Dynamic Routing offers major productivity benefits in return for a more flexible working approach in Field Sales, but what should brand owners consider before making such a change?

This White Paper considers the pros and cons of implementing a dynamically changing grocery store visit schedule in both the Modern Trade and Traditional contexts.
Introduction—A Definition of Dynamic Routing

Field Sales resources are typically deployed in a relatively rigid way in grocery retail. Brand owners decide which retailers and stores to visit, then assign a visit frequency (how many visits per year) and visit duration (how much time is spent in the store).

To optimize efficiency, these visits are grouped into sales territories of relatively equal workload for each field salesperson and each day’s work is sequenced to minimize travel time.

Unless there is a fundamental change in circumstances, (a retailer changes its policy on allowing field sales people to visit for example) this plan is normally reviewed annually at best.

Frequency and duration calculations are the most important drivers of the resource requirement. In arriving at these values, the brand owner will consider the sales value of the store for its own product range, its promotional program and the range of store level activities agreed with retailer’s Head Office.

The output allocates the greatest resource to the best-selling stores and vice versa for the smaller stores.

In a Dynamic Routing implementation, a radically different approach is taken. The key premise is that in a rapidly changing retail environment, far greater value can be extracted from a day’s work by analyzing the latest store level data then assigning resources to the stores where the greatest impact can be made on the field sales investment.

In its purest form, this means analyzing the latest data overnight, then transmitting the optimal visits for the day ahead to the salesperson’s mobile device. Taking this approach to its logical conclusion, the stores with the biggest issues would get a huge proportion of the resource, while efficient stores with few issues would get very little.

The lack of contact with the best stores can eventually have a negative impact on sales. Regular visiting allows salespeople to develop relationships with store personnel. This in turn can lead to favorable treatment being given to a particular brand—extra discretionary space for example or a focus on ensuring excellent On-shelf availability (OSA). It is therefore clear that visits to stores are not made simply to fix problems. The store visit also offers an opportunity to amplify the brand owner’s trade marketing program and achieve local differential advantage.

For these reasons, it is important to balance the incremental sales on offer from taking a visit out of sequence against the need for regular store contact with its consequential benefits in terms of activity amplification.

Let’s now consider some of the factors that make a Dynamic Routing approach worthy of consideration.
What Problem Does Dynamic Routing Solve?

Analysis of Field Sales ROI demonstrates that there is a wide variation in the level of incremental sales generated by field sales teams’ visits to apparently similar stores, even within the same retailer estate.

Often this variation can simply be a reflection of the different skills and effectiveness levels within a sales team, but when the same salesperson produces varying results in similar outlets, we need to look more closely for an explanation.

For the sake of clarity, we define incremental sales as the additional sales generated directly as a result of the salesperson’s recorded actions in store. Fixing a stock error for example, building a display or negotiating a bigger order.

Earlier we considered the two main sources of incremental sales associated with a salesperson’s visit to a store.

Broadly speaking, the first of these sources relates to fixing problems or issues in store, while the second is about amplifying trade marketing initiatives.

Dynamic Routing relies on identification of problems as its trigger for a change in plan. We can assume that a well organized brand owner has a good understanding of those stores most responsive to its field sales team as a result of analyzing historic activities and results.

Stores which consistently allow extra display sites or promotional materials will normally generate higher sales and this impact can be quantified. This greater opportunity for amplification is correctly translated into a higher visit frequency together with a greater time allowance in store to take the sales driving actions.

The route plan needs to be adjusted only when things go unexpectedly awry.

For instance, if a store which is normally highly compliant in terms of executing the promotional plan doesn’t record an uplift on Day One of the new promotion. Similar stores in the retailer’s estate do record the expected promotional uplift. However, the store is not due for a visit for another six days.

This set of circumstances is ideal for a Dynamic Routing approach.

The algorithms analyzing the EPoS data have already highlighted the store as problematic. The uplift in sales at similar stores is a known value, so the overnight calculation of lost value so far is a matter of fact.

If the retailer provides store level stock data, the lack of sales can be cross referenced against the availability of stock at store level. If there is no stock, the best action may be for the brand owner’s supply chain team to make contact with their counterparts at the retailer’s Head Office and get an order sent.

