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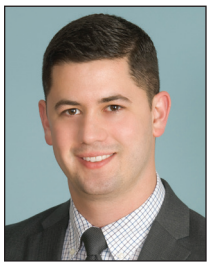
Financial Statements II

By Chris Fitzgerald

Reaching Beyond the Four Walls

Applying Data Analytics Within Retail Restructurings



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When assessing the financial feasibility of a business unit, product or service, financial analysts often conduct a "contribution-margin analysis." Contribution margin represents the amount of funds a particular activity contributes to an enterprise to cover fixed costs and provide profit.[1] For example, in a contribution-margin analysis for a particular product, an analyst will include the costs directly associated with the manufacturing and sale of the product (such as variable materials costs and sales commissions) and omit fixed costs (such as rent, IT expenses and corporate salaries). Conducting such an analysis enables a company to isolate the impact of a particular business unit, product or service on the greater organization and make an informed decision as to which activities are providing value to the company and which might be advisable to wind down or sell off.

1 Amy Gallo, "Contribution Margin: What It Is, How to Calculate It, and Why You Need It," *Harvard Business Review* (Oct. 13, 2017), *available at* hbr.org/2017/10/contribution-margin-what-it-is-how-to-calculate-it-and-why-you-need-it (unless otherwise specified, all links in this article were last visited on June 25, 2019).

The Traditional Four-Wall Analysis

The four-wall analysis is a longstanding financial exercise within the retail industry in which an organization assesses the contribution margin of each individual retail location to the larger corporate entity. Similar to a typical contribution-margin analysis, a four-wall analysis omits corporate overhead costs and focuses on the revenues and costs generated within the "four walls" of a physical retail location. The purpose of the analysis is to assess which stores are positively contributing to the organization's financial performance, and which stores might either need additional oversight from corporate or regional management and/or might need to be closed.

Exhibit 1: An Example of a Four-Wall Analysis

	Location 1	Location 2	Location 3	Location 4	Total
Revenue					
Sales	$1,500,000	$1,375,000	$1,125,000	$1,250,000	$5,250,000
Operating Expenses					
Payroll Expenses	($504,000)	($462,000)	($472,500)	($472,500)	($1,911,000)
Rent Expenses	($624,000)	($572,000)	($643,500)	($780,000)	($2,619,500)
Other Occupancy Costs	($24,000)	($22,000)	($20,250)	($30,000)	($96,250)
Other SG&A	($36,000)	($49,500)	($30,375)	($30,000)	($145,625)
	($1,188,000)	($1,105,500)	($166,625)	($1,312,500)	($4,772,625)
Operating Income (Loss)/EBITDA	**$312,000**	**$269,500**	**($41,625)**	**($62,500)**	**$477,375**
Add: Rent Expenses	$624,000	$572,000	$643,500	$780,000	$2,619,500
EBITDAR	**$936,000**	**$841,500**	**$601,875**	**$717,500**	**$3,096,875**

In the context of bankruptcy and insolvency, a four-wall analysis is typically performed to aid in lease acceptance and rejection decisions[2] and can be utilized to make operating decisions in the pre- and post-confirmation periods. Exhibit 1 illustrates a four-wall analysis of a hypothetical company with four retail locations. This analysis shows Location 3 and Location 4 operating at a loss, and therefore negatively contributing to the overall corporate entity's performance.

Additional Considerations

While the four-wall analysis is a valuable tool to evaluate the performance of individual retail locations, it neglects the impact of brick-and-mortar retail locations on online sales and fails to capitalize on data available to forecast future demand.

The Showroom Effect

It is no secret that online retail sales have grown steadily in recent years. Per the U.S. Census Bureau, e-commerce sales as a percentage of total retail sales have more than doubled over the past 10 years, increasing from 4 percent to 10 percent.[3] According to market-research company Forrester Research Inc., half of retail sales are now "digitally influenced," representing sales that occur online or occur in-store but were influenced by digital technologies.[4] This figure is expected to increase to 58 percent by 2023.

However, despite this apparent shift to online retail sales, in what seems to be a counter-intuitive move, digitally native direct-to-consumer brands have recently opened brick-and-mortar retail locations in cities across the U.S.[5] This trend is exemplified in Boston's high-rent Seaport District, where, within a 500-foot stretch of Seaport Boulevard, a consumer will find retail locations for men's clothing company Bonobos, eyewear company Warby Parker and luggage start-up Away — each of which began as online-only retailers. Additional recent examples of this "clicks to bricks" strategy are mattress company Casper, cosmetics company Glossier, footwear company Allbirds and apparel company Everlane.

