



An Analytical Approach to Provider and Intermediary Segmentation in the Pharmaceuticals Industry

Given the influence of managed markets, many pharmaceuticals are aggressively targeting providers and intermediaries such as pharmacy benefit management groups and health plan payers. Using statistical techniques, pharmas can effectively segment customers to design market-driven strategy, launch new therapies, market existing products and maximize the value of in-line brands.

Executive Summary

The economic environment for pharmaceuticals companies is growing increasingly competitive. Understanding the best ways to apply market segmentation can provide a variety of benefits for a forward-thinking company. Well-designed segmentation schemes can increase pharma companies' understanding of customers and their varying needs.

From our engagement experience with pharma companies, it is clear that many struggle to make informed decisions to maximize their focus on the right sets of customers and segments in order to boost revenue. In our experience we have found that employing multiple segmentation techniques along the insight-complexity spectrum can help alleviate this struggle. Identification of an appropriate segmentation technique is based on multiple factors such as nature, type, usability of data/variables, level of

statistical rigor required, ease of communication, granularity of insight, etc. These are critical for marketing the right products to the right customers at their time of need.

This white paper highlights the key elements and guiding principles that will help sales and marketing teams design customer segmentation strategies to target key influencers, including:

- **Providers:** National/regional hospitals, medical groups and integrated delivery networks.
- **Intermediaries:** Pharmacy benefit managers (PBMs) and payers.

A Market Segmentation Primer

As markets have become more competitive, establishing a right segmentation strategy is critical for achieving market potential. However, most companies still struggle to deliver market insights that create relevant, actionable and



Traditional Market Segmentation Challenges



Figure 1

differential segments that take into account product portfolio needs and future business realities. Considering these challenges, organizations require an analytical approach to identify key drivers that impact market potential while ensuring future portfolio needs (e.g., the product pipeline) are captured and eventually addressed. Earlier research studies in the pharmaceuticals industry primarily cover physician and hospital segmentation approaches. This white paper covers segmentation approaches that are especially applicable to providers and intermediaries. Figure 1 depicts the current business situation.

Applying an Analytics Approach to Differential Segmentation for Providers and Intermediaries

Figure 2 depicts an analytics-driven approach that uses objective and subjective factors for arriving at a robust segmentation scheme.

The chronological steps for segmentation are as follows.



1. Build Analysis Universe

Customers are defined for related brands or product portfolio/therapeutic area. If segmentation strategy is not specific to any particular brand, then all such entities need to be accounted for that are related to the pharma's portfolio/therapy. These entities should have impact on the company's market potential (including competitors' sales).

Documenting Analytics Process Flow



Figure 2

- **Providers:** When starting the segmentation exercise, it's important to understand the relationship among integrated delivery networks (IDNs), hospitals, group practices and clinics, as some of these entities could be possible affiliates of other entities. In other words, it's better to narrow down the analysis to parent entities, considering their influence and control over their affiliates.
- **Intermediaries:** Not all the intermediaries in the managed care market are relevant to enhance a drug's revenue. For example, certain intermediaries limit their formulary for generic drugs only, some might deal in a specific therapeutic area, while others may not offer sufficient patient benefits to accelerate the sales of an expensive drug. Based on the specific characteristics of intermediaries – namely, pharmacy benefit managers (PBMs), payers or group purchasing organizations (GPOs) – it's highly beneficial to narrow the analysis universe to a condensed set of entities of interest to design a segmentation scheme with reduced effort.



2. Variables identification

This stage focuses on the formation of multifold independent variables that can alter and best explain variations in brand sales.

Key objective factors/variables include:

- **Provider:**
 - Entities' size (in terms of physicians, staffed beds, etc.) and contribution to brand sales.
 - Entities' sophistication level.
 - Entities that emphasize patient and clinical care.
 - Entities that exert high control/influence.
 - Entities that would contribute to future pipeline drugs.

Institutions that contribute to greater brand share compared with other institutions within the same geography tend to exert higher influence and dominance. In fact, such institutions need to be continuously promoted and engaged to ward off competitors.

- **Intermediary:**
 - Entities' size (in terms of lives covered) and contribution to brand sales.

