



Wilson Perumal & Company's  
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▶ ***A Simple Approach to Retail Clustering***

Gain the benefits of localization without breaking the budget on new systems



Localization is a key topic in the minds of today's retail executives, and for good reason: at its heart it's about reaching customers unique preferences while preserving scale in the business. Many retailers have leveraged the strategy to good effect. For example, Macy's has used their My Macy's initiative to help drive an impressive 12 consecutive quarters of same store sales growth of at least 3%<sup>1</sup>. In a 2011 Vantage Point article<sup>2</sup> we provided a detailed look at Macy's localization initiative, but Macy's isn't alone. Many other leading retailers such as Walgreens and Dollar General are also successfully pursuing localization strategies to help drive top-line sales.

Localization can impact your business in a variety of ways. It can help bring increased same-store sales growth—as in the case of Macy's—or it can be used as a means to differentiate your stores in an increasingly standardized marketplace. Unfortunately, anyone putting their toe in the waters of localization may quickly find the strategic benefits of the approach obscured by the need for expensive and complex IT systems. In fact, we would assert that many of the beneficial elements of localization can be implemented without significant investment in systems. In this article, we lay out a simple yet effective approach to localization that you can start implementing today.

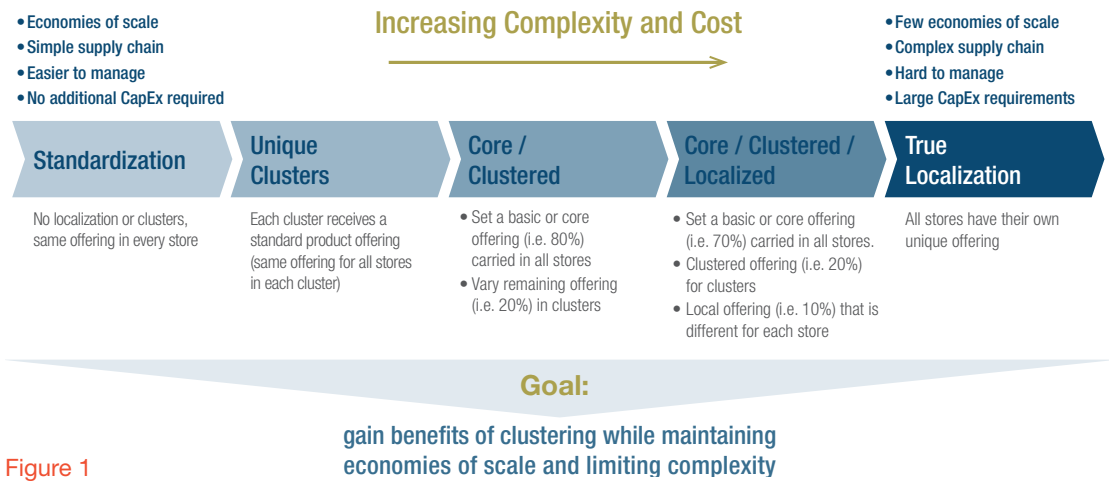


Figure 1

<sup>1</sup> Macy's 2012 Annual Report  
<sup>2</sup> "Localization with Scale: A Winning Strategy for Sustainable Profitable Growth", 2011 Issue #1, www.wilsonperumal.com

Localization is a key topic in the minds of today's retail executives, and for good reason: at its heart it's about reaching customers unique preferences while preserving scale in the business.

### Localization vs. clustering

Localization can be as simple, or as complicated, as you want to make it, and there is a spectrum of options (see Figure 1). With that in mind, we will provide a brief overview of some of the ways localization can be approached. But first, some definitions:

**Localization:** tailoring aspects of your stores (product assortment, store layout, pricing, promotions, etc) to cater specifically to the local population. Total localization would imply that each of your stores is completely unique from the rest.

**Clustering:** a simple form of localization that groups together stores with similar customer bases with the goal of tailoring each cluster to better serve those customers. For example, Target offers hats and t-shirts of local sports teams based upon where their stores are located—Target stores in the Denver area have Broncos and Rockies apparel, while shoppers in Boston area Target stores would find Red Sox and Patriots gear.

Figure 1 contains only a few of the many types of clustering you can pursue in your journey towards localization. The unique needs of your business along with your existing capabilities will determine the type of clustering that is best for you. Regardless of which approach you choose to take, your goal

should be to find the right level of clustering to: (1) gain the benefits of localization, (2) maintain economics of scale, and (3) minimize added cost, complexity, and risk.