If there is stock in the store however, it is highly likely that the salesperson can fix the issue immediately by finding the stock and making it available to the shopper at the agreed display location.

The brand owner needs a good understanding of the relative impacts its field sales team can have in store before being able to build in the right settings to its Dynamic Routing model. For a deviation to the plan to be worthwhile, the additional benefit associated with fixing the problem must be far greater than the forecast impact of the visits which will not be made as a result of the routing change.

In substituting one or more stores on the existing plan with the problem store (it depends how distant the problem store is), the incremental sales due from those substituted stores will be foregone. Of course, the sales ‘lost’ will be an estimate, but so is the predicted sales value to be gained by fixing the problem store.

This ‘net predicted incremental sales’ calculation is therefore a vital component of the Dynamic Routing model.
However, there are other factors to consider beyond sales revenue improvements.

As highlighted above, the Dynamic Routing model will not only identify the store(s) to be ‘promoted’ in the plan, it will also place the revised list of stores to be visited that day in an efficient route sequence.

This should take into account the time required in each store, the relative distances between those stores, the length of the working day and the road network. Ideally it should feed in the live traffic situation too.

The output will be a new plan, possibly with more driving to do and maybe even with fewer store visits able to be fitted into the day’s work.

That could mean extra costs per visit, which needs to be balanced against the additional sales which will be ‘rescued’ by the fix to be applied by the salesperson in the problem store.

So, while the list of factors to consider is not infinite, the calculation is complex and evolving.

It does involve some hard, historic data (from the previous day).

It also requires reliable forecasting based on insights about the most likely outcomes from different actions in specific stores.

Above all, the model must be self-learning, applying a constantly evolving understanding of the actual impacts of the Sales team’s actions so that forecasting can be as accurate as possible.

Let’s now look at how retailer EPoS or Scan data can support a Dynamic Routing model.
How Analyzing Retailers’ EPoS (Scan) Data Can Support a Dynamic Routing Solution—and Some of the Limitations

Of course, the most obvious store level data which changes dynamically is that related to sales and stock. We’ve already started to explore how EPoS data can enable complex, daily calculations which can assure optimum assignment of resource.

The role of EPoS data in a Dynamic Routing solution is primarily to provide a comparative valuation of the predicted added value in a planned day’s work with that of a modified version of that plan. That modified version considers the potential added value of various stores in an area based on an assumption that a certain percentage of that potential value can be achieved by the salesperson in store.

The word ‘potential’ is important here.

The dynamically changed situation at store level is most likely to stem from an observable problem with On-shelf Availability (OSA) or rate of sale. Maybe a top performing product has stopped selling. A promotion might be producing an unexpectedly poor uplift compared to other similar stores. A newly launched product might not have started to sell in a particular store when the majority of stores are recording sales.

In any case a ‘lost sales’ algorithm can only indicate the scale and nature of the issue, calculating the sales lost so far. For a dynamic change to be made to the visit plan, the software also needs to estimate the continuing value of lost sales between now and the next planned visit.

This provides a total value that justifies the elevation of the store to a visit earlier than originally planned. Once the identified issues have been resolved, an ROI calculation can be made.

Part of this is based on hard fact. Sending the operative to the store today can be seen to have had an immediate impact when tomorrow’s store level sales data become available. The subsequent improvement in sales can be attributed to the visit by the salesperson.

In addition, we can add the calculated lost sales for the days between the dynamically adjusted visit today and the original planned date of the visit.

This gives a more accurate calculation of the sales revenue impact of the visit, which can then be compared to the estimated impact of the originally scheduled visit to provide a total net impact of the dynamic routing exercise for that visit.

The field salesperson needs to fix that problem for the sales to return to expected levels. If no fix is made, the problem persists and the improvement remains a calculated hope only.
However, the sales impact alone is not sufficient to trigger a change in plan. The cost side of the ROI equation must also be taken into account.

For this, we need to know the hourly cost of the salesperson and the variable costs associated with the day’s work. That means calculating the cost of driving time (fuel, running costs and depreciation of the vehicle, parking etc.) which can be considerable if a major change in the route is required.

Now an ROI assessment can be made, comparing the original plan with a myriad of potential alternatives, all of which need to achieve a target level of ROI improvement before a change in the route for the day is transmitted to the salesperson.

