Ohio Fiscal Academy

CAPSTONE PROJECT

Cohort 7

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Standardizing Procurement to Payment Processes across State Agencies

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Executive Summary

In 2007, the State of Ohio replaced their dated networking systems, CAS, with Ohio Administrative Knowledge Systems. Yet, some State agencies still maintain their own procurement system. The purpose of this qualitative multiple case study was to explore procurement processes among seven State agencies to determine mutually beneficial standardized system that might be applicable statewide. A purposive sampling of 9 agency officials comprising of users and non-OAKS users participated in an open-ended semistructured interview process. Data from the interviews were transcribed, coded, and analyzed. Drawing from the Business Process Reengineering Method (BPR) propounded by Davenport and Short and enhanced by Hammer and Champy, 4 themes emerged: OBM procurement policies, use of OAKS for procurement to purchase, benefits of existing procurement system, and disadvantages of existing procurement system. Findings from this research included standardizing procurement policies across the State to potentially minimize training cost, standardizing procurement system to benefit from supplier discounts and economies of scale, and standardizing procurement processes to enhance smooth employees' transition from one State agency to another. The implication for positive change includes improving procurement to pay processes to meet supplier requirements and utilize taxpayer dollars more effectively and efficiently.

Problem Statement

Different State agencies have different procurement to payment practices and rules despite the introduction of the Ohio Administrative Knowledge System (OAKS). One of the objectives of the OAKS system was to standardize Ohio administrative business services across the State (Ohio Department of Administrative Service [DAS], 2017). The general business problem is that lack of standardization causes duplication and waste of resources. The specific business problem is that because of inconsistencies in State agencies' procurement policies and procedures, some State agencies might be missing opportunities associated with economies of scale and standardization in the procurement area.

Background of the Problem

In 2007, the State of Ohio replaced their dated networking systems, CAS, with Ohio Administrative Knowledge Systems (OAKS). This change posed a problem among those who were comfortable with the CAS system (DAS, 2017). Regardless of the resistance to change, the learning of the new system throughout the State of Ohio commenced as scheduled. Nevertheless, the full rollout of the program did not. Ten years later, some State agencies still maintain their own procurement system.

Ohio Administrative Knowledge System (OAKS) is the State's Enterprise Resource Planning (ERP) System, which furnishes many central administrative business services (DAS, 2017). OAKS allows for secure financial and employee data, statewide communications and content, and a host of other benefits. OAKS was designed to consolidate all state agencies' business transactions to allow economies of scale and efficiency through standardized processes.

Purpose Statement

The purpose of this qualitative multiple case study was to explore procurement processes among seven State agencies to determine mutually beneficial standardized system that might be applicable statewide. Our target population was procurement and payment personnel in all State agencies. Our sampled population included three financial managers from three agencies who are not using OAKS for procurement and four business managers from four agencies using OAKS for procurement.

Research Strategies

We used a qualitative methodology for this study. According to Long (2014), qualitative, quantitative, and the mixed methods are the three commonly used types of research. Using the qualitative method, a researcher gains an in-depth understanding of a phenomenon without performing extensive empirical analysis; while with quantitative method, a researcher determines relationships, causes, and effects of variables (Mertens, 2014). The mixed research method incorporates both qualitative and quantitative research methodologies and provides an in-depth approach to findings (Long, 2014). We chose to use the qualitative research method instead of quantitative or mixed method because of our intention to gain insights from practitioners who use OAKS procurement processes and others who do not.

We used a case study design in this study. Qualitative research is comprised of options that include narrative, ethnography, phenomenology, and case study. With narrative design, researchers study the biography of an individual (Safari & Thilenius, 2013). Narrative design was not appropriate for this study since we did not examine a biography. Ethnography is a research design, for exploring the way of life of a group of people (Bristowe, Selman, & Murtagh, 2015). Ethnography was not appropriate for this study because we did not examine the

culture of a people. Researchers use phenomenological design to explore how individuals' make sense of their lived experiences around them (Lewis, 2015). With phenomenological design, researchers study lived experiences of research participants relative to the special phenomena. Case study is the appropriate design. Using a case study design provide researchers the opportunity to study a bounded process in detail relative to the contextual framework (Yin, 2014).

