Contents

Executive Summary

Operation management is a critical function in every organisation. The diversity it caters make it the most significant aspect, due to which organisations are increasingly focusing on the betterment of their operations in the internal and external environment of the firm.

The report covers various sub-functions of Operation Management including Supply-Chain Management, Inventory Management, Lean Management, Information Technology Management, Quality and Risk Management etc. in a typical pharmaceutical store. The challenges in operation management are critical and the management must take corrective actions immediately to gain customers' loyalty and preference and to increase the productivity and sale turnover of store.

The report mainly discusses the case of operation Management in a Whites Pharmacy, which is a chain of stores in Riyadh, KSA. With successful operations, management is now planning to expand its operations to Jeddah. However, with the expansion, the firm is facing major issues in its operations management.

Furthermore, the report discusses the project management case of Whites Pharmacy, where it describes complete process of new system installation from design to implementation stage. This project would help Whites Pharmacy in converting its manual work to automation, bringing benefits like reduced cost, improved productivity and better order fulfilment and customers' response rates.

Finally, the report presents the recommendations for each issue of operations management in summary and concluded that effectiveness in the firms' operations happens with the dedication and commitment of firm and its operation management team. It also describes the impact of these recommendations on the role of Operation Manager.

Introduction:

Operational management challenges are faced by every organisation, no matter how large or small they are. The report discusses the operational management challenges faced by Whites Pharmacy. It is located in Riyadh, the central city of KSA with a recent established name for itself in pharmacy market. With successful operations with its first pharmacy which was established some ten years ago, has now been expanded to nineteen branches in major areas of Riyadh city. Management is now planning to expand its operations to Jeddah, forecasting strong growth in other major city of KSA. However, with its expansion, management is facing challenges related to operations management including set-up of supply chain network and coordination management with key suppliers of the company. Furthermore, expansion necessarily requires enhancement in strong IT system, to aid the monitoring and operating geographically dispersed operations in both cities and to ensure the alignment among stores. Since the author's Uncleis project in charge of Jeddah expansion, therefore he has an ample exposure to various operational management problems and hurdles that company is facing. Through extensive interactions with company's operations through summer internship, author has extended his knowledge to these challenges incurring in Whites Pharmacy.

Problem Statement:

The case study analysis presents the issue facing Whites pharmacy management while expanding their operations. In that scenario, the operation management team encounters several issues which need to be addressed accordingly. White Pharmacy has its supply chain issues in Jeddah, as its suppliers belong to different international city. The entire stock first comes in Riyadh and gets further distributed in its 19 branches. Now after expansion to Jeddah, company needs a pool of skilled supply chain experts that can develop supply-chain strategies for White Pharmacies. Moreover, Whites Pharmacy also needs to solve the issue of elimination of waste for developing effective operations. For instance, it has to develop effective strategy for lean operations to ensure sale of medicines before expiry dates in the new branch in Jeddah. Besides, inventory management issue must be catered to improve service delivery and right drugs availability in their pharmacies. Quality management is another important challenge for a firm dealing with healthcare products and supplies, as it is directly related to human health. Especially while operating in Jeddah, where the healthcare rules and regulations are firm, Whites Pharmacy has to

evaluate all risk factors while operating there. It must build up a Quality Assurance tam responsible for checking and maintaining minimum standards of medicines to be sold in stores. Finally, White Pharmacy currently faces the challenge of poor IT system as it does not provide appropriate monitoring facility that can give complete glimpse of operations in both cities and their stores. A genuine IT system installation is a significant need to improve stores' operations in a coherent and effective way.

Supply-Chain Management:

Literature Review:

As explained by Van Weele (2009); the supply-chain management is a diverse network of multiple organisations that have unique contribution to the quality and effectiveness of the final-product or service delivery to the end-consumer. These organisations deal with various activities including retailing, distributing, transporting, storing facilities and supplying the end-product or service. Rossetti, Handfield and Dooley (2011) defined pharmaceutical supply-chain as the amalgamation of activities dealing with acquisition and transformation of raw-material into final goods to deliver to end users. However, de Vries and Huijsman (2011) advocated that pharmaceutical supply chains are also associated with information flow in order to improve relationships among the parties involved to gain a competitive edge. Ellram and Cooper (2014) further quoted some benefits including shorter lead time, increased productivity and better forecasting and customer response rates. Apart from this, Amegashie-Viglo and Nikoi (2014) highlighted that most often in pharmaceutical industry, the line between firm's internal operations and external environment is blurred which cause issues in operations. Therefore, as explained by Kabir (2013), pharmaceutical industry mainly deals with the high-value goods, and therefore it require a safe and secure process at all points in a supply-chain, and there must be sufficient security and checking facility at each ware-house and loading places. Subzwari and Nasir (2015) further pointed out that the transport mode must be appropriate to avoid any damage to drugs and critical medicines. With the global expansion of businesses and preference of global suppliers by majority of the firms, pharmaceutical supply-chains are becoming more technology oriented building a strong infrastructure and logistic maintenance for secured supply of drugs. Finally, Narayana, Elias and Pati (2014) noted that more and more pharmaceutical companies are managing their supply-chains on a more transactional level, where the products

have unique identification through barcodes or systematic packaging which enable to record the inventory level, and automatically generate order to suppliers in case of decreasing inventory.

Application:

In the case of White Pharmacy and its supply chain issues in Jeddah, the company needs to deal supply-chain. After the expansion to Jeddah city, the firm cannot rely on the uniform supply-chain operations for both cities by one source. Rather, now in Jeddah, there is a vital need for a comprehensive pool of skilled supply chain experts that can develop strategies for White Pharmacies and contact suppliers who can directly supply products in Jeddah rather than Riyadh. Furthermore, firm needs a separate purchasing strategy for the Jeddah store because the new store would have unique demand patterns than Riyadh stores. Besides, rather than supplying the inventory first to Riyadh and then being send to Jeddah, Whites Pharmacy needs separate logistics and storing strategies for the new stores. This would not only lower cost, but also increase productivity and customer response rate.

Recommendations:

Whites Pharmacy has to realise the distinction between the supply-chain operations of the stores in both cities. As literature revealed that pharmaceutical supply-chain is a complex amalgamation of activities and to avoid blurring of company's internal and external operations, firm need to devise separate strategies for geographically dispersed operation, realizing the differences and uniqueness in the operations. To settle such differences and uniqueness, Whites Pharmacy needs a distinct pool of supply-chain experts. At first, there is a need for a purchasing team which should be responsible for purchasing related strategic and operational activities. For instance, Jeddah store is relatively new, therefore in the initial operating days the demand would be lower. The team must be able to accurately forecast and purchase necessary quantity in order to avoid expired items because drugs have very short shelf life. For a drug seller like Whites Pharmacy, purchasing team is essential to ensure effective inventory management, order processing, expired drugs management and vendor-relationship management. Moreover, this team must have significant forecasting skills to improve accuracy. Finally, Whites Pharmacy needs a separate operations team for its Jeddah branch who can develop strategies for White Pharmacies and contact suppliers who can directly supply products in Jeddah rather than Riyadh. The team should establish and maintain separate warehouse and logistics management for Jeddah store to store and supply required inventory timely to the store, without facing the hassle to

contact Riyadh suppliers and wait for their delivery. Apart from this, this new warehousing facility would be able to receive supplies direct from suppliers which would contribute towards increased productivity and better customer response and order fulfilment rate. However, Pettersson and Segerstedt (2013) argued that setting up a new warehouse and logistics maintenance causes firm to reduce their profitability because of increased cost of transportations and maintenance. Still, the operational gains resulting from this solution would definitely offset the cost issue.

Lean Management:

Literature Review:

According to Anvari, Ismail and Hojjati (2011) described lean management as the systematic approach essential in operation of a company in order to identify and to eliminate waste for seeking perfection and continuous improvements. The end-result is ultimately targeted towards gaining the customers' satisfaction. Moreover, Agus and ShukriHajinoor (2012) stated that lean management is a comprehensive combination of techniques which allow a firm to ensure more effectiveness in its operations by reducing and eliminating the wastes. In addition, Fullerton, Kennedy and Widener (2014) explained that lean principle application in firm's operations make it more flexible, productive and responsive to the customers demand and market trends. Similarly, Furthermore, Eitel*et al,* (2010) discussed the benefits which can be obtained by applying successful lean principle in operation management. It helps to improve quality, reduce cost, ensure timely delivery of product or service and gain customers' confidence. As studied by Rahman, Laosirihongthong and Sohal (2008) lean principle is a multi-dimensional approach encompassing an ample diversification of various management practices. These may include Total Quality Management (TQM), Just in Time (JIT), supplier management etc. Ouma, Njeru and Dennis (2014a) researched and conclude that Lean management has been a great success in the pharmaceutical industry. It has genuinely contributed in accomplishing many goals which include the decrease in waiting time for releasing products and services in the market. In a pharmaceutical store, lean principle is necessary to implement to avoid waste not only for the inventory side, but also for human resource. Alotaibi and Alotaibi (2016) further noted that lean management is all about cutting the non value-added process steps in operations. Most pharmaceutical stores face hard time in meeting constant needs of customers. They most often

are failed to cater the medication orders, phone calls, and checking prescriptions. In addition, Ouma, Njeru and Dennis (2014b) explained that the automation system for checking the availability of a particular order by customer is widely held lean practice in most pharmaceutical stores. This not only reduce time and improve productivity, but also helps in avoiding negative impacts on employees and customers due to continuous interruptions and hectic environment at the store.

Application:

In the case of White Pharmacy, the alignment of medicines is not appropriately done as there is a systematic gap between pharmacist and customer handling. In White pharmacy, pharmacist first goes and manually checks medicines available in the shelves and there estimated time to deal with one single customer is 5 to 10 minutes which creates trouble in dealing with other customers. This eventually increases queue of customers and most of the complaints are received about this issue. Therefore, this issue needs to be considered in new branches of Jeddah so customers of this city shall not come across with similar issues. Further, employees were reporting frustration and fatigue due to the hectic schedule of checking the availability of medicines at the store. Finally, the stores in Riyadh were having the problem of inventory duplication at more than one shelf. The inventory was arranged inappropriately, as same medicine is located at many locations. Therefore, when a customer demand any such medicine, employees have to search on more than one places and many times, they ended up with saying "not available" to customer after insufficient searching. The store in Jeddah must avoid this issue at the initial stages of their operations. The operation management needs effective lean strategy to reduce to cut the non-value added steps to eliminate waste, reduce frustration and respond customers timely and accurately.

Recommendations:

The best lean strategy to be implemented in Whites Pharmacy' operations should consist of two steps. First, firm must introduce an automated process using software to instantly check the availability of a particular medicine or drug as demanded by the customer. This on-time quick and accurate checking would help avoid the wastage of time and energy by the employees to go and check the shelves. This software should be updated accordingly and must also contain the feature of giving the directions to employees about the shelf sections and sub-sections where the required medicine is located. This would not only improve productivity and efficiency on the

employees' side, but also render positive effect on customers due to quick order fulfillment. However, setting up automation lean practice is not sufficient. Ward and Peppard (2016) described that any automated software is also dependent on human resource to operate it efficiently. Therefore, Whites Pharmacy must first arrange the inventory properly in one direction, and then it must correctly update the software with the inventory location. Moreover, the application of lean principle requires the training of concerned personnel. The Whites pharmacy must introduce the training practices for its employees for how to manage operations in rush hours and how to use maintain and update the automated software.

Inventory Management:

Literature Review:

The effective inventory management plays an important role in the success of any organisation. According to Muller (2011) inventory is the prime resource point on a manufacturer's balance sheet. The pharmacy is one of the curative facilities largely used in places where a huge amount of cash is used up on purchases of medicines on a frequent basis (Chungsiwapornpong, 2007). Moreover, (Chen *et al*, 2008) emphasise on the devoir for planning, designing and organizing the pharmacy in a way that upshot the managerial medical services in an efficient manner. On the contrary, Ng (2007) state that the inventory management in pharmacy store that put pressure on cost control and better effectiveness. Also Dwivedi*et al* (2012) define that in pharmacy operations, inventory is to be referred as the stock of pharmaceutical products preserved to convene future demand. The value of inventory keeps on rising in pharmacy practice, because of the development in variety and cost of medicines. In addition to this, Ali (2011) identifies that the inventory management in pharmacy is the process of planning, organizing and controlling inventory that intends to lessen the investment cost while matching supply and demand of pharmaceutical products. Furthermore, Paudel*et al* (2011) emphasises on the fact that managers should know about the stock and available quantity of pharmaceutical products to double back the stock, to proper and timely order placement in order to avoid stock out. On the whole, the purpose of effective inventory management is to have what is needed and to lessen the number of times the product is out of stock. Also Temeng*et al* (2010) suggest that inventory represents a major part of total investment, and to ensure escalation, productivity, high-quality inventory

