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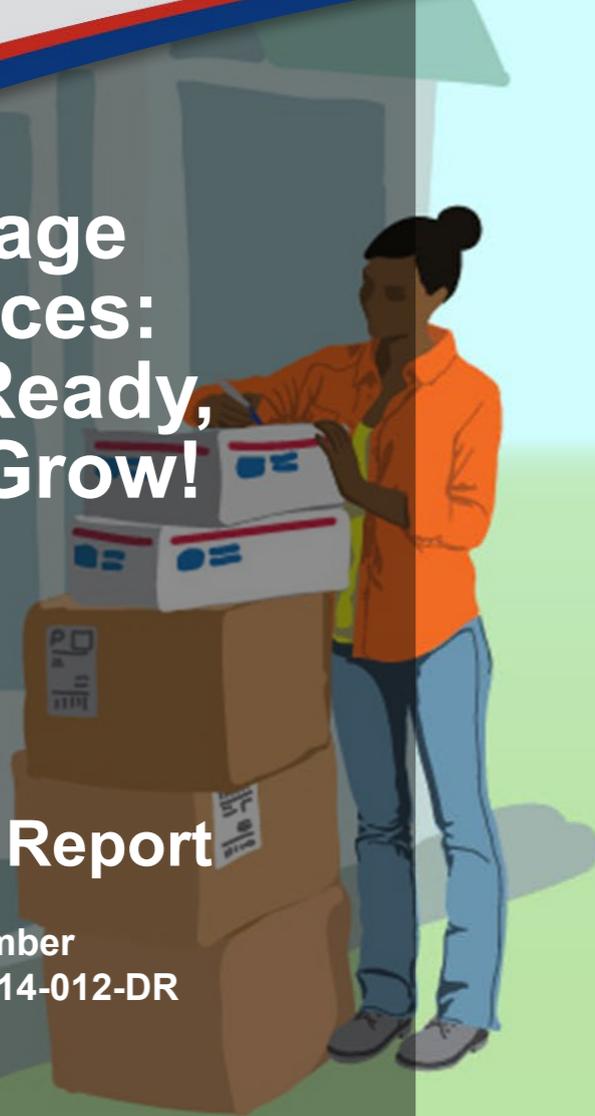
UNITED STATES POSTAL SERVICE

**Package
Services:
Get Ready,
Set, Grow!**

RARC Report

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July 21, 2014





OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

Executive Summary

Package deliveries are growing and have become essential to both e-commerce and the Postal Service.

Package services are now a critical part of society as e-commerce and physical delivery converge. They are also becoming essential to the future of the U.S. Postal Service. With the advent of the Internet and other digital media, the traditional letter and flat volumes of the Postal Service are in a slow but steady decline; however, the digital revolution is having an opposite effect on its package business. Package deliveries are growing and have become essential to both e-commerce and the Postal Service. Increasingly, consumers are purchasing a broad range of products online for delivery directly to them one package at a time.

Global e-commerce will exceed \$1.5 trillion in 2014, and American businesses and consumers spent more than \$68 billion to ship packages domestically in 2013. While the Postal Service is responding to the increasing demands from this sector on its last-mile delivery operation, other package delivery companies are offering one-stop, end-to-end expanded products and services. These full-service solutions include invoicing, payment solutions, customs clearance, returns and repackaging, logistics planning and expertise, upfront information platforms, and customer service.

In addition, some e-retailers are investing internally in operational expansion to replace shipping and last-mile delivery partners. For example, Amazon is locating warehouses in close proximity

Highlights

Because of the potential for significant growth, package delivery is critical to the future of the U.S. Postal Service.

Global e-commerce will exceed \$1.5 trillion in 2014, and American businesses and consumers spent more than \$68 billion to ship packages domestically in 2013.

The Postal Service needs a strategy that allows it to keep pace with developments in the evolving package market.

The Postal Service has an advantage in low-cost, last-mile package delivery, but many e-retailers want one-stop solutions that enable them to focus on their core business. The Postal Service can better serve these needs by expanding end-to-end and value-added services, as other package delivery companies have done.

The Postal Service's networks are built largely on letters and flats whose volumes are decreasing; however, package volumes are increasing, so strategy and investment need to be shifted more towards packages.

to its customers and establishing a system of parcel lockers in select cities from which customers can retrieve packages at their convenience. These efforts are likely to lead e-retailers to ship and deliver more packages on their own, reducing the number it sends through package delivery companies, including the Postal Service.

While the number of companies and e-retailers that sort and process packages is growing, the number that can ultimately provide efficient and effective delivery to neighborhoods is limited by practical concerns. Neighborhoods cannot facilitate or tolerate a huge number of heavy trucks on quiet streets each day. Exhaust emissions will also likely reach saturation points. To continue to be the efficient and effective provider of such services, the Postal Service needs a package strategy that includes the following elements:

- Building a market perception as the reliable, competitively priced shipper of first choice.
- Directing investments in its infrastructure to adapt to changing customer needs.
- Strengthening the role of digital information and information-based services, such as tracking and tracing packages and providing custom control over the place, date, and time of delivery.
- Continuing to change and grow to meet evolving customer needs.
- Expanding beyond the traditional postal expertise of delivery, to offer one-stop, end-to-end solutions as customers are demanding.

The U.S. Postal Service Office of Inspector General (OIG) has previously reported on the Postal Service's readiness for package growth in a series of reports that assessed delivery operations, processing capacity, and customer service. The OIG found that the Postal Service has successfully managed package growth, adjusted to fluctuations in package volume, improved scan rates, and currently possesses enough machine capacity to process non-peak package volume.

However, opportunities exist to improve readiness for package growth by taking steps that include implementing dynamic routing, retaining more city carrier assistants, increasing barcode scanning, reducing customer wait times, and adjusting mail arrival schedules to correspond with machines' operating windows.

In this paper, we examine a possible new strategic positioning for the Postal Service in the critical and growing package business. We note the following key findings:

- Packages are essential to both the Postal Service's future financial footing and its processing and delivery networks. Traditionally, those financials and networks were largely built upon letters and flats. Packages accounted for only 17 percent of total revenue and 8 percent of total contribution in FY 2013 — but the trend is positive as those proportions are increasing.
- The domestic package delivery market is primarily served by UPS, FedEx, and the Postal Service. The Postal Service accounts for less than one-fifth of the total revenue but almost two-fifths of the total volume. Overall, the Postal Service's mix of packages generated a relatively low revenue per piece of \$3.37. UPS's and FedEx's average revenues per piece for their domestic packages were \$9.39 and \$9.70, respectively. While the Postal Service has long served low revenue market segments such as lightweight packages very well, customer demand has created opportunities to offer value-added services and enter the higher revenue per piece segments.
- The Postal Service enjoys a natural network advantage in low-cost delivery. Because of this, UPS and FedEx often use the Postal Service for final, last-mile delivery of lightweight packages. Although the Postal Service should continue offering last-mile only services as appropriate, evidence suggests that shippers may see last-mile products as largely interchangeable commodities — costs to manage and reduce, rather than value-added services. There are many benefits to offering value-added services, including increasing direct contact with customers. Such contact provides the unparalleled ability to learn about and stay in

close touch with their evolving package service needs. The Postal Service can better meet customers' needs for one-stop, end-to-end solutions by expanding offerings along the delivery value chain as other package delivery companies have done. These offerings could improve customer service and include solutions like returns management and logistics planning.

- While private package delivery companies frequently use the Postal Service delivery, the expected national growth in package volumes will provide a profit incentive for both them and e-retailers to deliver the packages themselves on the routes with the highest revenue and lowest cost. The Postal Service cannot afford to be the provider of last-mile delivery only when the revenue is low and the cost is high. Such “cream skimming” will harm the Postal Service’s package revenue and its ability to fund universal service.

The Postal Service needs to invest in the package business and develop a network that maximizes the efficiency and minimizes the cost of providing modern package products and services. The existing network may not have the capabilities necessary to meet the expanding needs of today’s rapidly evolving marketplace.

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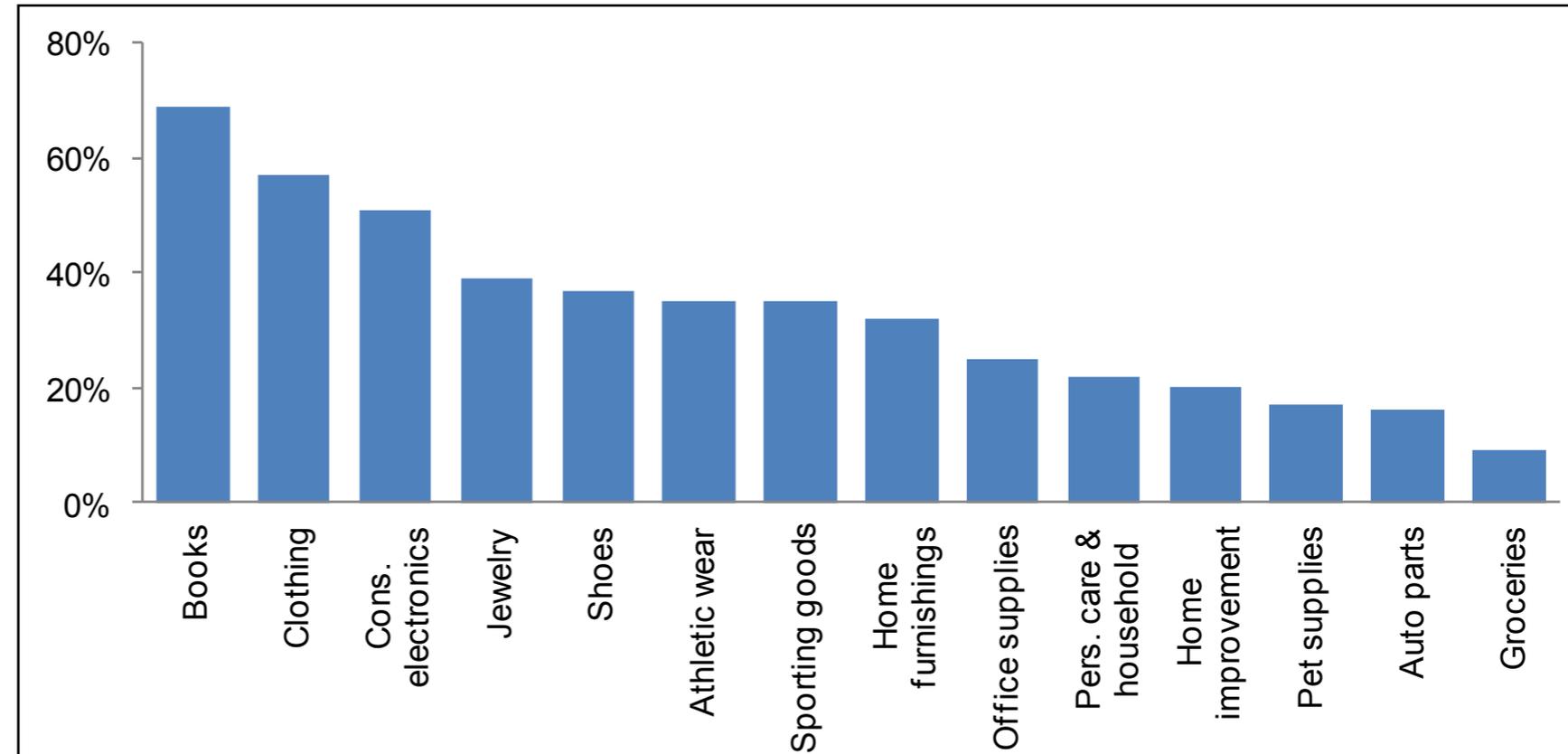
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Observations