Conceptual Framework

The conceptual framework underlying this study is the Business Process Reengineering Method (BPR) propounded by Davenport and Short (1990) and enhanced by Hammer and Champy (1993). Hammer and Champy (1993) defined BPR as the fundamental reconstruction and radical redesign of existing organizational processes to achieving a drastic improvement in cost, quality, and speed. With this concept, Davenport (1990) identified five fundamental procedures:

   a. Develop the organizational vision and process objectives

   b. Identify the business process to be redesigned

   c. Understand and measure the existing process

   d. Identify the information technology needs and capabilities

   e. Design and build a prototype of the new process

Some school of thought have argued that BPR utilizes more information technology to effect change while other concepts such as Kaizen and Six sigma might involve people. The choice for the BPR was based on the researchers' emphasis on the use of OAKS for standardization and its potential benefits.

Organizational Assessment

Increasing the effectiveness, efficiency, and transparency of a procurement system is an integral part of every successful organization. The data from this project might be valuable to State agencies who are not utilizing the OAKS system for their procurement to payment processes. The findings from this study are intended to provide a common tool which all State agencies might utilize to assess the quality and effectiveness of the procurement system.

The long-term goal is for State agencies to improve their procurement to pay processes in order to meet supplier requirements and utilize taxpayer dollars more effectively and efficiently. A potential barrier and risk would be that each State agency might have its own policies and procedures about the procurement of goods and services. These agencies may not find it beneficial to adapt to a standardized processing system, considering the technicality of the agency's functions. We anticipated some resistance to free supply of information within the sampled State agencies; however, we mitigated these risks by providing a thorough explanation about the purpose of the capstone project to the research participants.

Design/Methodology/Scope of Study

Method for Gathering data

We conducted seven interviews. Three interviewees were subject matter experts (SMEs) of agencies not using OAKS for procurement and four were SMEs of agencies using OAKS for procurement. As part of the interview process, we reviewed local procurement policies and procedures to explore the differences among OAKS users and non-OAKS users from the sampled agencies. We reviewed relevant sections of the current financial transactions manuals (Fin Source) and Ohio Shared Services (OSS) source manuals for established procurement procedures.

To explore the benefits and weaknesses of not using OAKS procurement processes indicated in the OSS manual, we asked the following interview questions:

1. Please, explain your procurement policies to us.

2. Do you use OAKS for your procurement? If so, please explain. If not, please explain your agency's procurement processes.

3. What benefits do you obtain from using OAKS for procurement? If not using the OAKS system for procurement, please explain your agency's procurement system.

4. Tell us about the positive and negative aspects you have regarding your agency's procurement process?

5. Share with us any other information you have about your agency's procurement system.

<center>**Assumptions and Limitations**</center>

Assumptions

Assumptions are unverifiable statements of facts that researchers consider to be true (Fan, 2013; Kirkwood & Price, 2013). The four fundamental assumptions underlying this study are as follows: first, the data gathered through interviewing research participants and reviewing documents will provide a true and accurate reflection of the current procurement system in the sampled agencies. The second assumption pertains to the presumption of fair and honest answers from research participants to the open-ended semi-structured interview questionnaire without fear, cohesion, or favor. The third assumption is the presumption of accurate gathering of untainted key ideas and themes through coding and analysis. Lastly, the findings from the study are presumed to serve as mutually beneficial to the development of a standardized system that might be applicable statewide.

Limitations

Limitations are potential weaknesses inherent in a research study that a researcher may not be in a position to address (Kirkwood & Price, 2013). The research was limited to analysis of the data we collected from our sampled agencies. We had a limited time and resources to analyze procurement processes for all state agencies. The researchers relied solely on the accuracy of the data shared from the sampled agencies and their willingness to grant access to the requested information.

Data Analysis

Qualitative data analysis process encompasses gathering, structuring, and assigning meaning to the collected data (Hilal & Alabri, 2013). Yin (2014) posited that the process of data analysis may involve (a) data gathering, (b) separating the data into similar chunks, (c) regrouping the data into common themes, (d) evaluating the themes, and (e) composing a report based on the findings obtained from the analysis. We analyzed the data gathered through interviewing seven research participants and reviewing peer-reviewed articles and agency policies. Drawing data from multiple sources enhance researchers' insight into the phenomena being studied from different perspectives, as well as ensuring methodological triangulation (Burau & Andersen, 2014). Qualitative researchers use methodological triangulation when they use more than one method to study a phenomenon (Burau & Andersen, 2014).

