
Lane County, Oregon Public Works Department

Cost Accounting Software System Assessment Report

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Section 1

Project Overview

Objective

The Public Works Department of Lane County (PW) has engaged SoftResources LLC (SoftResources) to provide consulting services that includes the evaluation of existing cost accounting systems, processes and methodologies utilized by the department. This report presents SoftResources findings for this portion of the project. Specifically the report includes an assessment of current systems and processes, a review of Conventional vs. Activity Based Cost Accounting (ABC), and a recommendation of which costing methodology the department should employ as they select and implement a new software tool.

Approach

SoftResources performed the following tasks to complete this portion of the project and compile this report:

1. Created a memo that was issued to PW employees. The purpose of the memo was to introduce the start of the project, invite employees to participate in the interview process, and provide a list of questions for them to review and consider in preparation of the requirements interview sessions.
2. Reviewed various reports and PW documents relevant to current costing methodologies and processes as an orientation to current conditions.
3. Conducted a Project Kick-Off Meeting at PW to introduce the SoftResources team and provide an overview of the project.
4. Conducted interviews with various PW divisions and their employees over a two day time period to review current cost accounting processes and systems and to gather information that would be used to support the review presented in this report. The information collected was also used to support the development of an RFP for new software. The goal was to include as many divisions as possible in both the Kick Off meeting and the requirements interviews that are impacted by the systems reviewed. Each interview session involved between 10 and 25 participants and lasted 1 to 3 hours. Discussions were completed for the following topics: Data Entry, Reporting and Analysis, End Users, and Technology.
5. Collected and reviewed documentation from individuals attending the interview sessions. Items collected included responses to the interview memo introductory questions as well as various documents, forms, system screen shots and reports where it was determined they would add value to the information gathering process.
6. Reviewed various articles, whitepapers, and reviews about the ABC and Conventional Cost Accounting to further support our understanding of these methodologies and how they are being utilized in today's business environment for government entities as well as for-profit entities.

Findings

This report has been compiled to present SoftResources findings to PW and includes the following sections:

Section 2: Fit Gap Analysis. Included in this section is an overview of the current cost accounting processes and systems utilized by the department and a review of the strengths, limitations, and challenges of the current systems and processes.

Section 3: SWOT Analysis. Included in this section is a review of the Conventional and ABC methodologies. The review provides a definition for each method followed by a SWOT evaluation of the approaches. The SWOT analysis provides a review of the Strengths, Weaknesses, Opportunities, and Threats for each approach.

Section 4: Recommendation and Conclusion. This section contains SoftResources recommendation to PW as to which cost accounting methodology best meets the functional requirements for the department and summarizes the recommended next steps for the project.

Section 5: Long List. This section contains a Long List of software vendors that may provide a solution to the department. The list is provided as a starting point for PW as it considers which vendors to notify about the availability of their RFP.

Conclusion

PW should review the findings of this report and proceed with a software selection project. SoftResources will provide a draft of an RFP that can be used to solicit responses from software vendors that can offer the features, functionality, and technology required for a cost accounting system. The RFP draft will be provided as a separate document to this Assessment Report.

Section 2

Fit Gap Analysis – Process Review

Objective and Approach

The primary objective for this section of the report is to review the current cost accounting processes and systems utilized by PW. The review focuses on the day to day processes used to collect data to support cost accounting management by the department, the Cost Accounting System (CAS), as well as how the costing information is used and what reports are utilized by the management of each division within the department. To complete the analysis for this section of the report SoftResources used the information collected from the interviews conducted at PW as well as the documentation provided to SoftResources prior to, during, and as follow up to the interview discussions. Our findings are organized into four primary sections defined as follows:

General Observations. Miscellaneous comments about the current processes and systems utilized to support cost accounting for the department.

Data Input and Navigation. A review of the challenges of the data input, navigation, and overall usability of the department's costing systems. Also included is a review of the future requirements or improvements users are looking for to support costing management.

Queries and Reporting. Comments regarding how the cost accounting data is used by various divisions of the department through queries and reports. The section also includes a review of future requirements or improvements users are looking for in these areas.

Future State. A review of the requests for information and expectations the department might face in future years about costs and revenues associated with projects and activities.

General Observations

PW uses a cost accounting system designed using Access for the front-end data entry and retrieval and an MS SQL Server database as the central repository. The system was developed to be used as a tool for project and administrative management to track and manage costs as they related to projects and activities. It was also developed to support the budgeting and forecasting processes for the department. Costing data is brought into CAS via integration with an internally developed PeopleSoft Timecard system (developed with PeopleTools) and from the PeopleSoft Financial modules (Purchase Order and Accounts Payable). The data is entered, proofed for accuracy and relevance using audit reports and manual processes, and then loaded into the CAS database. Additional data integrity validations are made once data is moved into CAS. The system has evolved over time but does not provide the cost accounting information required by the divisional management of the PW department. The general feeling throughout the department is that the CAS is nearing or has reached the end of its useful life.