Introduction

The package delivery market is an important and growing segment of the U.S. economy.¹ In 2013, American businesses and consumers spent more than \$68 billion to ship packages domestically.² Amazon alone paid more than \$6.6 billion to delivery companies in 2013.³ Increasingly, buyers are purchasing a broad range of products online and sellers need to fulfill those purchases. Figure 1 shows that online purchases in the United States include books, clothes, consumer electronics, shoes, pet supplies, and more.⁴

Figure 1: Over 50 Percent of Books, Clothing, and Consumer Electronics Are Bought Online



Source: Morgan Stanley.

The package delivery market is changing quickly and becoming increasingly competitive. Package delivery companies are offering new products and services as they aggressively fight to increase their market share. Retailers are seeking more efficient and effective fulfillment, even investing in practices that replace traditional end-to-end shipping and last-mile delivery.⁵ Consumers are demanding more control over shipping options.

1 This paper uses the term packages throughout, but it can represent, given the specific context, the package market of overnight, 2- and 3-day, and ground markets or parcel-shaped mail matter.
2 Sixty-eight billion dollars is the combined revenue of the Postal Service's shipping and package services, UPS' domestic package operations, and FedEx's domestic packages. Postal Service, *2013 Annual Report to Congress*, UPS, U.S. Domestic Package Operations, *Quarterly Historical Income and Operating Data, 2013 Q4*, and FedEx, *Total U.S. Domestic Packages, FedEx Annual Report 2013*. This paper focuses on the domestic package market; however, the Postal Service has opportunities to serve the growing international package market as well.
3 North America and International Outbound Shipping Costs. Amazon, *Annual Report, 2013*, <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MjI4Njc1fENoaWxkSUQ9LTF8VHlwZT0z&t=1>, p. 24.
4 Morgan Stanley, *eCommerce Disruption: A Global Theme – Transforming Traditional Retail*, 2013, http://www.rundlemall.com/bm.doc/e-commerce_bp0106131.pdf, p. 23.
5 Fulfillment, generally, is a process of receiving, servicing, and tracking products that customers have ordered or purchased. Fulfillment typically refers to services that include storage and warehousing, selecting and packing, shipping, returns processing, and customer service support.

There is no doubt that packages are growing in importance to the Postal Service's future financials and network. To compete successfully in the future, the Postal Service needs a package strategy that focuses on customers, positions itself for long-term success, and expands its role across the package delivery chain.

The Package Delivery Evolution — Unlocking Value

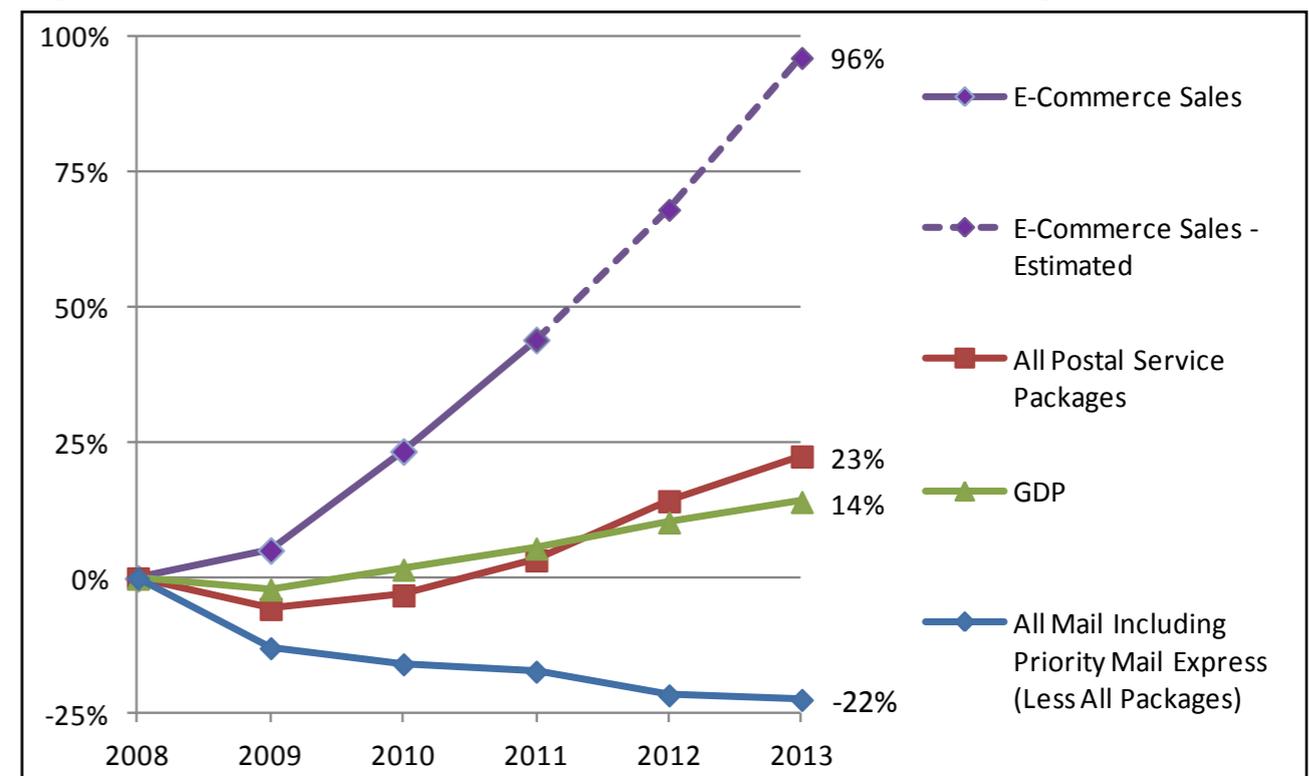
Commerce of the Future

In 2014, global business-to-consumer e-commerce sales will top \$1.5 trillion.⁶ U.S. sales will exceed \$430 billion as many consumers seek the lower prices, greater convenience, broader selection, richer product information, and broader access offered by online shopping.⁷ E-commerce continues to grow and evolve; geographic distances and borders are shrinking. New markets are opening as retailers connect to distant consumers. Businesses are investing in digital showrooms, or virtual department stores, to display their products and conduct transactions. Power is shifting from businesses to consumers.⁸ Consumer choice and demand are driving the decisions of retailers and package delivery companies. These transformations result in fulfillment and shipping becoming increasingly important.

In 2014, global business-to-consumer e-commerce sales will top \$1.5 trillion while U.S. sales will exceed \$430 billion.

Figure 2 shows domestic e-commerce sales are expected to have doubled between 2008 and 2013.⁹ Postal Service packages, unlike letter- and flat-shaped correspondence, transactions, and advertising, also increased by over 20 percent during the same timeframe. Interestingly, package volume did not increase on a one-to-one relationship with e-commerce sales, partially due to consolidating purchases into single, larger boxes or consumers buying more expensive products.¹⁰ Nonetheless, e-commerce appears to be driving package volume, and as e-commerce grows, the need to process and deliver packages increases.

Figure 2: E-Commerce Sales Drive Growth in Postal Service Packages



Source: U.S. Postal Service and U.S. Census Bureau.

6 "Global B2C Ecommerce Sales to Hit \$1.5 Trillion This Year Driven by Growth in Emerging Markets," *eMarketer*, February 3, 2014, <http://www.emarketer.com/Article/Global-B2C-Ecommerce-Sales-Hit-15-Trillion-This-Year-Driven-by-Growth-Emerging-Markets/1010575>.

7 Ibid., and "Ecommerce Sales Topped \$1 Trillion for First Time in 2012," *eMarketer*, February 5, 2013, <http://www.emarketer.com/Article/Ecommerce-Sales-Topped-1-Trillion-First-Time-2012/1009649>.

8 Receivers are achieving greater choice in what, when, and how they receive communications. This equally applies to packages. U.S. Postal Service Office of Inspector General, *The Postal Service Role in the Digital Age, Part 1: Facts and Trends*, Report No. RARC-WP-11-002, February 24, 2011, https://www.uspsig.gov/sites/default/files/document-library-files/2013/rarc-wp-11-002_0.pdf.

9 U.S. Postal Service, *Revenue, Pieces, and Weight Reports and Quarterly Statistics Reports (QSRs)*, Bureau of Economic Analysis, Gross Domestic Product, U.S. Census Bureau, U.S. Electronic Shopping and Mail-Order Houses – Total and E-commerce Sales. All Postal Service data in this paper is available in the public domain.

