Reusable Packaging: Financial Alternatives and Outsourcing Options

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This article draws on the collective expertise of the Reusable Packaging Association (RPA) members and associates the term "reusable packaging" to pallets, containers, and dunnage designed for reuse for its original purpose within a B2B supply chain.

Reusable packaging solutions can have a significant, positive financial impact on your supply chain; however, in order to maximize the return on investment, you will need to first evaluate your corporate and supply chain requirements to find the perfect balance between ownership (buy or lease) and/or an appropriate level of outsourcing (rental with or without associated services). Let's first take a look at your ownership options.

Ownership Options

Financing Options

OWNERSHIP
- Purchase (Cash)
- Financing/Capital Lease

or

THIRD PARTY
- Rental/Operating Lease
- Pooling (rental w/ services)

Option 1: Reusable container ownership via cash purchase *or* financing through a capital lease.
Option 2: Avoid ownership and employ a rental/operating lease *or* move to a fully outsourced solution (commonly termed "pooling"). The pooling of reusable packaging provides a common set of containers available to businesses via a rental fee that includes related services such as transportation, cleaning, tracking and/or maintenance.

Capital vs. Operating Lease

A cash purchase for reusable packaging is straightforward, but the difference between a capital and operating lease warrants some further explanation. Fortunately, the accounting world offers four tests to help you determine the appropriate lease type based on the needs of your organization. If any one of these tests is true, it is deemed a capital lease. If none of the four tests is true, it can be classified as an operating lease.

Why is this important? Both credit and capital expenditures are very tight in today's economy, and tying up funds on the capital side could negate your company's opportunity to push an internal expendable-to-reusable conversion within your company. Any capital lease will go against your balance sheet and take up available credit facilities while operating leases fall on the operating expense side and do not have these limitations. The following example of a leased plastic bulk bin illustrates the difference between capital and operating based on the four tests.

Capital Lease vs. Operating Lease

RPA

= $150*

Assuming:

8 year useful life &

8.5% interest rate

Capital Lease - Four Tests	Capital Lease	Operating Lease
#1: Packaging ownership is transferred to lessee at the end of lease term	Company XYZ owns the bins at end of lease	Company XYZ returns bins at end of lease
#2: The lease contains a bargain purchase option	At end of 6 years, Company XYZ has the option to buy the container for $1.00	At end of 3 years, Company XYZ purchases the container for $90.00
#3: The lease term represents at least 75% of the estimated economic life of the leased packaging	> 6 year term	< 6 year term
#4: The PV of the minimum lease payments at the beginning of the lease term is 90%+ of the FMV of the leased packaging to the lessor at the inception of the lease	• 8.5% • 5 yrs (60 pmts at $3.75) • PV = $146.22 or 97.5%	• 8.5% • 5 yrs (60 pmts at $2.75) • PV = $134.04 or 89.36%

***** ***Estimated value***

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The Four Tests

- *Test 1:* Does the packaging ownership transfer at the end of the lease? If yes, it is a capital lease. If you return the packaging to the lender at the end of your lease, it is considered an operating lease.

- *Test 2:* Does the lease contain a bargain purchase option? For example, if the container has an eight year life and a company opts for a six year lease with the option to buy the assets for just one dollar per bin at the end of the term (i.e. a discount purchase option), it is a capital lease. If that same company chooses a three-year lease term for the same asset and purchases the container for $90 at the end of the lease term (i.e. fair market value), it can be an operating lease.

- *Test 3:* Is the lease term at least 75% of the estimated economic life of the leased packaging? If you are looking at a lease term for six or more years, it will be a capital lease. If it is less than six (e.g., one year), it will be considered an operating lease.

- *Test 4:* Is the sum of all lease payments more than 90% of the container cost? The answer is yes, it is an operating lease.

This four-part test can be applied to any packaging opportunity and is especially helpful for supply chain managers (without financial backgrounds) to understand the difference between the leases before presenting a business case internally.

Third-party options: Packaging rental and packaging pooling

Even if your company decides to purchase reusable packaging, it is likely you will still use a third-party renter/pooler to provide additional reusables to supplement your peak demand or provide other container related services such as cleaning, tracking and/or repair.

Packaging rental is a common application, very similar to car rental. For a daily fee, companies offer various standard sized containers on a short- or long-term basis (30 days to one-plus years). Typically, the customer is responsible for freight to and from the rental company, giving them the flexibility to rent what they need for the period they need it.

There are a number of industry applications requiring a short-term fleet of reusable packaging including:

- Manufacturing bank builds (i.e. building up banks of parts to support a model change)
- Plant Closures
- Facility Moves
- Seasonal Harvests
- Marketing Campaigns

Given the time-frame, companies cannot cost justify purchasing thousands of reusable bins. Without rental options, a company is limited to purchasing corrugated boxes that are restricted in stack height, provide minimal product protection and include setup, handling, tear down, and disposal costs. Reusable packaging rental allows users to avoid the limitations of corrugated and experience the benefits of reusables at a price-point less than expendables.

