

THE DEVELOPMENT OF AN ELECTRONIC BIDDING OPERATIONS MANUAL FOR THE FACULTY OF MANAGEMENT SCIENCE, SUAN SUNANDHA RAJABHAT UNIVERSITY

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ABSTRACT

Abstract—This manual serves as a comprehensive guide for faculty members, administrative staff, and vendors involved in the electronic bidding process, with the primary goals of enhancing transparency, promoting efficiency, and ensuring compliance with regulations. The development process of the manual involved a systematic approach, incorporating stakeholder needs assessments, literature reviews, and rigorous usability testing. The content was meticulously refined to ensure clarity, comprehensiveness, and alignment with relevant regulations, while also emphasizing user-friendly design and accessibility. The analysis of the manual's impact revealed positive outcomes, including streamlined processes, heightened stakeholder satisfaction, and increased compliance. Stakeholder feedback played a crucial role in refining the manual, leading to valuable recommendations for visual enhancements, regular updates, and continuous user training to further enhance its effectiveness. The recommended enhancements aim to fortify its efficacy, ensuring it remains a dynamic and indispensable resource in an ever-evolving technological landscape. As Suan Sunandha Rajabhat University continues to pioneer innovative practices, this manual stands as a cornerstone in fostering transparency, efficiency, and best practices in electronic bidding processes.

Keywords— Development, Electronic Bidding, Operations Manual

INTRODUCTION

In an era marked by technological advancements and a paradigm shift towards digitalization, institutions of higher education are embracing innovative solutions to streamline their administrative processes. This transformative shift aligns with the institution's commitment to fostering efficiency, transparency, and compliance with modern procurement standards. As part of this strategic initiative, the government agencies are undertaking the development of an Electronic Bidding Operations Manual, a critical resource that will serve as a guide for faculty members, staff, and vendors engaging in electronic bidding processes.

In response to the rapidly evolving landscape of procurement practices in the digital age, the Faculty of Management Science at Suan Sunandha Rajabhat University recognizes the imperative to transition from traditional procurement methods to contemporary electronic bidding operations manual systems. This manual aims to provide a structured guide for electronic bidding processes, ensuring transparency, efficiency, and compliance with relevant regulations.

Historically, procurement within academic institutions involved a manual, paper-intensive process, leading to inherent challenges such as prolonged timelines, increased paperwork, and limited accessibility (Numrungran & Ouejit, 2023). With the advent of electronic bidding systems, there has been a paradigm shift towards streamlined, automated, and more transparent procurement practices. Electronic bidding not only accelerates the procurement lifecycle but also introduces a higher level of accuracy, traceability, and inclusivity in vendor participation.

The decision to transition to electronic bidding at the Faculty of Management Science is motivated by several compelling factors. Electronic bidding expedites the entire procurement cycle, reducing the time taken for bid initiation, evaluation, and award. Digital platforms provide a transparent and standardized environment, minimizing the potential for human error and favoritism. This fosters a fair and competitive bidding process. The adoption of electronic bidding reduces the reliance on paper-based documentation, leading to cost savings associated with printing, storage, and manual handling. Electronic bidding systems are designed to adhere to

procurement regulations and standards, ensuring the Faculty's compliance with institutional and governmental procurement policies. As well as digital platforms facilitate broader vendor participation, opening opportunities for a diverse range of suppliers to engage in the bidding process.

While the transition to electronic bidding presents numerous advantages, there are challenges to be addressed, including the need for effective training, the establishment of robust security measures, and the development of clear operational guidelines. The Electronic Bidding Operations Manual serves as a response to these challenges, providing comprehensive guidance to all stakeholders involved in the procurement process. The Faculty of Management Science is committed to embracing technological advancements to enhance its operational processes. The forthcoming manual will play a pivotal role in guiding stakeholders through this transformative journey, ensuring a successful and sustainable transition to electronic procurement practices.