### A simple approach

Our experience suggests that it is possible to identify and implement a clustering approach that is right for your business—without the need for new systems or major organizational changes. To make this happen, we recommend a simple approach using basic analysis and your existing processes and organization.

Why take a simple approach?

- › **Limit your investment** while still gaining most of the benefits of localization
- › **Add less complexity** by minimizing changes to your existing processes and organization
- › **Retain flexibility** to continually improve and innovate your approach

The benefits of retaining flexibility cannot be overstressed. A major investment (whether an IT system or organizational change) often brings with it a need to show significant results – and quickly. If results take longer than expected, the entire initiative may be cancelled before it has a chance to succeed. Limiting your initial investment avoids this problem and preserves your ability to change, innovate, and improve as you drive towards success.

Next we'll dive into how to:

- › **Prepare:** gather data and develop your plan
- › **Analyze:** analyze your data and determine how best to cluster
- › **Execute:** roll-out your chosen clustering program to your business

## Prepare

The first question you need to answer in this phase is: why do you want to cluster? Clustering can of course be used to help you maximize revenue or profitability. However, it can also be used to achieve other goals such as optimizing pricing, minimizing waste, or even help differentiate versus competitors (i.e. making decisions based upon which competitors are nearby).

To help simplify, we'll assume the goal of maximizing revenue going forward. Revenue per square foot could also be used if your

store sizes vary significantly. A final simplifying assumption is that we will only be varying product assortment in our clusters rather than other possible aspects (pricing, layout, promotions, etc).

A second question that is important to ask in this phase is what capabilities does your organization have – or currently lack – to execute clustering successfully? Can your supply chain handle sending different products to each cluster? Can your buyers change their behavior to now bring in products for select clusters only? Will your flyer or promotion process need to change? Ask each functional area in your organization how clustering will impact them, and listen carefully.

The final piece of preparation needed is to gather data. This will either be the easiest or the most difficult part depending upon your organization and systems. See the sidebar - Data Needs for Simple Clustering - for more information.

## Data Needs for Simple Clustering

The exact data you need will depend upon which clustering approach you go with. To help you get started, here are some common types of information you may need:

**Store:** *revenue, profitability, size, etc*

**Customer:** *demographics & purchase history*

**Local area:** *demographics, climate, etc*

**Location:** *nearby competitors, co-located stores, geography, area type, etc*

**Current customers vs. potential customers:** Data from your current customers may be helpful but chances are you understand who your existing customers are and already work to maximize their basket size. What is often more beneficial in a clustering analysis is information about your potential customers (i.e. local area demographics).

## Analyze

Analysis will be the heart of your clustering work. The first piece of analysis will be determining which variables are most helpful in dividing your stores into clusters. Given our decision to maximize revenue, this means that we'll be comparing all the data we gathered to store revenue to see what correlates best. A simple correlation analysis (as opposed to regression) will suffice for now as we're only looking for evidence that a relationship exists<sup>3</sup>.

Some quick spreadsheet work (or longer, depending upon when you last worked with spreadsheets) can turn your correlation analysis into a heat map to help you visualize which variables have the strongest relationships with store revenue. In the example shown in Figure 2, we also broke down store revenue into individual departments and ran correlations against those as well (this isn't necessary but can be helpful later in the process).

