

Streamlining Medical Inventory Management with Salesforce CRM

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ABSTRACT

It is significantly important to maintain a well-equipped and efficient supply chain system as well as inventory administration for patients in the healthcare sector worldwide. The present discussion has identified several key characteristics of the solution which is the integration of Salesforce CRM with Inventory System of the healthcare companies and it also has explored how the implementation becomes more important factor in the case of enhancing operational efficiency.

This solution has made users to eliminate several risks associated with supply chain and inventory of medical supplies and also handle supplier relationships among each other. This study has additionally highlighted the way Salesforce CRM brings accuracy and transparency in keeping and monitoring important healthcare items to avoid shortage of medical supplies and other significant healthcare commodities.

Keywords: CRM, Salesforce CRM, Inventory Management, Stock Levels, Customization.

INTRODUCTION

The technique of monitoring, regulating, and enhancing the provision of medications, medical supplies, devices, and other medical-related commodities in the healthcare sector is recognized as medical inventory management. Several countries are considering the integration of Salesforce CRM for maintaining and overseeing vital medical data and equipment. The technological advances application throughout the healthcare industry indicates both the system's viability and the amount of administrative work it may relieve.

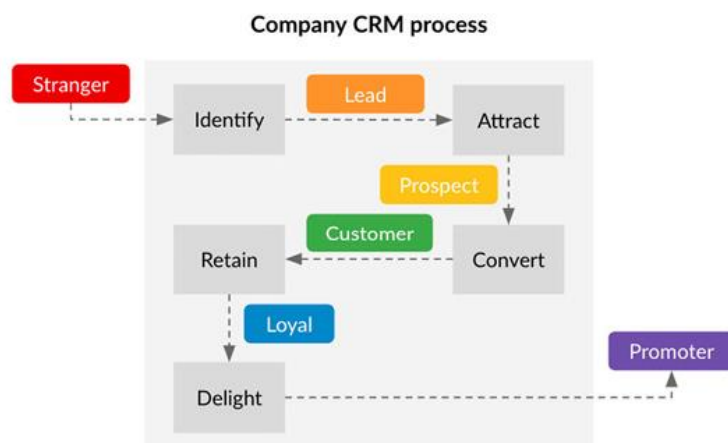


Figure 1: Basic of CRM Process in Organizations [3]

The size and complexity of recording several product types, expiration dates, and legal obligations is frequently too much for conventional processes to manage. Their lack of real-time updates causes them to react slowly when it comes to refilling essential products, which can jeopardize patient care.

Employing Salesforce CRM for automated clinical inventory control can greatly increase medical services' productivity, accuracy, and accountability. Healthcare companies are able to create an individualized approach that meets their unique inventory requirements by utilizing Salesforce's extensive architecture and feature set for modification.

BACKGROUND

An essential component of running a healthcare facility is managing the medical inventory. It supports the way medical establishments meet legal obligations, improves the protection of patients, reduces expenses and waste, and guarantees an abundance of vital resources. Healthcare businesses may lower risk associated with operations, enhance results for patients, and run more smoothly by keeping an optimal inventory [7].

Healthcare inventory control has to be refined with Salesforce CRM due to the increasing complexity of healthcare activities and the urgent requirement for dependable, effective solutions that guarantee medical supply possession despite lowering inaccuracies expenses, and disruptions.

PROBLEM STATEMENT

A facility's functional and monetary stability may suffer from surveillance flaws. Ineffective inventory management of medical goods among healthcare settings can result in a number of serious problems, such as wasting resources, shortages of products, and deteriorated treatment of patients [5]. The variety of commodities, from extremely restricted and costly pharmaceuticals to ordinary necessities renders overseeing healthcare resources especially difficult.

This can seriously impair the capacity of medical personnel to provide prompt patient care, particularly in an emergency as a result of employing traditional medical inventory management system. Becoming short on vital materials can cause delays in processes and therapies in a high-stakes setting like medical services, possibly endangering the wellness of sufferers.

Inadequate inventory control in the medical field may result in significant impacts on employee burden, patient experiences, and total hospital expenses. Since there are shortages of inventory, hasty decisions may be made that compromise patient security by using the wrong resources or prescribing the wrong medications. In addition, stockouts typically force last-minute purchases, which drives up prices. Medical staff may become frustrated when standard protocols are disrupted by recurrent shortfalls or attempting to identify alternatives. In order to mitigate these challenges in the healthcare sector, most of medical organizations initiate their systems upgraded with Salesforce CRM which can be easily understood by the increasing percentage of the usage of this CRM platform across the world.