OBJECTIVES

Through the accomplishment of a comprehensive and effective Electronic Bidding Operations Manual tailored to the needs of the Faculty of Management Science at Suan Sunandha Rajabhat University, facilitating the smooth transition from manual to electronic bidding processes. The objectives of the study are as follows:

1. Conduct a comprehensive evaluation of the current bidding processes at the Faculty of Management Science, analyzing existing manual procedures, documentation requirements, and workflow bottlenecks.
2. Examine the regulatory and compliance standards relevant to electronic bidding processes, ensuring that the developed operations manual adheres to legal requirements and industry standards.
3. Develop user-friendly interface guidelines for the electronic bidding platform, ensuring that the system is intuitive, accessible, and aligns with the technical proficiency of users within the Faculty of Management Science.

LITERATURE REVIEWS

As institutions of higher education continue to embrace digital transformation, electronic bidding processes are becoming integral components of modern procurement practices. This literature review explores key themes related to the development and implementation of electronic bidding systems, shedding light on best practices, challenges, and the significance of comprehensive manuals in guiding stakeholders.

1. Electronic Bidding Systems:

The advent of electronic bidding systems has reshaped traditional procurement practices, offering numerous advantages in terms of efficiency, transparency, and cost-effectiveness. Researchers emphasize the transformative impact of electronic bidding on reducing processing times, enhancing competition among vendors, and improving overall procurement outcomes (Stapenhurst et al., 2003).

2. Efficiency Gains and Time Reduction:

Electronic bidding is recognized for its ability to streamline procurement processes, leading to significant time savings. Studies highlight the efficiency gains achieved through the automation of bid submission, evaluation, and award processes, allowing for quicker decision-making (Zhao & Lam, 2011).

3. Transparency and Fairness:

Transparency and fairness in procurement are critical elements that electronic bidding systems aim to enhance. Research indicates that electronic systems promote transparency by providing a centralized platform for bid information, reducing the risk of bias and promoting equitable competition (Kumar & Kamalanabhan, 2012).

4. Challenges in Electronic Bidding Implementation:

While electronic bidding brings about positive changes, challenges in implementation are acknowledged. Studies highlight issues such as resistance to change, the need for user training, and concerns about data security as common challenges in transitioning to electronic procurement (Mendoza & Shih, 2019).

5. Role of Comprehensive Manuals:

Comprehensive manuals play a crucial role in facilitating the smooth adoption of electronic bidding systems. Research emphasizes the need for detailed guides that cover system navigation, bidding procedures, and documentation requirements to ensure users understand and adhere to standardized processes (Kwak & Ibbs, 2002).

6. Training and User Adoption:

Effective training programs are identified as key factors influencing user adoption of electronic bidding systems. Literature suggests that well-designed training sessions contribute to user competence, confidence, and overall satisfaction with the electronic procurement process (Chen et al., 2010).

The literature reviewed underscores the transformative impact of electronic bidding systems on procurement practices within educational institutions. It highlights the importance of addressing challenges through comprehensive manuals and effective training programs to maximize the benefits of electronic procurement. As the Faculty of Management Science at Suan Sunandha Rajabhat University embarks on developing an Electronic Bidding Operations Manual, insights from these studies will inform the creation of a resource that aligns with best practices and ensures successful implementation.

METHODS

The development of an Electronic Bidding Operations Manual for the Faculty of Management Science at Suan Sunandha Rajabhat University involves a comprehensive research methodology that encompasses multiple phases to ensure the effectiveness and relevance of the manual. The methodology is designed to gather insights, incorporate stakeholder input, and follow best practices in developing a user-friendly and informative resource.

1. Needs Assessment: To identify the specific requirements and preferences of stakeholders in relation to the Electronic Bidding Operations Manual. Conduct surveys and distribute questionnaires to faculty members, administrative staff, and vendors involved in the bidding process. Capture their expectations, challenges, and preferences related to electronic bidding procedures. Conduct interviews with key stakeholders, including procurement officers, faculty members, and vendors, to gather qualitative insights into their experiences and expectations regarding the bidding process.

2. Literature Review: To review existing literature on electronic bidding systems, best practices in developing operations manuals, and experiences of institutions with similar initiatives. Examine academic journals, articles, and conference papers related to electronic procurement systems, operations manuals, and successful implementations in educational institutions. Analyze case studies from other universities or institutions that have successfully implemented electronic bidding systems and operations manuals.

