

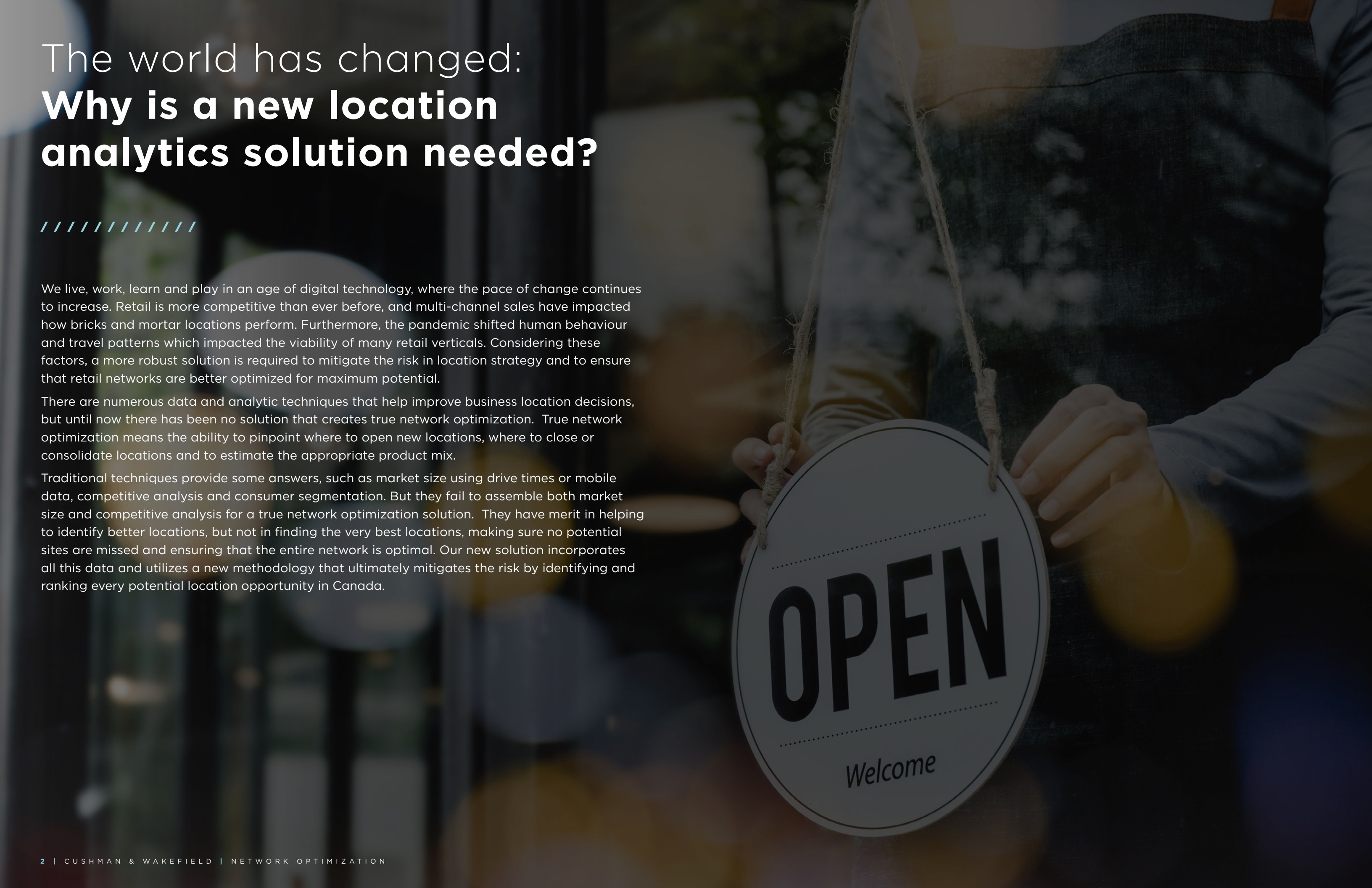
The Future of **RETAIL NETWORK OPTIMIZATION**

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**A NEW DATA DRIVEN INTELLIGENCE
SOLUTION IS REVOLUTIONIZING
HOW LOCATION NETWORK
OPPORTUNITIES ARE ANALYZED
AND REPORTED TO MAXIMIZE
REVENUE POTENTIAL.**



Written by Michelle Louko and Gary Warkentine

A person wearing a dark apron is holding a circular sign with the word 'OPEN' in large, bold, black letters. Below 'OPEN', the word 'Welcome' is written in a smaller, cursive font. The sign is hanging from a string. The background is a blurred outdoor scene with trees and a fence.