management practice is necessary in an organisation. According to Nigah *et al* (2010) the primary goal of inventory management engages the stability the contradictory financial of not wanting to hold too much stock. For that reason, the maintenance of inventory will provide best possible stock at lowest rate. Besides Gupta *et al* (2007) cites that stock of medicines in a pharmacy store must be maintained by the management to meet some future demands. However Singh *et al* (2015) concluded that inventory management has general impact on function of organisation predominantly in operations, accounts and finance.

Application

The inventory management process of White Pharmacy stores in Riyadh was not satisfactory, the excessive useless inventories was accumulated in stores as there was a single inventory bin for all new and old medicines. The process of inventory management in pharmaceutical stores was much more complex that leads to many medicines to reach their expiry dates. When the drugs are dispensed manually, it is very difficult to maintain the accurate inventory. The method of inventory control has a lot of shortage or excess of medicines; the pharmacy stores face shortage of high demand medicines because few rarely used medicines were generally combined in the order of frequently used medicines. The mix up of old and new medicines in pharmacy resulted in medicine's expiration because the pharmaceutical stores in Riyadh were more focused on clearing the new stock first. These also affect the service delivery of the stores as they sell the medicines which tend to reach at their expiry dates earlier than the other medicines. On a whole, the pharmacy store in Jeddah needs to improve the availability of fine and fresh drugs to the customers to compete in the market of pharmacy. The operation management team ensure available inventory according to customer demands.

Recommendations

To overcome the above discussed problems in the case of White Pharmacy, it is imperative for the operation management of pharmaceutical store in Jeddah to map out the old stock first and then order the new drugs to avoid the complexity of inventory. The inventory consumes the major portion of the budget; the management must design a strategy to identify the availability and expiration of medicines. As the literature said, there are many product vendors in the market have policies regarding medicines that may be returned and provide cash back to the pharmacy,

so the pharmaceutical store must return the rarely used medicines rather than store them. The operation management of Jeddah store should monitor such drugs and indicate a threshold time period for returning the drug. The principal objective of the management should be the involvement and balance of the supply and demand and not hold too much stock in the store (Waters, 2008). The inventory management in a new store should bring significant improvement in the optimal use of resources. From the above mentioned literature, it is stated that the efficient tracking system is necessary in the store for adding, updating and removing pharmaceutical products. The inventory control is necessary in pharmacy management system in Jeddah to ensure the effective service delivery of the medicines to the customers. The pharmacy system of the new pharmaceutical store should be limited to few individuals with an operational need to access the medicines. The operation management must ensure the traceability of inventory from purchase to disposal to eliminate the excessive inventories in the store.

Information Management and System

Literature Review

An organisation entails a dedicated system to accelerate and ease the procedure of work to augment productivity and efficiency. According to Stair and Reynolds (2013) an information system is a set of reliable elements that gather, operate, stock up and publish information and endow with response mechanism to rally an objective. Additionally, White *et al* (2010) stated that the pharmacy information systems offer certain functions such as inventory control, medication billing, dispensing of medicines and drug information. When pharmacy gets prescription, the order is matched to available pharmaceutical products and then dispensed accordingly. Also Cohen *et al* (2007) suggested that it is possible to keep track of all products which are passed through the system. In pharmacy practice the information systems are used to avoid medication errors through incorporated error detecting mechanism. Likewise, Chudy and Schultz (2010) cited that pharmacy information systems also aid to manage the inventory of all pharmaceutical products, by providing an alert about the quantity of the products. It also helps to identify any leakage in stock. Besides, Webster and Spiro (2010) highlighted that in operation management the pharmacy information system give operational efficiency such like reduction in errors and speedy flow of work. Moreover, Niazkhani*et al* (2011) emphasised the use of information systems in pharmacy through drug management system which track backs the

pharmacist about the quantity of drugs and it also prop up reminder for the expired date for each drug. The large organisation with pharmacy stores in diverse locations needs information system for the smooth operations of the business (Varshney, 2013)

