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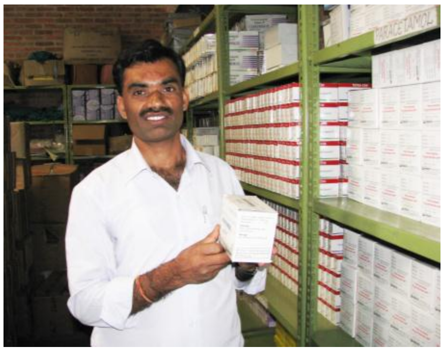
Commercial Sector Performance-Based Financing Offers Lessons for Public Health Supply Chains in Developing Countries



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Performance-based financing creates a culture of focusing on performance by recognizing good performers with commensurate rewards.

This brief explores ways that public health supply chain managers can adapt commercial sector performance incentives to improve supply chain performance.

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Performance-based financing (PBF) can be defined as the awarding of cash or non-monetary benefits for achieving measurable goals or for a defined performance objective. Developing countries are increasingly using PBF to improve public health services. By linking performance to rewards, PBF may also strengthen public health supply chains—despite limited application for this purpose. Commercial sector supply chains have extensive experience in PBF that managers working in health ministries, central medical stores (CMS), and other government or quasi-government supply chain entities may be able to adapt.

What Lessons Can Public Health Supply Chain Managers Learn from Applying PBF in the Commercial Sector?

To increase profits, companies in the commercial sector turn to a variety of PBF approaches (see box 1). They use PBF to counter failures in meeting goals, improve poor performance, encourage unengaged employees, improve poor morale or attitude, prevent high turnover or loss of talent, and increase management's performance expectations. Based on the commercial sector's experience, following are some of the key lessons for public health supply chain management:

1. Build strong health information and reporting systems that provide valid and reliable data

PBF schemes in the commercial sector succeed or fail based on the quality of their information systems. Reliable information underlies approaches, such as the sales-based performance offers (SBPO), which aim to build profitable relationships between different supply chain entities. When a company assesses the performance of its logistics system, it tries to ensure that multiple parts of the system are considered and that gains in one area do not occur at the expense of another.

Indicators that have a strategic significance and that cover the main functional areas of a logistics system—such as quantification and forecasting, procurement, storage, and distribution—are included in the performance assessment, while ensuring that staff do not spend an unreasonable amount of resources and time collecting information on hundreds of indicators.

From a developing country public health supply chain perspective, the indicators need to reflect the specific country context and the unique supply chain problems that arise from that context. Designers of PBF schemes for public health supply chains must, therefore, be willing to invest resources to improve the collection of health and logistics information at all levels; especially at service delivery points, because the ultimate objective is to ensure that clients can obtain commodities when and where they need them. Building on existing systems can reduce the long-term costs of data collection.

Box 1: Four basic types of PBF used by commercial sector supply chains:

- *Sales-based performance offers (SBPO)* are incentive programs that attract new entities to the supply chain and foster loyalty among entities, or build good relationships between companies and the other entities that make up the supply chain. SBPOs are based on quantitative and qualitative measures of sales volume; they are meant to increase sales.
- *Supply chain performance-based incentives (SCPBI)* reward key suppliers in the supply chain when they achieve specific measurable performance goals. Because SCPBIs are based on measured achievements, they are always quantitative.
- *Gain sharing arrangements* are usually agreements between a key player in the supply chain and their third party logistics providers (3PLs) and other significant partners. In these arrangements, the main player in the supply chain agrees to share a portion of their revenue with one or more 3PLs, if they can show a significant contribution when a mutually beneficial performance goal is achieved.
- *Individual performance increases, incentives, and bonuses* are perhaps the simplest and most straightforward incentives used in the commercial sector. In these arrangements, individuals within the supply chain are rewarded directly for achieving specific, measurable, and metric-driven performance goals.

2. Incentives can align efforts of various actors

In successful commercial-sector PBF examples, all parties involved understand the plan. The indicators of performance are clearly and carefully defined, whether the incentives are within a company or between companies. More important, all parties in the PBF arrangement know what actions they must take to achieve the performance goals. This ensures that all the different actors in the commercial sector supply chain will focus on the same goal—to improve performance. These principles are seen clearly in the functioning of supply chain performance-based incentives (SCPBI), which are used to manage supplier relationships when products are complex and the consequences of product downtime are severe (see box 2).