The world has changed: **Why is a new location analytics solution needed?**



We live, work, learn and play in an age of digital technology, where the pace of change continues to increase. Retail is more competitive than ever before, and multi-channel sales have impacted how bricks and mortar locations perform. Furthermore, the pandemic shifted human behaviour and travel patterns which impacted the viability of many retail verticals. Considering these factors, a more robust solution is required to mitigate the risk in location strategy and to ensure that retail networks are better optimized for maximum potential.

There are numerous data and analytic techniques that help improve business location decisions, but until now there has been no solution that creates true network optimization. True network optimization means the ability to pinpoint where to open new locations, where to close or consolidate locations and to estimate the appropriate product mix.

Traditional techniques provide some answers, such as market size using drive times or mobile data, competitive analysis and consumer segmentation. But they fail to assemble both market size and competitive analysis for a true network optimization solution. They have merit in helping to identify better locations, but not in finding the very best locations, making sure no potential sites are missed and ensuring that the entire network is optimal. Our new solution incorporates all this data and utilizes a new methodology that ultimately mitigates the risk by identifying and ranking every potential location opportunity in Canada.

The pitfalls of clustering: How do you break away from the pack?



Canadian retail networks are predominately distributed around a clustering strategy, where numerous competing retailers locate in the same trade area, often across the street from each other. This is often the easiest location strategy and requires limited due diligence because it mimics the strategy of the competitor. While retail clusters bring us the convenience of shopping centres and malls, they often lead to over-clustering, where you have too many retailers for the size of the trade area. This can create hit-and-miss networks where there are too many retailers in some areas and not enough in others.

Over-clustering is a much bigger retail problem than one can imagine. It is common across virtually all retail verticals including banking, groceries, clothing, home improvement and others. In fact, over 80% of Canadian retail exists in clusters where there are three or more competitors within a single trade area.

In the long-term, over-clustering stalls retailers by creating a no-win environment referred to as Nash Equilibrium, where retailers have no incentive to deviate from their original strategy. It is a state where no one relocates because it means relinquishing your clientele to the competitors across the street.