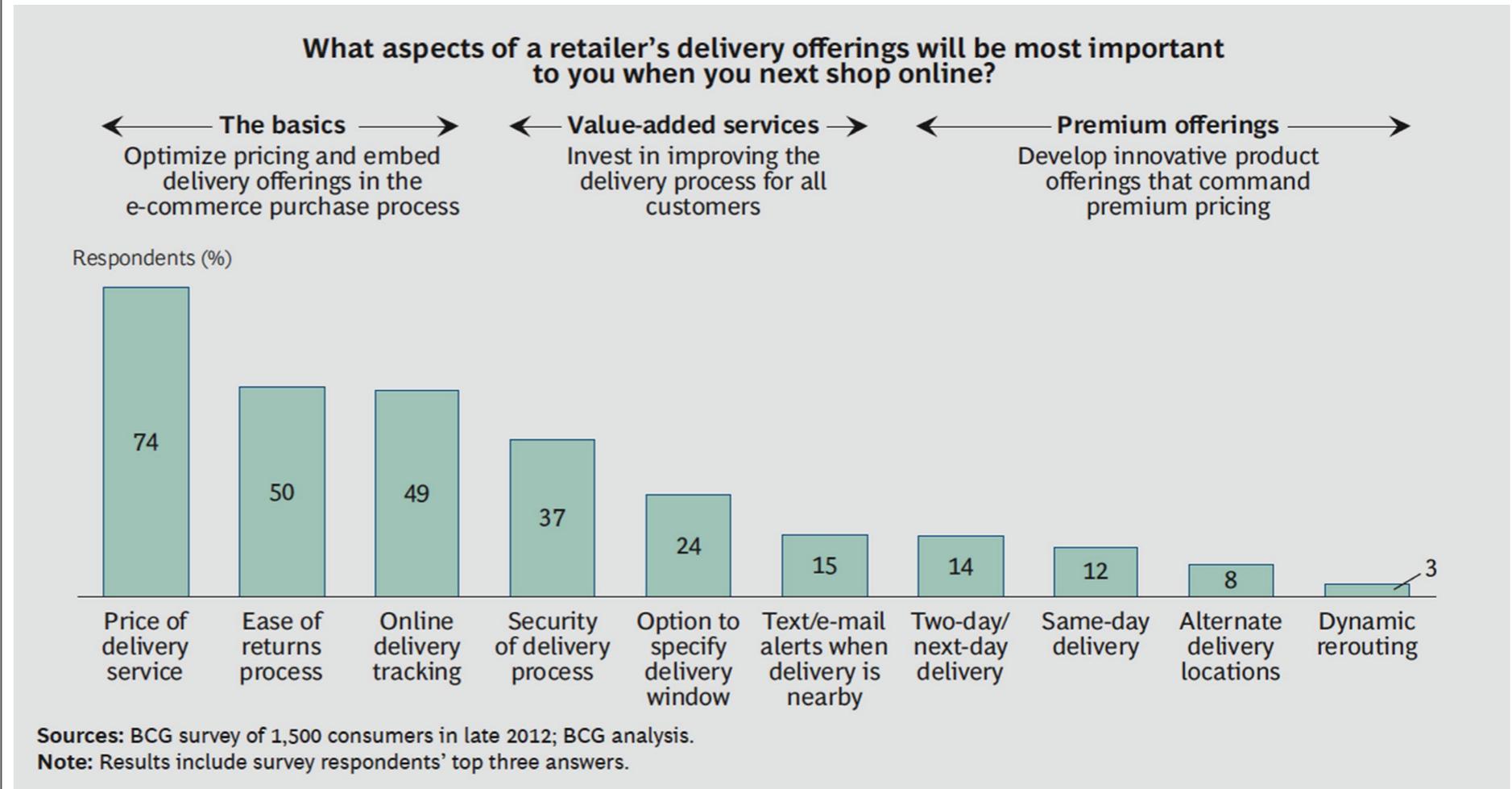
10 There is also a purely mathematical reason for this. The percentage growth in packages is based on an already mature volume base, while e-commerce is growing from a base of near zero just a decade or two ago. This will produce disparate percent growth rates, even if the growth in the absolute number of packages is comparable.

The Customer of the Future

Package delivery companies must define their customers, deciding on whom they will focus the marketing of their services. Because buyers and sellers, or e-retailers and consumers, drive the demand for package and shipping services, they should be the Postal Service's foremost customers.¹¹ It is critical for the Postal Service to know their needs and wants.¹²

Figure 3 shows that consumers care most about the basics in shipping options: price, ease of returns, and online tracking. Of less importance to consumers are value-added services and premium offerings like same-day delivery and dynamic rerouting; however, this may change in the future as consumers gain more purchasing power and confidence or as digital natives increase their share of commerce.¹³

Figure 3: Consumers Care Most About the Basics



Source: Boston Consulting Group, Same-Day Delivery: Not Yet Ready for Prime Time, April 2013, p. 10.

¹¹ Consolidators that aggregate and present packages for shipment also use the Postal Service. Amazon is an interesting and important case due to its size and scope in e-retail. Amazon is a seller, but also an online marketplace that fulfills sales between buyers and other sellers. At a minimum, the Postal Service should be attentive to Amazon's needs as a seller.

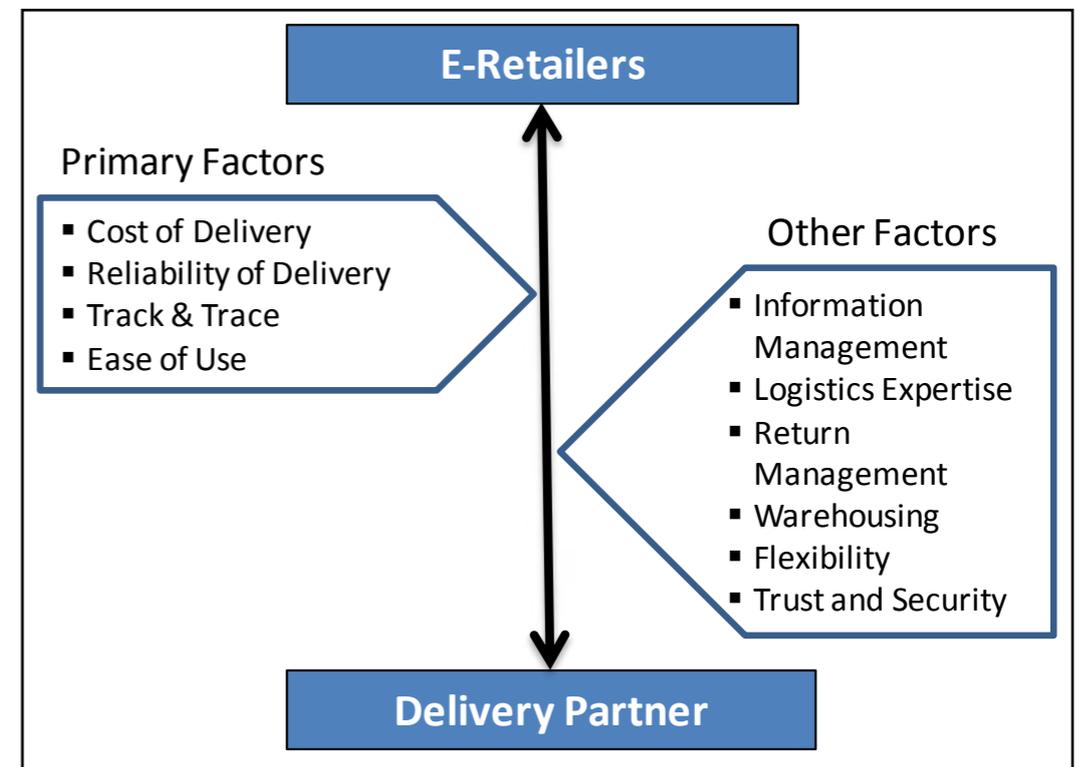
¹² A traditional market segmentation is business-to-business (B2B), business-to-consumer (B2C), consumer-to-business (C2B), and consumer-to-consumer (C2C). The Postal Service is a major player in all but the B2B segment. Existing market research studies perform rigorous analyses of those segments.

¹³ Dynamic rerouting is a service that lets the consumer change the delivery destination of a package that is in-transit. Digital Natives, born generally after 1980, are entering their peak earning years and becoming the dominant consumer group. For them, packages are replacing periodicals as the new anchor of the mailbox, driving interest in and anticipation of mail. USPS OIG, *Enhancing Mail for Digital Natives*, Report No. RARC-WP-14-001, November 18, 2013, http://www.uspsoidg.gov/sites/default/files/document-library-files/2013/rarc-wp-14-001_enhancing_mail_for_digital_natives.pdf.

Of course, individual citizens are not only recipients. They are also senders with specific needs for package delivery. Sometimes, individuals use the Postal Service as the package delivery company of last resort, as the Postal Service is obligated to provide service to all areas of the country at fair, reasonable prices. The Postal Service should continue to serve this need.

The world of e-retailer business models is highly fragmented, encompassing new niche markets, mature online mass markets, and traditional businesses. Nonetheless, e-retailers share a common focus on commerce (manufacturing and selling products), not logistics.¹⁴ Shipping and fulfillment are important and necessary, but, because these are not their core business, they are sometimes simply considered to be cost centers. This dictates their logistics and delivery service requirements, framing the opportunity for package delivery companies: e-retailers want third parties to seamlessly and cost-effectively take care of shipping and fulfillment.

Figure 4: What E-Retailers Care About Most



Source: OIG Research and International Post Corporation.

Figure 4 shows that shippers/e-retailers currently care most about delivery cost, reliability, track and trace, and ease of use.¹⁵ As long distance shopping becomes increasingly complex, personalized, and international, e-retailers will use and require many products and services. Certain products and services will likely change in relative importance as they shift from extras to baseline offerings and as package delivery companies modernize their capabilities.

The Package Delivery Company of the Future

Modern package delivery companies strive to be the cost effective and quality service delivery partner of first choice. They also continuously upgrade their products and services to offer solutions along the entire delivery value chain. This goes beyond package delivery and returns and includes transportation, warehousing, payment solutions, and customer relationship management. Table 1 shows the breadth of selected products and services.

