

Display of Information for Retail at Foot Locker, Inc.

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Dashboards are an effective way to summarize and display complex data to aid in decision making. With more and more data collected by businesses each year there is a risk that management and staff can become overwhelmed with information. Dashboards and other processed information reporting tools help store managers reduce information complexity and increase the ease of data interpretation (Harrauer & Schnedlitz, 2016).

When designing a dashboard for business users it is important to make sure the elements included in the dashboard are aligned with the organization's strategic plan. A study done by Reinking, Arnold, & Sutton (2019) found that dashboards are used more consistently when the audience perceives the dashboard measurements are in line with the executive team's strategy, creating a highly significant positive effect on performance. The same study found that dashboards aligned with the organization's strategy increase the belief that use of the dashboards will result in higher levels of personal and organizational performance.

Dashboards should reflect the information that is most important for each role within the company. Before deciding on what elements to place on any dashboard the design should carefully consider the audience, the messages that the dashboard will convey, as well as how often the data will need to be updated to most effectively aid decision making (Wolf, 2016). Getting buy-in and ownership of the data is key to promoting dashboard adoption, according to Wolf (2016), so stakeholders should be involved in the design process to identify the key performance indicators (KPIs) that are actionable. It may be tempting to get carried away and overload the dashboard with every possible metric that can be measured. The best practice is to include a handful of KPIs focused on the information necessary to make short-term operational decisions, otherwise the audience will be overloaded with information. (Wolf, 2016). Sean

Byrnes, CEO and co-founder of Outlier said this about dashboards in Multichannel Merchant (2020):

In times of uncertain and enormous change, like during the pandemic, being able to focus your attention on just the most critical changes is very beneficial. Access to specific insights each morning, combined with supporting information such as root cause analysis, helps brands shift resources and teams as needed, using rich data-driven analysis, to have an immediate impact.

The material on each dashboard should be reviewed on a periodic basis to validate that it is still important enough to be included among the most important KPIs and the way it is presented can lead to action. After the initial excitement of launching dashboards wears off, users can become immune to warnings if the KPIs being measured constantly flash warning signs (Bumblauskas, Nold, Bumblauskas, & Igou, 2017). A regular review of dashboard content for both presentation and relevance can help avoid that pitfall.

Footlocker, Inc. Overview

Footlocker, Inc. operates a portfolio of banners including Foot Locker, Lady Foot Locker, Kids Foot Locker, Champs Sports, Eastbay, Footaction, Runners Point, and Sidestep at over 3,100 stores in 27 countries on five continents. In addition to its retail stores, the company operates a website and mobile application. Its global headquarters is located in New York City. In 2019 Foot Locker reported sales revenue just over \$8 billion with a net income of \$538 million. (Foot Locker, Inc., 2019)

Starting in 2015 Foot Locker began to implement a big data strategy across all of its banners and websites by consolidating its data into an enterprise system (M. Ksionsk, personal communication, April 14, 2020). The company found that people shopping across more than one

banner were the most valuable customers. The company was able to track customer lifetime value (CLV) to create projections for how much revenue the company would earn from current customers in the next year, according to M. Ksionsk.

Foot Locker automates certain decisions entirely on data (M. Ksionsk, personal communication, April 14, 2020). For example, recommendations on the company's website are automated based on algorithms including market-basket analysis, association rules, and apriori to determine which products are shown to each customer segment. The company also uses big data for retail store staffing plans. Foot Locker tracks how many people enter a store per staffed hour and how that relates to conversion rates. Store managers use this information to help schedule staffing based on forecasts on how many people they expected to see in stores, according to M. Ksionsk.

Job Titles and Descriptions

Foot Locker, Inc. has a large number and wide variety of data users. We will focus on three roles including the Chief Executive Office, Store Manager, and Replenishment Analyst (Merchandiser). The following sections break down each role.

Chief Executive Officer

Supervise and control all strategic and business aspects of the company. Responsible for giving the proper strategic direction as well as creating a vision for success. Develop high quality business strategies and plans ensuring their alignment with short-term and long-term objectives. Lead and motivate subordinates to advance employee engagement develop a high performing managerial team. Oversee all operations and business activities to ensure they produce the desired results and are consistent with the overall strategy and mission. Make high-quality investing decisions to advance the business and increase profits. Enforce adherence to legal

guidelines and in-house policies to maintain the company's legality and business ethics. Build trust relations with key partners and stakeholders and act as a point of contact for important shareholders. Maintain a deep knowledge of the markets and industry of the company.

