Predictive Insights & Analytics – The Future of Payer Contracting Strategy for Pharma

Executive Summary

Payer contracting refers to an agreement between Pharma organizations and Payers, where the contracting terms in the agreement, covers rebate arrangement in exchange for product formulary access.

For any life sciences commercial team, payer contracting is an essential function, to ensure their drugs have the desired market access, and thus made available to the patients who need them, at the most affordable rates.

A look at the 600B USD (U.S Dollar) 1 US Pharma Industry Sales for 2019 makes us realize the enormity of the size of the Payer-Pharma Contracting market. Being on a conservative side, if we assume contracted sales account for 20%2 of the total product sales, then the gross contracted sales market by itself amount to 120B USD. Also looking at the future projections, over the next 5 years, the US Pharma contracted sales are projected to grow from 120B USD to 170B USD3, making it critical for the Pharma contracting team to change focus from being reactive, and shift gears on Payer Contracting and defining market access strategies.

Besides, with so many Pharma brands on the verge of losing exclusivity in the next 2-3 years (Figure 1), making them compete in the market against generics and biosimilar- it becomes important for the branded pharma drugs to ensure they retain the desired market access against competition and do not erode their market share.

Some Pharma brands that has recently lost or going to lose exclusivity in the next 2-3 years

Pfizer	Lyrica, Benefix, Flector, Provera, Chantix, Sutent, Toviaz
GILEAD	Letairis, Harvoni, Epclusa, Ranexa, Atripla, Truvada
MERCK	Noxafil, Janumet, Janumet Xr , Januvia
NOVARTIS	Durezol, Exjade, Jadenu, Tekturna
Roche Genentech A Member of the Roche Group	Avastin, Herceptin, Retuxin, Xolair

...and many more Pharma Organizations await similar fate

AstraZeneca Allergan BIOMARIN
SANOFI Takeda AMGEN

Figure 1: Brands that have recently lost, or going to lose exclusivity in the next 2-3 years

Not to forget, the dynamics pertaining to the contracting models are also changing from the traditional volume-based contracting to an outcome or value-based contracting. Innovative approaches to contracting is a growing trend, as the **right mix of pricing and discounting can get Pharma more market share,** at the optimum rebate payment to the payers. But- be it the traditional model or the innovative model, the bottom line for the contracting team remains to increase market access, gaining higher sales volume or value, and providing patients with faster access to drugs, and thus delivering value – achieving all, and paying the optimum rebate amount that does not eat into their profitability margins.

Lastly, with ever-changing market undercurrents and pressure from Payers and PBMs, it is critical for the Payer Contracting team - to have a closer look into the payer contracting process, so that the team can analyze the payer utilization, market share, and other relevant payer data and take decisions based on insights generated from Payer Contracting Data. All of these analytics and insights need to come together to help the Pharma team answer the key question – **to contract or not to contract with the Payers or PBMs.** In addition, if the decision is to contract- then **to understand is it going to be financially profitable now, or in the future?**

In the following sections, we will try to understand the pharma contracting process with Payers in detail and subsequently highlight opportunities for Pharma as to how AI (Artificial Intelligence), RPA (Robotic Process Automation), and Analytics can be utilized to change the future of payer contracting strategy.

Understanding the Current Payer Contracting Process

Payer contracting is a key function for any life sciences organization to ensure their drugs have the desired Market Access against its competition. Now, Market Access is the complex and protracted function that pharma and biotech companies have to manage, to ensure that their drugs are available to the patients who need them, and adequately priced.

Market Access again is a function of the formulary position of the drug, which positively influences the pharma brands' market share. For a higher formulary tier, against its competition, the payers would require a higher rebate payment as a part of its contracting agreement. The payer organizations would try to maximize the rebate payment they receive, whereas the pharma organizations would try to optimize the rebate, and obtain the maximum formulary tier (for a volume-based contract) for the rebate paid, which in turn increases the chances of obtaining a greater market share and improve the utilization and financial profitability.