Modern package delivery companies' internal networks and processes align with the external offerings to customers. This intersection is the hallmark of two best practices: (1) leveraging internally-driven data and capabilities to offer products and services and (2) leveraging customer-driven data and capabilities to improve internal operations. For example, real-time tracking is the product of an extensive infrastructure of scanning technology, a business culture emphasizing scans, and customer-centric applications. The scanning information serves customers' requirements to track and trace packages. Cutting-edge delivery companies use that same infrastructure to increase internal efficiencies.

¹⁴ See, for example, International Post Corporation, *IPC Cross-Border E-Commerce Report*, 2010, <http://www.ipc.be/~media/documents/public/markets/ipc%20cross-border%20e-commerce%20report.ashx>, p. 37.

¹⁵ OIG Research and International Post Corporation, *IPC Cross-Border E-Commerce Report*, 2010.

The Innovations of the Future

The rapid pace of technology is leading to major innovations that disrupt the future package delivery market. We are starting to see hints of tomorrow's innovations today:

- Same-Day Delivery
- Sunday Delivery
- Drones
- Parcel Lockers
- 3D Printing*
- Low Carbon Footprint
- Distribution Centers Near Delivery
- Crowdsourced Delivery
- Advanced Analytics.

To its credit, the Postal Service is exploring some of these; however, as the long-term impacts of these and other innovations are yet to be determined, it needs to, at a minimum, closely monitor developments and opportunities.

*see, for example, USPS OIG, *If It Prints, It Ships: 3D Printing and the Postal Service*, Report No. RARC-WP-14-011, July 7, 2014.

Today's rapid pace of technological innovation impacts the package delivery company of the future (see *The Innovations of the Future* sidebar on left). It is premature to gauge the long-term impact of these innovations, but the smart package delivery companies will, at a minimum, monitor developments and opportunities closely.

Key Strategic Considerations

- E-commerce is driving growth in packages while other mail volume is declining in aggregate. As packages grow, fulfillment and shipping will become increasingly important.
- The Postal Service's most critical package customers are e-retailers and consumers, the ones buying and selling products online. Consumers currently care most about price, ease of returns, and online tracking; however, in time, their requirements may shift to premium offerings like same-day delivery and dynamic rerouting.
- E-retailers want to focus on commerce, not logistics, and seek delivery partners that seamlessly and cost-effectively take care of shipping and fulfillment. E-retailers currently care most about delivery cost, reliability, track and trace, and ease of use; however, they require many products and services due to the complexity and personalization of long distance shopping.
- Modern package delivery companies offer solutions along the entire delivery value chain including end-to-end solutions like returns management and logistics planning and information solutions like mobile technology and applications.
- The package delivery company of the future will find dual uses for customer-driven and internally-driven data and capabilities.

Financial Trends and Analysis

Figure 2 shows that, from 2008 to 2013, Postal Service package volume increased by over 20 percent while all other mail volume decreased by more than 20 percent. Some letter- and flat-shaped correspondence and transactions are diverting from physical mail to digital alternatives, and volume projections expect those trends to continue.¹⁶ Hence, packages are growing in importance to the Postal Service's future financials and network. Paradoxically, both the physical network and the financial footing are largely built on letters and flats.

Table 1: Modern Products and Services Span the Delivery Value Chain

End-to-End Solutions	Information Solutions
▪ systems integration	▪ upfront platforms
▪ invoicing	▪ real-time tracking
▪ backend fulfillment on printing and payment	▪ mobile technology and applications (APIs)
▪ segmented pricing	▪ delivery instructions and scheduling (accelerated, evening, Saturday, package lockers, hold for pick up)
▪ customs clearance	▪ time-definite service
▪ payment methods	▪ place-definite service
▪ manifesting	▪ package redirect and routed delivery
▪ scheduled pickups	▪ digital signature capture
▪ free shipping boxes	▪ package release authorization
▪ returns management	▪ authorized alternate recipient
▪ warehousing	▪ online inquiries
▪ fleet maintenance	▪ customer service
▪ transportation	▪ proactive customer communication
▪ IT services	▪ proactive notifications
▪ logistics planning and expertise	

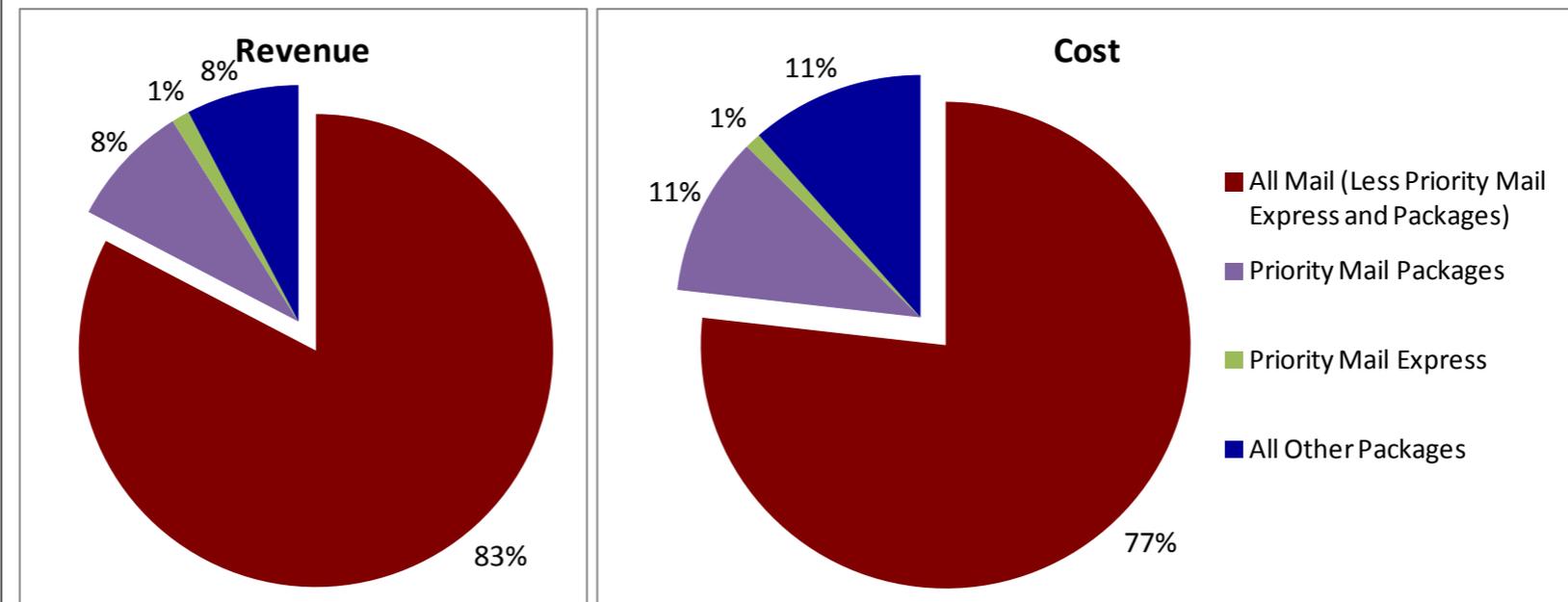
Source: OIG Research.

¹⁶ See, for example, Boston Consulting Group, *Projecting U.S. Mail Volumes to 2020*, March 2, 2010, <http://about.usps.com/future-postal-service/gcg-narrative.pdf>.

Postal Service Financials

Figure 5 shows that packages accounted for 17 percent of total Postal Service revenue and 23 percent of attributable cost in FY 2013.¹⁷ This translated to over \$11 billion in revenue and over \$9 billion in cost.

Figure 5: Packages Are 17 percent of Postal Service Revenue and 23 percent of Cost for FY 2013



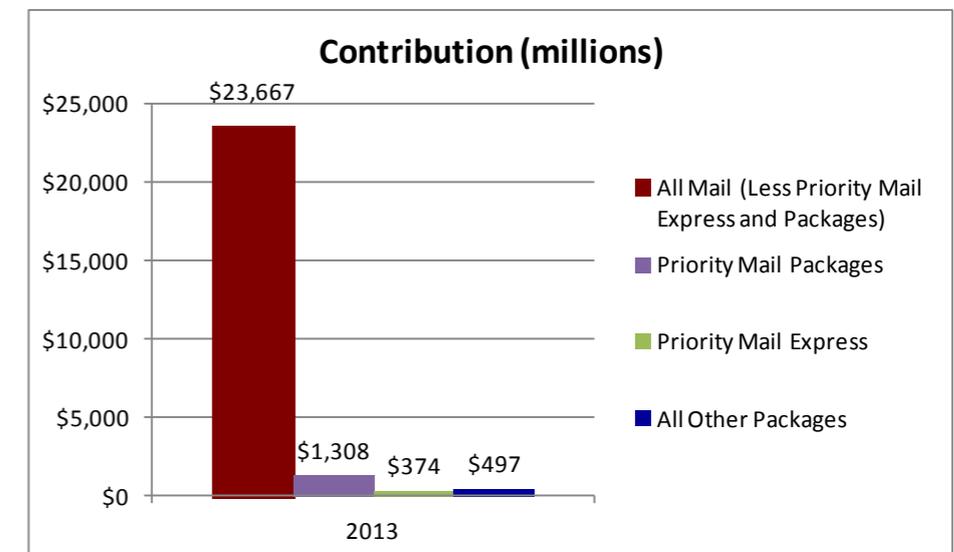
Source: OIG Analysis and Postal Service.

While packages are growing in importance to the Postal Service's future, its financials and network are still built largely upon letters and flats.

Figure 6 shows that packages contributed over \$2 billion and all other mail just under \$24 billion towards the Postal Service's institutional costs. Of the \$26 billion total in contribution, packages accounted for 8 percent.¹⁸

Figure 7 shows unit contributions and profit margins.¹⁹ Priority Mail Express had a very high unit contribution, but it accounted for only 1 percent of total revenue and even less of total volume in FY 2013.²⁰ Priority Mail also had a strong unit contribution and it is the flagship package product in terms of volume, revenue, and total contribution. All other packages had sizeable revenue and positive contribution in aggregate, but had relatively thin unit contribution and profit margins.

