*Project: Improvement in SRP System*

*Title: Business Process Consultant*

*Client: CDC/Lockheed Martin*

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The existing SRP system has following problems:

Pricing issues: The system has two-way match of receiving and invoicing. Receipts are held when pricing issue occurs. Also, 20% of FMS items have Approved Suppliers but pricing data is not maintained.

Order Entry: During emergency events customer details and/or address is not known

Forecasting: There is no forecasting of products based on their expiration dates.

Inventory: DSNS manages FMS inventory locations and 3rd parties manage all other inventory locations. FMS warehouses cycles are counted while for all others annual physical inventory is maintained. Bar coding or RFID is not used at warehouses. Excessive time required for performing inventory adjustments, taking inventory counts, making corrections and updating financial records.

Tracking: FMS kits are stored in leased containers. There is no ability to track truck shipments. On a regular basis three carriers have contract- FedEx, UPS and Panther but during emergency numerous carriers are used.

Solution

DSNS owns inventory but does not have trailer tracking system.

The main source of problem is lack of synchronization between different systems and inventory. Since there is no separate inventory management system and inventory is mostly managed by third parties vendors, there is a lag between the points when shipment is dispatched to the time when it is reflected in SRP. There is a requirement for end-to-end inventory management system. As SRP is closed system by government policy it cannot be integrated to third party systems. Hence, there needs to be a way through which inventory is tracked in SRP itself. One way is to implement Oracle WMS which has different shipping solutions. The following shipping solutions would be useful in the context:

Enterprise Track and Trace (ETT): Through this system there can be in-transit tracking of trailers. Along with tracking proof of delivery and real-time alerts are sent to provide comprehensive visibility of shipments.

Enterprise Centralized Shipping (ECS): It provides multi-carrier shipping solution that automates freight and provides shipping process for three major carriers and also for leased trailers.

WMS would track

* Trailer fleet owned and leased
* Physical inventory
* Outbound products
* Inbound products
* Returns

Oracle WMS supports tracking of inventory using purchase order number, item number, item serial number and item lot number.

--For enabling real time data exchange Oracle ODI should be used. Instead of manually entering data, ODI directly captures data either through incremental queries or through a CDC mechanism that detects any changes happening. Through ODI emergencies can be better handled. When past shipment data, products and locations can be accessed in real-time, new emergencies can be attended to more efficiently.

--Oracle Real-Time Scheduler can improve tracking of trailers real time using GPS. The system can manage delivery points and routes which are not fixed by providing dynamic route optimization. It can handle multiple cut-off times for delivery and maintain an accurate, comprehensive database of vehicles.

Classification of inventory based on product type- CHEMPACK, PUSHPACK, FMS and Vaccine

Regular inventory control counts

--Operations to be more tightly integrated with Oracle to prevent “work-around”. SRP should be configured to not allow receipt to be created once shipment has been dispatched. For this “Allow routing override” option should be disabled.

--Entering POs by VA can lead to mismatch between the time purchase order is created and time when shipment arrives. They add surcharge of 5% to purchase price of vaccines. It creates mismatch between PO price and invoice price. To overcome this challenge an item line can be defined in PO setup with the surcharge amount of 5% so that with every PO line the surcharge gets added automatically. This option is setup only when user is VA. When DLA and PGO create PO surcharge line does not get populated automatically as line item.

For data integrity we need to define constraints in Oracle Data Integrator model. When an interface is executed and data is entered in the integration table it is checked against the constraints of target data store as defined in the model.

**User Testing**

Login to SRP as buyer (type VA) and enter PO for any amount. After saving PO check if 5% surcharge got added to the PO amount.

Login to SRP as buyer (type DLA and PGO) and enter PO for any amount. The PO amount should not have any surcharge.

Login to WMS and enter item number or item serial number or item lot number to track shipment

Login to WMS as user and try entering PO for which shipment has already been shipped.

Run receiving valuation report to get month-end balance. Result- shows item quantity, valuation and detailed receipt information.

Enter data which violates constraint like invalid drug code while entering PO. The system should throw error and not permit the record to be saved.