- Entities that have preferred formulary access with no restriction.
- Entities' contribution to commercial, Medicaid and Medicare channels.
- Entities that exert high geographical dominance.
- Entities' contribution to branded or generic drugs.
- Entities associated with plans that have strong ratings in terms of patient treatment experience.

Both secondary and primary data sources are leveraged for identifying these variables.

- **Secondary data sources:**

- **Plan level data** provides sales information by product and by market at the plan and payer levels. This is used by pharma companies to capture Rx and sales information for providers and intermediaries.
- **Hospital level data** provides information on hospitals, medical groups and measures such as the number of physicians, geographical reach, staffed beds, admissions, electronic medical records, e-prescribing, etc.
- **Formulary data** indicates how many lives are covered in various plans, and it can be further rolled up to the payer level. It also captures payer/product tier information.

- **Primary data sources for hospital performance:**

- **Centers for Medicare and Medicaid Services (CMS)** compares hospital performance in patient care.
- **Industry standard benchmark hospital surveys**, such as the American Hospital Association's most-wired hospital survey which indicates the level of IT adoption in U.S. hospitals and health systems.
- **HIMSS** tracks healthcare providers' progress toward paperless patient record environment adoption (e.g., electronic medical records).
- **Institutionalized ratings**/market research assessments.
- **PayCo™ Score** is a composite measure of risk associated with "not contracting" with a given payer.



3. Key Driver Analysis

The purpose of key driver analysis is to figure out important metrics that can impact brand sales and possibly market potential. The outputs of this stage are the key components/metrics that are uncorrelated and explain maximum variability in the data set. In order to determine the key drivers, pharma organizations must conduct:

- **Correlation checks** among independent variables/metrics before any clustering analysis, to avoid interaction effects.
- **Principal component analysis (PCA)**, which deals with the problem of correlating too many variables. Key drivers can be identified that explains ~80% of the variability in the data set. Another approach is to conduct **regression**

analysis, where a dependent variable could be brand sales or market potential (including competitor sales). **Note:** *To achieve proper segmentation, it is very helpful to identify the significant independent variables that impact brand sales or market potential.*

Resultant key drivers are used in the next stage: setting segmentation strategy.



4. Segmentation Design Using Advanced Analytical Techniques

Conducting customer segmentation can follow several different approaches, which vary from simple decile-based segmentation to complex clustering techniques. Figure 3 depicts four advanced analytical techniques that are popular and widely used for customer segmentation.

Segmentation Techniques: A Comparative View

Segmentation Approach	Pros	Cons
Factor Analysis Segmentation	<ul style="list-style-type: none"> • Can address the problem of having too many variables to correlate. • Relatively simple to execute. 	<ul style="list-style-type: none"> • Might fail to capture consumers' multifaceted nature.
K-Means Clustering	<ul style="list-style-type: none"> • Overcomes the pitfalls of factor analysis by providing information about each attribute's contribution to differentiating the clusters. • Can take individual attributes or factors as inputs. • Faster than the below approaches. 	<ul style="list-style-type: none"> • Not recommended for categorical, ranking variables. • Preclustering treatment needs to be done for considering uncorrelated and standardized/scaling variables.
Hierarchical Clustering	<ul style="list-style-type: none"> • Can use variables with differing scale types including categorical variables. • Offers guidance about the optimal number of clusters (whereas factor segmentation and k-means do not). 	<ul style="list-style-type: none"> • Entities with any missing values are excluded from the analysis. • Has slow execution time, so works best for smaller data sets.
Latent Class Analysis (LCA)	<ul style="list-style-type: none"> • Since it is based on probability modeling, segments are more likely to be real as compared with the above approaches. • Preferable for multivariate categorical data. • Scaling/standardization of data is not a prerequisite. 	<ul style="list-style-type: none"> • Can take longer to run versus other approaches. • Continuous variables need to be categorized.