Application:

White Pharmacy currently faces the challenge of poor IT system as it does not provide appropriate monitoring facility that can give complete glimpse of operations in both cities and their stores. The managers and employees at both stores presently operate in a manual manner. They use manual systems and rely on employees' memory to retrieve where the drugs are located in a store. This personal and manual feature in operations often results in late processing of order, leaving customers dissatisfied and employees frustrated. Furthermore, the management often suffers the unavailability of certain medicines, and face delays in supplies due to inefficient monitoring and reporting of the needed drugs or products. To worse the case, the inventory management is also ineffective. Many medicines cross their expiries, while the new medicines are being sold. The stores need to arrange inventory and keep their record in such a manner to smooth process out the inventory in First in-Last Out manner in order to ensure that there is no wastage in inventory. Finally, management also suffers unhealthy operations due to unavailability of proper records of the staff, products and sales transactions. Therefore, Whites Pharmacy needs effective Information management to cater such discrepancies in its operations.

Recommendations:

Running a huge chain of pharmacy certainly require ample involvement of information system as this can facilitate in inventory management, coordination, communication, and monitoring that can help in running smooth operations. Company can use different application and software like ERP, Veeqo inventory management and Kofax Monitoring software for looking after the operations in both cities in an efficient manner. Apart from this, company can also install proper Pharmacy Management System with full automation to manage the geographically diverse operations. This software will enable not only effective management within stores but across various stores and cities as well. In a single store, the software set-up the store activities in a coherent way by providing the statistics of products/drugs, monitor and detect the drugs movement and location, update about expiries and generate monthly reports. This automated IT system would enhance management services, improve productivity and will be cost-effective.

On the other hand, this it system is beneficial for across the stores operations as well. This software can also be updated with additional feature of suppliers relations, where the monthly reports about the needed drugs and medicines are automatically sent to the suppliers and the supplies are received on time without any interruptions in the availability at stores. Further, the stores management will be in collaboration to detect the demand patterns of each drug or product. In case of expiries arriving soon in a store where demand is low, the IT system will facilitate the movement of information and thus, the product can be transferred to the other store where there is a sufficient demand. In this way, company can lower its waste and cost by selling out the medicines before expiry instead of piling up them in a single store.

Quality Management

Literature Review

According to Lee and Webb (2009), quality management is defined as the aspect of management aspect that finds out and executes the "quality policy"; like, the overall purpose and track of an organisation regarding quality, as defines by the top management. However, Cole *et al* (2008) state that the quality management system in pharmaceutical industry affects the quality of the pharmacy service eventually. Moreover, Dubey *et al* (2011) emphasise on the understanding and performance of suitable quality management which facilitates a pharmaceutical organisation to achieve its moral as well as regulatory responsibility of including management of quality, safety, purity of medicines. Also, Chisholm-Burns *et al*, (2010) discuss that the quality management in pharmacy linked with economic outcome of the business and reduction in medicine related unpleasant events. According to FIP (2011), high-quality pharmacy practice entails that the main pharmacy action is the supply of medicines and other pharmaceutical products of assured quality as; the quality of medications in the pharmaceutical industry plays a crucial role in healthcare. As cited by Haleem *et al* 92015) the product-customer (medicine and patient) connection is of unique nature and the industry of pharmacy is one of the most closely regulated industries in the world. According to (Pedroso and Nakano, 2009) the consumers of pharmacy services expect exact and well-timed delivery of pharmaceutical products. The satisfaction of purchaser is the key determinant of success in the pharmacy market. Likewise, Lu and Su (2010) find out that the increased level of accountability on medication delivery and maintaining standards are significant for the improvement of operation in quality management in pharmacy industry.

Beside, Brody (2007) identifies that pharmacy industry is very much affected by the challenges and problems for the profession of medicine. For this reason, it is important to mark out the concept of quality, the process of quality assurance and methods of quality assessment as they recount the delivery of pharmaceutical products and services. Additionally, he also highlights the training issue as pharmacist should have practice license to deliver the accurate and clean medication to the customers.