These retailers are utilizing the concept of the retail store as a showroom where consumers might be physi-

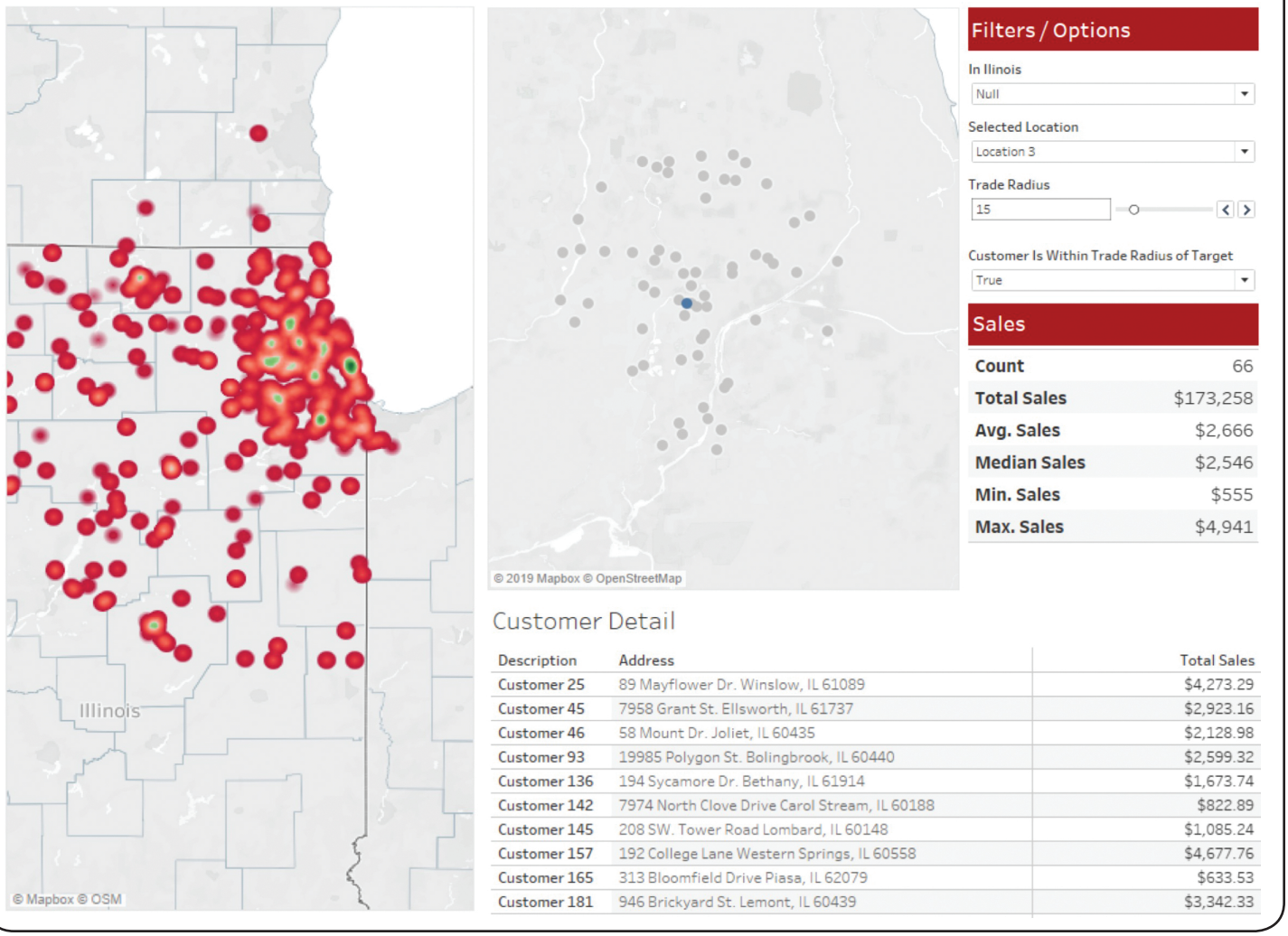
2 Pursuant to 11 U.S.C. § 365(d)(4)(A)(i) (executory contracts and unexpired leases), a debtor has 120 days from the petition date to either assume or reject an unexpired lease of nonresidential real property. This period might be extended an additional 90 days by a court order, bringing the maximum period to 210 days. 11 U.S.C. § 365(d)(4)(B)(i). Once granted, if further extension is needed, it can only be granted upon prior consent of the lessor in each instance. 11 U.S.C. § 365(d)(4)(B)(ii). If the debtor assumes the lease, they are required to cure any defaults and provide "adequate assurance of future performance" under the lease. 11 U.S.C. § 365(b)(1). If the debtor rejects the lease, they must immediately surrender the nonresidential property and the lessor is entitled to file a proof of claim for past-due rent and future obligations under the lease agreement. 11 U.S.C. § 365(d)(4).