PW has already implemented procedures and systems to support the process of capturing costing data to the activity level. In addition, the costing data is captured to the project level. There seemed to be a clear message from the groups interviewed that there is a continued need to track and summarize costs to the activity and project level. Activity and project accounting is important and necessary to some degree in all divisions of the department.

Data Input and Navigation

The following comments highlight some of the challenges the department is facing with the current cost accounting systems and processes and a listing of features and functionality users are looking for in replacement systems to support data input and user navigation.

Challenges

- a. The County has licensed but does not currently use the PeopleSoft Project Accounting module. Some elements of CAS satisfy departmental needs for project accounting.
- b. The County's COA String defined in PeopleSoft is: Fund – Account – Department - Project/Grant - Program. The Project/Grant field is not widely used in the department.
- c. Users input Project and Activity codes to the description field in PeopleSoft Purchase Order and Accounts Payable modules for transactions entered. When CAS was first implemented there was a decision made that this was the optimal workaround process for collecting project and cost related data versus utilizing the PeopleSoft Project Accounting module or the Chart Fields within PeopleSoft financial applications.
- d. A significant amount of time is spent entering and validating project and activity codes to ensure accuracy. To enter the codes, users must first key a plus sign as a string identifier, then the project code, a second plus sign, followed by the activity code, and ending with a plus sign. The codes are keyed into a freeform field; there are no system controls or online validation of the input. The system does not validate the Project and Activity codes exist, that the combination of codes is valid, or indicate if the codes are open or closed.
- e. Users have to know where something should be charged. Selection of project and activity codes requires expertise and internal departmental knowledge of the individuals coding and inputting. There are a lot of codes to sort through to determine where something should be charged.
- f. There is no user-level security to govern the entry of or combination of codes; any user can enter time or charge expenses to any Project and Activity code.
- g. The CAS tool is not intuitive; many use it on an infrequent basis so it has not become a familiar tool. Some claim to be users and abusers of the system and work around established processes. People become lackadaisical and guess which Project or Activity code to use when coding cost related expenditures. When codes are entered incorrectly; someone has to discover and correct it later in the process.
- h. There seems to be a significant number of miscoding or data entry errors which are difficult to correct back to the source system once data is downloaded to CAS. Adjustments to costing data is sometimes made back to the point of entry within the PeopleSoft modules and sometimes only made within CAS. This creates discrepancies between the systems.
- i. The process of loading the data from PeopleSoft applications to the CAS is labor intensive and requires manual intervention. The updates occur weekly and bi-weekly but can be changed to be more or less frequent.
- j. Project data is captured in the CAS and in some cases other side bar systems. This can lead to the potential for errors or inconsistency in data (i.e. project reports can have different results).
- k. Health and Human Services uses the Project/Grant Chart Field for some Project Accounting requirements.
- l. PW does not budget to the activity level; therefore there is no budget vs. actual monitoring at the activity level.
- m. The County does not utilize the routing functionality within PeopleSoft for invoice approval and account code verification.
- n. Accounts Payable invoices are scanned in after processing through the financial modules. The images are stored and users can access them from the CAS. The County is reviewing document imaging systems so invoices can be scanned and routed electronically for approval and coding review within the financial applications.
- o. Billing or chargebacks of inter-departmental or inter-divisional costs is managed through work around processes. The charges are coded with the letter B to indicate they are billable.

The invoicing process occurs outside of PeopleSoft; invoices are generated using QuickBooks, Word or other tools.

- p. Users find the CAS convoluted. It has evolved over time and has outgrown the natural boundaries imposed with the database tool it was designed with. The database tool requires users to have some base level understanding and familiarity with data table structures. It is not a tool like Word or Excel that is familiar or used on a routine basis.
- q. Regulatory reports require a road segment numbering format that can capture 8 characters (seven characters for a number and one character for a dash); the system is unable to support this requirement.
- r. Time entry for crews and others can be onerous and time consuming due to the number of project and activity codes used. Data entry is extremely detailed and can be several screens or pages long. The result can be an increase in errors and inaccurate data entry.
- s. The initial set up or designation of Activity and Project codes is primarily managed by a single person and identified within the CAS database. There is no automatic integration of the codes to PeopleSoft modules. Codes are manually selected, assigned, and users are notified by email they have been set up. The Cost Accounting Manual is updated manually and provides a listing of all valid codes by division.
- t. PW should review the activities that are currently monitored. Implementing a new cost accounting system will provide the opportunity for the department to ask if it is maintaining too much detail for some activities, and not enough for others. It is critical that the right balance of detail is collected. If too many activities are tracked, the task of managing them becomes onerous and the data collected becomes less reliable. If there are not enough activities tracked, the resulting reports will not be detailed enough and not provide the right information.
- u. PW does not capture revenue associated with a Project or Activity. This is both a process and a system limitation.
- v. Overhead allocations are convoluted and sometimes charged years after the fact. Users do not always understand why or how the charges are made and how they relate to their activities or projects.