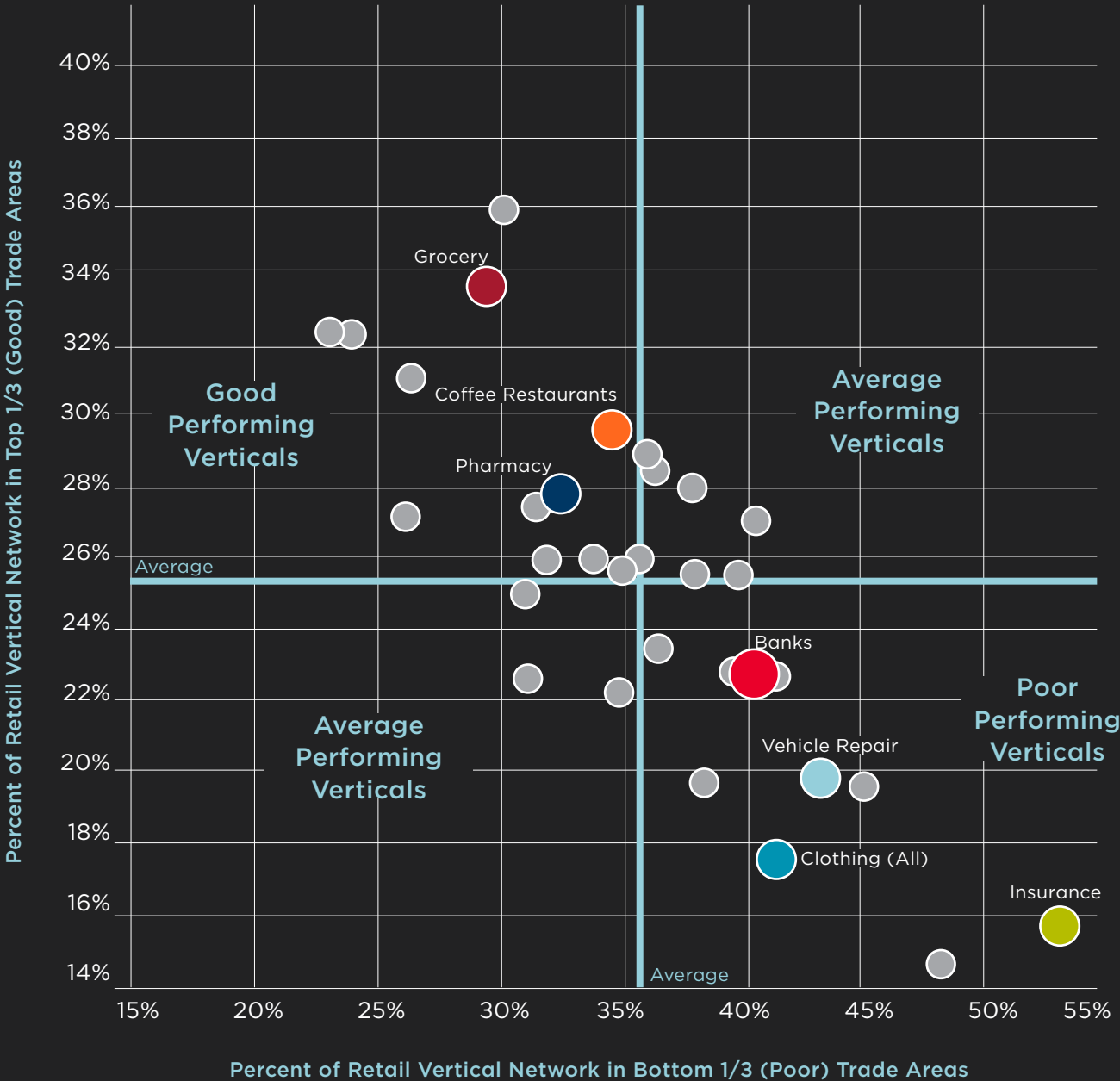
However, not relocating means limping along with lower profits that can ultimately limit the ability to expand to better locations. In the end, the only practical option is to spend more on marketing, store experience and customer service, or to lower prices, to try and increase sales.

Thirty-three retail verticals, ranging from the very large banking vertical to the small vitamin/supplement vertical, have been studied to evaluate how well each performs. Close to 5,000 trade areas are ranked for market potential by individual retail vertical.

The following quadrant graphic shows that over two thirds of the 33 retail verticals measured have more retail locations in poor market potential trade areas than in good areas.

This means that there are over 90,000 individual retailer sites that are currently positioned in poor locations. Relocation of over 14,000 sites would be required to improve all retail verticals to an average level – which means just as many locations in good areas as poor areas. This represents an enormous opportunity for business expansion and contraction in every retail vertical in Canada, including those in the best performing verticals.

RETAIL PERFORMANCE BY INDUSTRY VERTICAL
Percent of Retailers in Good vs Poor Performing Trade Areas



23% of the **banking network** is located in trade areas with good market potential and 41% in trade areas with poor market potential.

Flawed methodologies: Why did it happen?



There are two major reasons for over-clustering.

1 First, conventional location analytics are flawed. They typically only use consumer spend data, which is notoriously double counted, and doesn't include the impact of competition. This exaggerates the anticipated profitability of a trade area and therefore the number of competitors a trade area can support. The problem stems from the complexity of consumer choice and the fact that conventional methods don't account for trade area leakages. Leakages occur when consumers purchase goods and services in both their 'home trade area' and adjacent competing trade areas. Therefore, drive-time analytics and mobile data with geo-fenced derived trade areas typically overestimate the market size. When trade areas are too large, they overlap with adjacent ones. While this helps explain consumer choice, it results in double counting consumer spend estimates at the trade area level resulting in a major source of error in network planning decisions.