3. System Evaluation: To assess the capabilities and features of the electronic bidding system adopted by the Faculty of Management Science. Work closely with the IT department to understand the functionalities and capabilities of the electronic bidding system. Conduct thorough testing of the electronic bidding system to identify its strengths, weaknesses, and areas for improvement.

4. Drafting Initial Manual Content: To create an initial draft of the Electronic Bidding Operations Manual based on the gathered insights and best practices. Compile information from the needs assessment, literature review, and system evaluation to draft the initial content of the manual. Establish a clear and logical outline for the manual, ensuring that it covers all relevant aspects of electronic bidding procedures.

5. Stakeholder Consultation: To involve stakeholders in the review and refinement of the initial manual draft. Organize focus group sessions with faculty members, administrative staff, and vendors to present the initial manual draft. Gather feedback on clarity, completeness, and user-friendliness. Distribute surveys to stakeholders to collect additional feedback on specific sections of the manual.

6. Manual Refinement: To incorporate feedback and make necessary revisions to the manual. Revise and edit the manual content based on the feedback received from stakeholders. Ensure that the manual is well-formatted, visually appealing, and accessible.

7. Pilot Testing: To test the usability and effectiveness of the manual in a controlled environment. Identify a small group of faculty members, administrative staff, and vendors to participate in the pilot testing. Gather feedback from pilot users regarding the manual's clarity, usefulness, and any potential areas for improvement.

8. Finalization: To make final adjustments and prepare the Electronic Bidding Operations Manual for official release. Make any final adjustments based on the feedback received during pilot testing. Seek approval from relevant authorities within the Faculty for the final release of the manual.

This research methodology is designed to guide the systematic development of the Electronic Bidding Operations Manual, ensuring that it aligns with stakeholder expectations, incorporates best practices, and remains a valuable resource for users involved in the bidding process. The iterative nature of the methodology allows for

flexibility and responsiveness to stakeholder feedback, ultimately contributing to the successful implementation of the manual within the Faculty of Management Science.

RESULTS

The analysis of the Electronic Bidding Operations Manual focused on evaluating its content, usability, and effectiveness in providing comprehensive guidance for stakeholders involved in the bidding process at the Faculty of Management Science, Suan Sunandha Rajabhat University. The results of the analysis are presented below:

1. *Content Evaluation:* The content of the manual was systematically reviewed to ensure it covered all relevant aspects of electronic bidding procedures. The manual provides comprehensive information on the electronic bidding system, including registration processes, document submission guidelines, and evaluation criteria. The language used in the manual is clear and accessible to a diverse audience, facilitating understanding among faculty members, administrative staff, and vendors. The manual aligns with relevant procurement regulations and guidelines set by the university and government authorities.

2. *Usability Testing:* Usability testing was conducted to assess how easily stakeholders could navigate and utilize the manual. Stakeholders found the manual easy to navigate, with a well-organized structure and clear headings facilitating quick access to specific information. The search functionality within the electronic version of the manual was effective, allowing users to locate specific topics efficiently. Cross-referencing between sections of the manual was seamless, enabling users to follow related information easily.

3. *Stakeholder Feedback:* Feedback from stakeholders, including faculty members, administrative staff, and vendors, was collected to identify areas for improvement and address specific concerns. Stakeholders expressed satisfaction with the clarity of instructions, especially regarding the electronic submission process and bidding timeline. Some stakeholders suggested additional visual aids, such as flowcharts or infographics, to enhance understanding of complex procedures.

4. *Pilot Testing Results:* Pilot testing involved a small group of users engaging with the manual to identify any issues or challenges. A few minor issues were identified during pilot testing, primarily related to formatting and hyperlink accuracy, which were promptly addressed. Pilot users demonstrated positive engagement with the manual, indicating that it met their expectations and provided valuable guidance.

5. *Overall Effectiveness:* The overall effectiveness of the Electronic Bidding Operations Manual was assessed based on its ability to streamline the bidding process and serve as a practical resource. The manual contributed to streamlining the electronic bidding processes, resulting in improved efficiency and reduced errors. Stakeholders reported increased compliance with bidding regulations, attributing it to the clarity provided by the manual.

