Executive Insights

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How Analytics Can Reshape Pharma's Portfolio Strategy

As factors such as urbanization, population aging, market access and economic growth drive more and more patients to the healthcare system, pharmaceutical companies have the opportunity to launch branded copies or generics across multiple countries and thus increase the size of their portfolios.

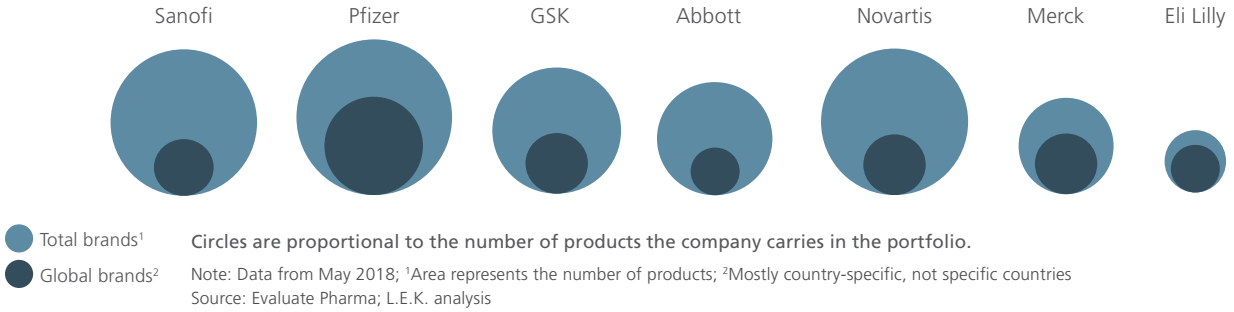
Companies can leverage local resources already deployed across countries and therapy areas (TAs) using synergies to launch an increasing number of brands. As Figure 1 shows, pharmaceutical companies have a large number of brands beyond their global portfolios. Notably, Merck and Eli Lilly have stayed focused on the core global brands, while companies such as Sanofi are building local brands to a greater extent.

Global companies such as Abbott and Pfizer, and locals such as Aché and Eurofarma (Brazil), Silanes and Sanfer (Mexico), Bagó and Roemmers (Argentina), CCM (Malaysia), Kalbe Farma (Indonesia), Unilab (Philippines), and Hengrui (China) have significant portfolios in multiple TAs. The same effect is spreading into the specialty care area (Libbs in Brazil, Celltrion in Korea, Fosun in China), with biosimilars proving relevant in portfolio decisions. Figure 2 illustrates how the leading pharmaceutical companies are offering thousands of products in Latin America, for example. In China, many large domestic pharmaceutical companies are faced with a complex, mature, generic portfolio of hundreds of products that need to be streamlined and optimized.

It is not uncommon to see business development at the global, regional and country levels in emerging markets, in support of the growth resulting from portfolio enlargement.

Figure 1

Number of global brands in relation to total number of brands in company portfolio



Circles are proportional to the number of products the company carries in the portfolio.

Note: Data from May 2018; [1]Area represents the number of products; [2]Mostly country-specific, not specific countries
Source: Evaluate Pharma; L.E.K. analysis

How Analytics Can Reshape Pharma's Portfolio Strategy was written by **Marcelo do Ó**, **Fabio La Mola** and **Helen Chen**, Partners in L.E.K. Consulting's Life Sciences practice. Marcelo is based in São Paulo, Fabio is based in Singapore and Helen is based in Shanghai.

For more information, contact **lifesciences@lek.com**.

L.E.K.