Future Requirements

- a. A system to support cost accounting that includes the management of both projects and activities. Some users need high level information while others need more detailed reporting and analysis capabilities.
- b. A cost accounting system with tighter integration to supporting systems including Accounts Payable, Purchase Order, and Time Card, with an option to define frequency of data updates between systems.
- c. Processes and culture that support timely and accurate data capture of project and activity transactions; need valid and accurate data to feed an ABC solution.
- d. Improve user level understanding of how to code time and charges as well as the impact the coding has on the resulting data and reports, i.e. Where should something be charged and how does that impact the system downstream in the process?
- e. Selection of where to charge time or expenses should be more intuitive with navigation tools to guide the user making the choices. Goal is to eliminate the guessing that sometimes occurs at data entry. Examples of tools can include drop down menus with selection choices given parameters or conditions, templates and menus with predefined valid department, project and activity code combinations, organization of codes to promote easy look up, online help and definitions, and wizards to guide and support the process of coding charges and time.
- f. Process to correct errors to ensure data integrity and accuracy across systems; result is minimization or elimination of reconciliation required. The system can only be as good as the data going into it; if it is too difficult or time consuming to enter correct data, the result can be unreliable or incomplete data capture.

- g. Need to balance what it takes to capture information vs. the value the information will bring. Otherwise, the capture of detailed data will be too cumbersome for users to maintain and the data will become useless and unreliable.
- h. Review overhead allocation process. PW is considering the use of another tool to support this process. This review should be made in conjunction with a new costing system. Users should know how allocations are made and what they can do to help manage the impact to the projects and activities they are responsible for. ABC tools are designed to allocate indirect costs to the activities that consume them; this may be an alternate solution.
- i. Need training and education about processes and systems. The program should include initial training at implementation, ongoing training through formal training classes, vendor sponsored user groups, and informal training sessions that promote knowledge sharing and department collaboration.

Queries and Reporting

The following comments highlight some of the challenges the department is facing with the current cost accounting systems relative to data query, retrieval, and reporting. It also reviews processes and includes a listing of features and functionality users are looking for in replacement systems to support queries and reports.

Challenges

- a. Each division in the department has different reporting needs.
- b. Reporting does not fully support project, program, and activity costing analysis. Users are looking for reports that can provide them information about what is spent for a specific project, program or activity on an inception to date basis.
- c. The system is not intuitive. It is not easy to access the data and users lack confidence in the data that is there. Users are frustrated with reporting limitations.
- d. Access as a reporting tool can be difficult to use. Selecting criteria or parameters that define the content of a report requires programmer like expertise and few users have experience with this or use the system regularly enough to generate reports efficiently. The task of generating reports in the desired format falls to a few key users or system experts within each division. They are typically the ones who use the system more frequently and understand the criteria options to generate the kind of report required. In some cases it takes several iterations of running a report; becomes a trial and error process.
- e. Canned reports are printed through Word.
- f. To export canned reports to Excel, users must first download to Word, then to Excel. The format of the report is lost when exported to Excel; the data needs to be massaged and manipulated to get back to the desired output.
- g. The system allows users to save templates of reports for re-use; not all users understand that.
- h. PW has created two versions of data tables from the CAS called PWLook 1 and 2. One format contains more confidential information and has security controls attached. The tables are used to create reports.
- i. Report storage creates a capacity and access issue.
- j. Some complex reports require table joins in the data. The data resides in multiple tables; requires IS to create, support, and maintain the data joins. In some cases this has caused the system to crash.
- k. CAS is not built on a good relational data structure.
- l. There is no written documentation to support CAS.

Future Requirements

- a. Support the ABC methodology; processing, reporting and analyses. Understand the total cost of an activity.