Presentation of the Findings

Seven research participants from seven State agencies participated in the research to address the overarching research subject - standardizing procurement to payment processes across state agencies. Through our data analyses, four themes emerged. The themes are (a) OBM

procurement policies, (b) use of OAKS for procurement to purchase, (c) benefits of existing procurement system, and (d) disadvantages of existing procurement system.

Theme 1: OBM/DAS Procurement Policies

The first theme that emerged from the responses was OBM procurement policies. Streamlining the procurement processes throughout all agencies enhance the overall productivity. We explored the procurement policies utilized by our respondents' respective agencies for comparison. Six out of seven (86%) of the research participants indicated that they use OBM/DAS procurement policies. However, the question is whether the non-OAKS users adhere to the OBM/DAS policies. Generally, OBM/DAS is tasked with the responsibility of drafting procurement policies aimed at standardizing procurement processes within the State. Participant 5 (P5) indicated that his agency has its own in-house procurement process; nevertheless, their policies mirror the OBM/DAS state procurement policy.

Standardizing procurement policies across the state has the potential of minimizing training cost; especially, when employees transfer to and from other agencies. Consistent with Kaizen's philosophy, standardization is a cost reduction strategy and results in higher output. When research participants were asked about their procurement policies, 14% percent of them indicated their adherence to OBM/DAS procurement policies but also mentioned other internal policies guiding their procurement activities.

Theme 2: Use of OAKS for Procurement to Purchase

When a question was raised as to whether respondents' respective agencies use OAKS for procurement, the following are the answers we received:

- (From P1) "My agency uses OAKS to enter purchase request to issue purchase orders. However, we do not use OAKS to do the Request to Purchase. All request to purchase are done via a paper form and manually send to Purchasing via email or hand delivered."

- (From P5) "No, just for payment portion. OAKS is not efficient for the activity piece of the process."

- (From P6) "My agency is currently not in OAKS. We are in the process of a conversion to move into OAKS in the next two years. We have our own contract division that has contract authority for the agency. They create contracts for most of our roadway maintenance items. For those items that are between $2,500 and $24,999, we use an outside web based quote system called IonWave. That system will retire once we move into OAKS."

- (From P7) "We do not use OAKS, our accounting system is Innoprise. The process consists of: A designated staff member in each area completes an OHFA Order Request form for every purchase. They scan the OHRF and the backup for the purchase to themselves, then forwards it to the purchasing inbox. The purpose of scanning it to the purchasing inbox from her email is in case we have questions we know who the information is from."

The above responses are indicative of inconsistencies in procurement processes that exist between different agencies within the State. Some agencies use a stand-alone system or use Oaks along with another system. The agency must rely on their internal technical support for maintaining the system.

Theme 3: Benefits of the Existing Procurement System

The third theme that emerged through our data analyses were benefits of the existing procurement systems and processes. Benefits of respondents' existing procurement systems were typically related to efficiency and reliability of using a standardized process. "OAKS is our source of truth" was the response of participant P1. Approximately 70% of our research participants indicated they use OAKS. The benefits outlined from these participants were consistent and similar. For instance, P1, P3, and P4 stated the value of consistent data and processes that are recognizable by all State employees, regardless of agency and historical data availability. OAKS also provides a system of checks and balances, red flags and forced correction of errors, prior to allowing procurement to proceed. Another recurring comment was the elimination of paperwork and the efficiency of electronic processes. The fourth participant (P4) remarked that OAKS allows an easy and effective adherence to State rules and regulations due to its structure and checkpoints, and it provides a monitoring function that helps to ensure a sound procurement process. Participant P2, P4, and P5 acknowledged the presence of the State's large number of rules and regulations, and the benefit that OAKS provides in assisting with the maintenance and timely adherence to those rules. Another recurring theme was the advantage to suppliers of the State. OAKS provides consistency in contracts, purchase orders, and payments. Suppliers who provide goods and services to various State agencies enjoy a level of comfort because of the use of a standard system. With this standard system suppliers expect the same type and format in various financial documents and processes, regardless of the agency or commission that is involved.