Figure 3

Quick Take

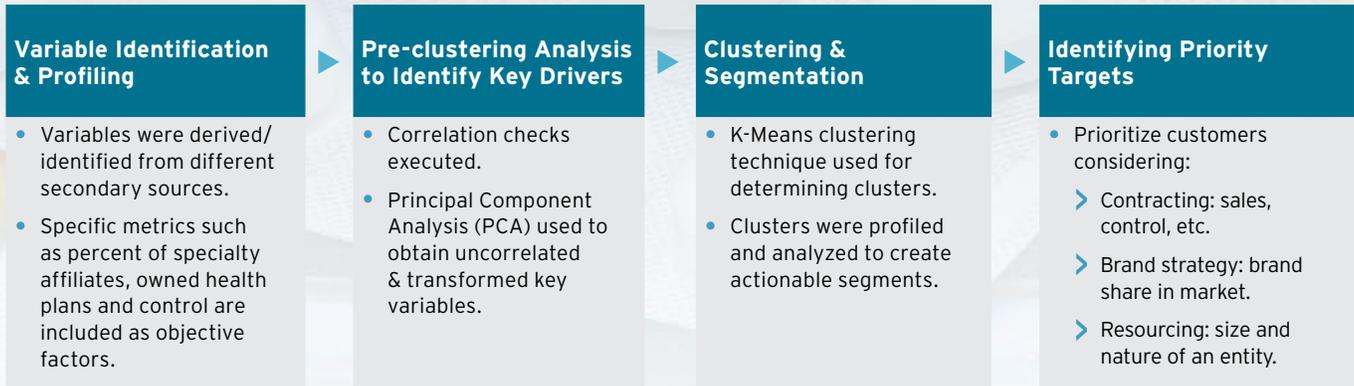
Identifying Priority Targets by Segmenting Managed Markets Customers

We helped one of the top 10 global pharma companies to identify targets for segmentation of managed market team customers: providers and intermediaries (PBMs and payers) in North America. The client therapeutic focus is on cardiovascular, oncology, respiratory and neuroscience areas.

Challenges in Existing Segmentation

- Need to be based on metrics that are objective and tangible.
- Future portfolio needs (product pipelines) are not captured in existing segmentation.
- Key drivers that impact market potential need to be determined.
- Higher number of targets (priority customers).
- Need for customer-centric engagement to ensure a replicable and transparent segmentation process.

Approach



We analyzed some of the below metrics for segmentation of customer groups – providers and intermediaries (PBMs & payers):

Intermediaries	Providers
Size: e.g., lives covered, gross sales, revenue etc.	Size: e.g., total physicians, staffed beds, admissions, affiliates, gross sales
PayCO Score	Control: e.g., percent brand Rx share within geography
Control: e.g., percent brand Rx share within geography	Own Health Plans: provider sponsored & enrollments
Percent Share by Payment Type: e.g., prescription, units sold, sales by payment type (Medicaid, Medicare, etc.)	Quality: e.g., adherence to CMS guidelines, patient satisfaction
Formulary Access: key brands assigned to the corresponding formulary position	Sophistication/Technology: e.g., use of e-prescribing, utilization of EMR, sales rep access, formulary status
NCQA Plan Ratings	Percent Specialty Affiliates: related to impacted therapy in future portfolio

Key Benefits

- Actionable segments that meet current/future portfolio needs were determined.
- Segments profiled were straightforward to communicate – e.g., focused Innovators, influential pacesetters, etc.
- Narrowed field to priority customers for providers and intermediaries that are most receptive and valuable.

Looking Ahead

Analytical approaches to market segmentation can help pharma companies to identify relevant, actionable and measurable target customers among providers and intermediaries. Each segment is typically defined and named based on its characteristics. These segments are given straightforward names that communicate meaningful insights to field personnel. Characteristics such as percent of brand share, number of entities within segment, etc. also reveal segment attractiveness and value.

But not every segment is lucrative for an organization. Considering this, pharmaceuticals companies can begin the targeting journey by prioritizing the customers within a segment. Priorities for targeting would differ from one organization to another, depending on business objectives. The key attributes to consider for customer prioritization after segmentation include:

- **Contracting:** Based on sales/size, influence/control, etc.
- **Brand strategy:** Based on brand share in market.
- **Resourcing:** Size and nature of an entity.

The common element for success is the use of a disciplined and consultative approach to segmentation.

References

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