Store Manager

Lead the store team to provide extreme customer service. Responsibilities include all aspects of store management including recruiting, hiring, training, customer service, visual merchandising, and store operations. Coach and motivate your team members to inspire top performance and an exceptional customer experience. Execute plans to drive key performance indicators to maximize profitability. Enhance brand loyalty by empowering team to create a natural and personable experience for customers. Act as a partner between customers, sales associates, store leadership and corporate business partners. Maintain a high level of customer focus and lead by example with clear and engaging communication.

Replenishment Analyst (Merchandiser)

The merchandiser is responsible for developing and executing assortment plans and managing inventory at multiple store locations to maximize sales and profit. Develop assortment plans in line with strategic goals to allocate needs based on demand. Identify geographic and market trends using statistical analysis, media publications, market visits, competitors and product review with field team. Compile and analyze product performance data identifying missed opportunities. Review weekly performance by style, category, etc. with Buyer, Merchandise Manager and Assortment Manager against plan and forecast. Create and maintain size profiles by store. Optimize inventory levels by monitoring sales and sizing trends.

User Data Needs

Chief Executive Officer

The CEO of Foot Locker is the person most responsible for managing the company strategy and performance. The top executive requires information to compare performance against goals and benchmarks, improve business processes, motivate employees, and improve decision-making to keep pace with or out-perform the competition (Gledhill, 2002).

Store Manager

Operations managers require dashboards concentrated on the information necessary to make short-term operational decisions (Wolf, 2016). An example would be foot traffic per staffed hour. Foot Locker tries to keep that KPI between 16 - 18%. Above 20 usually means lower conversion rates (M. Ksionsk, personal communication, April 30, 2020). If the Store Manager sees that KPI significantly higher or lower than goal, she can adjust the staffing accordingly.

Replenishment Analyst (Merchandiser)

In order to best accomplish their goals, Merchandisers need to monitor distribution center (DC) service levels to ensure Foot Locker has enough stock to fill stores on high velocity articles. For a Merchandiser, the trick is to have the right inventory in the right place at the right time.

Table of Data Items

Table 1 below shows a sample of the data items needed for different user roles in order to best manage their business responsibilities. In each cell is the level at which the data would be aggregated. The CEO would see data at the enterprise level across all stores, brands, and channels. The Store Manager would see data for the store she manages. The Merchandiser would see data related to the specific groups of stores that she is responsible for supplying with product.