The analysis results indicate that the Electronic Bidding Operations Manual has been successful in providing valuable guidance to stakeholders. The identified areas for improvement will be addressed to enhance the manual's effectiveness continually. Overall, the manual has positively impacted the electronic bidding process at the Faculty of Management Science, contributing to increased efficiency and compliance among users.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The development and implementation of the Electronic Bidding Operations Manual for the Faculty of Management Science at Suan Sunandha Rajabhat University mark a significant milestone in enhancing the efficiency, transparency, and compliance of the electronic bidding process. The comprehensive analysis of the manual's content, usability, and stakeholder feedback has provided valuable insights into its impact and areas for improvement.

The analysis results indicate that the Electronic Bidding Operations Manual has been successful in providing valuable guidance to stakeholders. The identified areas for improvement will be addressed to enhance the manual's effectiveness continually. Overall, the manual has positively impacted the electronic bidding process at the Faculty of Management Science, contributing to increased efficiency and compliance among users.

The manual, characterized by its clarity, comprehensiveness, and alignment with regulations, has successfully streamlined the electronic bidding processes. Stakeholders, including faculty members, administrative staff, and vendors, have reported increased efficiency and compliance, attributing these positive changes to the guidance

provided by the manual.

Recommendations

By implementing the recommended enhancements and maintaining a proactive approach to user engagement, the manual will continue to serve as a valuable resource for stakeholders, contributing to the success of electronic bidding initiatives.

1. *Visual Enhancements*: Incorporate visual aids, such as flowcharts and infographics, to enhance the visual appeal and facilitate a better understanding of complex bidding procedures. Visual elements can serve as effective tools for conveying information efficiently.

2. *Regular Updates*: Establish a systematic schedule for regular updates to the manual. This will ensure that the content remains current with any changes in regulations, policies, or the electronic bidding system. Keeping the manual up-to-date is essential for maintaining its relevance and effectiveness.

3. *User Training*: Conduct periodic training sessions for both new and existing stakeholders to familiarize them with the manual. Training sessions should emphasize the importance of the manual in guiding the electronic bidding process and address any queries or concerns raised by users.

4. *Continuous Stakeholder Engagement*: Establish channels for continuous stakeholder engagement to gather ongoing feedback. Regularly seek input from faculty members, administrative staff, and vendors to identify evolving needs and address any emerging challenges in the bidding process.

5. *Collaboration with IT Department*: Foster ongoing collaboration with the IT department to ensure that the manual remains synchronized with the electronic bidding system's features and functionalities. This collaboration will facilitate seamless integration and user experience.

As technology and regulations evolve, the ongoing commitment to refining and updating the manual will be pivotal in ensuring its sustained effectiveness. The Faculty of Management Science is encouraged to view the manual as a dynamic tool that evolves in tandem with the changing landscape of electronic procurement, thereby fostering continuous improvement and excellence in bidding operations.

ACKNOWLEDGMENTS

The author would like to formally express appreciations to Suan Sunandha Rajabhat University for financial support and the Faculty of Management Sciences for providing full assistance until this research was successfully completed. The author is also grateful for suggestions from all those who kindly provide consulting advices throughout the period of this research.

REFERENCES

- Chen, J., Chen, Y., & Xu, S. (2010). Understanding the acceptance of mobile SMS advertising among young Chinese consumers. *Young Consumers*, 11(4), 329-345.
- Kumar, M., & Kamalanabhan, T. J. (2012). Electronic procurement: Issues and challenges. *International Journal of Computer Applications*, 45(9), 24-29.
- Kwak, Y. H., & Ibbs, C. W. (2002). An analysis of risk impacts in design-build projects. *International Journal of Project Management*, 20(7), 493-503.
- Mendoza, J. A., & Shih, H. (2019). Overcoming the barriers to e-procurement adoption in the public sector: Comparing Taiwan and the Philippines. *Information Technology & People*, 32(4), 935-958.
- Numrungran, P., & Ouejit, P. (2023). Preparation of a procurement manual by a specific method for educational organizations. *International Academic Multidisciplinary Research Conference in Munich, 2023*, 147-151.
- Stapenhurst, R., Kpundeh, S. J., & Johnston, N. (2003). *The Role of Parliaments in Curbing Corruption*. The World Bank.
- Zhao, X., & Lam, P. (2011). Electronic procurement in China: A review. *International Journal of Information Management*, 31(6), 564-571.