Figure 6: Packages Contributed Over \$2 Billion in FY 2013



Source: OIG Analysis and Postal Service.

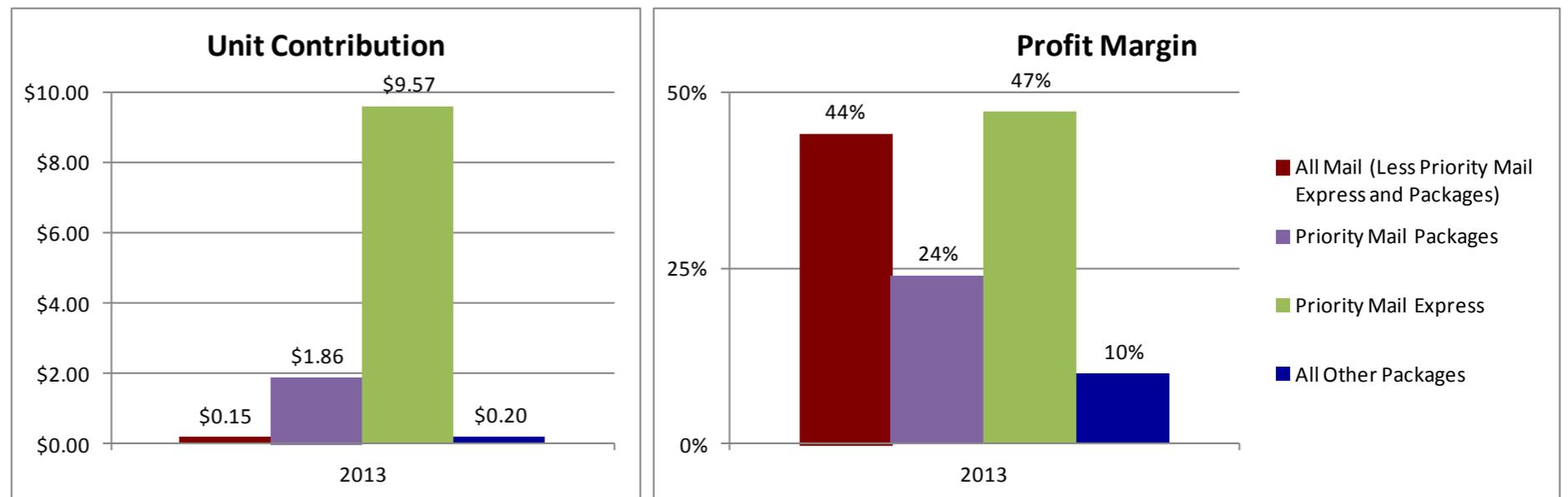
¹⁷ This section's financial data includes all shapes for Priority Mail Express, but only parcel-shaped mail matter for Priority Mail and all other packages. All other packages includes First-Class Mail, Standard Mail, and Package Services Mail parcels. When discussing packages in aggregate, this section combines Priority Mail Express, Priority Mail, and all other packages. OIG Analysis and Postal Service, *Public Cost and Revenue Analysis, FY 2013 (Revised 2/6/2014)*, and Postal Service, *Quarterly Statistics Report (QSR), Quarter IV FY 2013*.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Priority Mail Express had over 39 million pieces in FY 2013. This was 0.02 percent of the total volume of 158 billion pieces. See, Postal Service, *Public Cost and Revenue Analysis, FY 2013 (Revised 2/6/2014)*.

Figure 7: Some Packages Have Healthy Unit Contributions and Profit Margins for FY 2013



Source: OIG Analysis and Postal Service.

In summary, packages had a healthy bottom line, but the financial data vary from product to product. Packages are growing in importance to the Postal Service's future, but letters and flats dominate the current financial landscape.

Package Delivery Market Financials

Although there are regional package delivery companies like LaserShip and OnTrac, the domestic package delivery market is dominated by three companies: the Postal Service, UPS, and FedEx.²¹ Their combined 2013 shipping and package services and domestic packages revenues were more than \$68 billion and their volumes were almost 9.6 billion pieces.²² Figure 8 shows their domestic revenue and volume market shares in 2013.²³

The Postal Service captured less than one-fifth of the package delivery market's total revenue, but almost two-fifths of its total volume; therefore, the Postal Service's mix of packages in aggregate had lower revenue per piece when compared to UPS and FedEx. This makes sense given its pricing and range of product offerings, including flat rate boxes and last-mile delivery. Because the Postal Service goes to every address six days a week and delivers mostly letters and flats, it has a strong competitive advantage delivering lightweight pieces. Other delivery companies recognize this and frequently deposit their lightweight packages into the Postal Service's network for final delivery. In fact, the Postal Service makes final delivery for about two-thirds of the nation's lightweight packages.²⁴

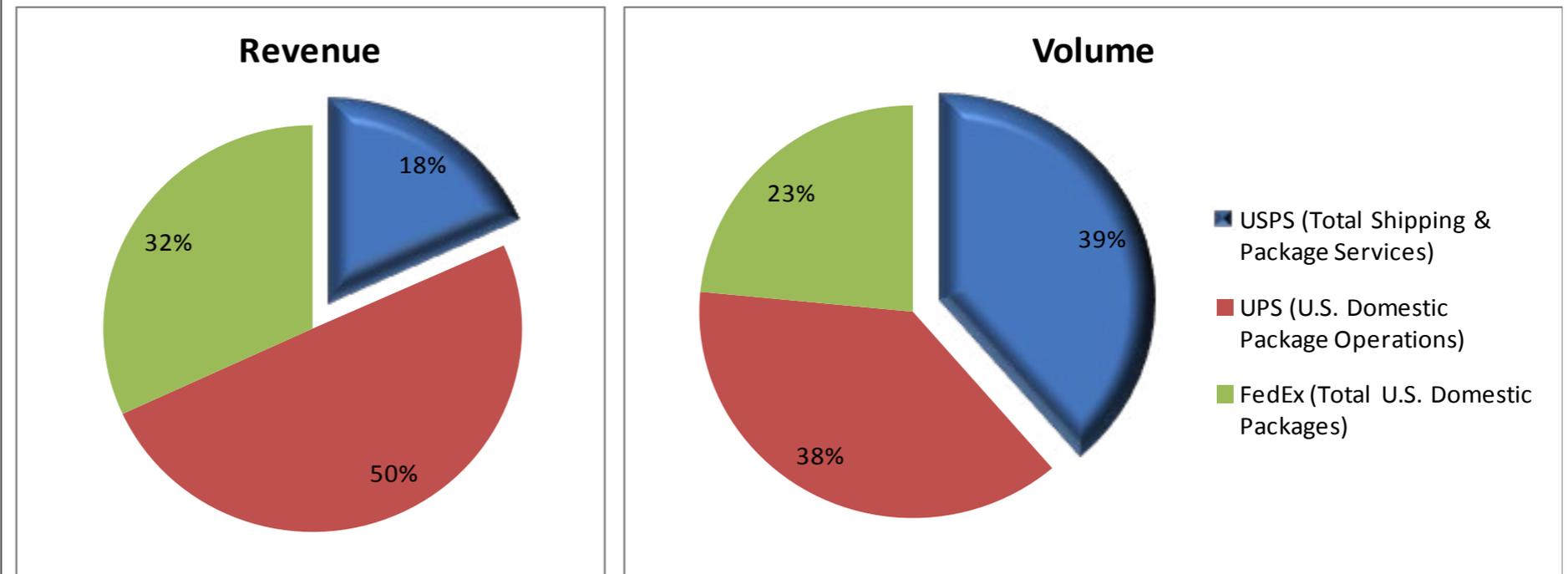
²¹ This section is based on domestic package market data as reported in Annual Reports. Those data are not limited to parcel-shaped mail matter and do not necessarily align in consistent and uniform delivery commitment categories.

²² Postal Service, *2013 Annual Report to Congress*, UPS, U.S. Domestic Package Operations, *Quarterly Historical Income and Operating Data, 2013 Q4*, and FedEx, *Total U.S. Domestic Packages, FedEx Annual Report 2013*.

²³ Ibid.

²⁴ Christensen Associates analysis of Postal Service package data.

Figure 8: The Domestic Package Delivery Market in 2013 — Postal Service Delivers the Lower Revenue per Piece Packages



Source: Postal Service, UPS, and FedEx.

Figure 9 shows the domestic revenue per piece by the three major segments of the package delivery market: overnight, 2-day and 3-day, and ground.²⁵ The Postal Service, UPS, and FedEx have different value-added services and package characteristics including different average weight, cube, distance from entry to delivery, address quality, and number of pieces per customer mailing. These factors explain many of the differences in revenue per piece.

In the 2-day and 3-day segment, Priority Mail has the lower revenue per piece. This is likely due to the pricing schedules and specific package characteristics including packages entered via retail channels and lightweight packages, typically 4 pounds and under. For Priority Mail, the financial data showed a unit contribution of \$1.86 and a margin of 24 percent; therefore, the Postal Service may have a comparative cost advantage for Priority Mail packages. That advantage may be the result of specific economies of density and economy of piggybacking onto the existing transportation, processing, and delivery network designed around letters and flats.

In the ground segment, shipping and package services include the Postal Service’s last-mile offering, Parcel Select Destination Delivery Unit (DDU).²⁶ These packages are entered directly to the Postal Service in bulk for delivery only. This contributes to the lower revenue per piece. Financial data for all other packages, including Parcel Select DDU, showed relatively thin unit contribution and profit margins. Total ground commercial packages, including Parcel Select, Parcel Return Services, and Standard Post, had an average unit contribution of 28 cents per piece in 2013; however, the average unit contribution for Parcel Select, including the Parcel Select DDU product used for FedEx SmartPost, was even less than this small average.²⁷

²⁵ Postal Service, *2013 Annual Report to Congress*, UPS, U.S. Domestic Package Operations, *Quarterly Historical Income and Operating Data, 2013 Q4*, and FedEx, *Total U.S. Domestic Packages, FedEx Annual Report 2013*.