Table 1*Dashboard Data Items by User Role*

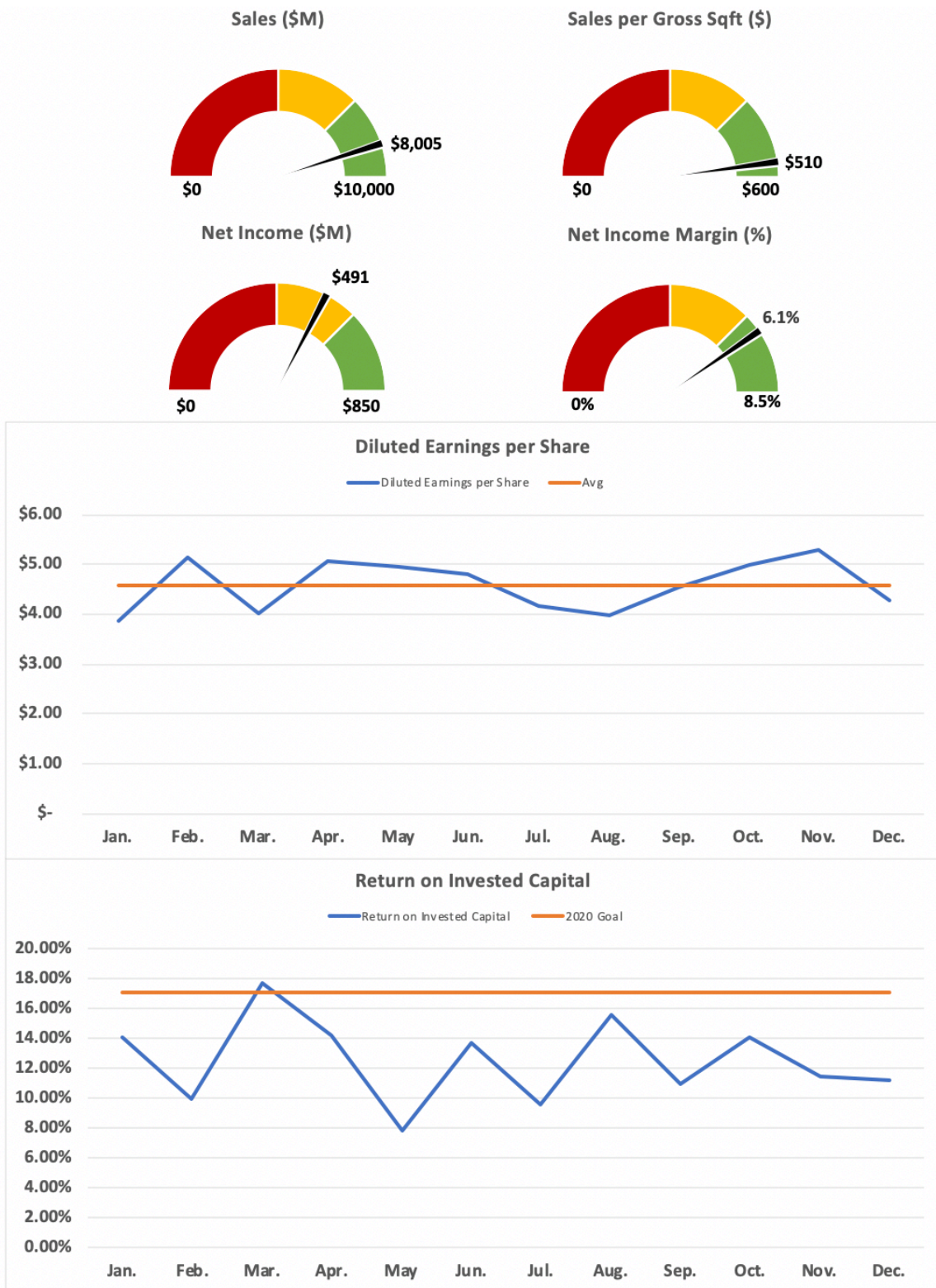
Data Item	CEO	Store Manager	Merchandiser
Sales	Enterprise	Store	
Sales per Gross Square Foot	Enterprise	Store	
Net Income	Enterprise		
Net Income Margin	Enterprise		
Diluted Earnings per Share	Enterprise		
Return on Invested Capital	Enterprise		
Foot Traffic Per Staffed Hour		Store	
Conversion Rate		Store	
Customer Retention Rate		Store	
Inventory Turnover, by Store			Group
Classification In-stock Percentages			Group
Inventory Ownership Levels vs. Plan (Open to Buy)			Group
DC Service Levels			Group

Dashboards

The CEO's dashboard is represented by Figure 1 below. In 2015 the CEO of Foot Locker, Richard Johnson, announced the goals he wanted the company to hit by 2020, including Sales of \$10B, sales per gross square foot of \$600, net income margin of 8.5%, and return on invested capital of 17% (Berthiaume, 2015). The four top dials show the overall status of the company related to the corresponding goals. The diluted earnings per share is shown over the months of 2019 along with the average over the same time period. The final widget shows the monthly return on capital invested over 2019 as compared to the 2020 target.