2 Second, the frequency of consumer visits for many verticals is very low and many have declined due to covid influenced behavioural changes, online shopping, and digital transformation.

For example, the widespread use of digital banking means consumers seldom physically visit bank branches, except when they want to do a major transaction. The decline in consumer visits, however, does not negate the locational value of the branch, but it has shifted its value over the last decade. Less customer visits to the bank creates a poor feedback loop for the benefits of a physical bank branch. In fact, it is possible that the lifetime revenue stream from one bank customer could be entirely based upon one single physical branch visit such as for the acquisition of a mortgage (although mobile mortgage services are growing, too).

The quadrant map indicates the grocery vertical is one of the best performing. 'Best performing' means 'good performing' trade areas outnumber 'poor performing' ones. It also has one of the lowest levels of retail clustering and has one of the best feedback loops of all verticals due to frequent customer shopping. Note how the pharmacy vertical performs slightly lower, followed by banks, vehicle repair, clothing and finally insurance. The overall network performance of many verticals generally follows the frequency of consumer visits.

Retail verticals with a high frequency of visits have a much quicker feedback loop which often leads to better performing networks. In contrast, banking and insurance have limited feedback after the initial visit and hence have poor performing networks. This reiterates that verticals without a strong feedback loop tend to have weaker networks because they lack consistent customer visits which provide a measure of network performance. It also makes low-feedback networks the most precarious because they rely on so few consumer visits. This puts an enormous amount of importance on location choices, especially for retailers with few physical customer visits. When a customer visits a retailer only once a year, such as a bank, wealth manager, insurance broker or tax consultant, the location becomes exponentially more important to the success of their business.



Convenience reigns: A revolutionary new approach.



Optimizing a retail network and reducing the risk of choosing a poor performing location requires a new approach. The breakthrough of this new approach is how it brings both supply and demand data together using a unique overlapping layered trade area methodology to explain consumer choice and retailer profitability. Based on decades of research and development it cracks the code on consumer retail choice and travel patterns by deconstructing it into seven quantifiable trade area types ranging from the small Neighborhood to the largest Super Regional trade area. These trade areas can then be intelligently measured and accurately predicted to compare market potential for each trade area regardless of size.

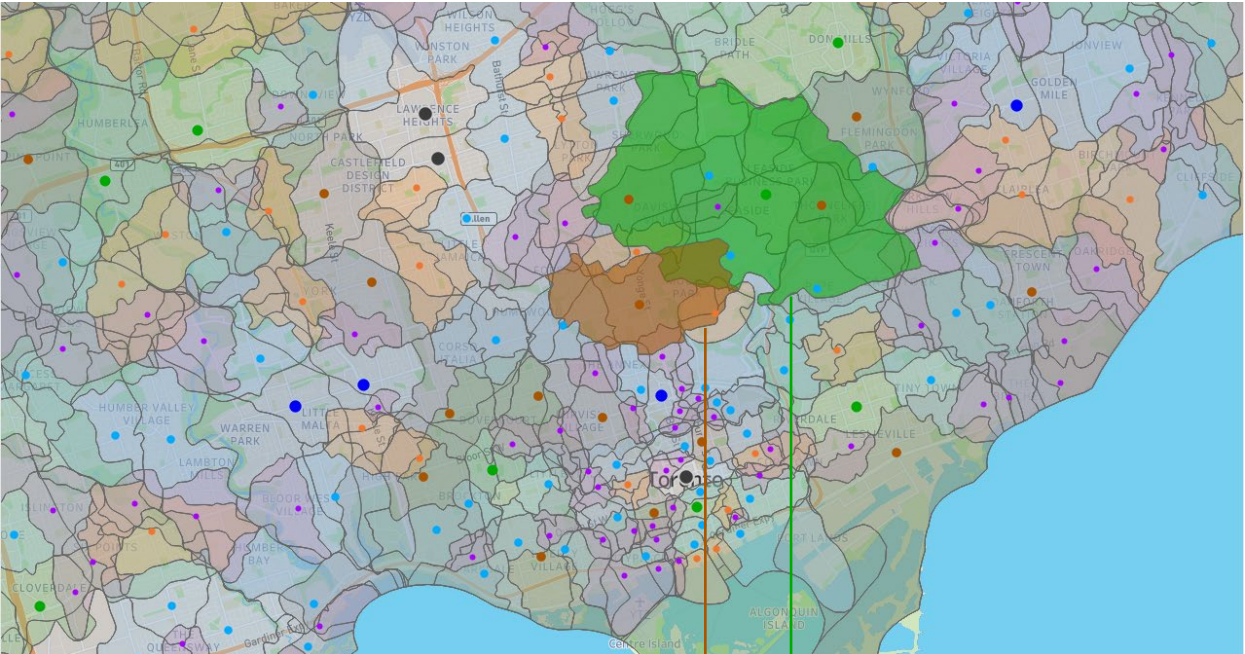
Consumers choose where to shop based on the trade-off between convenience and the size of the retail offering. The larger the retail offering, the more consumers are willing to be inconvenienced and vice versa. Measuring these shopping decisions becomes the foundation of the technique. It is how retail networks can now be optimally located for maximum customer convenience, even if the customer base only periodically visits, as in the previous bank example. It is what makes this a true innovative technique in location planning and network optimization.