²⁶ The Postal Service has lauded the increase in last-mile only delivery products. See, for example, “Amazon/USPS pilot project: Amazon will deliver packages to local post offices instead of processing plant,” Ruralinfo.net, June 6, 2014, <http://www.news.ruralinfo.net/2014/06/amazonusps-pilot-project-amazon-will-deliver-packages-to-local-post-offices-instead-of-processing-plant.html>. However, evidence suggests that focusing on the last-mile will limit options and prevent the Postal Service from meeting the evolving needs of customers.

²⁷ OIG Analysis and Postal Service, *Public Cost and Revenue Analysis, FY 2013 (Revised 2/6/2014)* and Postal Service, *Quarterly Statistics Report (QSR), Quarter IV FY 2013*.

FedEx SmartPost and UPS SurePost collect and process packages and then typically use the Postal Service for final delivery. Both of these products have been growing quickly and provide total national coverage by tapping the Postal Service's extensive delivery network. Figure 10 shows that SmartPost volume increased by 150 percent in four years.²⁸ FedEx SmartPost's revenue per piece is slightly higher than the revenue per piece for Postal Service shipping and package services.

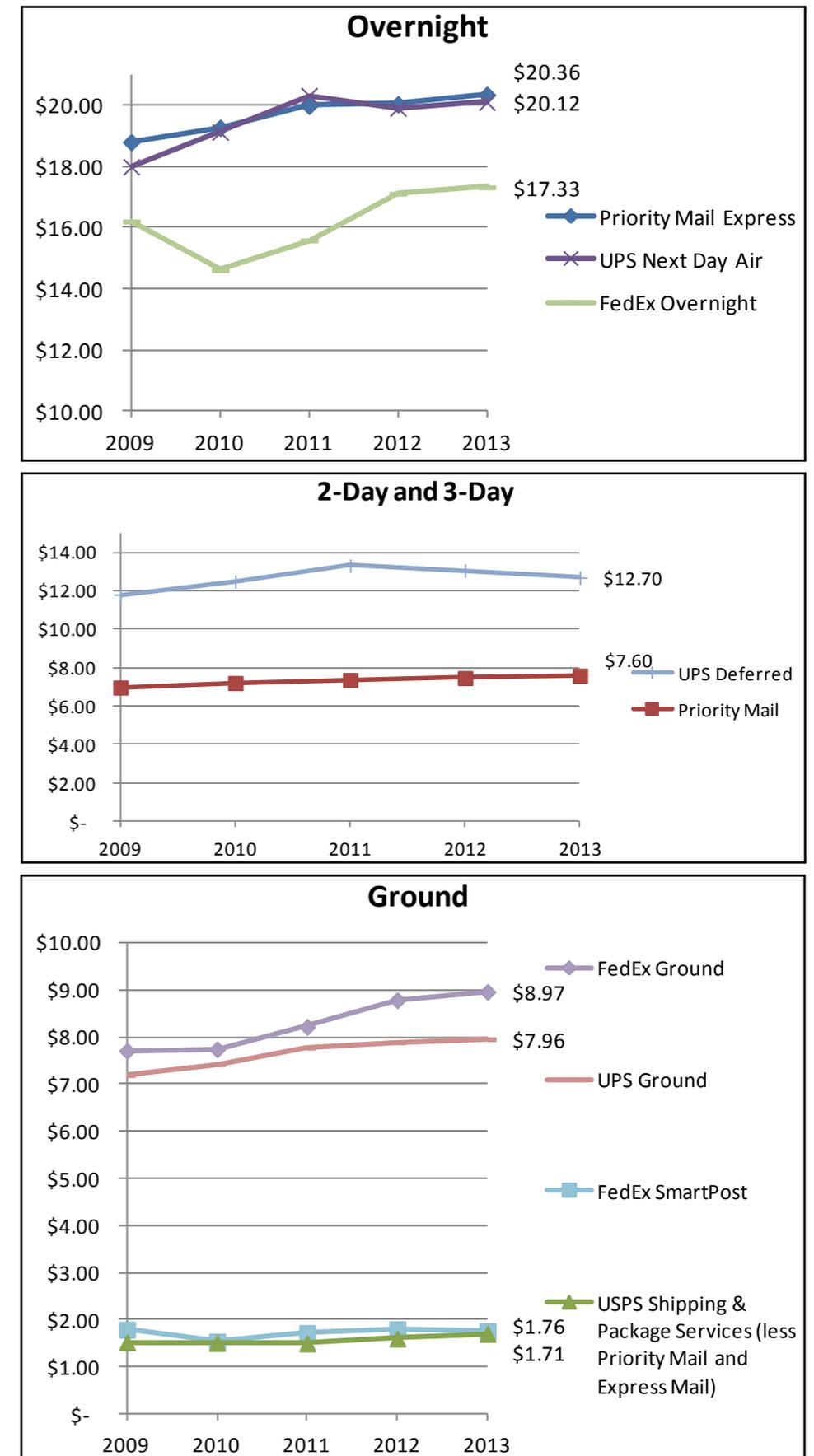
Within each of the three major segments of overnight, 2-day and 3-day, and ground, the package delivery market has areas of high revenue per piece. Again, that could be caused by many factors including high prices, specific package characteristics, or value-added services. Nonetheless, it appears that while the Postal Service is competitive in the low revenue per piece segments, it may have a growing need to enter the higher revenue per piece segments. It can do this in a number of ways including by increasing the revenue yield per existing package or by increasing the number of new, higher revenue packages.

Key Strategic Considerations

- Packages are growing in importance to the Postal Service's future financials and network. Package financial data vary from product to product, but, in aggregate, contributed over \$2 billion towards institutional costs. Letters and flats contributed almost \$24 billion, but that is at risk if productivity gains or price increases do not offset the forecasted volume decrease.

²⁸ FedEx, Total U.S. Domestic Packages, *FedEx Annual Report 2011* and *FedEx Annual Report 2013*. SurePost volume increased by more than 30 percent in the fourth quarter 2013. "Declining Revenue Per Package May Temper UPS's Revenue Growth," *Forbes*, April 21, 2014, <http://www.forbes.com/sites/greatspeculations/2014/04/21/declining-revenue-per-package-may-temper-upss-revenue-growth/>. On June 18, 2014, FedEx reported results for its fourth quarter and noted that SmartPost average daily volume decreased 8 percent; however, SmartPost total volume for FY 2014 still exceeded the total volume for FY 2013. FedEx, "FedEx Corp. Reports Higher Fourth Quarter Earnings," news release, June 18, 2014, <http://investors.fedex.com/phoenix.zhtml?c=73289&p=irol-newsarticle&ID=1940157>.

Figure 9: Domestic Revenue Per Piece by Major Delivery Market Segment from 2009-2013



Source: Postal Service, UPS, and FedEx.

The Postal Service needs a package strategy that focuses on customers, positions itself for long-term success, directs investments, and expands its role across the package delivery value chain.

■ The Postal Service's average revenue per piece for shipping and package services was \$3.37 in 2013.²⁹ UPS and FedEx's averages for their domestic packages were \$9.39 and \$9.70, respectively.³⁰ Many factors affect the average revenues, but the Postal Service may have an increasing need to offer and charge for value-added services and enter the higher revenue per piece areas.

A Customer-Driven Package Strategy

The Postal Service is positioned to capture much of the value of e-commerce growth; however, it will face aggressive competition from other package delivery companies and e-retailers building fulfillment centers closer to delivery areas. The Postal Service needs to do more than just increase its package revenues and maintain its current products. It needs a package strategy that focuses on customers, positions itself for long-term success, directs investments, and expands its role across the package delivery value chain.

Focus on Customers

The cornerstone of any package strategy is a focus on customers. As discussed earlier, the Postal Service's first and foremost customers should be both senders and recipients. This focus allows the Postal Service to understand, meet, and sometimes anticipate their shipping and fulfillment needs. This transcends last-mile delivery, and includes the modern products and services listed in [Table 1](#) and discussed earlier in the paper.

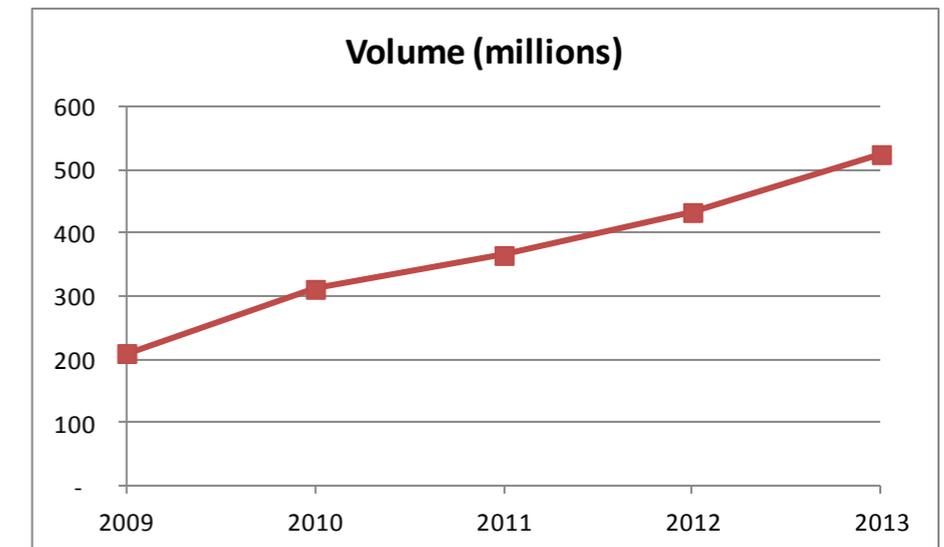
Position for Long-Term Success

Build the Right Identity

A second element of a package strategy is to build and fortify an identity. This includes defining business goals, market perception, and organizational DNA. Business goals could be based on volume, revenue, profit contribution, universal service, customer satisfaction, and other metrics. The Postal Service can come to embrace the dual goals of universal service and profitability as it works to better serve consumers, keep American commerce efficient, facilitate business, and provide the high-quality competition necessary to ensure the availability of the best possible package services at the best prices.