Figure 1

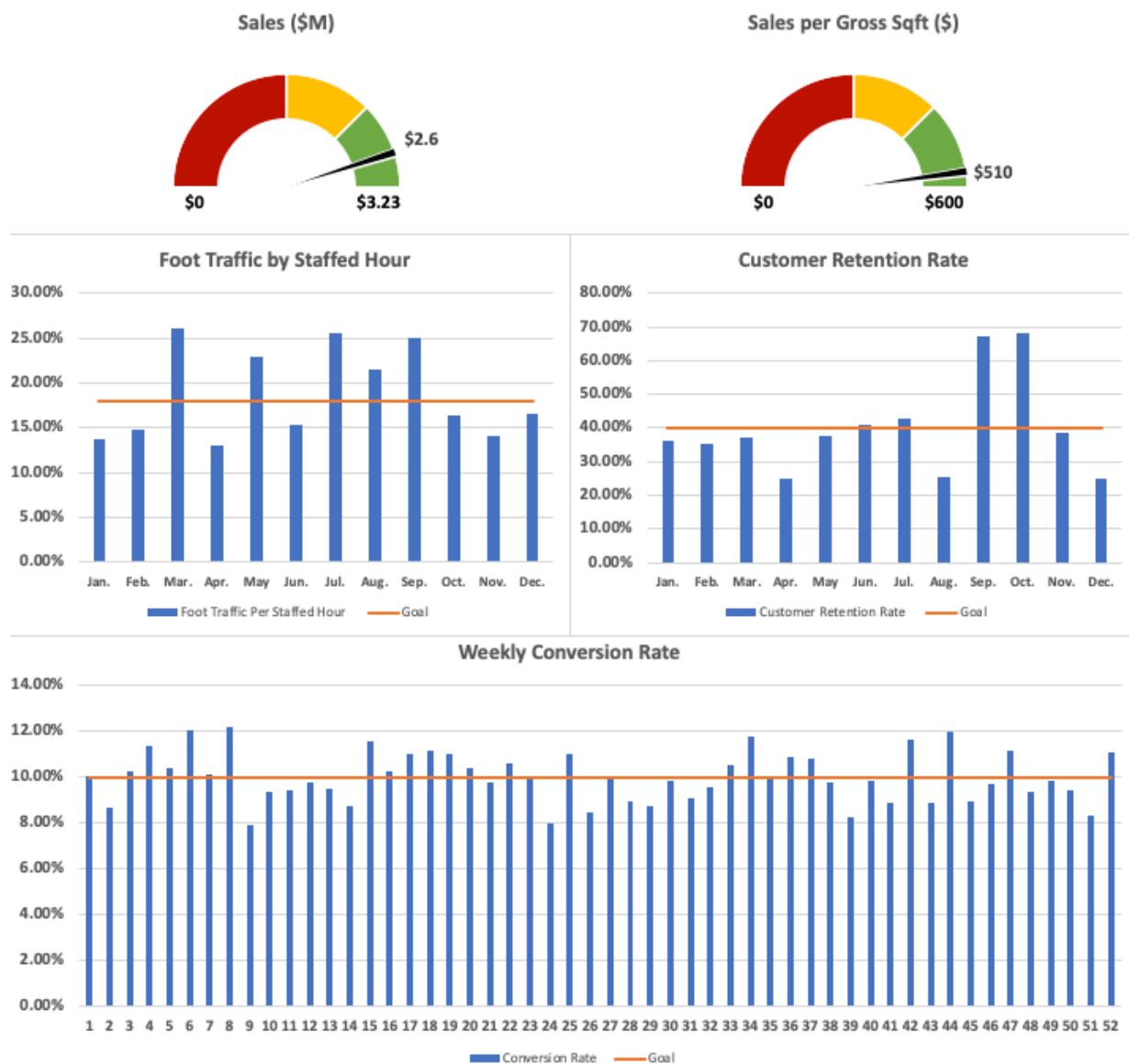
CEO Dashboard



The Store Manager's dashboard shows dials with current status of the sales and sales per gross square foot at the store level relative to the 2020 company targets. The next two widgets are at the month level for the store showing Foot Traffic by staffed hour and customer retention rate, relative to Foot Locker's target values as provided by former Foot Locker Senior Data Scientist M. Ksionsk in personal communication (April 30, 2020). The final widget is the weekly conversion rate, which represents the number of customers who made a purchase in the store, as compared to Foot Locker's target.

Figure 2

Store Manager Dashboard



The Merchandiser's dashboard shows data at either the level of the group of stores she buys for, or at the store level for that group. These industry benchmark values were provided by Robert Will, Chief Merchant for JoAnn Fabrics in personal communication (April 30, 2020). The classification in-store percentage is shown at the month to date level. For Foot Locker that is a measure of the percent of the time the store would have the shoe size, style, and color a customer wants. Inventory turnover is the measure of how many times a store sells thru its inventory in a year. Foot Locker has a 2020 turnover goal of 3.0 (Berthiaume, 2015).

Open to buy is a measure of how much money you have to spend on new receipts. It's the merchandiser's budget and it goes up and down vs. your plan based on what the store sells vs. its plan. In the retail fashion industry, it's good to maintain a 2-3% buffer so the merchant can chase a trend, or in case sales suddenly decline due to a global pandemic (R. Will, personal communication, April 30, 2020).

The retail fashion industry distribution center (DC) service levels benchmark is about 60% (R. Will, personal communication, April 30, 2020). The DC service level is the buffer inventory to flow back to stores, speeding up the supply chain, especially from Asia. R. Will notes that retailers want to have as much of their inventory in stores where they can sell it as possible, but companies must balance what is in the DC, so they don't end up with all of their size 13 inventory located on the other side of the country.

Figure 3

Replenishment Analyst (Merchandiser) Dashboard



Summary

As companies collect more and more data each year it is important to have tools that can quickly summarize the state of the business to inform decision making an action. Dashboards are a valuable tool to keep employees at all levels of the company informed. As companies roll out or revamp their dashboards, they should include the end users to gather input, and increase buy-in and usage. Dashboards metrics should be tied to the organization’s strategy to increase performance but only pick a few key metrics, or else the user will be overwhelmed with data.

Finally, once deployed, companies should routinely revisit their dashboards to make sure the data is still relevant or should be replaced with more useful measures.

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