The challenge of resource allocation

Both multinational and local companies now have large and complex portfolios, which leaves them with the challenge of how to allocate resources. At L.E.K. Consulting, we often hear the following sorts of comments and questions from management:

- "Now that we have hundreds of products in our portfolio and growing, I am sure we are leaving good opportunities behind, while keeping some laggards in our promoted line."
- "Our portfolio is too complex and is distracting our management from focusing on what really drives growth and profits."
- "The top five countries use the most resources, but they are not the growth drivers. How should I choose to allocate budgets, given that there are hundreds of products across different countries?"
- "What promotion should we drop in the tail products to open space for new launches?"
- "It turns out that one marketing team decided to drop one product in cardiology with a high growth potential because it was not considered 'core.' We should find a better way to decide among the opportunities at hand."
- "We have a portfolio of more than 600 drugs from legacy entities as a state-owned enterprise in China. Every product seems to be important for the subsidiary entity that owns it, but we at the corporate level apparently need to find an efficient way to manage the portfolio."

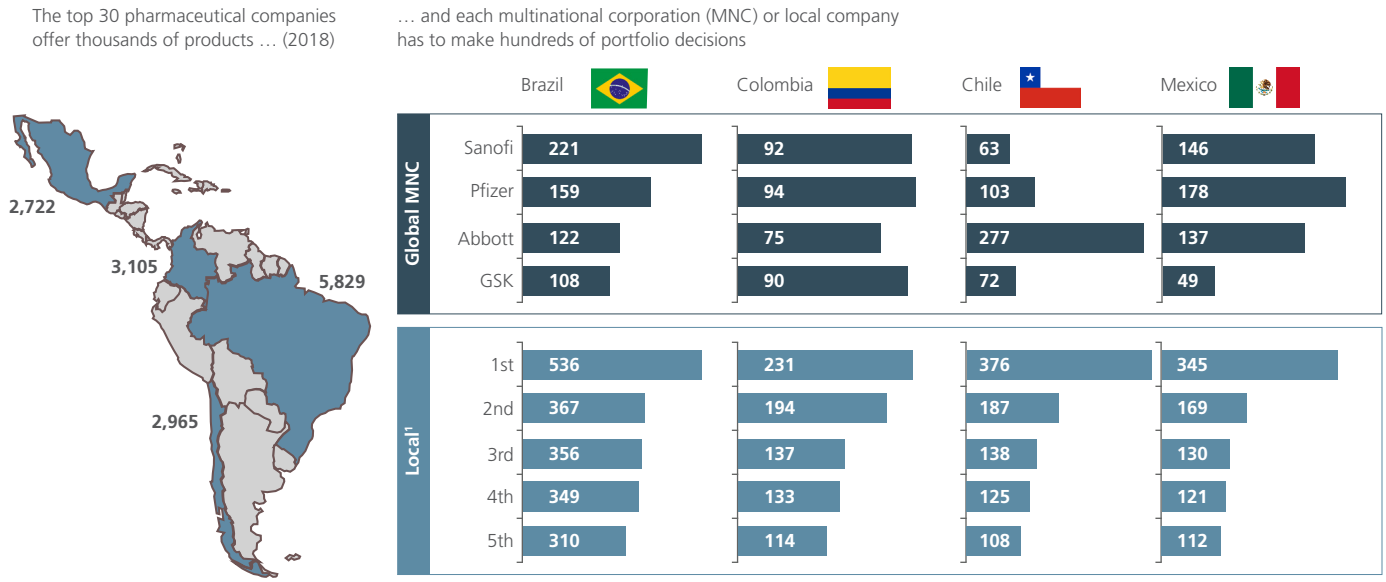
With hundreds of products, dozens of countries and multiple launches in the pipeline, the traditional budgeting process fails. It is challenging to cope with a one-country, multifranchise portfolio that requires promotion of more than 30 to 40 products spread across four to five sales teams, where hundreds of small decisions are driving today's results and tomorrow's growth. This is typically the case in emerging markets.

Many funding decisions are being made based on decades-old budget processes designed for companies focusing on a few franchises and products. The typical process for allocating resources across a portfolio has not changed, following a combination of top-down target setting and bottom-up adjustment in the actual allocation of promotional and sales resources on the ground.