The image on the adjacent page illustrates the hierarchy of the seven trade area types.

Trade areas are also categorized into ‘home trade areas’ where consumers live and ‘adjacent trade areas’ where consumers naturally migrate to purchase higher order goods and services. In this illustration, notice the brown trade area that is classified as a ‘Small Community’ trade area with most of the retail located around the St. Clair Centre. Note that the upper right segment of this trade area overlaps with the higher order ‘Large Community’ trade area called SmartCentres Leaside. Households in this overlapping area will naturally migrate from the St. Clair Centre trade area to the SmartCentres Leaside trade area if the goods and services are not conveniently available.

In the example of a bank, customers will likely not travel far and simply choose a competitor located in their ‘home trade area;’ in other words, migration or leakage would be low for the banking vertical. However, for clothing, a consumer would likely travel or migrate to a larger shopping centre. This is an illustration of only two adjacent trade areas and two verticals; creating a solution that incorporates the seven trade area types while ranking market potential across industry verticals is quite complex.

TRADE AREA TYPES



- LARGEST
- SUPER REGIONAL**
GLA > 1 million square feet
Enclosed mall and power centre
The largest centres with multiple large anchors
 - REGIONAL**
GLA > 800k square feet
Enclosed mall and power centre
Oriented to all consumer needs
 - LARGE COMMUNITY**
GLA 400-800k square feet
Enclosed mall and power centre
Oriented to weekly and daily needs
 - SMALL COMMUNITY**
GLA 250-400k square feet
Anchors with full sized supermarket, 1+ big box store
Oriented to daily and weekly needs
 - LARGE NEIGHBOURHOOD**
GLA of 100-250k square feet
Anchors with full sized supermarket
Oriented to daily needs
 - SMALL NEIGHBOURHOOD**
GLA <100k square feet
Anchors with grocery store
Oriented to daily needs
- SMALLEST

Large Community
SmartCentres Leaside

Small Community
St. Clair Centre

Benefits:

Taking it to the next level.



- ✔ Brings both supply and demand data together for each individual trade area and creates the foundation for true network optimization.
- ✔ Allows the market potential to be measured, scored and ranked across all trade areas in Canada (approximately 5,000) regardless of size to uncover the best opportunities ensuring none are missed.
- ✔ Ensures customer spend data is not double counted due to the equilibrium modeling analysis. This uses the relative strength and location of retailers (supply) to estimate the share of wallet consumers spend (demand) in their 'home trade area' versus spending in nearby trade areas along their natural shopping path.
- ✔ Creates a much higher level of accuracy by using a sophisticated calibration process than conventional methods, even without customer point-of-sale data.
- ✔ Accounts for the interplay of consumer shopping behaviour across multiple verticals and explains how purchases in one vertical can influence purchases in other verticals.
- ✔ Assesses how an existing network aligns with an optimized location solution - the least overlap with maximum potential.

