**EXECUTIVE SUMMARY**

The pharmaceutical industry is one of the most vital industries in the world, providing life-saving medicines and treatments to millions of people. Big pharmacy chains in the USA, such as Walgreens Pharmacy, and others, play a significant role in providing accessible healthcare and medication. However, these large-scale operations face several challenges that impact consumers, healthcare systems, and the businesses themselves. Below are key issues and potential solutions:

**OBSERVATIONS**

1. Working with HCPs is one of the biggest challenges in Mosh pharmacy marketing for many reasons. First, there are not that many targeting opportunities available, and the few capabilities offered by some publishing platforms are only based on geography and specialization. But marketers need targeting capabilities to be based on their prescription behavior and formulary access.
2. Inability to track expiration dates in the pharmaceutical industry, failure to keep track of expiration dates can be catastrophic. Manual systems are inept at tracking product specifications; staff can fail to update expiration dates of all solutions and medicines on time. They can mistakenly often check out an asset – like a solution for a medicine – without knowing whether it has expired or not. Considering how vast and critical pharmaceutical inventories are, manually tracking expiration dates are bound to lead to errors. Consequently, expired chemicals going into drug production can lead to wrong chemical formulation, resulting in the production of hazardous drugs. It’s even worse if the drugs in question are still in the research process, leading to skewed results and wastage of several thousands of dollars on R&D.
3. Inefficient location tracking Difficulties in tracking essential equipment can slow down research and development of pharmaceuticals. Inaccurate tracking makes it challenging to assess if sufficient equipment is available for use or not for operational purposes.
4. Non-standard barcode labels Similar equipment and drugs need to be labeled in a likewise fashion to avoid discrepancies. Easily identifiable labels make it easier for the staff to identify the category of each equipment. Like, similar test tubes can be labeled with the same barcodes but with different unique identifiers. Pharmaceutical companies often face challenges when they create non-standard labels for their assets. Such labels create administrative issues These inaccuracies in data easily translate into inaccurate, unusable records and require staff to enter data manually.

**RECOMMENDATIONS**

1. To provide high quality and safe care, healthcare organizations have to be able to recruit and retain the necessary personnel but current market conditions are making it increasingly difficult to both attract and retain top talent. With escalating pressure to reduce cost, improve patient access, improve clinical outcomes, improve safety and meet expanding regulatory compliance requirements the healthcare industry faces some unique challenges when it comes to workforce management.
2. Getting a qualified workforce that can be relied upon is one of the essential elements that will help ensure a promising future in the pharmaceutical industry. The pharma industry needs workers with the necessary knowledge, skills, and experience. There needs to be more investment in a highly-qualified workforce to continue progress. Training the workers will allow them to obtain the necessary skills to perform their daily tasks correctly and efficiently and will also help fill in any gaps in skills they may have.
3. **Competition from Online Pharmacies**

**Issue:** The rise of online pharmacies like Amazon Pharmacy offers convenience and lower prices, challenging brick-and-mortar stores.

**Impact:** Big pharmacy stores are losing market share, especially among tech-savvy consumers.

**Challenge:** Adapting to e-commerce trends while maintaining physical store operations.

1. By using the Quantzig Software excels in providing advanced **predictive analytics** solutions that streamline the demand forecasting process, making it more accurate and reliable. By harnessing proprietary techniques and integrating diverse data sources—such as consumer behavior, pricing trends, and stock exchange data Quantzig delivers insights that empower pharma companies to overcome these challenges. Our approach not only enhances demand forecasting but also aligns supply chain processes with market demands, ensuring operational efficiency and sustained competitiveness.

GITHUB INTRODUCTION

The recent population shift to urban areas and increasing accessibility of people to healthcare services has opened the doors for company’s Pharmaceutical industry’s to a broader target market. These emerging markets are becoming extremely important for pharma companies. However, for companies in the pharmaceutical industry, it becomes very essential to shift from a sales and marketing-focused model to an access-driven commercial model in order to tackle issues in the pharmaceutical industry. With healthcare becoming a top priority for governments worldwide, the pharmaceutical industry looks set for a bright future. However, it’s not without its challenges. Factors such as changing consumer attitudes, drug availability, affordability issues, and stringent government policies pose significant hurdles.