Salesforce.com's revenue from 2010 to 2024

(in billion U.S. dollars)

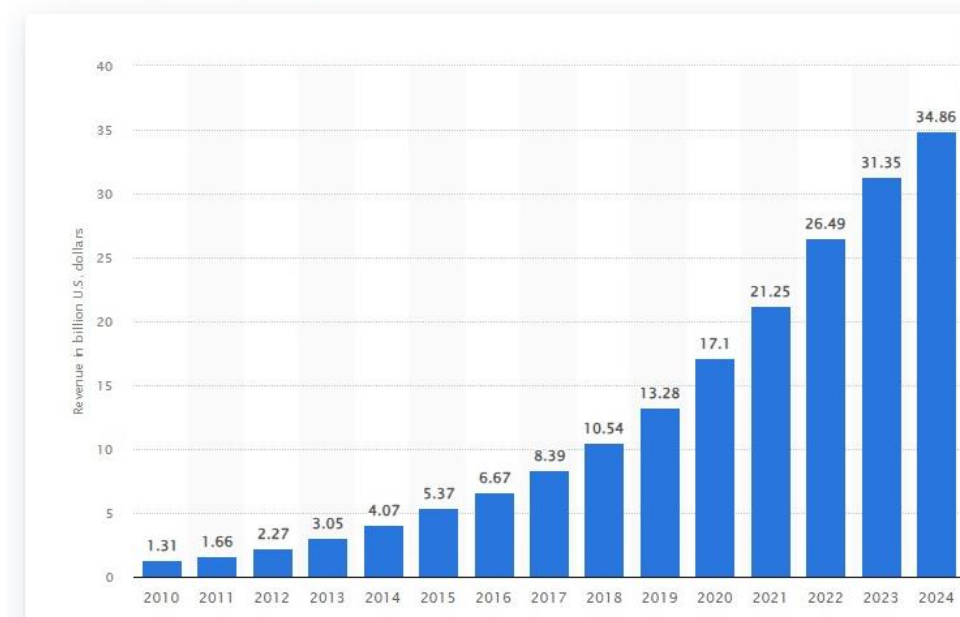


Figure 2: Basic of CRM Process in Organizations [8]

There may be differences between recorded and real quantities while stocks are being monitored manually or using antiquated technologies. This results in inaccurate data, which makes it challenging for top executives to decide on purchases, budgets, and future inventory requirements.

PROPOSED SOLUTION: SALESFORCE CRM

UAE based healthcare companies and medical centres can consolidate their inventory details onto a single interface by utilizing Salesforce. Users, medical professionals and other administrative executives of the hospitals can maintain healthcare supplies, apparatus, quantity figures, date of expiration, and other information by creating unique items in Salesforce. Additional fields could be created to gather data unique to what healthcare organizations want, and pipelines can be established for scheduling validity notices, inventory shortage warnings, and restocking. In order to guarantee effective stock management, streamline monotonous processes, such as placing supply orders, utilizing Salesforce's Workflow and Activity Architect. Cochlear, Stanley Healthcare already install Salesforce CRM into their inventory system whereas UAE-based medical companies also add their names in this application-focused inventory management platform.



Figure 3: Salesforce CRM [2]

KEY FEATURES OF SALESFORCE CRM IN MANAGING HEALTHCARE INVENTORY:

Inventory Management-

- Real-time surveillance: retain an eye on the availability and inventory levels of healthcare supplies and other necessities.
- Automated Repurchasing: To prevent out-of-stock configure parameters to receive periodic reorder reminders.

Data Analytics & Forecasting-

- Inventory analytics: To maximize inventory levels, examine utilization trends and patterns.
- Features for Reporting: Make personalized reports to monitor turnover rates, expenditures on inventory, and other information.
- Supply Planning: Create use of past information to project upcoming supply requirements and modify procurement tactics as necessary.

Management of Suppliers-

- Vendor Associations: Centralize the management of deals, performance indicators, and supplier data.
- Order tracking: Keep tabs on vendor orders to make certain essential supplies are delivered on schedule.