Application

The dealing with pharmaceutical and health care products and supplies require great concern and attention. As operations in pharmacy directly relates with the health of a person, the management of pharmaceutical company ensure the accurate and brand new pharmaceutical products and provisions to the customers. The risk factors in the pharmacy company can be found on large scale as the functions in pharmacy in a straight line deals with the medications for the patients. In the case of Whites Pharmacy, the poor inventory management results in the chances of risk to the health of the customers The pitiable inventory management creates complexity in stock as the new and old stock merged and the expired medicines sold to the customers. For example, once in a branch of Whites Pharmacy in Riyadh, the management done blunder when a new pharmacist by mistake sold the expired medicine to the customer. The issue was then resolved and was not taken to the court. To start up the first branch in Jeddah, the Whites Pharmacy should consider these issues and provide extra care in dealing with the pharmaceutical supplies and products. The rules and regulations in Jeddah are strict enough for the underlying health related issues. For that reason, the company must assess all risk factors which can take place in its new branch in Jeddah and the pharmacy should take possible measures to avoid the occurrence of these risks.

Recommendations

To overcome the above discussed problems and issues in the quality management of Whites Pharmacy, the operation management must sort out the difficulties in inventory management of the pharmacy by keeping record of old and new stock. The operational management must take proactive actions to recognise, assess and manage possible risks to quality. The company should set up, execute and maintain electronic information system that allows the delivery of medicines with the desired quality features and helps to aid in the betterment of the quality of

pharmaceutical products and supplies. The sufficient supervision of resources and effective communication between all levels of management helps to attain the desired quality system of the pharmacy. As par literature, all pharmaceutical products and supplies should be stored efficiently and in systematic manner to allow lot isolation and rotation of stock by a first-expire, first-out rule. The chain of Whites Pharmacy should have permanent access to the internet and the stock must be fully automated for trouble-free accessibility and can take information of medicines online for the ease of customers. The pharmacy should have a customer documentation and record of consuming pharmaceutical products and supplies.

Project Management

<u>Literature Review</u>

As cited by Ika (2009) the integration of IT practices into operation management can lead to the organisational success. Helfat*et al* (2009) supplement the ideas by stating that the impact of technology and its influence on the working processes in organisation is essential in the development of strategies. Moreover, Kerzner (2013) suggests that now managers are engaged the projects in formalised project management tactics. He further implies that the interaction plays an important role for such projects and it is imperative for the mangers to obtain understanding of terminology, processes and procedures of project management. According to Meredith and Mantel (2011) a project is a temporary venture undertaken to generate an exclusive service or product. besides, project management is the order of scheduling, arranging, encouraging and controlling resources to accomplish definite goals; typically time constrained and cost constrained. On the contrary, Schwalbe (2015) argues that the major challenge of project management is to achieve all the objectives of project while keeping the constraints as defined, such as time, quality, scale and cost. For the successful management of project all the above factors must put in consideration and each must be managed efficiently. In project management, the Waterfall Model is the process model, used as a linear sequential life cycle model; in which each stage of project management must be completed before the beginning of next phase and hence this model is free from overlapping (Ruparelia, 2010). As Melo (2009) defines that in pharmaceutical industry, the objectives of project management are depend on some entities such as management, development, registration, supply chain, quality, inventory, time and cost. In addition, Narayanan *et al* (2009) also identify different phases in the

development projects in pharmaceutical industry, such as; technology transfer processes, landmark and problem solving issues.

Application to the Whites Pharmacy Store

After a comprehensive analysis of multiple issues arising in operation management of Whites Pharmacy, including supply-chain, lean principle, inventory and quality management; the management has arrive a final decision of installing a Pharmacy Management System. The system will facilitate various functions. First, it allows the user to record the availability, quantity and expiry date of a particular product or drug. This record will be updated on every instance of opening stock and sales transaction. Second, other function updates the user about the list of particular product or drug expiry date even before the product would expire. This will alert the management about the expiries coming forth, and they can devise sales strategies or any other. Third, the system generates a monthly report of the list of inventory going out and in of the pharmacy. This report also includes entries like expiry dates of existing inventory, fate of purchase, and location of drugs at shelves.