**Integration of UFMS with SRP**

1. Purchase Order will residing in UFMS will be populated into Oracle’s PO staging table.

2. Oracle will process PO/Receipt/Invoice extract sent by UFMS

3. From UFMS flat file data would be transferred into staging table in Oracle General Ledger

4. Verify if record count and amount match with UFMS data



Risks

The interdependence between third party systems and oracle represent security risk. There could be instances when third party systems fail to perform resulting in lag in the SRP. As organizations’ internal and external systems change business processes also change. Such changes challenge prevailing inconsistencies of SRP. For example there can be changes in accounting rules or other changes driven by the government.

Requirement Definition:

It includes the detailed analysis of current and future needs of the organization to implement the Stockpile Resource Planning (SRP) process by aligning with organizational strategic goals and commitment of the management.

All the requirements should be included along with the analysis of existing business processes and transaction life cycle; otherwise, the implementation of SRP will not be profitable and may create financial risk for Centers for Disease Control and Prevention (CDC) (Detailed Information on the Strategic National Stockpile Assessment, 2005).

Explain the SRP Process Review:

SRP process review helps to determine whether all the business processes ensure that the CDC has sufficient stock capability or not, which is required for an effective SRP process (Detailed Information on the Strategic National Stockpile Assessment, 2005). Different parts are analyzed as below:

*Business process*: Business processes are effective to ensure the effective implementation of SRP process. The lack of supportive business processes may cause a failure of SRP process. The business goals should be aligned with SRP to increase its effectiveness (Detailed Information on the Strategic National Stockpile Assessment, 2005).

*Procurement life cycle*: It represents best practices for procurement by recognizing the contested activities. The lack of this may increase in the control expenses. To eliminate this, vendor selection should be based upon organizational and SRP process objectives (The Procurement lifecycle, 2013).

*Inventory*: Focuses on reducing the cost of replacing inventory. The inventory is rotated continuously in market to avoid the expiration. The lack of focus may increase expiration and inventory replacing cost. So, vendor managed inventory strategies should be used to avoid this.

*Order management*: It helps to allocate the resources on the basis of orders, which is effective to accomplish target performance level. If order management is not effective, the orders will not be accomplished timely and will increase cost for the firm and decline customer base. Internal requests should be tied with organizational objectives.

*Warehouse management*: It is aimed to control the storage and improves the efficiency of the inventory management in CDC. Lack of this process may influence timely delivery of material at required process or sometimes, may cause an over or short inventory level. Extended warehouse management should be used to increase efficiency and competitiveness (Detailed Information on the Strategic National Stockpile Assessment, 2005).

*Process and data integration with other modules*: The lack of integration with other modules may influence the significance of process in the organization due to lack of support.

Explain the requirement Definitions:

*Financial process review*: It is the evaluation of all revenues and expenses in order to control the spending of organization and to ensure the compliance with GAAP. Budgeting is an effective process for financial process review (Detailed Information on the Strategic National Stockpile Assessment, 2005).

*Business process*: It is the analysis of the current business practices along with process, people and technologies in the organization. The global competitive areas should be set as benchmark to evaluate the performance (Braveriver Solutions, 2013).

*General ledger process*: General ledger process is the process of posting accounting information in the relevant accounts. The knowledge about the accounting aspects is essential to increase the significance of this process; otherwise it may lead towards false accounting results.

*Payment process*: Risk assessment is used to determine the payment process, which is significant to identify whether the funds are used for allocated purposes or not. It also helps to track the budget and accounting system.

*Receivable process*: It includes the credit policy and the process to collect the credit from receivables. The effectiveness of this process maintains liquidity within the organization and lack of this may cause the increase in potential bad debts (Detailed Information on the Strategic National Stockpile Assessment, 2005).

*Budgeting process*: It is the process through which budgets are prepared by the organizations. CDC includes the spending budgets to increase the process efficiency by streamlining processes and enhancing the IT system performance.

*UFMS Integration process and requirements*: UFMS includes resource planning plan and the actions to track progress on the priority issues with the integration of all process and requirements. It also enables to track the commitments.

*Other financial process*: Other processes such as accounting, financial statement preparation are also performed in the organization with an effective financial management system. The firm should include the experts and knowledgeable people to increase the significance of financial process.

Feasibility Analysis:

It includes the study of the ability to complete a project. The lack of consideration on the entire resource requirement, organizational ability to acquire those resources and future possibilities about availability of resources may influence the results of feasibility analysis. Technological, legal and economic aspects should be considered to improve its significance.