- b. A tool that can support project accounting; may be one of the sources of data to feed an ABC system.
- c. Query and reporting tools that are intuitive to use and provide expected results.
- d. Menu or parameter driven reporting tool that is intuitive for daily use. Ability to define reports and save format as a static or dynamic report that can be refreshed each time it is needed.
- e. County is changing the way services are provided. There is an expectation that divisions market services to external agencies and to the public. To charge the correct fee for the services, PW needs to understand true cost for those services to ensure fees charged cover costs.
- f. System that is usable and meets requirements for Public Works but can also be used by other departments in the County.
- g. Favorite's type menu for user navigation; frequently used tasks, menus, and reports.
- h. Reports that can be copied and modified to user specific requirements.
- i. Report Library that allows report sharing across divisions and possibly by the entire County.
- j. Tighter integration with Excel; automate with a one step process to move data into Excel in a usable output format.
- k. Role based security to protect sensitive information (i.e. detailed payroll data).
- l. User configurable dashboards or view of commonly accessed tasks, menus, and reports.
- m. Intuitive graphical reporting tools.
- n. Systems and data to support the following kinds of questions: What is the cost of this program? What is the cost of having a vegetation management program for each area maintained? What is the cost to manage the endangered species program?
- o. Support management of chargebacks and billings for inter-departmental charges or billing of external parties. May be outside of cost accounting system; but should be tightly integrated with a billing system (i.e. QuickBooks, PeopleSoft Accounts Receivable module, or some other system).
- p. Vendor supported education and training based on best practices; at initial implementation and ongoing to understand advanced functionality or enhancements to future version releases.
- q. System documentation that provides information about features, functionality, navigation and reports.

Strategic Changes

The following comments highlight some of the strategic changes impacting the department that are relevant to the collection and use of the cost accounting data and should be taken into consideration as PW reviews its options for replacement systems. Meeting these changes will require the adoption of new costing methodologies, processes, and systems.

- a. The PW Division has been cost oriented; this is evident by the CAS system that has been developed and the level of detailed tracking being maintained through the TimeCard system and the Accounts Payable module. This will continue to some level.
- b. There will continue to be changes to compliance regulations at the state and federal government level that will impact the type of information that will need to be managed for projects and activities. The County needs to have systems in place that can readily support these regulations.
- c. The Mission of the County is to provide high quality and cost effective services at competitive prices.
- d. One of the Department's goals is to manage resources efficiently and effectively; this can be supported with the implementation of the ABC methodology and systems by assisting with the delivery of reliable, timely, and accurate cost data.
- e. Need to track and report on revenue or income as it relates to services or activities.
- f. Need systems and reports that can provide information to support the decision making process around services that should be provided internally vs. outsourced to the private sector.
- g. Need to track project and activity costs at some level of detail; key will be to review and identify which activities and projects should be included and to what level of detail.
- h. Systems can highlight anticipated changing conditions that may impact costs.

- i. Provide data to support the budgeting and forecasting processes.
- j. System with strong audit controls where reports can be traced back to source transactions.
- k. More timely and accurate identification of direct costs and what activities consume those costs as well as the allocation of indirect costs to the project or activity level.

Conclusion

The information provided in this section highlights challenges with the current cost accounting processes and systems, and reviews future requirements the department has for replacement processes and systems. The information included will provide value and support as PW continues with its review and implementation of new systems. As a natural result of the implementation of a new system, the department will benefit from process improvement and the opportunity to evaluate current processes and improve them with the best practices offered by the functionality and technology of the software selected and the expertise of the team that will assist them with the project through implementation, data conversion, and training. This evaluation will also allow users to review the projects and activities that are currently tracked to determine if the appropriate level of cost accounting data is being captured. This process will basically address the question: Are we tracking too many activities or too few activities? What is the right balance to capturing detailed information versus a higher level of detail or more summarized view?

Section 3 SWOT Analysis

Objective and Approach

The primary objective for this section is to provide an overview of both the Conventional and the ABC methodology of cost accounting. The review includes a definition of each methodology as well as a review of the Strengths, Weaknesses, Opportunities, and Threats (SWOT Analysis) typically considered by organizations as they determine which method to employ. The analysis also includes comments relative to the department's current processes and how they may or may not benefit from each of the options presented.

Conventional Cost Accounting

Definition

Conventional or Traditional Cost Accounting focuses on the tracking of direct costs to a department or cost center. Indirect costs are captured and summarized in a pool which is then allocated based a single linear component or volume parameter (i.e. headcount, square footage, etc.). Data from Conventional Cost Accounting processes is used for financial accountability at the department or divisional level and to support budget exercises to justify expenditures for required services. This method of cost accounting can be used for the management of day to day operations of an organization and supports budget vs. actual analysis. The approach tracks the amount of money spent on specific cost categories such as salaries, equipment, capital investments, and professional services but does not break or specifically allocate direct or indirect costs to the specific activities that consume those costs.

SWOT Analysis

The following chart summarizes the Strengths, Weaknesses, Opportunities, and Threats associated with Conventional Cost Accounting and includes some comments regarding the fit of the methodology to PW at Lane County.

SWOT Analysis – Conventional Cost Accounting
Strengths
Stores costing data by department and function to match and support budgetary processes
Sufficient amount of detail for some analysis and activities
Lower cost to implement due to simpler process
Lower cost of maintenance
Easier to capture cost related data
Supported by project accounting or financial accounting systems; through specific module or via chart of account segmentation
Cost driver to allocate indirect costs is volume of output
More familiar costing methodology
Provides high level information on how much is spent
Weaknesses
Does not directly match total cost to activities or processes that consume them
Standard costs can distort actual cost data

Overhead costs are allocated based on a single factor that does not vary by the type of costs being allocated; result can be incorrect total cost data
Requires integration to back end systems for data inputs; can be labor intensive
Users are more focused on budget to actual variances than strategy to measure and reduce costs
Budget to actual cost variances do not provide information to evaluate true costs and control spending
Departmentally focused; less focus on cross department activities
Does not provide the detailed information to manage processes and activities
Does not provide information on how or where to improve processes

Opportunities
Easier to identify and allocate indirect costs
Spend less time collecting data and more time on actual work or departmental tasks
Does not require as much work to associate costs to an activity
Cost savings to the County; methodology is less expensive to implement and maintain
For many situations provides right amount of total cost information; sufficient amount of detail
Easier to implement through financial systems already purchased or installed
Faster to implement and lower cost of training

Threats
True cost of services not properly identified
Can lead to over costing or under costing activities or services
Users are not challenged to consider management of cost of providing services
Not able to provide total cost information required for internal management
Not able to provide costing or spending information required for external regulatory agencies
Does not provide reports to support divisional management
Process inefficiencies can be covered up or hidden
Not able to identify process improvement opportunities
Total cost picture may be incorrect which can lead to ineffective decision making

Activity Based Costing

Definition

The main emphasis of the ABC methodology is to gather and summarize costs as they relate to activities. Activities are defined as those that are performed by a person or by a machine. Costs are assigned to the activities based on how they consume resources. The focus of ABC is to provide data to that can accurately identify and manage the total cost of an activity which may cross divisions within a department. Common activities defined within public works departments of government entities can include traffic signal repair, pot hole filling, or trash collection. Some of the specific ways the government sector has utilized this methodology is to support the following: decrease inefficiencies and waste, increase productivity, implement continuous improvement initiatives, benchmark, reengineer processes, ensure accountability, and support budget justification. Typically ABC is implemented where there are high overhead costs, there is a lack of confidence in the accuracy of existing cost information, there are a wide or diverse set of operating activities, and there are changes to the activities offered over time. Many of these same conditions are present within PW.

SWOT Analysis

The following chart summarizes the Strengths, Weaknesses, Opportunities, and Threats associated with ABC and includes some comments regarding the fit of the methodology to PW at Lane County.

SWOT Analysis – Activity Based Costing

Strengths
Useful when dealing with high overhead costs; a current issue with PW, division managers do not understand the overhead charges allocated to them
Assign direct and indirect costs and resources to activities that consume them
Allocates indirect costs over several parameters (i.e. telephone costs to number of telephones and purchasing costs to number of purchase orders generated, etc.)
Useful when dealing with diverse activities; the department includes several divisions that provide a variety of services
Identifies activities or services that are not cost effective
Identify inefficiencies in current processes
Provides management with more complete cost data that can be used to drive and support decision making
More directly links costs to outcomes
Evaluates cost of services to a finite level
Puts a system in place that highlights and forces productivity and efficiency
Highlights issues for managers to review (i.e. increasing costs, aging equipment, etc.).
Provides information about how money is spent; on what activities or processes
Weaknesses
Not inherently supported by accounting systems that support conventional cost accounting
Higher cost to implement and support
Data collection can be time consuming; if there are too many activities, the task of identifying which activity to charge can become an activity in and of itself
Can be a challenging process to identify which activities should be tracked
Requires a system in place to capture time and expenses to activity level (PW has implemented)
Requires integration to data collection systems; need to identify costs and timing of updates
Requires follow up use of the information with Activity Based Management; need to generate reports and act on the information
Reports can be complex to read, interpret and use
Need to plan for how the data will be used and who will get the data
Does not eliminate the need for project accounting; track and manage revenues and costs for a specific project
Opportunities
More accurately identify the costs of providing governmental services
Build meaningful reports with data collected; provide more complete management information to support better decision making
Supporting data for budget and tax levy justifications
Total cost awareness enables and identifies opportunities for cost savings, cost reductions, or expansion initiatives
Effectively measure costs for programs funded by external sources
Provides detailed support for inter-departmental chargebacks or services provided to external customers; support the pricing of those services
Processes are broken down into a subset of activities for better cost definition
More accurately predict costs; what services require the consumption of resources
Requests for fund or grant reimbursements are more in line with true costs
Improve reporting to constituents
Provide data that can support the shift towards revenue based operations
Predict resource requirements and support resource budget justifications
Allows managers to see what is driving overhead costs
Identifies processes that require improvement; supports process reengineering and continuous process improvement initiatives that lead to more efficient operations