Presently, the stores in Riyadh are using manual system for Pharmacy management. However, the company now needs to install such automated system to increase productivity and cater demand more effectively. The manual system require more time and cost, and result in employee frustration in rush hours. The system design for the automation in Whites Pharmacy system design consists of design activities that produce system specifications satisfying the functional requirements that were developed in the system analysis process. The system design comprises of several design activities which will assist in producing system specifications. This design specifies the functional requirements to be developed in the analysis process of system. System development will follow a Waterfall Model comprising of several stages. Initially, the system in Whites Pharmacy will begin with project planning. This stage will require determination of aims and objectives of project. Afterwards, system design with initial prototype will be set up to check the operations and further improvements will be made after suggestions. Finally, implementation phase will be started after seeking mutual agreement with the users and designers.

System Functionality

The upper layout shows the system homepage, requesting access from Administrator or Staff

The system will contain two accessing systems. First one is for "Administrator" which will give access to the store manager with different ID and Password. This access will allow the manager to update the inventory, check the report generated about the products or drugs and get alerts on expiry dates of products before actual expiries to take respective actions. This feature for managers also allows putting the respective prices for each product, making salaries reports of staff, and calculating the periodic revenue.

On the other hand, the second access would be provided to "Staff", which will give access to employees at store level, with their unique ID and Password. This access will allow each employee to search the product availability and location, make the bill by pre-set prices in systems, and make short report or alerts about the increased or decreased demand of a particular product or drug.

The screen after clicking Administrator, requesting the Login ID and Password

The screen after clicking Staff, requesting the Login ID and Password

Role of Operations Manager

The operational manager plays an integral role in the overall operations of the business. Essentially, operations add value to the product or service and operation management is the practical area of the business mainly focuses on planning, controlling and management of resources. In the case of Whites Pharmacy, the operational manager needs to optimise his skills for optimal effectiveness of the pharmacy chain in Jeddah. The operational manager must ensure the quality of the operations and lessen the incidence of medication errors. The role of operational manager in the company is highly critical; he must understand the items within the pharmacy stores to analyze conditional and developmental plan. The operational manager should have interpersonal skills to work well and communicate effectively with the consumers. For managing the consecutive matters in new branch of pharmacy in Jeddah, the main concern of operational manager would be to automate the system to avoid the poor inventory, supply chain, quality and lean management issues. He must have technical knowledge of information system tools to handle the operations effectively. The operational manager in Jeddah would construct reports on the items within pharmacy and recommend plans to improve results based on the investigation of financial data. The long-term planning and strategy is needed to evaluate the performance of the company in Jeddah by finding new resources.

Conclusion:

For any organisation, operation management and its sub-functions must be dealt with significant importance and great consideration. This is because this function surpasses all other functions of management including HR, Marketing, Finance etc this report discusses the case Whites Pharmacy, a pharmaceutical store-chain currently operating successfully in Riyadh, KSA. With the expansion decision of management of store towards Jeddah, the store ha s faced several issues regarding its operation management.First, the report explains the supply-chain issue facing the store in Jeddah. Whites Pharmacy need a comprehensive and separate supply-chain strategy for its new store, rather relying on the suppliers and warehouses in Riyadh. Secondly, the pharmacy store needs to be effective in its lean management by reducing the waste and non-value added activities. Moreover, inventory management of store is poor enough and results in accumulation of excessive useless inventories was accumulated in stores as there was a single

inventory bin for all new and old medicines. Furthermore, store lacks in automation process and needs efficient Information Management Technology. Additionally, Quality Management of stores supplies and inventory must be upgraded because store deals with sensitive products that have huge impacts on human lives. The report presents recommendations for each issue in the light of literature. The report finally presents a case of a project management for converting its manual work to automation, bringing benefits like reduced cost, improved productivity and better order fulfilment and customers' response rates. It also explains impact of these recommendations on the role of Operation Manager. The main problem in Whites Pharmacy was the manual handling of products, which causes poor inventory, lean, supply chain and quality management. To overcome these issues, the company needs an automated Pharmacy Management System to resolve all these accompanying issues and to improve overall the business performance.

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