Contract Management Supervisors

One suggestion is to provide the existing survey instrument to contract management supervisors. They could deploy the survey to their subordinates for self-assessment of the buyer tasks proficiency and seller tasks knowledge as well as personally completing the survey for each of their subordinates to assess the supervisor's perception of the same levels of proficiency and knowledge. The self-assessments and supervisor assessments could be compared to improve both the mentoring and personnel evaluation responsibilities.

The other suggestion to aid contract management supervisors would require revising the current survey instrument to add questions on a Likert scale as to the importance of all the buyer tasks. Once revised, the survey could be deployed



similarly to the first suggestion and the results could assist the supervisor in developing targeted and personalized individual training plans. The training plans would better align the employees' lower proficiencies of buyer tasks with the organization's mission priorities.



Conclusion

The GAO and the OIG both continue to identify contract management as a high risk and a top management challenge for the DoD. Additionally, research has shown that the current DoD contracting competency model may not be sufficient in assessing today's contracting workforce competencies (Rendon & Winn, 2017). Furthermore, the NDAA 2020 resulted in congressional direction to the secretary of defense to implement a professional certification program for all members of the acquisition workforce based on standards developed by a third-party accredited program that is based on nationally or internationally recognized standards (NDAA, 2019). Finally, in April 2020, the DoD senior procurement executives decided to establish a new contracting competency model and a single level of certification program. The new competency model will be based on the NCMA *Contract Management Standard* (CMS), which is accredited by the American National Standards Institute (ANSI).

The purpose of this research was to develop a new contracting competency assessment instrument based on the NCMA CMS to be used in assessing the DoD's contracting workforce. The competency assessment instrument has been developed and is being deployed throughout the DoD. This specific research reflects the application of this competency assessment instrument to the Marine Corps Systems Command (MCSC) contracting workforce. Based on the assessment results, the MCSC can develop a training roadmap for targeting competencies and knowledge areas needed for improvement within the contracting workforce. This research should be expanded by applying the competency assessment tool to other DoD contracting agencies as a way of benchmarking the DoD contracting workforce competencies against the newly adopted NCMA *Contract Management Standard*.



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References

- Carlson, S. (2017). A new liberal art: How systems thinking prepares students for a complex world. *The Chronicle of Higher Education*, 64(5).
- Government Accountability Office. (2019, March 6). *High-risk series: Substantial efforts needed to achieve greater progress on high-risk series* (GAO-19-157SP).
- National Contract Management Association. (2019a). *Contract management body of knowledge* (6th ed.).
- National Contract Management Association. (2019b). *Contract management standard* (2nd ed.).
- National Defense Authorization Act for Fiscal Year 2016, Pub. L. No. 114-92 (2015).
- National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92 (2019).
- Office of Inspector General. (2019, November 4). *Fiscal Year 2020: Top DoD management challenges*. Department of Defense.
- Rendon, R. G. (2015). Benchmarking contract management process maturity: A case study of the U.S. Navy. *Benchmarking: An International Journal*, 22(7), 1481–1508.
- Rendon, R. G. (2019). *Enhancing professional and technical excellence: Analysis of contract management competency models* (SYM-AM-19-036). <https://calhoun.nps.edu/handle/10945/63019>
- Rendon, R. G., & Powley, E. H. (2017). *Navy contracting organizational climate assessment* (NPS-CM18-030). Naval Postgraduate School, Acquisition Research Program.
- Rendon, R. G., & Winn, T. (2017). Competency in contract management: A comparison of DoD and CMBOK competency models. *Contract Management*, 57(12), 66–81.
- Scott, D., & Thompson, D. (2019). *Toward building the DoD acquisition workforce of the twenty-first century: Recommendations of the Section 809 Panel on professional development*. <https://www.ncmahq.org/news/magazine-details/toward-building-the-dodacquisition-workforce-of-the-twenty-first-century-recommendations-from-the-section-809panel-on-professional-development>
- Werber, L., Ausink, J., Daugherty, L., Phillips, B., Knutson, F., & Haberman, R. (2019). *An assessment of gaps in business acumen and knowledge of*



industry within the defense acquisition workforce: A report prepared for the U.S. Department of Defense in compliance with Section 843(c) of the Fiscal Year 2018 National Defense Authorization Act (RR-2825-OSD). RAND.





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