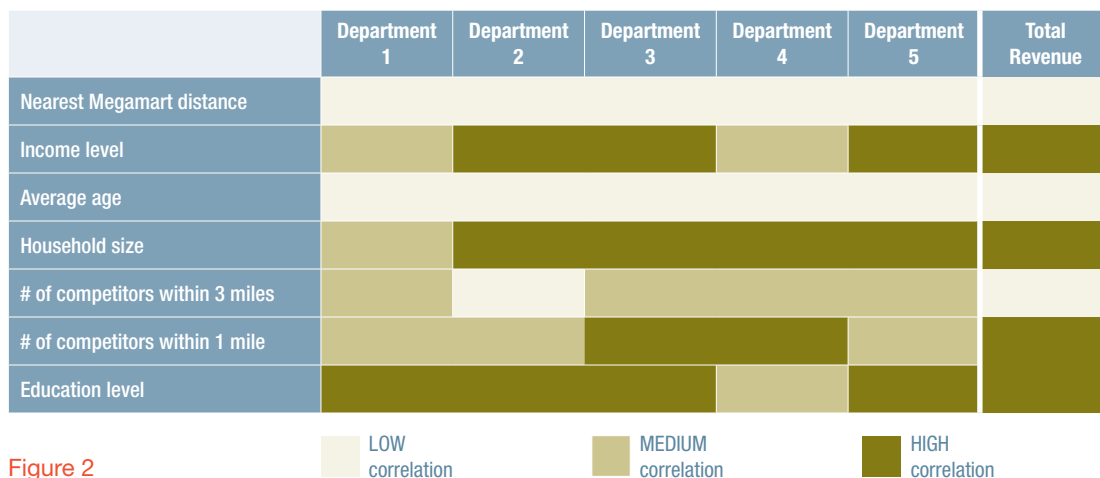


Figure 2

Looking at the heat map shown in Figure 2, four variables appear to have strong correlations with total revenue: (1) income level, (2) household size, (3) competitors within 1 mile, and (4) education level. In this example, Household size actually has a negative correlation (better store performance with smaller household size) though it shows on this heat map simply as a strong correlation.

With the correlation analysis complete, we now have a better understanding of which variables to use to separate our stores

into clusters. Next we'll use the highest correlating variable (which was education level in this case) to separate our stores into two clusters—a high group and a low group.

Once you rank your stores by education level (highest to lowest), you need to determine how to divide your stores into two groups. It's possible to simply cut your stores into two groups of equal size. Unfortunately, this doesn't always give you the best results. A better approach is to seek to maximize the differentiation between the two groups—

<sup>3</sup> It is also possible to use more advanced techniques such as k-means clustering though this would require use of a more sophisticated data mining software platform

such as finding the point where the average education level between the two groups is furthest apart. For example, you may have “high education group” consisting of 100 stores where 75% of the population has a college degree and a “low education group” with 300 stores where only 30% of the population has a college degree.

Congratulations! You have now successfully clustered your stores into two groups. However, before sub-dividing your clusters further, it's helpful to re-run your correlation analysis for each cluster. New variables may have emerged with strong correlations and you'll want to take these new variables into consideration when you create sub-clusters.

**After you've created your clusters, they should each have a unique profile—a story that your commercial team can use to determine which products to carry in each cluster.** For example, one cluster may be affluent couples without children who want fresh and organic food, but don't like to cook. If you went ahead and ran correlations at the department, or sub-department levels, you may even have evidence to suggest exactly which types of products each cluster prefers.

## Common pitfalls and what to do

Once you've created your clusters, what happens if you can't make a story for your commercial team or there are no discernible differences in purchasing behavior between your clusters? Here are some suggestions to help:

### › Remove average stores

If you find that many of your stores are “average” and don't show major differences from others, go ahead and remove them and create a new “average” cluster. This reduces their diluting affect on the other clusters.

### › Manually move stores

Manually moving stores from one cluster to another can be helpful if you think your analysis missed key cut-off points.

### › Pick new variables

Start over and pick new variables that showed strong correlations (but weren't necessarily the strongest).

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## Execute

If you aren't making major changes to your processes or organization, execution may not be as lengthy a process as you might think. Chances are your organization already implements new initiatives periodically such as testing new store layouts or introducing new products. But don't take the execution phase for granted. This is still a cross-functional effort involving coordination with your suppliers, the creation of new planograms, training store personnel, and so on. It may also be useful to develop a pilot program using only one or two clusters of stores initially and then transition to more clusters once your organization adjusts to the concept.

What will be unique to your clustering initiative is the level of follow-up required. One of the great benefits of this simple clustering approach is the freedom you have to continually innovate and improve the process. To make this happen, you'll need to periodically evaluate your initiative and determine if changes are required. Is one cluster not performing as well as the others? Have the demographics in some areas changed enough to warrant modifying your clusters? Clustering is an iterative process that requires you to periodically reassess, innovate, and improve your efforts.

## Summary

The beauty of retail is that every day your customers give you feedback. Retailers understand the value of experimentation and fast-cycle development. The same philosophy can be applied to localization— helping you achieve the benefits of greater customer relevance with scale economies, but without the headache and cost that can come with disruptive IT investments or large programs. This approach is not the 100% solution, but it begins to create the insights that will inform your localization efforts, preserving flexibility and the opportunity to test and learn.

What will be unique to your clustering initiative is the level of follow-up required. One of the great benefits of this simple clustering approach is the freedom you have to continually innovate and improve the process.

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