For example, if a Pharma contracts with a Payer and negotiates for a higher tier position, it means it will be higher in terms of preference and lower in terms of co-pay for the patients if they go with the prescribed drug. Thus increasing Rx gross sales and market share. But it also means the Payer has negotiated a higher Rebate amount, that the

Pharma needs to pay for the volume or percentages sales made for the drug, which can, in turn, impact its financial profitability and ratios like Gross to Net (GTN) and Return on Contract (ROC). Therefore, the point we want to drive home is that Market Share and Rebate Rate are conflicting forces and through proper contracting strategy and analytical indicators, the Pharma organizations need to arrive at the optimized balance between these opposing factors.

A deep dive into the Payer Contracting process shows that it is long and complex (Figure 2), with multiple steps & has questions that need to be answered, throughout the journey-

Payer Contracting Life Cycle

Contract Strategy	Deal Initiation	Deal Assessment	Negotiation & Approval	Post Deal Activities
Key business questions being asked				
- What type of access should the brand seek? - What is the competitive landscape like? - How are Payers covering other products?	- Which Payers should be proactively contracted with? - Which Payers are asking for contracts and what are expectations for the RFP?	- Should the Brand contract with Payer/PBM or not? - How much discount should be offered? - What are the favorable Deal terms ?	- Are the final deal terms profitable based on the various iterations run? - What are internal stakeholders looking for ? How to get internal buy-in?	- How is performance tracking against expectations? - How does this deal feed into GTN forecast? Pull-through execution?

Figure 2: Key Business Questions across Payer Contracting Life Cycle

The key question that the Contracting Team has before contracting/ or renegotiating a contract is- should they contract or not? If they contract, is it profitable financially? If not is it going to be a strategic contract for the Contracting Team?
Some of the questions across the Contracting Life-Cycle, which the Contracting Team has, are qualitative in nature, such as-

- What is the Competitive Threat for this brand?
- Is the deal driven by profitability goals or market share?
- Has the market conditions changed since the pre-deal analysis?
- Have there been changes to the payer's formulary structure?

However, there are some analytical questions as well, that they need an answer to before deciding on the Contracting deal and terms, such as –

- What type of access should the brand seek? (I.e. No Deal v/s Deal. In case of a Deal - Equivalent, Preferred or Non-Preferred Position)
- What is the competitive landscape like? (i.e. Market Share based on Brand Basket)

- How is performance tracking against expectations? (i.e. Utilization -Gross Sales, Rebates, Units)
- Are the final deal terms profitable? -What are the favorable Deal terms? (i.e. Gross to Net, Net Profit, Return on Contract, Predeal Forecast v/s Actual v/s Non-Contracting)
- How much discount should be offered? (I.e. Volume-based Rebate %, Value-based Rebate %)

By answering, each of the above set of qualitative and quantitative questions- a contracting Team can take a decision, whether to contract, or not to contract with the Payer for the particular brand, in question. The answer to the qualitative questions rests completely on the subject matter expertise of the contracting team, but the answer to each of these analytical questions- can be provided using Reporting, Analytics and AI/ML features and state of the art- decision engine and decision science platforms. Implementation of RPA, BI (Business Intelligence) & AI features across the Payer Contracting Life Cycle can improve the overall efficiency of the team from a decision-making standpoint, but also lead to improved accuracy and speed of the overall process.

Current Challenges across Payer Contracting Lifecycle

This section talks about some of the macro-level factors that act as key business drivers to bring efficiency into the payer contracting process at an expedited rate.

Key External Challenges

- Loss of Exclusivity and competition from Generics brings in Cost and Margin pressures, threatening to **impact the profitability and market share** of Brands
- The top 3 Payer/PBMs i.e. CVS Health/Aetna, Express Scripts, Optum Rx (United Health) now control ~75% of the market, **increasing the Payer/PBM's negotiating power in these contracts**
- Large Pharma manufacturers manage **hundreds of segments and account strategies translated to thousands of contracts** drafted annually
- For most of the Pharma Co. **diminishing Return on Contracts due to higher rebate payout** remains and will continue to be the largest spend amount.