1. Implementation Considerations:

- Interchangeability: For a smooth transmission of information, healthcare organizations need to confirm that Salesforce can interact with present-day healthcare systems such as EMRs, and others.
- Customized Data Approaches: Construct distinctive data elements and entities to reflect the particulars of the healthcare inventory with hierarchical structures including categories along with their subcategories.
- Approval Steps: For complete reliability, establish permission protocols regarding requests for stock and revisions.
- Customizable Displays: Make dashboards to show developments, utilization trends, and stock levels.

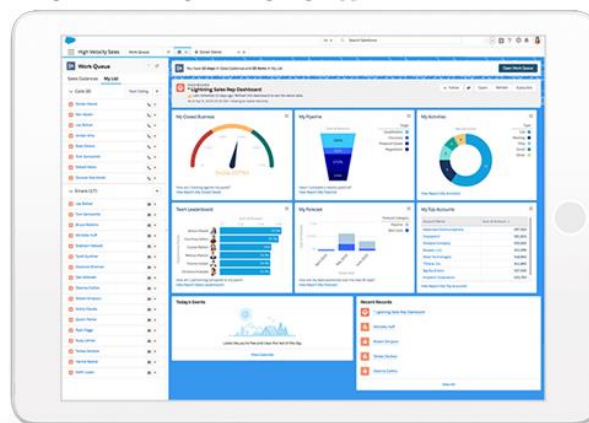


Figure 4: Salesforce Implementation in CRM [2]

2. Technical Implementation:

Medical systems follow to determine human authority and privileges using role-based access management to safeguard private patients and inventory-related information. For enabling current information interchange across infrastructure, they need to make use of software or API technologies. Salesforce has strong APIs that enable healthcare firms to interface with EMRs, such as REST and SOAP APIs. Medical facilities are the target market for Salesforce Health Cloud. A comprehensive picture of individual

encounters and medical histories is provided by the integration of patient data from several sources, especially EMRs. With the ETL (Extract, Transform, Load) procedure, Health Cloud integrates EMR data to produce full patient databases that contain medical records, socioeconomic factors impacting health, and involvement information. This helps enhance treatment coordination.

Additionally, they have to set up automated alerts for deadlines for expiration, inadequate inventory phases, and replenishment procedures. Once the platform is fully deployed, thoroughly inspect it to find and fix any problems., therefore a proper testing system must be included while using Salesforce CRM platform for maintain healthcare inventory. For getting more accuracy in handling mistakes in inventory infrastructure, medical staff are advised to organize training for workers so they may operate the freshly introduced system efficiently along with the establishment of an assistance framework for upgrades and problems [2].

3. Regulatory and Ethical Concerns:

Healthcare organizations make assured that every record of data handling including encryption and protected administration protocols complies with HIPAA rules. Similarly, medical professionals as well as organizations must be careful regarding the systems and approaches centralized on Salesforce CRM application that they deployed into the inventory system conform with the applicable legislation followed in the UAE and continue up to date on rules impacting healthcare storage and distribution.

METHODOLOGY

Stakeholder Engagement: To obtain needs, speak with important stakeholders such as IT personnel, supply managers, and healthcare practitioners as they understand the importance of the utilization of Salesforce CRM in medical inventory. They are responsible to invest and implement the entire system and synchronize with healthcare inventory.

Assessment of the Present-day System: Examine current inventory management procedures and techniques to find any weaknesses and potential spots for advancement.

Key Performance Indicators (KPIs): Establish KPIs to gauge progress after adoption. Medical professionals can easily compare the traditional method and Salesforce CRM-integrated inventory model by estimating stockout rate, inventory cost and other metrics.



Figure 5: Salesforce Implementation in CRM [4]

Data Mapping: Understand what data flow, containing patient information, stocks, and order updates, among Salesforce and the inventory management system by creating mapping structure.

Selecting Integration Technologies: Pick solutions for smooth data transfer, such as Salesforce-Connect.

Build up Salesforce: Add the necessary domains, items, and workflows to Salesforce.

Create Integrations: Develop the link in accordance with the specifications and the specified data translation.

Integration Inspection: Validate that data is accurately flowing from Salesforce to the inventory framework by doing end-to-end examinations.

RESULTS AND DISCUSSION

Healthcare inventory systems can be made much more efficient by Salesforce CRM in a number of aspects.

