

Accounting Information System for Pharmacy Management: A study in Muscat, Oman

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Abstract: Accounting information system is a software that record the transaction data, process data and present these data to internal and external management and users.

Pharmacy industry uses information system that helps them in pharmacy performance. Pharmacy accounting information system is used for inventory and purchase management, giving internal and external orders entry. Pharmacy accounting information system plays a significant role in detecting drug errors and mistakes by including the drugs name and its intensity. Accounting information system is designed to increase performance in pharmacies. Hence, the researchers recommend to conduct seminars, teach pharmacy students on how to use Accounting information system, and take effective measures to implement the system in the pharmacies.

Keywords: pharmacy, Accounting Information System, Supply Chain, Inventory Management.

1. INTRODUCTION

According to Wing (2006), accounting information system is a software that record the transaction data, process data and present these data to internal and external management and users. As (Landry and Dalli, 2017) mentioned that having a good accounting information system in pharmacies lead to track supplying drugs. It also helps in managing drugs payments. Accounting information system will reduce the delay in allocation of drugs and medical devises especially in global pandemic of COVID-19 infection. Moreover, it is helpful in making decision and improve the effectiveness and efficiency in processing financial activities and being easier for users because the information will be processed automatically which actually reduce the time and cost. Adding to that, accounting information system takes a huge part in preventing medical fraud. Accounting information system aids in understanding the flow of revenue precisely and quickly in a pharmacy. Accounting information systems can improve operational efficiency and stability, particularly in Pharmacy's drug supply division.

Pharmacy industry uses information system that helps them in pharmacy performance. Pharmacy accounting information system is used for inventory and purchase management, giving internal and external orders entry. It is also used for determining how to deal with inventory, financial management of cost and expenses, determining relevant revenues and relevant cost, quantitative and Qualitative information that is relevant to inventory measurement. In addition, an accounting information system is used for reducing the cost. Additionally, using the accounting information system is helpful for presenting and analyzing information that guides in reducing the expected expenses in advance the inventory cost and future revenues and expenses with an increase in performance of the work of pharmacy. Moreover, it helps in making decisions regarding the order and supplier and replacement of medical equipment, cost of inventories, costs of conversion, and costs of purchase. (Wazed ,2019). Employee needs training for implementing the system and on proper usage of the system to get the maximum benefits out of accounting information system (Ahmad, 2012).

Pharmacy Industry in Oman

According to Muscat Daily (2020), Due to the logistics problems caused by the Covid-19 pandemic, the pharmaceutical industry is aiming to be self-sufficient more than ever. In the year 2019, there has been a dramatic increase in the demand for medicines. At the end of 2020, the number of pharmacies reached 791 in the private sector and the local market imports medicines for 162 million riyals, of which 96 million riyals are for the government sector.

2. STATEMENT OF THE PROBLEM

Pharmacy accounting information system plays a significant role in detecting drug errors and mistakes by including the drugs name and its intensity. (Peterson et al., 1999). There is an impact of Pharmacy accounting information system on the pharmacies' activities and communication also; it might influence the attitude and weakness of the tasks. As Kaplan (2001) mentioned the importance of evaluation of communication and outcomes of any medical information system is timeliness, completeness and the rate of mistakes. Pharmacy information system is useful in managing medical services and financial management improvement. Adding to that, it gives better understanding about how to utilize the drugs and gives knowledge about the therapies. However, Pharmacy accounting information system not only influence the pharmacies also, it has an impact on medication results and management process (Isfahani, et al. 2013).

In pharmacy, inventory is for the present and future demand of pharmaceutical products and the value of these assets continuously increase because of the growth of this industry that is necessary for the wellbeing of the people. Furthermore, accounting information system is used to have proper inventory control by recording any new medicine with all the important information. Financial management planning and preparation is complex in pharmacy. Accounting information system is used to solve many complex issues that works properly with inventory as the most important consideration. (Ayad, 2011)

Perception of pharmacists about accounting information system is important as it helps in minimizing the risk and cost. In addition, perception helps in determining the necessary information about the available inventory of the medicine and predicting alternative futures to improve the performance and decision-making relevant in healthcare (Dobson et al., 2014).

3. OBJECTIVES OF THE STUDY

1. To analyze the pharmacists' perception on the use of Accounting Information system for proper inventory management
2. To analyze the pharmacists' perception on the use of Accounting Information system for proper supply chain management

Table 1- Pharmacists' Assessment of Accounting Information system

	Statements	Mean	Standard deviation
Inventory Management	Pharmacy maintain safety stock levels by applying Accounting information system (AIS)	3.537	1.317
	Accounting information system (AIS) help inventory management planning and scheduling in pharmacy	3.610	1.264
	AIS helps the pharmacy have a barcoding system for inventory management system	3.744	1.235
	AIS helps in monitoring the inventories at the pharmacy.	3.854	1.177
	Adequate IT support is provided for record keeping of the supplies.	3.732	1.218
	Proper use of AIS helps check and balance is kept on the items received and the proper record is kept for damaged or problematic medical items.	3.768	1.250
	Proper check and balance is kept on the items received and proper record is kept for damaged, stolen or problematic medical items.	3.805	1.170
Supply Chain management	AIS helps supply chain flexibility, responsibility, competency, and quickness in pharmacies	3.500	1.317
	Use of AIS in Supply Chain Management has an impact on organizational outcomes and customer satisfaction of drug manufacturers in the pharmacies	3.695	1.085
	Reduce issues of the number of days for a supply chain to respond to plan, source, make and deliver unexpected demand variations after implementing AIS	3.780	1.111

	AIS helps Proper transparency is kept in the pricing of drugs	3.902	1.107
	AIS help in reducing the irregular supply of medicines and outages	3.817	1.079
	AIS helps in the Supply of emergency drugs is frequent and up to date e.g., Updated vaccines of Covid-19.	3.829	1.040
Improvement in Operational efficiency	Inadequately trained staff use AIS in the inventory management contribute greatly to the poor performance of Improvement in Operational Efficiency of pharmacies.	3.695	1.151
	There will be an increase in the number of goods delivered on time if AIS is used	3.695	1.141
	If AIS is used the problem of the irregular supply of medicines will be ended	3.793	1.063
	Complaints from customers about the near expiration date of the drug stopped if AIS is implemented	3.768	1.114
	Use of AIS helps limit the problem of slowness supply for medicine has an impact on Improvement in Operational Efficiency of pharmacies.	3.841	1.160
	AIS provides information on the date of receiving medicines from the supplier and the level of inventory available for each medicine	3.866	1.086
	Customers never complain about wrong medicines sold to them	3.890	1.066
	Adequate time and satisfaction are given to each customer.	1.939	0.635

Source: Questionnaire

Table 1 displays the descriptive statistics of pharmacists' assessment. Mean values of all the statements except personal skills range between 3.5 and 3.9 which means that the pharmacists agree that AIS is helpful in inventory management and supply chain management. They have also agreed that proper inventory management and supply chain management helps in improving the operational efficiency of pharmacies.

4. CONCLUSION

Private pharmacies are important in the lives of people and have made a widespread impact over the past years and have increased significantly, making it important to each community. The information system and effective pharmacies management are important to study because the world is advancing. Accounting information system is designed to increase performance in pharmacies. Hence, the researchers recommend to conduct seminars, teach pharmacy students on how to use Accounting information system, and take effective measures to implement the system in the pharmacies.

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