3 "Quarterly Retail E-Commerce Sales First Quarter 2019," U.S. Census Bureau (May 17, 2019) at 2, *available at* census.gov/retail/mrts/www/data/pdf/ec_current.pdf.

4 "Digital-Influenced Retail Sales Forecast, 2018 to 2023 (US)," Forrester Analytics (Dec. 10, 2018), *available at* www.forrester.com/report/Forrester+Analytics+DigitalInfluenced+Retail+Sales+Forecast+2018+To+2023+US/-/E-RES145455.

5 Catherine Carlock, "Virtual to Reality: Online Retailers Are Getting into the Brick-and-Mortar Business," *Boston Business Journal* (June 21, 2018), *available at* bizjournals.com/boston/news/2018/06/21/virtual-to-reality-online-retailers-are-getting.html (subscription required to view article).

Exhibit 2: Online Sales Within Trade Area of Location 3



Customer Detail

Description	Address	Total Sales
Customer 25	89 Mayflower Dr. Winslow, IL 61089	$4,273.29
Customer 45	7958 Grant St. Ellsworth, IL 61737	$2,923.16
Customer 46	58 Mount Dr. Joliet, IL 60435	$2,128.98
Customer 93	19985 Polygon St. Bolingbrook, IL 60440	$2,599.32
Customer 136	194 Sycamore Dr. Bethany, IL 61914	$1,673.74
Customer 142	7974 North Clove Drive Carol Stream, IL 60188	$822.89
Customer 145	208 SW. Tower Road Lombard, IL 60148	$1,085.24
Customer 157	192 College Lane Western Springs, IL 60558	$4,677.76
Customer 165	313 Bloomfield Drive Piasa, IL 62079	$633.53
Customer 181	946 Brickyard St. Lemont, IL 60439	$3,342.33

cally introduced to or reminded of the company's brand. Consumers can view, try on or test out the store's merchandise without making a purchase, but might make a purchase from the company via their online store at a later date. Conversely, a customer might order a product online but elect to pick up the product at a retail location. This physical visit might also drive additional retail sales at the brick-and-mortar location.

In a recent *Inc. Magazine* article, Ron Harries, chief financial officer of Fabletics, explained as to why the company (which began as an online-only direct-to-consumer business) recently began opening physical retail locations. He noted that the company realized that they could acquire customers more efficiently through a physical location and that Fabletics observed a 250 percent increase in revenue from its most active online customers within a 30-mile radius of a Fabletics store.[6]

While this interplay between a physical location and online sales can be a powerful driver of revenues, the four-wall analysis typically fails to capture such important data. Companies and their financial advisors might feel that the impact of retail stores on online sales is difficult to quantify, but information is likely readily available if one knows how to take advantage of it. The following is an illustrative example of how a company may analyze this information:

Steps

1. Obtain a listing of the company's retail store addresses;
2. Obtain a ledger of all online sales activity, including customer delivery addresses and sales amounts;
3. Utilize a geocoding API to mark the geographic coordinates of each store and online sales;[7]
4. Estimate the approximate trade area of each store (*i.e.*, what radius or geographic boundaries, if applied, would represent approximately 75 percent or more of the store's customers);[8] and
5. Use a data visualization tool, such as Tableau or Microsoft Power BI, to visually model the available data.

In Exhibit 2, online sales within the 15-mile estimated trade area of Location 3 totaled approximately $173,250. If the company were to assume that 50 percent of these online sales were influenced by the physical presence of Location 3, the "four-wall" contribution margin of Location 3 would shift from negative (-$41,625) to positive ($45,000), as seen in Exhibit 3.

This simple analysis is one of many ways a company may analyze the relationship between retail and online sales. Companies may develop more advanced models by incorporating data such as loyalty program data; phone number, email address or zip code given at checkout; intra-store movement of product (*i.e.*, sensors detecting if product is brought to a dressing room) vs. online sales of such products; and/or in-store geofencing data.[9]

Geospatial Demographic Analyses

A less quantitative, but equally powerful, method of data analytics involves analyzing demographics and demographic trends in the areas surrounding a company's retail stores. This data can be utilized to assess the strategic alignment of the store's trade area with its key customer profiles.[10]

Customer profile data has become increasingly abundant and attainable given recent advances in technology. Certain vendors specialize in capturing such data at brick-and-mortar retailers using methods such as free on-site Wi-Fi. In these scenarios, when a customer connects to the in-store Wi-Fi, they must first initiate a profile using information such as their name and/or email address. On the subsequent login, the network will prompt the customer for different information, such as zip code, birth year or phone number. This way, the vendor gradually builds a profile and is able to track customer activities, including spending patterns and duration, time, day and frequency of visits.[11]