With the portfolio sizes shown in Figure 2, resource allocation is a relevant challenge. Cross-country and cross-franchise decisions can be less rational than they appear. The top-down target-setting process, combined with some franchise guidelines, leaves a surprising number of decisions based on cognitive biases.[1,2] Accumulated, these small decisions account for significant percentage points in operating margins. In a pharmaceutical market worth $270 billion[3] in emerging markets, we believe there is anywhere between $8 billion and $14 billion in potential margin benefit across emerging markets simply by improving product-level resourcing decisions.

Figure 2

Number of products commercialized in Latin America by top pharma companies



Note: [1]Local company ranking
Source: Close-Up International, only products with meaningful sales, March 2018; L.E.K. analysis

The resource allocation problem has been addressed using multiple approaches: improving incentives to management, defining central guidelines, defining strategies (core products, growth products, tail products, mature lines, etc.), and using frameworks and matrices. Process improvement also has been constantly addressed: establishing launch teams, using cross-functional approaches and embedding financial business partners in marketing teams, not to mention using approaches such as matrix organization, which secures franchise consistency.

But the central concept remains surprisingly intact: Define a top-down target and a bottom-up review with a few interaction points. Hundreds of small decisions are made, trying to fit the existing "target" budget. Decisions are made for next year's budget at the product level based on a one-year projection, and costs are added up. More often than not, the target adjustments are made at the product-manager level, where coordination and comparisons cannot be made. To make matters more complex, it is not uncommon to see cases where the basis for projection differs among managers. Different projections of currency, market sizes and competitor launches — are all present in the same country, from product manager to product manager.

Can we do better than this since there are literally billions of shareholder resources at stake?

A fresh approach to making portfolio allocation decisions

With the increased size of portfolios and the growing number of launches in the typical portfolio in emerging markets, we developed a methodology (see sidebar at end) that uses analytics to support human decisions. The methodology amplifies the possibilities and allows choices that previously were considered unpractical. The combination of smart analytics and human direction has shown improvements from 3 to 5 percentage points in margins. Figure 3 outlines the key differences in our approach compared with the traditional method.

The core of this process is **transparency and competition for limited resources.** The basic idea is that in the normal product planning phase, instead of analyzing the market to make one projection for one year, product managers consider what is already typical in most marketing in order to build two to four alternatives per product. We then let analytics determine the best product option, given that there are restrictions on funding.

Let us take one example of the basic situation. Product 1: A product manager presents a mature product that is in a competitive market with multiple equivalent products, but it leads in share. He knows that there is a blockbuster launch coming in

Figure 3
Portfolio process

	Typical portfolio decisions approach	L.E.K. approach
Style	Top-down profit or revenue allocation decisions, unit[1] by unit	Top-down cost limits; computer-aided competition for resources
Target	Set at the top; adjusted by the separate units; bottom-up consolidation and approval	Investment and expense limit set at the top; optimization for all units at once; consolidation and approval
Alternatives available for product managers	Adjust revenue and cost to targets	3-4 different options per product, from carryover to overinvestment
Visibility of decisions	Limited: managers decide allocation down to their organizational units	Granular: all options on the table; levels of investment for all products and units compete for the same pool at product level
Competition for resources	Units engage in top-down distribution of resources	All units present options to compete for resources
Baseline	Historical brand performance	Market potential; competitor actions; alternative strategies
Horizon	1-2 years	3-5 years or more
Market and financial assumptions	By product and location; often inconsistent assumptions	Homogeneous
Modeling	Consolidation of P&L	Optimization under investment constraints, plus consolidation of P&L

[1]Organizational unit, such as country or franchise

two years that will affect the present product's market share. The product has significant volume and margins and is considered to be a core product. The market grows with the population at a certain age group.

Meanwhile, in a different TA (potentially in another country), there is Product 2, which is in a very large market, but it has a small market share. Two core competitors are leaving the market to focus elsewhere and have not promoted their products for six months. Sales teams were let go or transferred to other franchises. There are no launches expected.