Increase efficiency, productivity, accountability and responsiveness of government
Serve as benchmarks for setting performance goals; can provide data to the performance management system (implemented as a separate project)
New system implementation provides opportunity to clean up activities currently managed; streamline and focus on those that are most critical to analyze and monitor

Threats
Identify activities or services that are not cost effective to provide internally; may impact staffing requirements and threaten jobs
Users can become apathetic in identifying correct codes and resort to guessing; end up with incorrect data
Tracking activity costs and analyzing activity data is time consuming; may interfere or hamper the effort of providing required services
Process of capturing and managing costs becomes an activity by itself; benefit of capturing costs can be offset by the resources required to implement, manage, and review outcomes
Holds managers accountable for their outcomes; exposes accountability
Integration to source data systems can be difficult and time consuming to maintain
Cumbersome to setup and maintain if too many activities are tracked; data becomes too complex and of less value
ABC software can be expensive for the County to purchase and implement

Conclusion

This section reviewed the costing methodologies under consideration by PW and included a definition for as well as a review of the Strengths, Weaknesses, Opportunities, and Threats for each methodology. This information can be used as the department assesses its future direction with regards to cost accounting; what methodology should be implemented, what kind of software applications should be evaluated though the RFP process, and what kind of software should be selected and implemented to satisfy the cost accounting requirements. One statement that should be considered in the final determination of which methodology to implement is: "It is better to be approximately correct than to be precisely inaccurate."

Section 4

Recommendation and Conclusion

Overview

PW is using an internally developed cost accounting system that has been able to meet most of the user requirements for cost management over the past 25 years. The staff should be commended for its accomplishments with the development and utilization of the existing cost accounting processes and systems. The current CAS has been developed as a hybrid solution for both activity and project costing. However, it is evident that the system has come to the end of its useful life from both a functional and technological perspective. The system does not provide the department with the information required for cost accounting purposes. The limitations or deficiencies of the system centers around three primary areas and includes the capture and management of the data, organizing or structuring the data so that it can be extracted in a useful format, and finally accessing and utilizing the data through reporting and analysis. The key business issues driving this project can be summarized as follows:

- Current cost accounting system was internally developed and is nearing the end of its useful life in terms of technology and functionality.
- Workaround processes have been developed to capture project and activity codes in a description field that cannot be validated real time as data is entered.
- Integration between the cost accounting system and the data capture systems is somewhat manual and requires time consuming reconciliation and validation processes.
- Access to cost accounting data is not intuitive and few users are able to easily extract data in the required format.
- The inflexibility of the current systems has resulted in a database of information that is not considered accurate or reliable.

Summary Recommendation

SoftResources recommends that the department adopt the ABC methodology of cost accounting. It is evident from our discussions with department staff and through a subsequent review of the systems and processes that the department can benefit from the strengths and opportunities offered by the ABC methodology. The department has already successfully implemented the first significant milestone or what can be considered a major cultural shift in the implementation of ABC. That step is identifying what activities and projects should be associated with expenses and time entry. While activity and project codes can be identified as charges and time are recorded, the systems are not able to validate the data as processing occurs. In addition the system does not offer user level query and reporting tools to access the cost accounting data that are intuitive to use and easily deployed across the department.