Throughout this paper we’ve made the assumption that retailers’ daily EPoS data can be made available to the brand owner. Our approach further assumes that yesterday’s data can be analyzed early this morning to provide changes in today’s route plan to be automatically generated and sent to the sales team before they need to leave home for their day’s work.

In several markets across the world this is a reasonable assumption. In the UK, USA, Canada and Australia the greater part of grocery retail sales is covered by retailers providing daily sales and stock data at the individual store level.

Across mainland Europe, Latin America and Asia the picture is more patchy.

Some retailers do provide data at the ideal level of granularity. Others may provide that granularity but not until a day or two after the event. Still others may only be able to provide a weekly transmission of their EPoS data, often without store level stock information.

Insight can nevertheless be derived from this information and routes can still be dynamically reworked. However, we need to revise our definition of ‘dynamic.’

Rather than making an overnight change to the routing schedule, when we only have weekly data, our interventions are restricted to a similar frequency. So, the issues thrown up by interrogation of the EPoS data from the previous week can be used to alter and optimize the plan for the coming week.

Caution needs to be exercised though. Let’s suppose that the previous week’s data becomes available on Sunday night or early Monday morning. On Monday, the possible changes are just as reliable as those generated in the scenario where daily EPoS data is available because the data is less than 24 hours old.

However, as each day passes, the calculations and resultant suggested changes become less reliable. By Friday, the data will be five days old and the in-store picture may have changed significantly. Stores with problems on Sunday, and earlier in the previous week, may well have fixed their own problems by the time the rescheduled visit is made.

This means that the settings of the Dynamic Routing model need to reflect the reducing reliability of the calculations over time. This could mean filtering the issues by the number of days since they first appeared. For example, if a SKU stopped selling two weeks ago, it is more likely that the issue will still be present after five more days than a SKU which only went off sale yesterday.

A SKU which is ‘Out of Distribution’ (zero sales recently and zero stock in store) is more likely to be automatically replenished than a store with a ‘Stock no Sales’ (SNS) issue because the SNS needs a manual intervention to fix a potential Booked Stock Error (BSE) or pilferage root cause.

The Dynamic Routing model settings can in this way be reflective of the quality and dependability of the base data on which the model depends.

So, it is clear that the ideal data feed for a Dynamic Routing model is daily EPoS data issued promptly. Less granular data can be made to work, but as the time since update increases, so there is a reduction in the model’s ability to create an accurate calculation of the potential to be gained by amending the route plan.

In both cases, the presence of EPoS data enables a Return on Investment calculation to be made, so that brand owners can measure the effectiveness of the model (normally against a control group of stores or compared with ROI results prior to the introduction of the Dynamic Routing model).

But what if there is no sales data at all?

How can a brand owner deploy a Dynamic Routing approach when it has no access to EPoS data?
How Can a Dynamic Routing Approach Work Where No EPoS Data is Available?

The Modern Trade retailers may make all this data available, but what about the Traditional Trade channel, where small retailers rarely share their data with suppliers? It is certainly possible to deploy a Dynamic Routing model in any case where the situation is dynamically changing and the data can be provided to prove it.

Take traffic information for example. Suppose a salesperson leaves home to make visits to stores in a certain location. There’s an accident on the planned route and the delay would mean that making all of those visits would now be impossible.

The situation has changed, and the salesperson should be re-routed to a different part of the territory unaffected by the traffic incident. All the brand owner needs is access to traffic data and live online connections for its sales team.

At a lower level of detail, imagine a fast-growing urban center. The route plan was conceived six months ago when economic activity in the area was 25% lower. The changed situation means that all grocery stores in the area have experienced an uplift in sales, making them more deserving of resource now than six months earlier. There has been a change in the situation, so a change of route plan is required.

There are plenty of other cases which could generate the circumstances for a Dynamic Routing model to optimize resource assignment.

For instance, a competitor with supply chain issues could be such a case. In stores or areas where that competitor has a high share of the market, our brand owner should allocate more time and effort. If store audits have been regularly performed, the results of ‘share of shelf space’ audits should provide an accurate proxy for ‘market share’.

Rerouting the sales team to prioritize the competitor’s most important outlets could have a longer-term effect as shoppers move from one brand to another and some of them stick with the change.