Market perception is defined as how existing and future customers view a company and its products and services. Customers have a strong perception of the Postal Service as the low-cost delivery company for lightweight packages. However, customers also perceive the Postal Service to be less technologically advanced than its competitors, often believing it lacks their abilities to track and trace shipments. This includes detailed tracking information provided by company websites, guaranteed time delivery, and trust delivering expensive, time-sensitive items. In a 2011 survey, over 40 percent of industry shippers answered that they did not consider the Postal Service a viable alternative to FedEx or UPS for ground services, and 55 percent said that the Postal Service was not an alternative for air or express services.³¹ In addition, one freight consultant criticized the Postal Service

Figure 10: FedEx SmartPost Increased 150 Percent from 2009-2013



Source: FedEx.

²⁹ Postal Service, *2013 Annual Report to Congress*.

³⁰ UPS, U.S. Domestic Package Operations, *Quarterly Historical Income and Operating Data, 2013 Q4*, and FedEx, Total U.S. Domestic Packages, *FedEx Annual Report 2013*.

³¹ U.S. Postal Service Office of Inspector General (OIG), *Enriching Postal Information: Applications for Tomorrow's Technologies*, Report No. RARC-WP-14-006, January 13, 2014, <https://www.uspsaig.gov/sites/default/files/document-library-files/2014/rarc-wp-14-006.pdf>, p. 9.

With attention to the needs of the modern customer, the Postal Service can establish a market perception as the reliable, low-cost shipper of first choice.

for its “lack of guaranteed time delivery, inferior tracking system, [and] lack of trust when it comes to more expensive, time-sensitive items.”³² The Postal Service is investing in its tracking and tracing capabilities and has made significant progress. It is continuing to work to eliminate these perceived disadvantages and to meet customers’ expectations for detailed tracking information. Once it has fixed these perceived deficiencies, the Postal Service will need to communicate to its customers to gain their trust that it can provide these services.

Developing the ability to meet customers’ demands for delivery certainty, tracking, and ease of use, along with its existing advantages in ubiquitous presence, price and reliability, will help improve the Postal Service’s market perception. This will lead customers to often consider it the best option for package delivery. Its current market perception as the shipper of last resort, the shipper that will deliver the difficult, low-revenue packages that its competitors discourage customers from shipping, will limit its ability to serve citizens and businesses well and minimize its revenue potential from the package market. With attention to the needs of the modern customer, the Postal Service can establish a market perception as the reliable, low-cost shipper of first choice, helping it to increase its package revenue as part of the growing market.

Internally, the Postal Service needs to expand its organizational DNA from a processing and delivery company to an information company as well.³³ The Postal Service has a critical role in delivering physical packages; however, information about those packages can be almost as important as the mail piece itself. This goes beyond investments in scanning technologies and applications and includes a business culture obsessed with scanning, protecting, and growing intellectual property. It also includes a high-level corporate organization that values enriching postal information to meet business and customer needs.

Enlarge Competencies and Advantages

A third element of a package strategy is enlarging core competencies and comparative advantages. The Postal Service has natural network advantages in retail, bulk mail processing, and low-cost delivery. Other package delivery companies and e-retailers analyze their package densities and service commitments to determine the optimal delivery method. As mentioned earlier, FedEx SmartPost and UPS SurePost often use the Postal Service for final delivery; however, they will use their own vehicle fleet for final delivery when it makes business sense to do so — for example, when they already have a vehicle out for other nearby deliveries.

Additionally, as package volumes increase, average package revenue per delivery stop per day will also increase. This increase in revenue will provide a profit opportunity for e-retailers and package delivery companies to complete their own delivery on more days, and use the Postal Service last-mile on fewer days. If such trends continue, this could be a strategic risk for the Postal Service. The Postal Service cannot afford to be the provider of last-mile delivery only when the average package volume per stop is low.

Invest in the Package Business

Maximize Efficiencies

A fourth element of a package strategy is investing in the package business to minimize the cost of providing modern products and services. This begins with knowing product costs and modernizing the cost structure to meet emerging customer needs. One option is to invest in elements of a network dedicated to processing and delivering packages.

³² Multichannel Merchant, Why USPS is a Viable Alternative to FedEx and UPS, January 23, 2013,

http://multichannelmerchant.com/opsandfulfillment_shipping/why-usps-is-a-viable-alternative-to-fedex-and-ups-23012013/.

³³ OIG, *Enriching Postal Information: Applications for Tomorrow’s Technologies*.

The OIG has studied the Postal Service's present readiness for package growth, and has found that it has successfully managed package growth, adjusted to fluctuations in package volume, improved scan rates, and possesses enough machine capacity to process non-peak package volume; however, opportunities exist to improve readiness for package growth by taking steps that include implementing dynamic routing, retaining more city carrier assistants, increasing barcode scanning, reducing customer wait times, and adjusting mail arrival schedules to correspond with processing machines' operating windows.³⁴

The capabilities of the existing network built around letters and flats may not be sufficient to meet the new and future needs of package customers. Investing in structural changes that reduce its cost base will provide it the flexibility necessary to adapt to customer needs and offer competitive products and services. This paper is not advocating one specific management and cost structure, such as a subsidiary or strategic business unit (see *Purolator* sidebar), but does offer the following ideas worth exploring and investing in:

- Empowering a high-level corporate organization focused on operations research.³⁵
- Increasing use of intermodal rail to reduce costs, reduce exposure to fuel price volatility, increase environmental benefits, and hedge against strategic risks posed by overreliance on the highway trucking industry.³⁶

34 OIG, *Readiness for Package Growth -- Delivery Operations*, Report No. DR-MA-14-001-DR, December 11, 2013, <https://www.uspsig.gov/sites/default/files/dr-ma-14-001-dr.pdf>; OIG, *Readiness for Package Growth -- Processing Capacity*, Report No. NO-AR-14-002-DR, January 21, 2014, <https://www.uspsig.gov/sites/default/files/no-ar-14-002-dr.pdf>; OIG, *Readiness for Package Growth -- Customer Service Operations*, Report No. DR-MA-14-003-DR, March 31, 2014, <https://www.uspsig.gov/sites/default/files/dr-ma-14-003-dr.pdf>.

35 UPS has invested in such a group that optimizes sortation, dispatch planning, and delivery. One recent innovation is its ORION (On-Road Integrated Optimization and Navigation) system that optimizes drivers' routes. This not only reduces costs and environmental impact, it's a competitive advantage allowing personalized delivery options. Notably, ORION was conceived in 2000, was tested in 2008, and has 500 staff working towards full deployment by 2017. See, for example, "Meet ORION, Software That Will Save UPS Millions By Improving Drivers' Routes," *Forbes*, November 1, 2013, <http://www.forbes.com/sites/alexkonrad/2013/11/01/meet-orion-software-that-will-save-ups-millions-by-improving-drivers-routes/>.

36 OIG, *Strategic Advantages of Moving Mail by Rail*, Report No. RARC-WP-12-013, July 16, 2012, <https://www.uspsig.gov/sites/default/files/document-library-files/2013/rarc-wp-12-013.pdf>.



Purolator Courier Ltd., Canada's leading overnight courier, has delivered shipments for over 50 years. As a subsidiary of Canada Post, it focuses on the business-to-business (B2B) segment and employs more than 12,500 people. Purolator's network consists of 182 operation facilities, 132 retail shipping centers, over 580 authorized shipping agents, more than 3,900 vehicles, and the country's largest dedicated air express fleet.

In 2012, Purolator had revenue of \$1.6 billion and volume of 139 million packages. Over the last five years, it netted \$331 million in profit.



If the U.S. Postal Service operated a similar subsidiary in scale, it would employ 100,000 workers, have 1,600 facilities, operate 35,000 delivery vehicles, charter 200 aircraft, and operate 6,000 highway trucks. It would also have \$15 billion in revenue, deliver 1.2 billion packages, and be profitable.

This is not farfetched, and is smaller than UPS's 300,000-plus employees, \$34 billion revenue, and 3.6 billion packages.

Source: OIG Analysis and Canada Post, 2012 Annual Report.

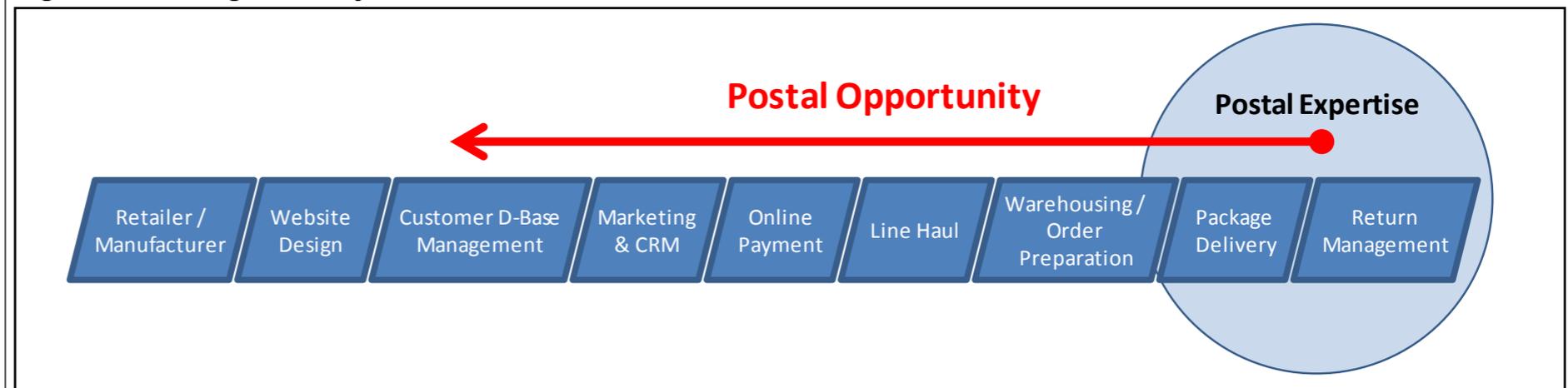
In order to prevent being trapped in delivering an easily replaced commodity service, postal operators need to work with their customers and look for opportunities to move up the home delivery value chain.