Instantly Inventory Following: Healthcare workers may keep an eye on the number of medical devices and supplies in hand by using Salesforce's continuous insight into inventory levels [6]. This guarantees that essential materials are constantly accessible when required.

Automated Reordering: Hospitals can establish inventory criteria using Salesforce's automation tools. Reorder demands can be initiated by the program whenever stock drops below a predetermined level, therefore avoiding stockouts.

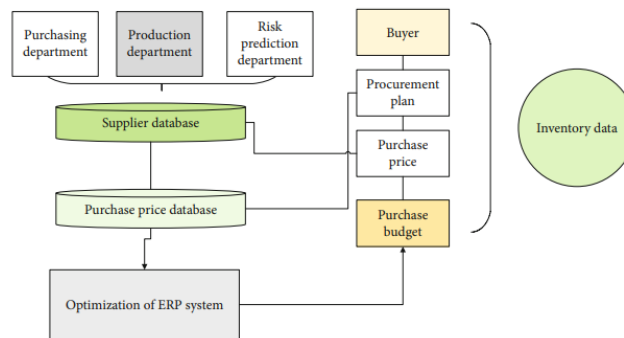


Figure 6: Flow chart of CRM-based Inventory Management System [1]

Unified Data Administration: Salesforce makes it easy to access and regulate inventory data by combining it all into a single system. The centralization facilitates prompt and well-informed decision-making by the medical team.

Improved Cooperation: With Salesforce's unified messaging features, organizations can work together easily and share information on inventory status and requirements.

Supplier Maintenance: Salesforce facilitates the tracking of purchases as well as oversight of connections with suppliers, which makes it simpler to assess the efficiency of suppliers and bargain for more favorable terms.

Healthcare companies may encounter difficulties while utilizing Salesforce CRM for medical inventory management, despite the platform's many benefits. Despite its great degree of customization, it can be difficult to modify it to fit the unique requirements of medical inventory management. Inadequate information across technologies can also end up in ignored restock warnings or erroneous inventory tracking, which can cause technical issues. It can be costly to put in Salesforce for medical inventory management. Increasing expenses is a result of personalizing the platform, consolidating it with different applications, and guaranteeing adherence to healthcare laws.

CONCLUSION

Using Salesforce CRM to streamline healthcare inventory administration gives medical businesses a potent way to increase productivity while boosting patient care. Healthcare businesses can save expenses, improve overall effectiveness in operations, and expedite their management of stock procedures by utilizing these features. In addition, degrees of dependability along with responsibility are added by the capacity to oversee supplier connections and promise adherence to regulations.

Future studies could look into how AI systems can be improved to more accurately forecast the market for medical goods. The use of AI for streamlining the intricate regulatory components of medical inventory management could be the subject of future research. Through the analysis of supplier outcomes including cost, quality of the item, and delivery timeframes, predictive analytics can be utilized to improve supplier relationships. Medical inventory management can be further enhanced by integrating AI, blockchain, predictive analytics, and other cutting-edge technology.

REFERENCES

1. Zhao, B., (2020). R&D of inventory management and human resource management in ERP. *Communications and Mobile Computing*, 2020.
2. Patole, R. (2019). *How does using Salesforce CRM affect the customer satisfaction in Indian SMEs* (Doctoral dissertation, Dublin Business School).
3. Fernández-Cejas, M., Pérez-González, C. J., Roda-García, J. L., & Colebrook, M. (2020). Towards an ontology and enterprise architecture of a CRM conceptual model. *Business & Information Systems Engineering*.
4. Kaliuta, K. (2020). Optimization of logistics and supply chain processes through Salesforce.
5. Lau, Y. Y., Dulebenets, M. A., Yip, H. T., & Tang, Y. M. (2020). Healthcare supply chain management under COVID-19 settings: the existing practices in Hong Kong and the United States. In *Healthcare*.
6. Malik, S., Kanwal, N., Asghar, M. N., Sadiq, M. A. A., Karamat, I., & Fleury, M. (2019). Data driven approach for eye disease classification with machine learning. *Applied Sciences*, 9(14), 2789.
7. Balkhi, B., Alshahrani, A., & Khan, A. (2020). Just-in-time approach in healthcare inventory management: Does it really work?. *Pharmaceutical Journal*.
8. Statista (2019). Revenue of Salesforce from 2010 onwards: Statista. *Statista.com*