Box 2: Supply chain performance-based incentives (SCPBI) in the airline engine supply chain

A commonly cited example of SCPBIs is the payment mechanism that the aircraft industry uses for engine suppliers. Instead of paying a fixed amount for supplying an aircraft engine, some airline companies prefer to pay engine suppliers based on the actual flight hours of the aircraft (i.e., the number of hours the engine was available for use). This number reflects the value the airline company (the customer) receives from the engine, and it encourages the engine supplier to offer a better product for each new procurement cycle. The better the engine, the more flight hours the aircraft will have and, subsequently, the higher the payment for the supplier. SCPBIs are valuable because they encourage a good working relationship between supplier and customer or between two different supply chains.

Public health supply chains sometimes share the multiplicity of levels and actors that characterize the commercial sector, each with independent decisionmaking authority. For instance, separate committees might make decisions at the central level on commodity quantification and selection. A semi-autonomous CMS may manage procurement. Regional stores could be under the ministry of health, or a regional or state government. For a public health supply chain, having the various levels and actors collectively focusing on performance can have a powerful effect.

It is possible to combine the actions of all these decisionmakers by developing a PBF scheme that evaluates and rewards their collective performance. As commercial-sector experience shows, such schemes can measure performance between levels, rather than just within one organization. For example, if a public-sector regional store buys commodities from a CMS, the CMS can offer gain-sharing rewards to encourage loyalty of business and to increase its sales volumes. But, if such a plan is to be effective, all entities involved in the supply chain must understand and agree with the arrangements, and all must be able to see the progress on metrics; for instance, through published reports.

3. To maximize efficiencies, PBF schemes must allow for change and innovation

Box 3: Sales-based performance offers (SBPO)

Typically, companies will pay SBPOs in terms of cash or free goods at the time of the purchase. SBPOs are usually not legally enforceable. One supply chain entity cannot hold another liable for not fulfilling certain conditions of the offer. SBPOs work mainly because they build long-term relationships between entities. This creates recurring events that drive up the volume of sales and, subsequently, the profit margin for both parties.

For PBF schemes to thrive, another important lesson from the commercial-sector models is that all actors must have autonomy and independence in decisionmaking, within the confines of the performance contract. This is demonstrated in the sales-based performance offer (SBPO) approach. In an SBPO, the supplier may offer significant discounts to the customer, or additional commodities, as an inducement for further business, if the customer consistently purchases a reasonably high volume of commodities from the supplier (see box 3). PBF transfers responsibility for improving the supply chain performance from the payer to the provider of the services. Any failure to meet goals should, in theory, result in the provider being denied payment. This makes sense if the logistics provider controls the factors that influence the achievement of the goals. Because SBPOs are generally well planned and are supported by data, few unintended consequences occur.

Using gain sharing arrangements between a main player in the supply chain and their third party logistics providers (3PLs), the main player agrees to share a portion of their revenue, if partners can show a significant contribution when a mutually beneficial performance goal is achieved. Some public health supply chains engage the services of 3PLs to accomplish specific logistics functions, such as storage and distribution. In these contracts, it is possible to incorporate measures of performance that guide bonus payments to the 3PL, such as gain sharing. However, for these incentives to be effective, the 3PL must be empowered to make all necessary changes—both for administration and for the infrastructure—that enable them to achieve or surpass the performance goals set in the contract. Designers of these contracts must, therefore, ensure that contractual obligations do not limit the 3PL's managerial creativity.

4. PBF scheme managers should verify data and adjust goals

Individual rewards are among the most common of PBF schemes in the commercial sector (see box 4). They work well in commercial settings by encouraging company loyalty, increasing motivation, and helping employees focus on activities that improve the supply chain's level of performance. Success, however, depends on setting reasonable or attainable goals within the timeframe for the assessment and on setting goals that can be verified and adjusted to respond to a changing context.

Box 4: Individual performance increases, incentives, and bonuses

Companies typically reward employees annually, in addition to the normal remuneration as a one-off payment bonus at the end of a pay period, or as a percentage increase after a performance review. Another individual performance reward is the stock option; top performers are offered the opportunity to have part ownership of the business through company shares. Companies also use holiday trips, *company* cars, and other non-cash rewards.

Similarly, PBF schemes for the public sector should be reviewed periodically to raise the performance bar or to respond to environmental changes. At a minimum, implementers of PBF schemes should incorporate data verification plans into the design of their schemes to prevent participants from manipulating performance information, often called *gaming the system*. For example, after a sample of representative commodities (e.g., *tracer drugs*) has been selected for verification, for a specific period of time, to dissuade actors from manipulating the process, the designers of the PBF scheme need to periodically adjust the list of commodities. Some commercial sector companies have created complicated data verification schemes at several levels within the supply chain. However, it is important to weigh the need to verify data with the cost of data collection.