Comments from respondents that do not utilize OAKS echoed ideas similar to that of OAKS users. For example, participant P5, P6, and P7 cited the ability to track large amounts of

small purchases and reporting efficiencies. Participant seven (P7) noted good interface with their general ledger program as a benefit of their system. This same respondent indicated their system allowed them to "piggyback off of DAS's policy" but to add flexibility when necessary (they did not further clarify these comments). Elimination of paperwork and paper processes was mentioned by approximately 35% of the respondents who do not use OAKS. The non-OAKS users consistently cited similar benefits of their systems (as the OAKS users).

Theme 4: Disadvantages of the Existing Procurement System

We identified disadvantages of the existing processes as one of the themes. When research participants were asked to explain the negative aspects of their current procurement processes, the following quote were obtained:

- (From P1) "While OAKS is a good, it's not a great Enterprise Resource Planning (ERP) system. The purchasing process in a large agency requires an additional database for tracking purchases and to efficiently obtain historical information. For example, you can pull historical data in OAKS but not without being competent in the query capabilities in OAKS. You should not have to run a BI report to answer a customer's inquiry about a previous request from six months ago" Additionally, "passing of paper to obtain signatures for purchases of items of $50.00 or less poses lots problems"

- (From P4) "Length of time it takes to execute the full procurement process."

- (From P5) "OAKS does not service the procurement activity process to meet ODH needs. OAKS is suited well for payments of activity. Agency needed to build own system because of what OAKS was lacking in the procurement activity process. Agency has been using their own system for 3 years."

The significance of these responses stems from the fact that the existing procurement system – OAKS or other systems, are characterized by flaws. To mitigate these bottlenecks, P5 described a pending proposed program for Governor Kasich's consideration which is aimed at integrating a procurement platform, tailored to accommodate the needs of individual agencies. The implication of this assertion is that if the data is populated through a vendor database, the probability of the error occurring will be minimized.
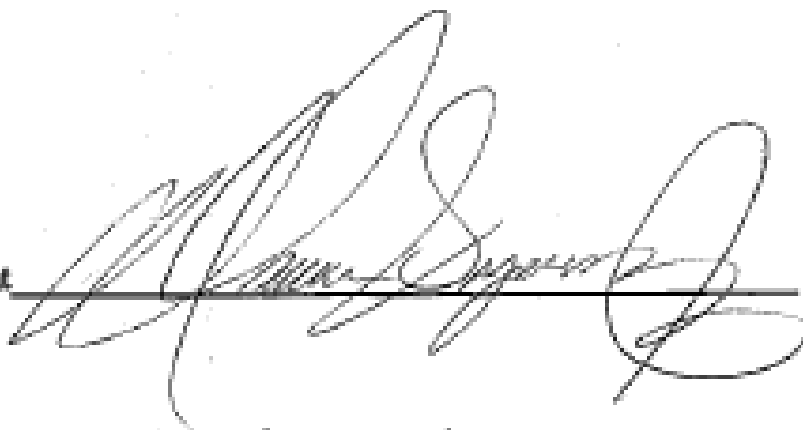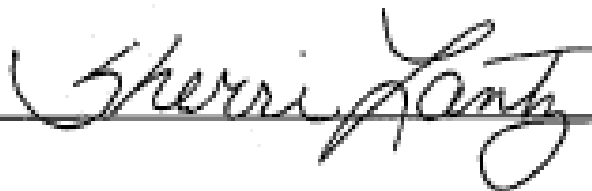
Recommendations

1. Get every agency statewide to utilize OAKS as their main System.

2. Train all state employees on the OBM/DAS policy.

3. Using the same system ensures the data collections for reporting purposes will be consistent and not skewed by system inconsistencies.

4. Using OAKS allows for control and security of information housed in one secure system as opposed to separate systems that are not necessarily as secured as OAKS.

5. Foster creativity to enhance current process and engage new hires.

6. Eliminate or streamline unnecessary restrictions that hamper the process flow.

7. All agencies, commissions, boards, and organizations within the state of Ohio should utilize OAKS for procurement activities because it will standardize the process across the State.

8. Standardization of procurement processes should be enforced as a tool to allow maximum advantage of discounts to be taken in purchasing activities.

9. Greater efficiencies will be gained in procurement activities if all State employees use the same system.

10. Standardizing procurement process across the state to become more efficient when processing to help reduce the length of time that it is currently taking.

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