Further, companies might leverage internal online sales databases and loyalty program information to deduce key customer demographics. An example of this is mapping customer addresses to U.S. Census and other third-party demographic information to build expected customer profiles. Such predictive demographics might extend beyond current representations, forecasting future trends. For example, a neighborhood with a historically closed population of people aged 50-70 with average annual income of between $50,000 and $75,000 might have seen a recent influx of peo-

6 Anne D'Innocenzio, "Online Brands Are Embracing 'Clicks-to-Bricks' by Opening Physical Stores in Shopping Malls," *Inc.* (Dec. 18, 2018), *available at* inc.com/associated-press/why-more-online-only-brands-are-embracing-the-brick-and-mortar-experience.html.

7 According to Google, geocoding is the process of converting a street addresses into geographic coordinates (latitude and longitude), which can be used to place markers on a map, or position the map. *See* developers.google.com/maps/documentation/geocoding/start.

Exhibit 3: Contribution Margin of Location 3, Considering Impact of Retail Location on Online Sales

	Location 3
Revenue	
In-Store Sales	$1,125,000
Online Sales Influenced by Store	$86,625
	$1,211,625
Operating Expenses	
Payroll Expenses	($472,500)
Rent Expenses	($643,500)
Other Occupancy Costs	($20,250)
Other SG&A	($30,375)
	($1,166,625)
Operating Income (Loss)/EBITDA	**$45,000**
Add: Rent Expenses	$643,500
EBITDAR	**$688,500**

8 Geospatial distance can be measured in a number of ways, ranging in complexity. One simpler method involves utilizing the haversine formula, a formula derived from trigonometry that calculates the straight-line distance (*i.e.*, as the crow flies) between two points on a sphere (such as a globe). Distance can also be measured in "drive time" (*e.g.*, under 30 minutes) in various ways, including Python scripts or software such as Alteryx coupled with APIs connecting to navigation servers such as Google Maps, Bing Maps or Garmin. Additional options include filtering by zip code or census tract.

9 *Oxford English Dictionary* defines "geofencing" as "The use of GPS or RFID technology to create a virtual geographic boundary, enabling software to trigger a response when a mobile device enters or leaves a particular area." In the context of retailers, geofencing can be used to monitor movements within a store to assess consumer behaviors. Retailers might use this information to analyze the relationship between items browsed by consumers in person and purchased online.

10 Customer profiles are used to analyze and categorize a customer for use in marketing and strategic analysis.

11 "Customer Profile Examples for Marketing," *Bloom Intelligence*, *available at* bloomintelligence.com/customer-profiles/profile-examples.

ple aged 25-32 with annual income of between $100,000 and $150,000, with the expectation of continued younger generations' penetration. Therefore, for example, if an underperforming retailer in bankruptcy has a strong performance among late-20s young professionals with disposable income located in this neighborhood, the company might consider assuming a lease under 11 U.S.C. § 365 despite a negative four-wall contribution margin due to an expectation of increased performance in the coming years. This type of analysis might be also valuable in the event the debtor is considering assuming and assigning a lease to a third party, as such statistics can help market the lease and bring much-needed assets into the debtor's estate.[12]

Tips for Effective Implementation of Data Analytic Strategies

Know your data. Companies and their financial advisors should take advantage of available data in advance of filing for relief under the Bankruptcy Code. When assessing available data, the company should consider linking it together to drive analytics and generate meaningful insights. For example, linking insights from a company's customer-relationship-management system to transactional information in the company's financial accounting software might help a company assess the relationship between customers' retail store visits and online sales activity.

Validate your data. Data should be validated for quality, standardization and completeness prior to performing substantive analysis to avoid false positives or misleading results. Performing periodic proactive data "check-ups" of key company databases (such as master customer listings) will save time and money when the time comes to analyze your data.

Use your data. Once armed with relevant and complete data, a company will be able to more accurately understand the drivers of revenues and go beyond the bounds of typical analysis. Such advanced analytics can help influence more educated and strategic business decisions that can positively affect the outcome of a bankruptcy for a debtor and its creditors. abi

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12 In some cases, a debtor may elect to assume a lease and subsequently assign it to a third party. 11 U.S.C. § 365(f)(2). This may occur if the debtor believes that the lease is under-market (*e.g.*, the current market value of the lease is $12,000 per month and the lease has five years remaining at $8,000 per month). In these cases, the debtor might sell the lease to a third party in exchange for assets.