Challenges and Further Questions

Public health supply chains still must overcome several challenges if they hope to successfully adapt commercial-sector PBF practices.

1. Resources for implementing PBF

First, and most important, is the issue of resources. PBF designers must carefully consider the source of funds for PBF schemes for public health supply chains. In most commercial sector supply chains, the profits obtained from the outcomes of the agreements generate the funds devoted to PBF. However, public health supply chains generally do not have significant profit margins. Any profits are usually small, and there is usually a high degree of indebtedness between supply chain levels. Commodities are often provided for the public good; the government funds the supply chain, with help from donor partners. Government funds, donor partners, or a percentage of the small profits generated must fund investments in PBF schemes for public health supply chains. It may also be possible to integrate PBF into already existing or scheduled grants or contracts. Procurement specialists in developing country settings can emphasize the use of contracting for performance when negotiating fixed amount reimbursements, or obligation grants, with key players in public health supply chains.

2. Using non-monetary incentives

Particularly given public sector funding constraints, non-monetary incentives for PBF schemes may play an important role in the public health sector. Earlier examples from the commercial sector models described non-monetary incentives, such as shares in the company, holiday trips, and courtesy cars. Public health supply chains could use similar incentives; although care should be taken to ensure that the selected non-monetary incentives do not violate contractual requirements with donor programs. Also, non-monetary incentives should not significantly disadvantage any group or team that does not perform well enough to receive the incentive. If a non-monetary incentive increases the ability of the high-performing group to do a task, that group will probably continue to perform at a high level, therefore increasing the performance gap with low-performing groups. In this scenario, the low-performing group may never have a chance to improve. This can lead to a demoralized staff and a subsequent decline in performance.

3. The role of intermediaries

It is also important to examine the role of intermediaries in disbursing incentives. Commercial actors typically give rewards directly to the best performing entities in the supply chain. There are no intermediaries between those rewarding and those receiving the incentive. However, in public health supply chains, there are often many intermediaries between levels in the supply chain; these intermediaries can exercise discretion on how to disburse funds for that level of the supply chain. For example, the district health board might be responsible for commissioning all funds generated by or granted to the district pharmacy. It is common practice for such intermediaries to divert rewards obtained from PBF activities to other activities they consider a higher priority. The lack of distinctive financial flows in many public health supply chains aggravates this problem, making tracking the funds challenging. Because of this, several PBF schemes in developing countries have incorporated strict guidelines about how to disburse funds. Typically, these guidelines stipulate percentages that recipients can spend on discretionary expenses and for distribution directly to the persons that merited the award by achieving high-performance levels.

4. Perverse behavior, such as hoarding of commodities

In commercial supply chains, companies do not have an incentive to hold (or hoard) commodities; their profit motive encourages them to move them on as quickly as possible. The scenario in public health supply chains is significantly different; the incentive to keep commodities moving are often lacking. A poorly designed PBF scheme may exacerbate this problem. For example, indicators that overemphasize stockouts as a measure for poor performance can have an unintended detrimental effect of encouraging warehouse and storeroom managers to hoard commodities to avoid zero balances.

Designers of PBF schemes for public health supply chains must carefully consider the possible positive and negative behaviors that each incentive might cause. Indicators that emphasize throughput and fill rate may be more appropriate than stockout indicators. A careful analysis of the supply chain structure—especially roles and responsibilities—should be a prerequisite for all PBF schemes for public health supply chains. It might also be worthwhile to design different algorithms for incentive payments by type of commodity, or by groups of similar types of commodities, for testing during a pilot phase.

Concluding Thoughts

Designing and implementing a PBF scheme for public health supply chains can be a significant and complex undertaking. However, the benefits of using PBF schemes to improve supply chain performance can be substantial. The commercial sector's experiences with such schemes can provide many valuable lessons. PBF creates a culture of focusing on performance by recognizing good performers with commensurate rewards. In doing so, PBF aligns the goals of important actors in the supply chain toward better performance. Designers of PBF schemes for public health supply chains should allow participants the autonomy to implement local interventions that improve their performance. Finally, good PBF schemes should be underpinned by reliable information systems that can be used to monitor, evaluate, and verify performance.

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For More Information

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Read the *Options Guide: Performance-Based Incentives to Strengthen Public Health Supply Chains – Version 1.*

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