Which product would you bet on? If you let the product managers make all the decisions based on the next-year expectation, they will probably want to increase resources to maximize margin; but it is more likely, under the current processes, that managers will continue to invest in Product 1 rather than in Product 2. A discussion will ensue, eventually leading to a decision on where to direct the majority of the funding.

Now let us imagine that for each of the two products you are in possession of two scenarios: high and low. You have the P&L projections (typical of marketing plans) based on unified and consistent assumptions of market sizes, population, currency and other variables. In other words, the projections are comparable. These projections are for five years, not just one. You can now compare the accumulated margins of the two products under the two possible levels of investment decision: high and low. In this simple portfolio, you can make a choice as to which level of investment for the two products will fit your available resources.

Typically, with dozens of countries, hundreds of products and two to four scenarios for each product, we are discussing thousands of comparisons that are difficult to analyze.

What can analytics and computers do?

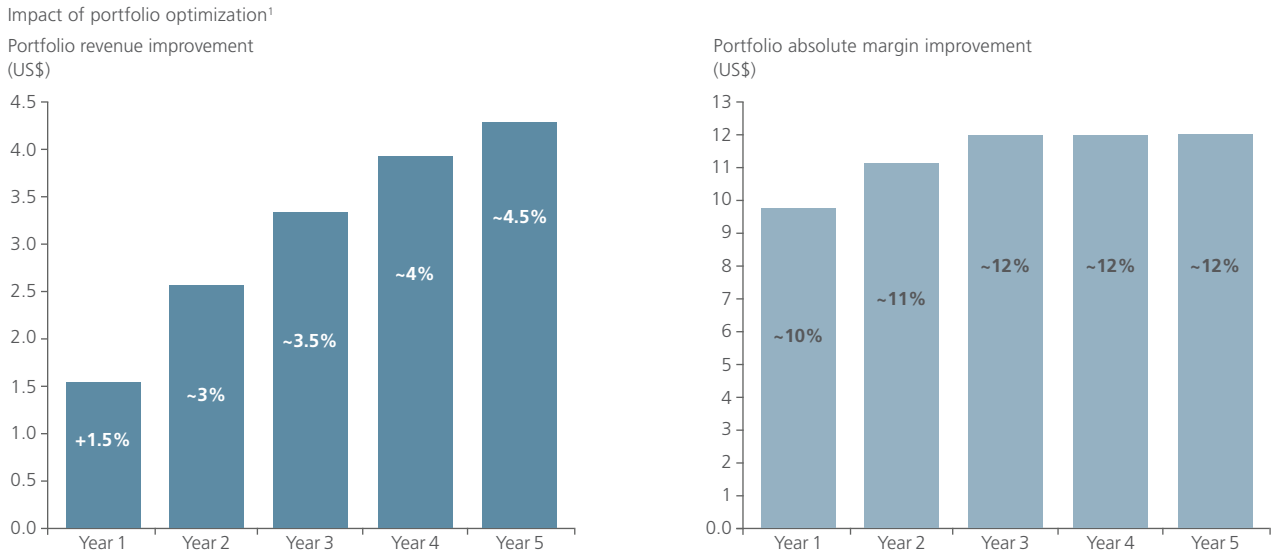
This is where analytics can help. Computers are better than humans at repetitive tasks. They are also better at the tedious work of making the hundreds of comparisons, estimates and calculations required to make decisions that eventually add up to a result. We can now rely on optimization techniques that will help us make choices that respect imposed restrictions — such as the overall budget and strategies such as investing at least 50% in selected markets — and can then review the final options as a team, using the analytics to support more informed decisions.

Most of the work in a process involves creating transparency of decisions. We have found that products considered laggards are sometimes in fact underfunded opportunities that were left out because the overall strategy overlooked the opportunities. There are products that are doing well that could do even better if more resources were present. Sometimes there are products that are occupying space in the promotional grid but with few prospects. Product managers' creativity is unleashed because instead of departing from one fixed position, they can, and must, imagine what they could do with more and can measure the potential impact of resource reduction.