With *packaging pooling*, companies provide a complete packaging solution on a pay-per-use basis that includes some or all of the following services:

- Single use rental of packaging
- Packaging delivery
- Packaging tracking
- Packaging pick-up
- Packaging cleaning and maintenance
- Offsite packaging storage

A packaging pooler covers all the different operating components necessary to deliver a successful reusable packaging system. In essence, it is the perfect blend between the economic, social, and environmental benefits of reusable packaging *and* the convenience of expendable packaging. If your company is new to reusables, you may not anticipate some of the common implementation pitfalls:

- Your supply chain's true cycle time
- Having enough packaging for your peak production volumes
- Industry standards for cleaning (esp. food and beverage)
- Premium freight for lack of container fleet visibility
- Loss and damage

With a packaging pooler, their role is to ensure your company always has the right container/package, in the right place, at the right time so you can focus 100% of your energy on your core competencies. Since a pooler's profits are tied to their ability to effectively manage the packaging pool, their expertise and model is geared towards:

- Effective management of the empty bins on a just-in-time delivery basis
- Cost-effective reverse logistics
- Bill-back accountability for loss/damage
- Simple fee structure encompassing all direct, indirect, and hidden costs of a reusable system
- Activity based invoicing (i.e. you only pay for what you use)

Deciding between ownership and third-party options

The table below summarizes the pros and cons for each.

What Makes the Most Sense?

Ownership Options	Pros	Cons
➢ Purchase (cash)	• No financing cost • No long-term liability	• Lost opportunity costs • Burdens of ownership
➢ Financing/Capital Lease	• Increased cash flow • Typically longer term financing • Potential tax deductions • Lower interest rates	• Long-term liability commitment • Utilizes available credit facilities • Burden of ownership

Third Party Options	Pros	Cons
➢ Rental (<1 yr) ➢ Operating Lease	• Operating Expense (off balance sheet) • No up-front capital • Minimize obsolescence risk • Improves ROI or ROA	• Pay premium for flexibility • Potential restoration costs • No asset ownership at end of term
➢ Pooling (rental w/ services)	• Only pay for what you use • Removes ownership issues (capital, labor, reverse logistics, maintenance, tracking, etc.)	• Duplicates in-house capabilities • Potential ancillary charges

Weigh the variables
Because every supply chain is unique, there are a number of variables to take into consideration when evaluating the benefits of ownership vs. outsourcing. Specifically:

Variables to Consider

	Ownership	*or… 3rd Party*
Program Life	*Long-Term*	*Short-Term*
Secondary Use	*High*	*Low*
Maintenance Requirements	*Light*	*Heavy*
In-House Capabilities	*Strong*	*Weak*
Cash Availability	*Abundant*	*Limited*
Supply Chain Complexity	*Simple*	*Complex*
Volatile Material Prices	*Low*	*High*
Change Management	*Established*	*Weak*

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Program Life - The scales tip toward ownership if the reusable application is a five plus year program and the containers are used primarily in-house for storage, work-in-progress (WIP), or a very simple closed-loop supply chain that requires minimal management or maintenance.

Secondary Use - If it is a generic reusable package in a low-impact environment that can be easily repurposed throughout your organization after its initial program life, there may be a business case for ownership. Unfortunately, an unmanaged reusable system often results in loss of visibility post-program. Although the containers could have lasted well beyond the typical 5-8 year life, they end up in the scrap pile instead of the next supply chain.

Maintenance Requirements - Metal, wood and plastic all have different maintenance and repair attributes necessary to meet or extend their intended life-cycle. Third-party poolers rely on this extended life and invest heavily in the streamlined infrastructure to handle them. It makes more sense to leverage a pooler's economies of scale and efficiencies as opposed to building that competency in-house.

In-house Capabilities – Container tracking, cleaning, reverse logistics, storage, and management focus are all core competencies required to effectively manage a large scale reusable packaging program. Regulatory/Federal trends with the FSMA, GFSI, Sarbanes-Oxley, etc. all require a concerted focus to ensure existing and future compliance. Unless you are prepared to invest in the necessary support, outsourcing is preferred.

Cash Availability - If cash is limited, you will want to consider other third-party ownership options that won't tap your balance sheet and strain your available resources.

Supply Chain Complexity - if your supply chain is a simple one-to-one relationship in a closed loop, then ownership might make more sense. As your supply chain becomes more complex (e.g. multiple OD pairs, multimodal, etc.), consider that third-party poolers have the systems, processes, and logistical capability necessary to support your reusable program.

Production/Price Volatility - If your production volumes vary significantly depending upon seasonal demands or other factors, you may want to go to a pay-per-use model. This saves you from a large capital expense for packaging that might sit idle for periods of time. It also protects you from volatile packaging raw material prices for wood, steel, or resin. When you outsource to a third party, they bear all of this risk.

Change Management - Lastly, keep in mind that implementing reusables into your supply chain will have a significant impact on your company (e.g., operations, sales, logistics, etc.). If your company is new to reusables, it will be critical to educate all of the proper stakeholders to ensure you have proper buy-in before implementation. Third-party poolers are very well-versed in what it takes to effectively implement reusables while mitigating typical change management issues.

The purpose of this article was to provide an overview of financial considerations for newcomers to the reusable industry. If your company has already adopted reusable packaging, benchmark your internal stats and consider ways to gain more return on your investment and improve operational efficiency.

The content of this article was originally delivered at the Reusable Packaging Association Fundamentals of Reusable Packaging Workshop at PACKEXPO in 2010.