As a result of the above factors, most pharma co. have shifted focus from traditional methods of manual design, calculation, and reporting of contracting metrics, to an Advanced Analytics model, whereby they can improve the current Payer Contracting Analytics process efficiency- so that they get detailed insights faster, and negotiate with the Payer/ PBMs effectively.

Key Internal Challenges

Current processes for **Payer Contracting Analytics and Insights generation** are highly complex, effort-intensive with a lack of personalization. Let us look at the internal driver for improving the process efficiency.

- **Heavily Manual Process:** Current processes for payer contracting analysis and decision-making, is heavily manual, historical data based & time-consuming

- **Lack of Personalization:** Various groups are involved in the process of payer contracting decisions, and each team has their own metrics that they look at before providing a decision.
- **Difficulty to Collaborate:** Current systems do not allow the various stakeholders, within and /or outside a group to collaborate and share insights
- **Lack of visibility into relevant intrinsic insights** coming from the key performance indicators for effective decision-making

Opportunities for Pharma to shift gear

Across each of the payer contracting steps – most of the quantitative questions (Figure 3), can be answered by addressing the various Payer Contracting use cases as given in the below figure-

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Key use cases that Pharma Cos. need to focus on.....	- Competition & Market Share Analytics - Contracting to Non Contracting Share	- Pull Through Tracking - Brand Market Share across Payers - Payer Provider Mix	- Share Shift - Forecast Contract Performance	- Expected Gross to Net - Expected Return on Contract - Expected Market Share	- Contract Perf. Tracking - Rebate Adjudication - Pull through Targets -Forecast vs. Actual

Figure 3: Key Use Cases that the Pharma Cos. need to focus on

The major opportunity we see for Pharma is to enable Payer Contracting and Analytics Teams with efficiency in time and Dollar ($) and analytical insights, through-

1. **Automation using RPA, AI/ML (Machine Learning) to Improve Payer Contracting**
   The key opportunities from an Automation standpoint that can help to improve complex, manual effort-intensive processes are-

- Using RPA for Data Ingestion from various sources (Claims & Rebate System, SAP System, Finance Systems) and standardizing these Files to a pre-defined Standardized File Layout.
- Automate pre-processing, cleansing, and data transformation process.
- Develop a business rule engine to apply Off Label Brand identification, Quantity Conversion (Billed Units to Vials, Threshold Rules, and Outlier Rules, Equivalent Unit Conversion Rules), National Sales Ratio Split, etc.

2. **Payer Contracting Analytics generating actionable intrinsic insights**
   Enhanced reporting capabilities by setting up an AI/ML-driven visualization layer on top of the data landing process will provide better visibility into relevant intrinsic insights coming from the Key Performance Indicators.

   The AI/ML-driven insights miner feature will surface the most relevant insights on what has happened in the past with root cause analysis. The insights miner works under a set of predefined business rules e.g. predefined threshold limits or threshold percentages. This will immensely help the Payer Contracting Team with faster identification of key issues, and thus improve the overall decision-making process.

Some of the Key Analytical Insights that the Payer Contracting Team need to look at are-

- Payer Contract Utilization Analytics (Rx, Gross Sales & Units)
- Payer Market Share Analytics (across Brand Baskets)
- Financial Gross to Net Analytics (GTN, ROC)
- Contracted through Payer v/s Non Contracted Sales
- Contract Effectiveness Analytics (evaluate how a contract has been performing vs. forecast.)

All the above metrics are critical to decide if the contract is profitable or going to be profitable in the near future. In addition, generating intrinsic insights from each of these metrics – speeds up the entire decision-making process by many folds.

3. **Scenario-based Analytics enabling comparison across various scenarios**
   Evaluate multiple contracting strategies and expected impact with a Scenario Analytics feature, taking into consideration various input parameters (i.e. Erosion Factors/ Growth Factors, Deal Relative Market Access position, Entry Market Share %, Rebate %) and external events (e.g. FDA regulation, Patent Expiry). This in turn helps to decide on the impact on the contracting performance KPIs (Gross Sales, Market Share, GTN, ROC) for that particular scenario or make a comparative analysis between multiple scenarios.