In practice, we make various adjustments to the optimization process to secure peer review of projections. The entire exercise highlights the potential of an existing portfolio. The results of reallocation can be material, as shown in Figure 4.

Figure 4

Typical results of portfolio exercise



[1]Percentage improvement of revenue and margin over existing projected expectation
Source: L.E.K. analysis

Getting ready to start

The process can be implemented in a pilot, where your company's particular details will be adjusted to properly consider company strategy and limitations, and to prepare the organization. Although the process is straightforward, there will be a change in culture, and some initial effort will be required to put the model in place. Because of this cultural dimension, the commitment of top management is critical.

With the increasing size of emerging market units and the importance of making decisions to sustain the best possible results from portfolio assets, it is worth the effort to invest in informed decisions about resources.

[1]Bazerman, M.H. and Moore, D.A. (2013). *Judgment in Managerial Decision Making,* 8th Edition, Hoboken, N.J., John Wiley & Sons Inc.

[2]Haselton, M.G., Nettle, D. and Andrews, P.W. (2005). "The evolution of cognitive bias." In D.M. Buss (Ed.), *The Handbook of Evolutionary Psychology,* Hoboken, N.J., John Wiley & Sons Inc., pp. 724-746.

[3]Estimate based on IQVIA Institute "2018 and Beyond: Outlook and Turning Points," March 2018.

Method for optimizing large pharmaceutical portfolios

The L.E.K. large portfolio method consists of four steps: data preparation, building consistent projections in alternative investment levels, defining restrictions and optimization. It is an interactive process run with the different management levels in the commercial side of pharmaceutical companies. It can be applied to allocate investments in single-country, single-therapy situations, as well as across multiple countries and multiple TAs.

Prepare the data

- Standardize basis for projection: economy, currency, overall market growth, etc.
- Project market sizes
- Fill in the product chart with basic data on volumes, shares, prices, costs

Define and project alternative investment level results

- Develop alternative scenarios of investment (e.g., carry over, discontinue, sustain share, grow or max out)
- Project investment vs. share per scenario in each product
- Test projection robustness and compare products

Define investment and strategy requirements and restrictions

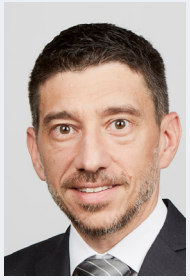
- Define investment restrictions (minimum profitability, absolute limits)
- Define strategy requirements, relative investment across therapy areas or countries, ratios

Optimize and select portfolio

- Run portfolio combinations and compare optimized results
- Select portfolio promotion scenario
- Prepare for sales deployment

About the Authors

Marcelo do Ó is a Partner in L.E.K. Consulting's São Paulo office. He has more than 25 years of experience in both the pharmaceutical and life sciences industries and in management consulting. He also has experience in the retail, healthcare, metals and mining sectors. He specializes in competitive strategy development, growth strategy and M&A. During his consulting career, he has directed more than 100 strategy and operational improvement projects for biopharma, health providers and other companies.



Fabio La Mola is a Partner in L.E.K.'s Singapore office and has more than 18 years of experience across the healthcare services and life sciences industries in strategy, organization, and performance. He has worked with clients across Southeast Asia, Europe, the Middle East and the U.S. He advises clients on go-to-market planning, product launches, portfolio optimization, commercial and operating model development, processes, operations, and organizational efficiency improvement projects.

Helen Chen is a Partner at L.E.K. Consulting and serves as the Head of L.E.K.'s China practice in Shanghai. She has extensive case work and industry experience covering the full biopharmaceutical and medical devices value chain. Helen has more than 25 years of consulting and industry experience in the U.S. and Asia markets and has resided in China since 2000. She helps companies expand their presence in China and leverages China's resources to improve their global businesses.

About L.E.K. Consulting

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