- Assessing a future package processing and transportation network, either fully integrated with or partially separate from letters and flats.³⁷
- Decoupling retail and delivery operations at post offices to improve service and lower costs.³⁸
- Assessing a future delivery network, integrated with or separate from letters and flats, for packages. This includes determining the optimal size and type of delivery vehicles, availability of equipment like carts and hand trucks on delivery vehicles, dynamic routing, day-certain delivery, configuration of package lockers, and viability of cluster boxes.³⁹
- Investing in an information-rich backbone to improve operational efficiencies and planning.⁴⁰

Expand Along the Package Delivery Value Chain

Figure 11 shows the home delivery value chain.⁴¹ Traditional postal expertise is at one end of the chain — package delivery and returns; however, “in order to prevent being trapped in delivering a commodity service, postal operators need to work with their customers and look for opportunities to move up the home delivery value chain.”⁴² This is not surprising as modern package delivery companies, as discussed, are already doing this.

Figure 11: Package Delivery Value Chain



Source: International Post Corporation.

37 A related idea that could possibly be worth exploring is assessing the ownership of an air network. The Postal Service, unlike UPS and FedEx, does not own its own air network.

38 OIG, *Retail and Delivery: Decoupling Could Improve Service and Lower Costs*, Report No. RARC-WP-11-009, September 22, 2011, http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-11-009_0.pdf.

39 The OIG recommended that the Postal Service formalize a long-term plan to replace the vehicle fleet that includes requirements and specifications for the next generation of delivery vehicles. The report noted that growth in the package market could influence the design and technologies selected for new vehicles. OIG, *Delivery Vehicle Fleet Replacement*, Report No. DR-MA-14-005, June 10, 2014, <http://www.uspsoig.gov/sites/default/files/document-library-files/2014/dr-ma-14-005.pdf>.

40 OIG, *Enriching Postal Information*, pp. 9-10.

41 International Post Corporation, *IPC Cross-Border E-Commerce Report*, 2010, <http://www.ipc.be/~media/documents/public/markets/ipc%20cross-border%20e-commerce%20report.ashx>, p. 37.

42 Ibid.

In the near term, the Postal Service needs to minimize poor experiences and provide the level of service that consumers demand.

Although the Postal Service should continue to offer last-mile-only delivery, strategically it “run[s] the risk of being commoditised by fulfillment providers that act as consolidators buying parcel volumes at low prices. This would result in revenues at marginal costs and losing contact with profitable and promising customer segments such as SMEs or start-ups.”⁴³

The Postal Service should consider expanding end-to-end service and increasing value-added services.⁴⁴ This would increase revenue per piece and enhance critical contact with senders and recipients.

Key Strategic Consideration

Package delivery companies are increasingly competitive, obsessed with controlling costs and expanding services along the package delivery value chain. In addition, e-retailers are looking for more efficient shipping strategies including investing in their own infrastructure to reduce and eliminate shipping costs. Both trends threaten the Postal Service’s future package business; hence, the Postal Service needs a customer-driven package strategy that builds the right identity, enlarges competencies and advantages beyond last-mile delivery, invests in productivity gains and controlling costs, and offers products and services along the package delivery value chain.

Next Steps

As the Postal Service modernizes its network and updates service commitments, it will be critical to defend and grow its package business while also ensuring that customers receive high-quality services.

Table 2 shows a list of the most common complaints about package delivery.⁴⁵ This survey describes, in order, the main reasons that customers have a poor experience with parcels for all delivery companies in the United States. These ratings may be somewhat different for Postal Service customers specifically.⁴⁶ In the near term, the Postal Service needs to continue to minimize the poor experiences and deliver the service expected from consumers, especially as it considers different delivery days for letters and flats, right-sizing the number of post offices, and modernizing its service standards.

Table 2: Inconvenient Times and Packages Left Unattended are Top Reasons for a Poor Package Experience

Main Reasons for a Poor Package Experience
▪ Package delivered at inconvenient time
▪ Package left unattended
▪ Package lost or damaged
▪ Package not delivered on time
▪ Unable to receive package at home
▪ Signature required for package
▪ Inconvenient hours or location of pickup facility
▪ Package returned to sender too quickly
▪ Delivery instructions not followed

Source: Accenture.

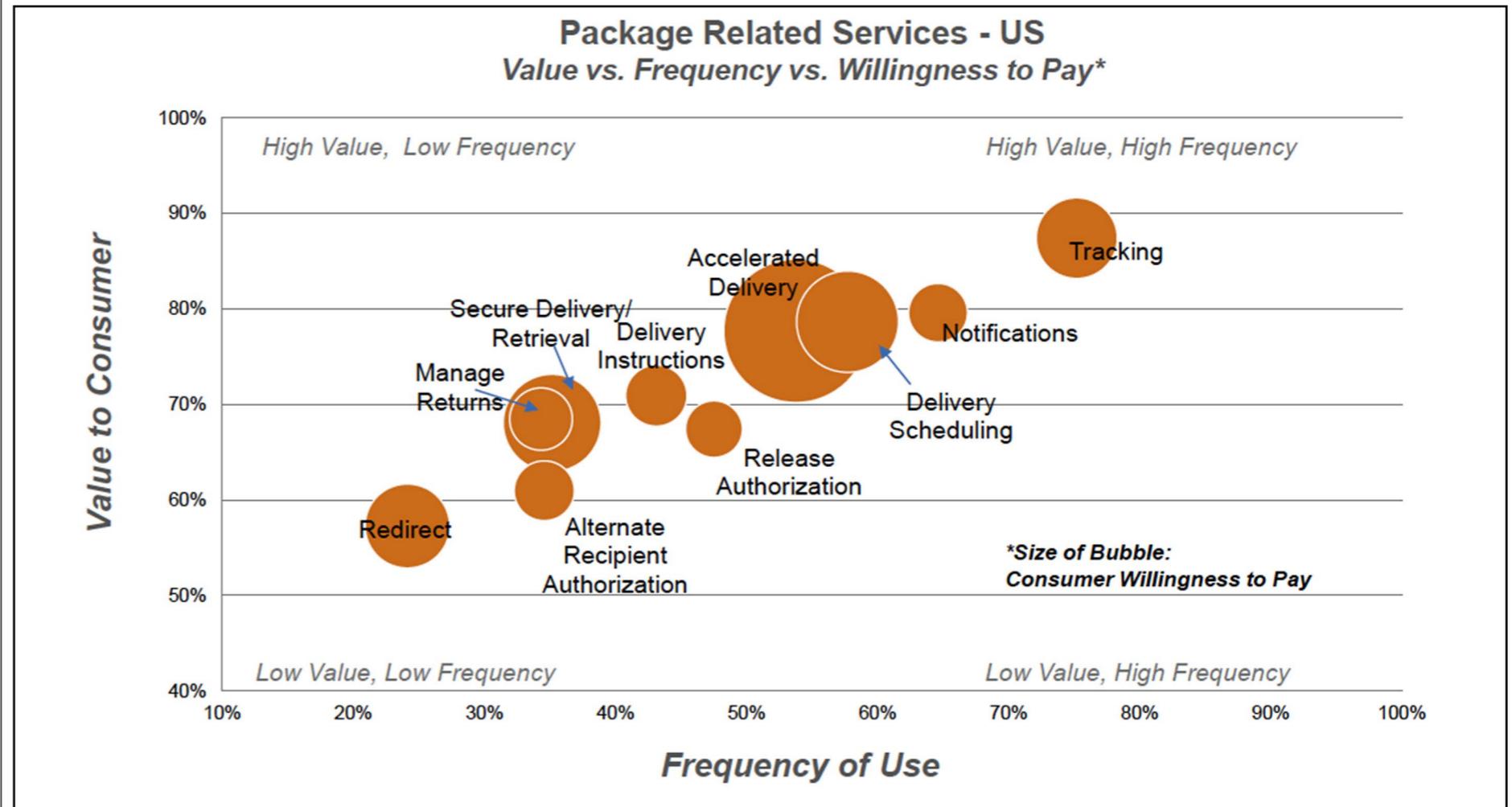
43 International Post Corporation and The Boston Consulting Group, *Focus on the Future: Building a New Compelling Position for Posts*, June 2012, http://www.ipc.be/~media/Documents/PUBLIC/Brochures/IPC-BCG_Focus%20on%20the%20Future.pdf, p. 42.

44 Current law limits the Postal Service’s ability to offer nonpostal services, or services not directly related to mail delivery. The Postal Service will have to assess on a case-by-case basis whether or not specific end-to-end and value-added services will be permitted. Nonetheless, in addition to offering universal products and services, the Postal Service can expand package services via experimental postal products or negotiated service agreements.

45 Accenture, *Global Consumer Control Research Findings*, 2014, <http://postalvision2020.com/wp-content/uploads/2014/04/Enabling-Consumer-Control-%E2%80%93-Global-Perspectives.pdf>, p. 10.

46 A recent visit to a Postal Service facility suggested that Postal Service customers were most upset when carriers *did not* leave packages when they were not at home and, therefore, had to go to a Post Office to pick up the package.

Figure 12: Consumers are Willing to Pay for Accelerated Delivery, Scheduling, Secure Delivery, and Tracking Services



Source: Accenture.

Another next step in the near term focuses on the services that consumers use and value most. Figure 12 shows that consumers have the greatest willingness to pay for accelerated delivery, delivery scheduling, secure delivery, and enhanced tracking.⁴⁷ This figure can guide the Postal Service’s priorities as it considers modernizing its existing services to meet consumers’ needs and grow its package business.

Going forward, the Postal Service should monitor and study consumer preferences to determine the best services to offer across the entire package delivery value chain. It should also focus its investments into creating and developing a network that can maximize the efficiency and minimize the cost of providing these services. Establishing a reputation as the package delivery company offering the most reliable and cost-effective services will help ensure its future as a modern delivery company that meets the needs of 21st century commerce.

⁴⁷ Accenture, *Global Consumer Control Research Findings*, p. 12.



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