Let’s return to the idea of conducting regular store audits. The results of the most recent audit in a particular store can be used to change the priority of that store in the next journey cycle. If key measurement criteria have changed, either for better or worse, the route plan should evolve to mirror the increase or decrease in opportunity.

If the ‘Perfect Store Scorecard’ (PSS) indicates a worsening performance, the store needs more urgent attention. If it has attained (and maintained) a top PSS score, than resource can gently be dialed down to make space for the other type of case where performance is consistently strong.

In outlets where orders are taken, the Dynamic Route Planning software can look for patterns in the store’s ordering data to modify the priority of stores in the journey plan. Frequency of visit and time in store can automatically be changed as each new order is processed, helping the salesperson to spend the right time with each customer without a detailed review of what might be a significant customer portfolio.

In this complex world there is a plethora of data and information. Some of it is simply noise and can be distracting. Other sources are directly linked to sales teams’ productivity and are vitally important to the deployment of the field sales team.

The trick is to know which is which!
Conclusion — The Required Cultural Change is Significant, But Productivity Gains Can Be Impressive

In recent times, it would appear that efficiency has won over effectiveness. That is, an efficient and stable route plan is regarded as a solid foundation for a sales team. People like certainty and familiarity, so knowing where to go every Monday morning is a reassuring way to run a sales territory.

But if this familiarity comes at the expense of sales and improved ROI, it should be challenged.

The retail world is constantly changing, so why would the route plan of the salesforce ever be static? Data can prove that the opportunity in any given store ebb and flows and there is a strong argument that resource assignment should follow suit.

The key point is the idea of flexibility. Technology can enable a brand owner to embrace the complexity of the external environment and implement real time changes to its resource allocation.

Breaking through the barrier of established working practice is always a challenge, but which shareholder or investor ever turned down an opportunity to dramatically increase ROI?
About StayinFront, Inc.

StayinFront, Inc. is a leading global provider of mobile, cloud-based field force effectiveness and customer relationship management solutions for consumer goods and life sciences organizations. Companies of all sizes, in over 50 countries use StayinFront software to streamline sales operations and reduce the complexity, time and expense associated with field efforts. StayinFront products are seamlessly integrated to provide companies with timely, accurate field data and actionable insights, enabling field reps and management to Do More, Know More and Sell More.

Headquartered in Fairfield, New Jersey, StayinFront has offices in Chicago, Canada, the United Kingdom, Turkey, Ireland, Poland, India, Australia, Singapore, and New Zealand.

Through its 20:20 Retail Data Insight and StayinFront Digital subsidiaries, StayinFront delivers stand alone and tightly integrated actionable insights and guided selling by analyzing retail images and data to brand managers and sales forces around the globe.

Visit stayinfront.com or email sales@stayinfront.com to learn more.

---

About 20:20 Retail Data Insight (RDI)

20:20 Retail Data Insight (RDI) was established to provide actionable insights for consumer goods companies by analyzing retailers’ Electronic Point of Sale (EPoS) data. In recent years, a growing number of enlightened retailers have made this data available to suppliers, with the aim of driving mutual efficiencies, especially in optimizing retail execution. More recently, the granularity of the available data has increased, so that brand owners can now see sales of every product, in every store in a retailer’s estate, on every selling day of the year.

This means a mountain of data, presented in a different way by each retailer. Our software allows brand owners to interrogate this data, driving insights and highlighting opportunities to increase sales and improve salesforce ROI. We work with data from major grocers, department stores, pharmacies and convenience retailers in many markets across the world. Our clients range from the 2nd largest food manufacturer in the world to companies with less access to analytic resource keen to discover what the latest thinking is in this area and how it can apply to them in their situation.

We are a StayinFront company, which allows us access to significant product development and customer support resources and the ability to provide our clients with even better levels of customer service. We also have a worldwide network of offices providing sales and pre-sales support as well as ‘follow the sun’ help desk provision across all time zones.

Visit 2020rdi.com or email info@2020rdi.com to learn more.
StayinFront offers a 30-minute consultation and demo. We’ll share best practices and intelligence on improving execution and maximizing promotional ROI. Our team has worked successfully with organizations ranging from small and mid-size companies to Fortune 100 corporations, to improve sales, forecasting and ROI.

**SCHEDULE A CONSULT AND DEMO**