Important considerations: When analyzing your networks.



ACCOUNT FOR CONSUMER MIGRATION

Trade areas that are created using mobile data or drive analysis can be an approximate estimate of market size but they do not capture the proportion of the market that stays in the trade area versus the proportion that migrates or leaks to other nearby areas for the purchase of goods and services. Migration ranges between 25% and 75% depending on the type of trade area and the type of goods and services. Accounting for migration eliminates the traditional inaccuracy in estimating the potential opportunity and allows for a fair “apples to apples” ranking and comparison of actual market size or market reach between trade areas.



INCLUDE COMPETITIVE SET

Mobile data and drive analysis methods don’t include the impact of competition. Looking for areas of high demand using “hotspot” analysis may appear to illuminate good location opportunities but neglects to account for competition which may render them poor opportunities. For example, there may appear to be a lot of “demand” in an area making the spot look attractive, but after competition size and migration are accounted for, this area may in fact be a poor opportunity.



ESTIMATE POTENTIAL ACCURATELY

Locational analysis that does not include the impact of migration and competition will overestimate the market potential of a trade area, and therefore can’t be used to identify where to improve network performance. This leads to over-clustering of competitors in some trade areas and no competitors in other trade areas. This results in low performing retail networks, which can never experience the benefits of a location advantage, while leaving retail networks vulnerable to expansion by other retailers. It is important to ensure that a retail network’s potential is accurately estimated to capture expansion and consolidation opportunities.



START WITH MACRO FACTORS

Traditional approaches often begin with demand (consumer) data such as segmentation and demographics and starts an analysis from a micro perspective rather than a macro perspective and may steer the analysis in the wrong direction. Looking at the big picture of total consumer demand, and then overlaying it with other segmented or demographic data ensures that micro factors don’t overtake the macro supply and demand factors; this can be a major source of errors when it comes to decisions about bricks and mortar.



CONSIDER THE BIG PICTURE

The commonly used “hotspot” approach only considers a small number of potential location opportunities rather than evaluating every possible location opportunity resulting in missed opportunities. There may be trade areas where consumer demand appears low, but because there is no consumer migration, and very little competition, they are excellent opportunities that would normally be overlooked. It is important to score and rank all trade area possibilities, then evaluate them from the top to assess feasibility as you work your way down the list (availability, cost per sq ft, sustainability, etc.).

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.[illegible]

ABOUT CUSHMAN & WAKEFIELD

Cushman & Wakefield (NYSE: CWK) is a leading global real estate services firm that delivers exceptional value for real estate occupiers and owners. Cushman & Wakefield is among the largest real estate services firms with approximately 50,000 employees in 400 offices and 60 countries. In 2021, the firm had revenue of \$9.4 billion across core services of property, facilities and project management, leasing, capital markets, and valuation and other services.

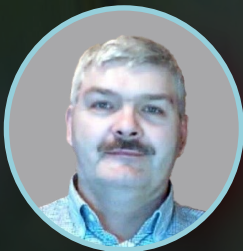
Cushman & Wakefield's clients across the globe can expect a strong bias for action, a rigorous focus on results, value created through insight, and the right people powered by the right platform — on every assignment, every time.

Our capabilities truly reflect client needs, and client success reflects the strategic execution of this business model, our progressive world view, and the value derived from the industry's top talent worldwide.

ABOUT THE AUTHORS



Michelle Louko, Director of Strategic Consulting in Canada for Cushman & Wakefield, specializes in retail location optimization and is an expert in sourcing data to solve complex client initiatives. She also specializes in customer analytics, target marketing, consumer profiling and leads innovative initiatives in software and services development. Michelle has a degree from UBC Sauder School of Business.



Gary Warkentine is a Canadian expert in measuring market potential and finding the best opportunities in business and agribusiness. He has extensive experience in solving complex economic problems using statistics, mathematics and economic models. In the mid-1990s, he pioneered "Thinking in Layers": a new spatial optimization framework and GIS modeling process for site selection and network planning. Gary has a Masters degree in Agriculture Economics.