A contract manager can have multiple contracting scenarios that they need to evaluate in parallel to ensure they get to the desired contracting strategy. Legacy contracting systems- do not have these scenario analyses feature leading to difficulty and delay in the decision making. Therefore, a robust data engineering platform with a scenario analyzer would not just make the decision-making process easy but also faster.

4. **Generate Personalized View and Insights**
   In Contract decisioning, multiple stakeholders are involved, all have their own KPIs, and metrics to decide if the contract is profitable for their group standpoint.

   Insights needed for different stakeholders are different, and one view makes it hard for various groups to make a decision. Marketing will be interest in Pull-through Analytics, whereas Finance will be in GTN, ROC, etc. Using Access Control Feature and personalized view feature in an Analytics / Reporting Platform the users can be provided with a personalized view for different stakeholder groups and personalized recommendation for each of them.

5. **Get Recommendation on Contract using AI (using Predictive Analytics, Anomaly Detection)**
   With so many input parameters (brand, contract name, contract period, anchor period), constraints (rebate limits for E, P, N, KPI limits) in this space, and external events affecting the Contracting Performance, it becomes difficult to get recommendation on the desired target state (GTN, ROC, MS) and impact on the variables to arrive at the derived state.

   So by implementing an AI/ML-based Contract Recommender feature for the recommendation (using Predictive Analytics, Anomaly Detection, and other AI/ML features) - the contract effectiveness team can get the optimum relative market access position and contracting strategy to improve market share, reduce rebate payout- thereby increasing the return on contract.

   Do note that all of the above should have the ability to slice and dice the current and historical data at the contracted payer, Book of Business, State, Brand, and NDC level. By taking advantage of AI/ML, Access Control, and Analytics, the benefits delivered across the Payer Contracting Analytics process be summed up as follows-

- Speed up Contract Decisions from several weeks to under a few days.
- Scenario-Based Optimization: Evaluate multiple contracting strategies and expected impact due to internal and external factors/ events
- Increase Return on Contract- Leverage AI/ML features for the recommendation on the optimum relative market access position and contracting strategy
- Improve Pull Through: Leverage Pull through Analytics to understand physician and regional payer landscape better, gaining intelligence on Payer influence, and guidance on targeting based on Provider Payer-share
- Personalize Insights through self-serve dashboards, reducing data overload and empowering all the stakeholder teams to make decisions seamlessly

Conclusion

Biopharmaceutical organizations are under greater pressure than ever before- in these uncertain times, with the need to accelerate R&D innovation, adapt to a rapidly evolving health care ecosystem, and deliver on the expectations of society and their investors, and managing desired market access strategy. The key challenges affecting Pharma manufacturers in this market access space include loss of exclusivity, Payer/PBM consolidation, and diminishing Return on Contracts. Therefore, to maintain profitability in such a scenario the Pharma manufacturers must look at how to reduce the rebate payout while still maintaining the desired market share and this is only possible by availing of state-of-the-art solutions that technology has to offer.

AI/ML can accelerate the gathering and analysis of medical evidence, market access information, rebate adjudication, and the clinical trial results, which could take a prolonged time if done by traditional means (i.e., human-intensive analysis). Therefore, pharmaceuticals are well suited for the implementation of AI due to the large amounts of data available and an urgent need to understand the landscape to predict patterns and take action.

Application of AI and Analytics in the Payer Contracting process is trending because of its ability to handle huge amounts of structured and unstructured data for analysis, mining intrinsic insights from the Payer utilization, market share, and Payer financial data to generate actionable insights. AI/ML features also helps to get the optimized recommendation on contracts using Predictive Analytics and Anomaly Detection leading to effective decision-making on Payer contracting.

Last but not the least, by coupling RPA, AI/ML with Payer Contracting Analytics, the Contracting Team can mechanize, enhance, and streamline the data ingestion and validation process to save them a huge amount of time, dollar value and reduce manual errors.

Reference

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