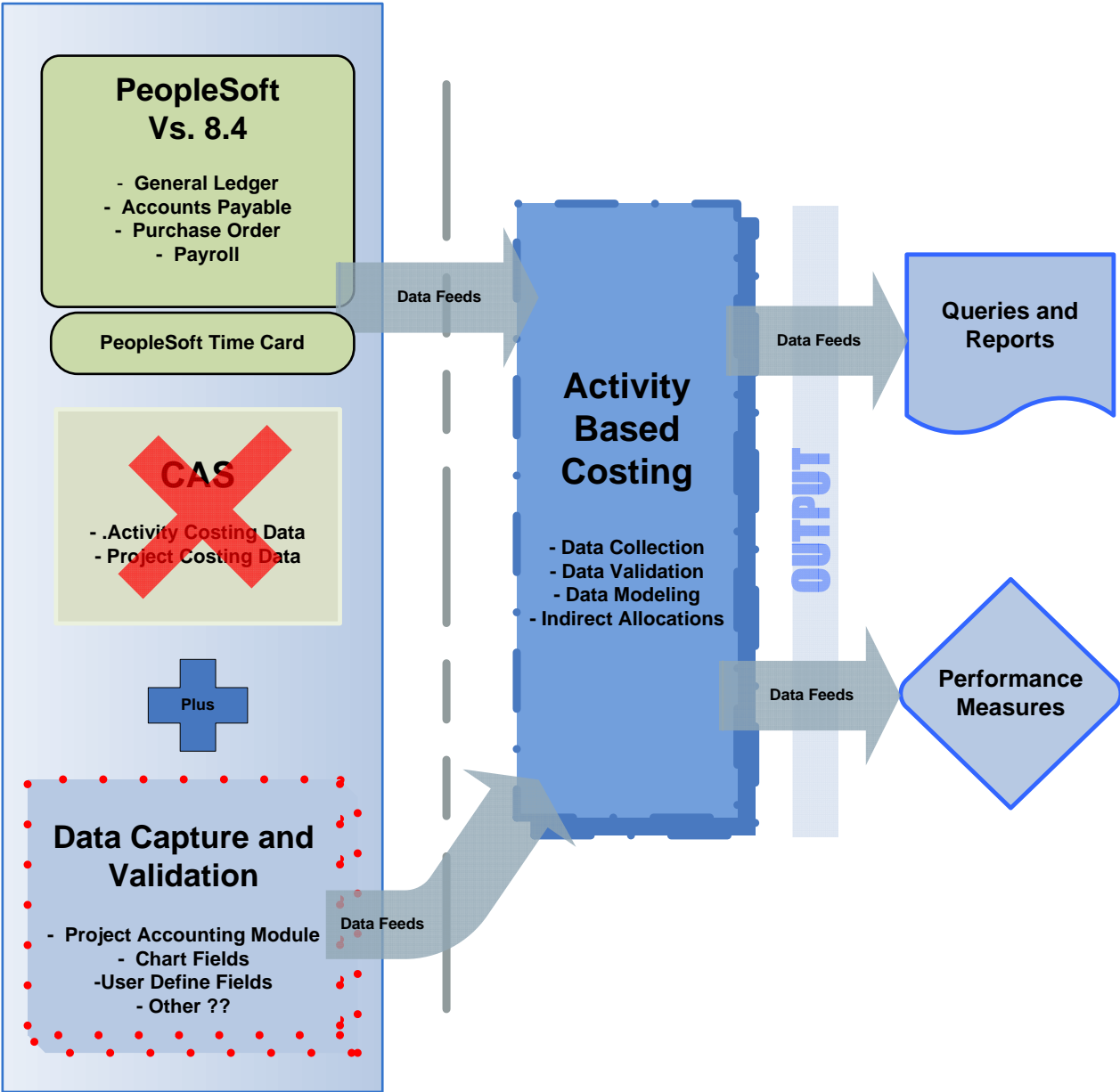
It should be noted that adoption of the ABC methodology and selection of an ABC software application will not directly correct some of the issues with the current processes and systems that have been documented in earlier sections of this report. An ABC solution is an analytical tool that sits on top of the ERP solution and utilizes the solution's underlying data similar to any other OLAP or reporting tool. Some of the current limitations may be indirectly corrected through the natural process improvement that occurs through the implementation of the new methodology and software systems. PW should incorporate improvements wherever possible and utilize the best practices offered by the software as they are guided by the expertise of the business partner through implementation of a new application. The following chart highlights some of the direct and indirect impacts of implementation of the ABC methodology and it's supporting processes and systems:

<p>Capturing Data</p>	<p style="text-align: center;">Direct Impact</p> <p>Define activities that should be monitored. Support the data validation process and correct within the ABC tool; however does not correct data back to the source applications. Allocates indirect costs to more meaningful parameters that users can understand and directly impact.</p> <p style="text-align: center;">Indirect Impact</p> <p>Process improvement will occur as a natural result of implementing the ABC methodology and related systems. Improve processes to capture and validate activity and project codes associated to data in the supporting systems. Options can include using the financial applications for data capture and validation prior to integration to a costing system; via the chart of accounts or a project accounting module.</p>
<p>Organizing Data</p>	<p style="text-align: center;">Direct Impact</p> <p>ABC systems can structure and model activity related data in a format that supports the methodology. The tools support the modeling requirements as departmental needs evolve over time. Enables a centralized database or repository of cost accounting data.</p> <p style="text-align: center;">Indirect Impact</p> <p>Data collected and stored in a useable format indirectly increases the user adoption of the system. Users are more aware of the impact of data flowing into the system and see the value it can bring at the back end via queries and reports. Feeder systems and processes need to be established to support the collection of clean data (valid and correct) that can be used for cost accounting purposes and ABC management.</p>
<p>Accessing Data</p>	<p style="text-align: center;">Direct Benefit</p> <p>Offer more intuitive and user friendly query and reporting tools to support divisional reports cost accounting reports in the desired format. Provide users with costing data that can support the management of the department; identify total cost of activities that includes direct and indirect costs, highlight opportunities for process improvement and cost savings, and support justifications for spending and departmental budgeting.</p> <p style="text-align: center;">Indirect Impact</p> <p>When users are able to access and can rely on the cost accounting data, they will embrace the use of the system and reliability on the data that it provides. Users will take ownership of the activities and projects they are responsible for and use the information to actively manage data collection and process efficiencies. A more intuitive query and reporting tool that can provide the needed information will expand adoption of the system.</p>

As an additional result of the review and research completed for this project, it became evident that the department also requires some level of functionality to support Project Accounting. The CAS tool is used to support project accounting requirements for some users. If CAS is eliminated, PW will need to determine how those needs will be met. One solution for this is implementation of a Project Accounting module that supports requirements for this functional area and also feeds data to an ABC tool. A second approach is utilizing the chart fields defined in the General Ledger to capture the required data that then

feeds the ABC solution. A third solution might be implementation of user defined fields that can be validated at the point of data entry within the PeopleSoft financials modules. There may be other solutions as well that the department could implement to improve the deficiencies in these areas and this should be reviewed prior to implementation of an ABC tool. The following diagram demonstrates SoftResources proposed recommendation for adoption of ABC and elimination of CAS.

System Design to Support Activity Based Costing



Next Steps

SoftResources believes that PW should proceed with a selection project for a packaged cost accounting software application that can support the requirements defined for ABC. PW should first review the findings of this report and SoftResources recommendation to issue an RFP for software that will meet the functional and technical requirements the department has for cost accounting software.

If PW agrees with the recommended approach, the next step should be to review the RFP draft created as a supporting document so that it can be issued for public notice. The RFP should be issued in such a manner to allow vendors to respond that can support ABC functionality, but should not necessarily be restricted to vendors that only provide an ABC solution. We believe it is more critical to search for and evaluate software systems that support the basic functional requirements PW has for a new cost accounting system, and not limit respondents to a particular methodology. Those that meet the RFP requirements could also be analytics software vendors, project accounting vendors, as well as ABC solution vendors. Vendor responses to the RFP should include a description of the expertise, knowledge, and experience they bring to the project with regards to the ABC methodology and how their solution can be utilized to support ABC as defined for the department.

Section 5 Vendor Long List Draft

SoftResources has compiled the following Long List of vendors that PW may want to notify when the RFP has been made available. While this list is not intended to include all vendors that should be considered, it includes vendors that might satisfy some or all of the requirements for costing software.

Vendor Name	Website	Comments
Ace Suite	www.acesuite.com	Pilbara Group
Acorn Systems	www.acornsys.com	Under consideration by Cognos May not provide industry focus
Business Objects	www.businessobjects.com	Acquired ALG Software October 2006
Cost Technology	www.costtechnology.com	Firm that specializes in ABC consulting and implementation
Decimal Technologies	www.decimal.ca	Canadian firm
Dekker Ltd. – Trakker	www.dekkerltd.com	Project management
Deltek	www.deltek.com	Project Accounting
Hyperion	www.hyperion.com	Recently acquired by Oracle
Khameleon Software	www.khameleonsoftware.com	Project Accounting May not provide industry focus
Lead Software	www.leadsoftware.com	Smaller company
My ABCM	www.myabcm.com	Latin distributor of ABC Technologies OROS application
Oracle, PeopleSoft	www.oracle.com	Multiple tools Incumbent vendor
Performancesoft	www.performancesoft.com	Current dashboard tool; also have Performancesoft Track
Prodacapo	www.prodacapo.com	Swedish vendor with some US partners
SAS	www.sas.com	Acquired ABC Technologies 2002
Smart Software USA	www.smartsoftwareusa.com	US partner for QPR Cost Control from Netherlands
Tyler Technologies – EDEN	www.edeninc.com mboots@edeninc.com	Would like to receive notification Probably not right fit
WennSoft	www.wennsoft.com	Job costing