*Preparation of recommended Improvements:* Through the feasibility analysis, the lacking areas are identified and the appropriate steps are taken for the preparation of recommendation for improvement in those areas (Detailed Information on the Strategic National Stockpile Assessment, 2005).

*Identify Missing Automation of Business Process*: For the effective SRP process, the automation of all business processes is essential. Feasibility analysis helps to determine the processes, which are not automated by determining the possible impact on the process.

*Preparation of FIT/GAPS based upon the investigative analysis*: In this phase, it is determined whether the present system in the organization fits with the requirements or not. The gaps are identified and recorded for further improvements.

*Risk and Mitigation for Proposed Recommendations*: In this step, the risks of the recommended aspects are analyzed along with the strategies to mitigate them in order to effectively accomplish the organizational processes.

Course of Action Preparation:

This step includes the preparation of course of actions, which are required to eliminate the gaps and lacking identified in the feasibility analysis. The lack of effective strategies or wrong interpretation of lacking may influence the effectiveness of this step. The analysts should and management should integrate all the processes to eliminate this issue (Detailed Information on the Strategic National Stockpile Assessment, 2005).

*Prepare and deliver following documents*: In this, the processes, their lacking, risk and mitigation strategies are prepared and delivered to the responsible person for improvement. The risk is associated with the lack of documentation of some aspects, which may influence the efforts negatively.

*Test plan success factors and measurements*: In this step, the success factors such as accountability, cost reduction, operational efficiency are tested to determine their significance with the organizational objectives. If measurements are not taken properly then it may influence the organizational process.

*Requirement document*: It helps to facilitate operational framework and performance baseline by specifying the requirements expected by CDC from the SRP process. If the expectations are not analyzed correctly then it may lead towards the inappropriate system design, which will increase financial cost and will reduce operational efficiency of the firm (Kapurch, 2010). The flexibility should be included to avoid this risk.

*System design Document*: A system design document includes problem definition, system scope, system objectives, and system constraints and describes IT system solutions to support the services. All the system requirements should be aligned with organizational and users’ expectations to ensure then proper utilization of system within the organization (Pang, 2009).

*Recommendations, Risk and Mitigation plan*: In this step, the recommendations are provided to use the system along with the risk analysis and the strategies to mitigate them.

Project Objectives:

*Modernize and improve the Stockpile Resource Planning (SRP) Process*: This objective is significant to ensure the availability and rapid development of medical assets. It will also be effective to provide the emergency health security to the people in America.

*Unified Financial Management System (UFMS) Data Integration*: It facilitates data integration, which enables the firm to track the commitments and to provide management information in a better way by improving the financial planning. The positive documentation is required for the effectiveness of this system in data integration.

*Oracle Business Intelligence Enterprise Edition (OBIEE) Implementation*: The implementation of this system will be effective to facilitate the business intelligence aspects within the firm, which will be effective to increase its efficiency.

*Warehouse Management System (WMS) Implementation*: The implementation of this system will be effective to increase the supply chain effectiveness by controlling the storage and movement of materials within the organization (Detailed Information on the Strategic National Stockpile Assessment, 2005).

CDC Implementation:

Stockpile resource planning (SRP) is implemented to ensure the accessibility and effective use of supplies in emergency. There may be technical risk that can affect proper estimation of required stock (Hompel & Schmidt, 2007). In order to resolve this, training and development programs can be effective to improve technical knowledge.

Warehouse management system (WMS) is the systemic procedure to manage the transfer and storage of materials within a warehouse. If devices used in WMS are not tested properly then it can be problematic for the user. For this, tested and calibrated devices should be used to ensure effective implementation of WMS (Berg, 2007).

Unified Financial Management System (UFMS) is financial management program that helps to improve financial and acquisition operations by using standardized procedures and regulations. Difference between UFMS and universal accounting and financial system can create risk for the organization to achieve financial objectives. In order to avoid this, firms should integrate both systems to make improvements in financial and acquisition operations.

Oracle Business Intelligence Enterprise Edition (OBIEE) is the supply chain analytics that is used to correlate order information with regions, periods and products. It depends on volume of high quality data that can create risk for achieving objectives because it is difficult to integrate and reconcile the data across different systems (e Alliance, 2013).

References: