Top-down Portfolio Management

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Top-down Portfolio Management: the way people think anyway

How people actually think about a portfolio of projects

When a CEO sees the need to transform the business or an area of the business, and has a defined and solid strategy to do it, s/he is looking at three key questions:

- Where will the results (sales/costs/profits) be if we stay as we are and do not transform the business? These results would reflect organic growth, current trends, as well as operational projects.
- Where will the results be if we succeed in executing the strategy and transforming the business? In other words, what incremental benefits (profits) will we get if we proceed with the transformation, compared to expected results if we do not proceed?
- Does the difference between the two justify the investment and risk for transformation? Can we justify all the projects and investments that are required, based on the impact on the overall results?

For the CIO or Portfolio Manager, the question s/he needs answered is:

- How do I reconcile all the project proposals for this year and select those that implement the strategy for transformation? S/he knows which projects will have a strong contribution to the strategy and expected results, while others are not as strong, but are necessary to implement the strategy. Yet, there are others that are not related to the strategy but still have to be done. There is a business logic that is hard to put on paper that drives decisions, but how do we apply this logic to define the portfolio?

For the CFO or Finance person overseeing the portfolio, the questions to be answered are:

- If we are transforming the business, previous year's budget means nothing, so what should the budget for this transformation be?
- Is this budget in line with the expected benefits from the transformation?
- Are we allocating this budget properly to the different programs and projects, based not only on their needs but on their relative contribution to results?

This is how key stakeholders for portfolio management think and the questions they need answered. As we will see in the next section, the traditional approach of building a portfolio form the bottom up is not providing answers to these questions. Top-down Portfolio Management follows this line of thinking and, most important, is based on the logic of the business, what these key stakeholders have in mind when they make decisions.

The traditional bottom-up approach, and why it is not helping

The approach currently used for building a portfolio can be described as bottom-up, starting with a collection of ideas for projects that go through a funnel of progressive elaboration of a business case. As they move through the funnel, the business case gets refined, incorporating criteria like ROI, alignment to strategy, risk, etc. Based on these criteria and some tool for selection, a list of proposed projects is produced. The problem here is that, most often than not, executives are not in agreement with the results, so they start adding and removing projects from the list, what they know is needed, based on that business logic that has not been part of the prioritization process.

Exhibit 1: Traditional Bottom-up prioritization

The results of the current practice of portfolio management are not encouraging, as 30-40% of projects in information technology generate no value, according to IBM and Gartner. Current methods for portfolio management were developed decades ago, when the use of IT was primarily automation and process improvement, with projects that had a very simple logic and clear financial benefits, for which prioritizing makes sense. In today's world, technology is used to enable business transformation, with projects that deliver capabilities that, in turn, interact with other capabilities to generate business value, following that business logic that is missing in traditional approaches. For these projects, it is virtually impossible to create a business case, as there is no direct cause-effect relationship with the financial outcomes. This is why in today's world a bottom-up traditional prioritization approach does not help, particularly organizations that are in a transformational mode.

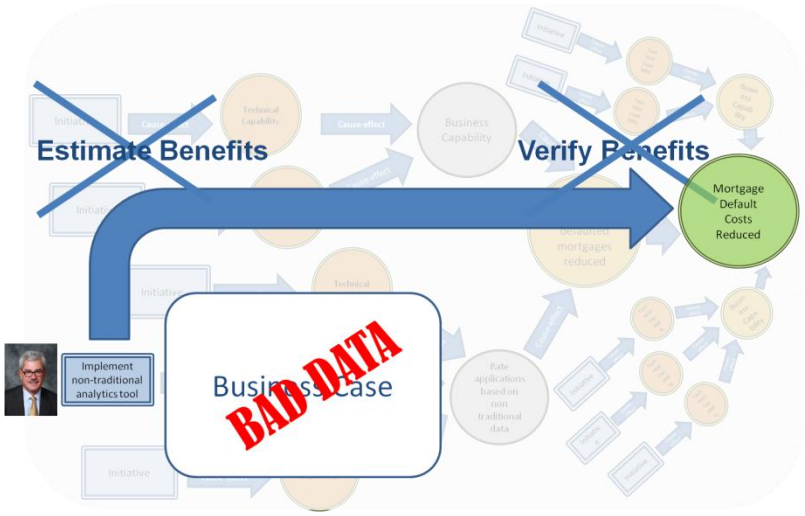

Exhibit 2: The challenge of creating a business case in a transformational scenario

Importance of type of investment in selecting the approach

It is important to introduce in this discussions that most organizations have three types of investments:

- Run the business: These investments are "keep the lights on" type of projects, which usually have very low freedom to invest and require little analysis.
- Grow the business: These investments are more discretionary, so they have more freedom to invest, and require more analysis; typically a business case with clear benefits in terms of increased revenue, reduced costs, etc.
- Transform the business: These investments typically have very high freedom to invest and require significant level of analysis.

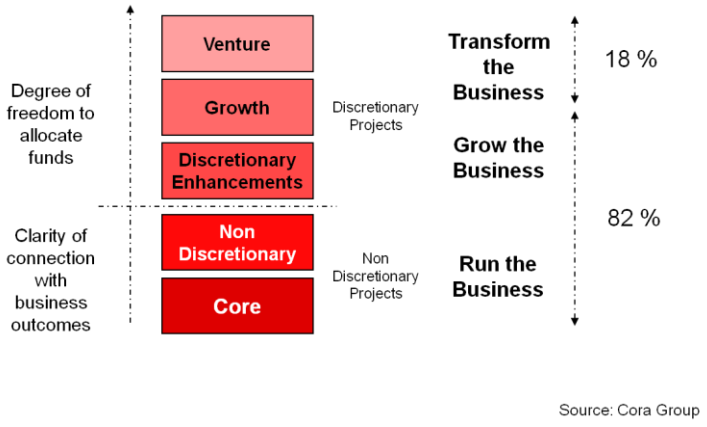

Exhibit 3: Type of Investments

The traditional bottom-up approach works well for Run and Grow the business type of investments. When transformational initiatives are stand-alone ideas, like venture type of investments, they can still follow a traditional prioritization process. However, when transformational initiatives are the result of an integrated strategy, a bottom-up traditional process just doesn't work, for the following reasons:

- It is not a matter of deciding which projects to execute, as all projects are needed to implement the strategy (assuming the strategy is really a strategy, and not a collection of "swim lanes" to meet everyone's needs)
- Should not be a yearly process, but a multi-year process, as transforming the business seldom happens in one year. Based on this the question is not "if", or "which one", but a question of "when". Based on these conclusions, prioritization just doesn't fit.

Fundamentals of Top-down Portfolio Management

The Case Study

Sam has been delivering furniture and major appliances for smaller stores and manufacturers in Toronto for the past 20 years, using a fleet of six cube vans that leave in the morning, pick up at one store and deliver the rest of the day. Business has been impacted by two factors:

- Traffic in Toronto has turned so bad that it allows for three to four deliveries a day only, when the van can load up to ten deliveries, so routes are not completed in one day
- Stores and manufacturers have also declined in volume, not enough to load a truck and keep the fleet busy

In terms of financials:

- Revenue is tied to the number of deliveries in a day, and this has been declining due to traffic and fewer orders; currently at $2M/year
- The variable cost is mainly gas, going up every year, plus repairs, tires, etc. Currently variable cost is at $500/day/truck
- Sam leases the fleet and the drivers are employees, and this represents fixed costs currently at $1,200k/yr.

Sam takes a week off in the woods and comes back with some new ideas to **transform the business**:

- Change the concept of loading in the morning and deliver all day, to dynamic routing: trucks in the city picking up loads and delivering the same day
- Switch to smaller vans that can move better in traffic and carry up to four deliveries, as more is not viable anyway
- Implement dynamic routing software, with drivers on-line and GPS located, so an order can be dispatched to a van, just like a cab, and delivered the same day.
- This service will allow Sam to increase his clientele to smaller stores that will now be able to offer same-day delivery.

Translation of strategy into a Results Chain

Top-down portfolio management (TDPM), by definition, starts from the strategy, which has to be translated in a way that clearly defines the "what and the how":

- What needs to be different (otherwise, there is no transformation)
- How are we going to achieve these different results

For this purpose TDPM uses a Results Chain Model (1), using the following symbols:

- Business Outcomes: represent non-financial metrics usually in use by the industry and already in place in the organization. An example in the retail industry is Average time spent at the store, or Average Number of Items purchased in one visit. As there is a transformational intention behind this, outcomes are usually followed by the word "increased" or "decreased". Another example in the same industry could be "Percentage of returned items decreased". Business Outcomes clearly represent the "what" in the translation of the strategy: what needs to be different to where it is today, what needs to be better or similar than our competitors, etc.
- Business Capabilities represent what the business needs to start doing or do differently, which is going to generate the expected change in the business outcomes. An example, staying in retail, would be "Offer the customer in-store restaurant service", which should have an impact on the time spent at the store and the number of items purchased at every visit, as customers wouldn't have to leave the store when they get hungry, but could stay shopping longer.
- Technical Capabilities are the technologies that enable the business capabilities. Staying with the retail example, having flat screen terminals at the in-store restaurant displaying the items on sale or specific promotions could be a way to stimulate customers to continue shopping after their meal.
- Initiatives are the projects that deliver the capabilities or, occasionally, a business outcome.
- Assumptions: Are uncertain statements about things we cannot control that the organization chooses to consider valid for the purpose of planning. They are usually referred to external conditions.

(1) Created by Fujitsu Consulting and defined in the publication: The Information Paradox

In Sam's case, the translation of strategy starts with the business outcomes

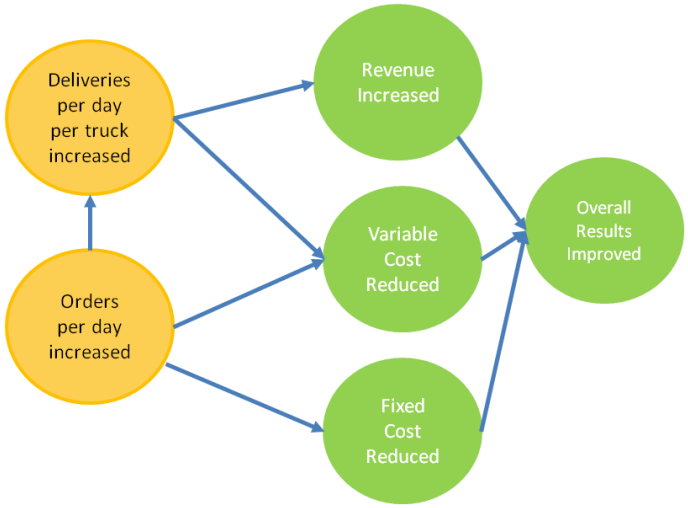

Exhibit 4: Translation of the Strategy to Business Outcomes

The next step for Sam in the translation of strategy is to add the business and technical capabilities:

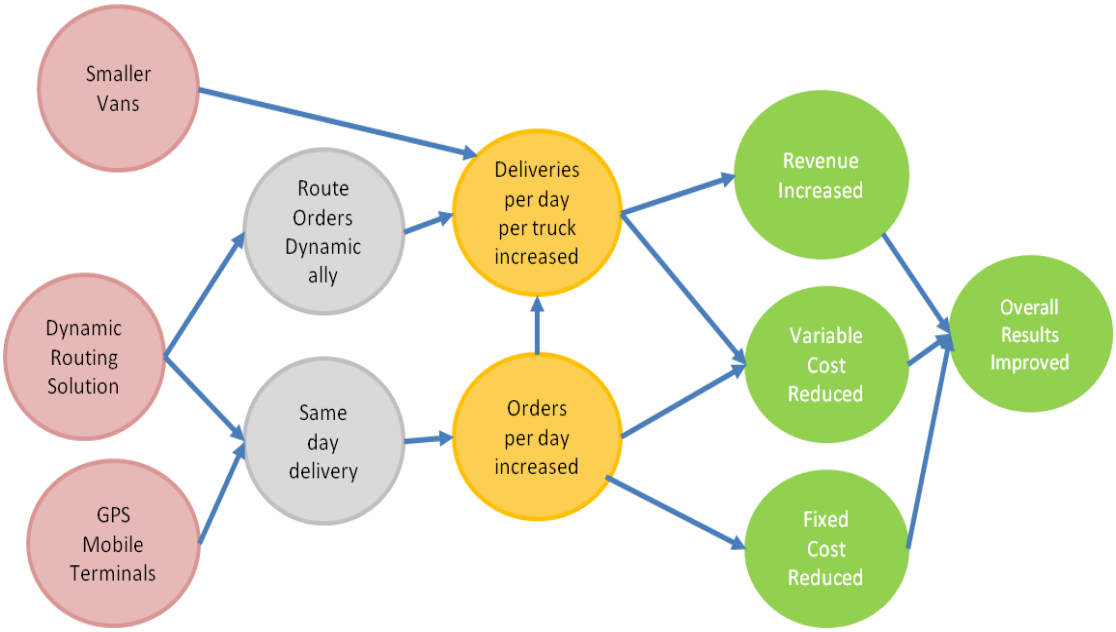

Exhibit 5: Translation of the Strategy to Business and Technical Capabilities

Now that Sam has defined all the capabilities needed to transform the business, the next step is to add the initiatives or projects that will deliver these capabilities, building a portfolio of projects to execute the strategy.

Assumptions in the case of Sam are related to the expectation that Same Day Delivery will result in increased sales. This is what Sam thinks will happen, but it is uncertain and should be visible and tracked.

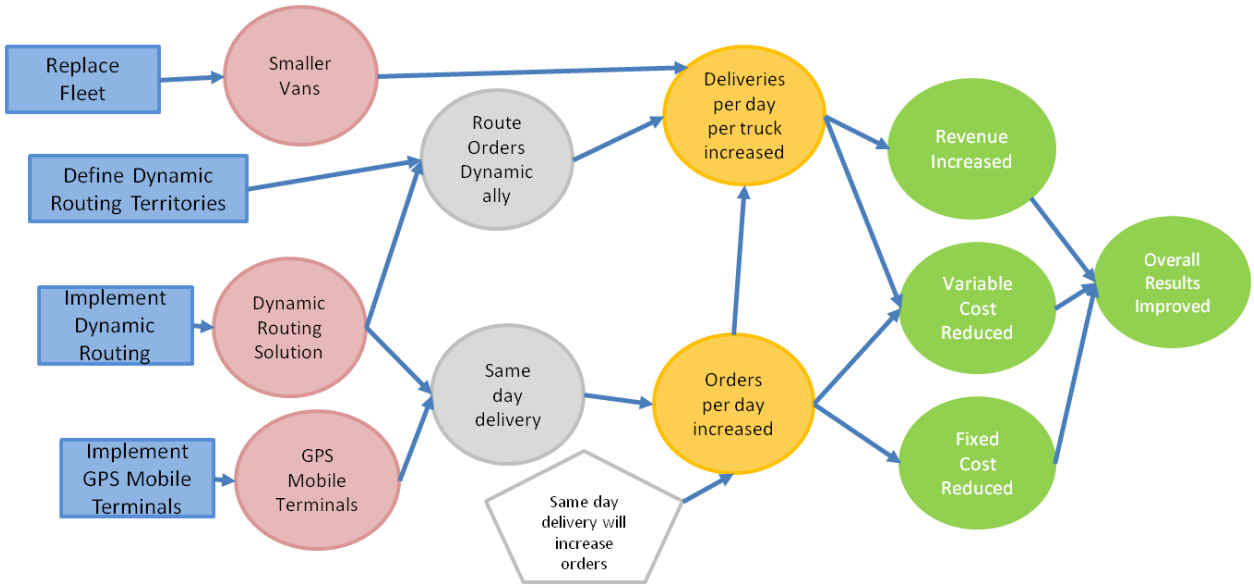

Exhibit 6: Translation of the Strategy: addition of Initiatives and Assumptions

Exhibit 6 captures the translation of Sam's strategy into a Results Chain, including the initiatives to deliver it and the assumptions that hold the plan together.

A top-down business case

In the top-down business case, the overall transformation of the business is analyzed as one initiative, and a business case is created to assess the value of the transformation. As in any business case, the benefits are incremental, comparing:

- The financial forecast as a result of implementing the transformational strategy (the planned scenario)
- The financial forecast if the business continues as usual, considering organic growth, current trends and operational projects. This creates a baseline scenario
- The difference in profits between the two scenarios represents the benefits or inflows for this top-down business case.

One more element to consider here is the level of confidence in achieving these results, as there is significant uncertainty in any process of transformation. The organization should define a level of confidence on the expected results, and adjust the benefits/inflows accordingly.

Forecasting Financials as a result of the strategy

Incremental to a baseline or status quo

The difference are the benefits for the overall business case

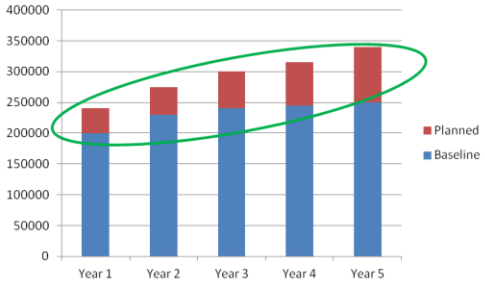

Exhibit 7: Calculation of benefits/inflows in top-down business case

In Sam's case, as presented in Table 1:

- The Planned scenario, as a result of the implementation of the strategy, generates a profit of $1.77M over five years
- The baseline scenario (current projection without implementing the strategy) generates a loss of $1.05M over five years
- The difference between the two scenarios is $2.82M.
- The level of confidence in obtaining the results is, in Sam's case, 50% or "as likely as not", a rather conservative adjustment, which now generates benefits/inflows of $1.41M in five years.

Sam Delivers Calculation of Benefits for Top-down Business Case	Total	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Planned Scenario	$1,771k	$200k	$500k	$80k	$296k	$328k	$367k
Baseline Scenario	<$1,050k>	$200k	$50k	<$100k>	<$250k>	<$400k>	<$550k>
Difference (Inflows)	$2,821k	$0	$450k	$180k	$546k	$728k	$917k
Confidence		0%	50%	50%	50%	50%	50%
Adjusted inflows	**$1,411k**	$0	$225k	$90k	$273k	$364k	$459k

Table 1: Benefits/Inflows for Top-down business case

Outflows for the business case are captured as investments for each one of the initiatives in the Results Chain. They are estimated the same way as for a traditional business case: incremental and over the life of the initiative, including operational/production costs incremental to the initiative.

In Sam's case, there are four initiatives and the investments total $988k over five years, presented in Table 2

Sam Delivers: Calculation of investments or outflows	Total	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Replace fleet	$100k	$100k					
Define dynamic routes	$40k	$40k					
Dynamic routing	$760k	$460k	$60k	$60k	$60k	$60k	$60k
Mobile terminals	$86k	$40k	$6k	$16k	$8k	$8k	$8k
Total investment	**$986k**	$640k	$66k	$76k	$68k	$68k	$68k

Table 2: Investments/Outflows for Top-down business case

Propagation of financials through the Results Chain

The propagation of inflows/benefits from the right to the left in the Results Chain and the propagation of investments from the left to the right use the relative contributions represented by the arrows in the Results Chain. Initially, all these contributions are assumed equal (i.e. two arrows get to a node, each one represents 50%), but to have an accurate model it is necessary that contributions are adjusted in relative terms: what this means is that instead of trying to come up with a given percentage of contribution (which would represent a point estimate), we use relative contributions, to determine which arrow is a contributor, which one is a major contributor and which one is a marginal contributor. Associating standard weights or points to each type of contributor, it is very easy to adjust the contributions. Furthermore, when an additional connection is added or removed, the model adjusts itself with no user intervention.

In Sam's example, we will adjust the contributions to the symbol "Deliveries per day per truck increased" to indicate that "Route Orders Dynamically" is the main contributor. We will also adjust the contributions to "Variable Cost Reduced" to indicate that "Deliveries per day per truck increased" is the main contributor (see Exhibit 8)

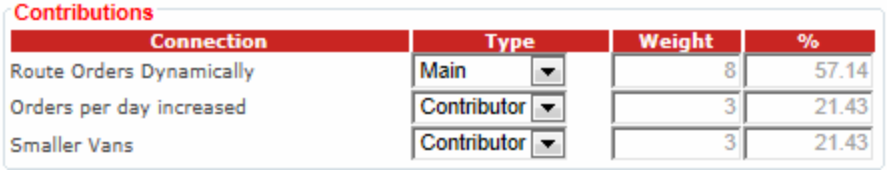

Exhibit 8: Adjustment of Contributions in the Results Chain (BRMTool screenshot)

Now that the model is adjusted, inflows/benefits can be propagated from the right to the left, using a very simple math, so each symbol in the Results Chain has an associated amount of benefits. You can verify that the initiatives at the end add up to the $1.4M as expected.

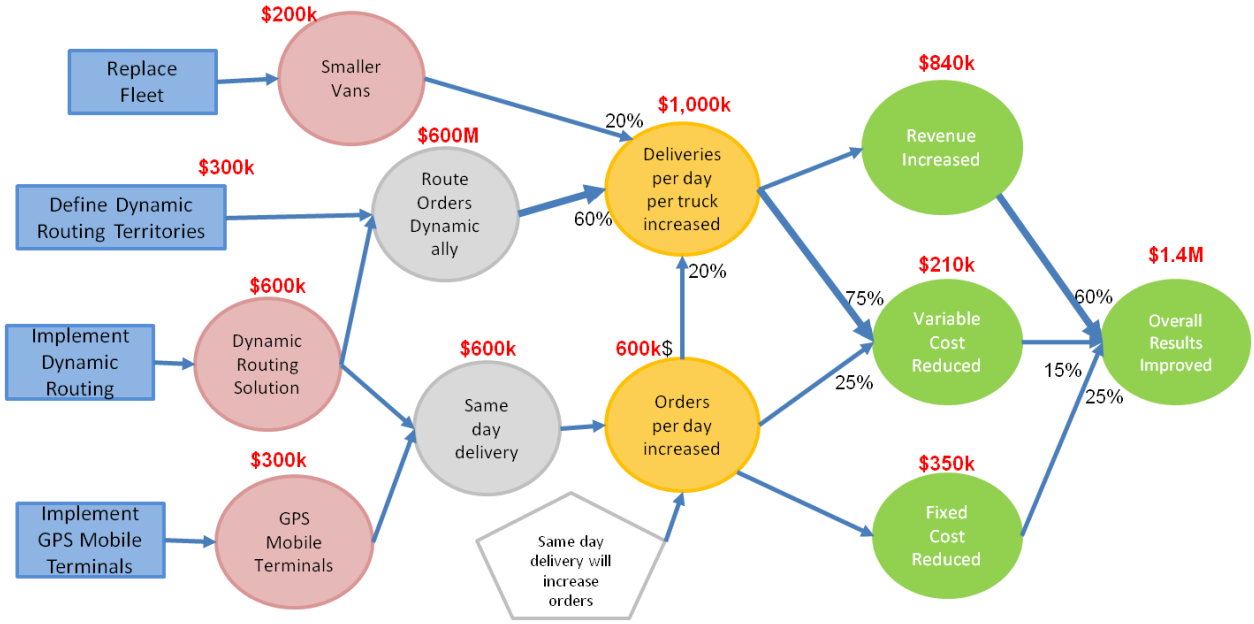

Exhibit 9: Propagation of benefits/inflows through the Results Chain (right to left)

In a similar way, the Outflows or Investments for each one of the initiatives is propagated from the left to the right. This way, each symbol or node in the Results Chain has also an associated value for outflows, which can be compared to the amount of inflows to estimate return on investment.

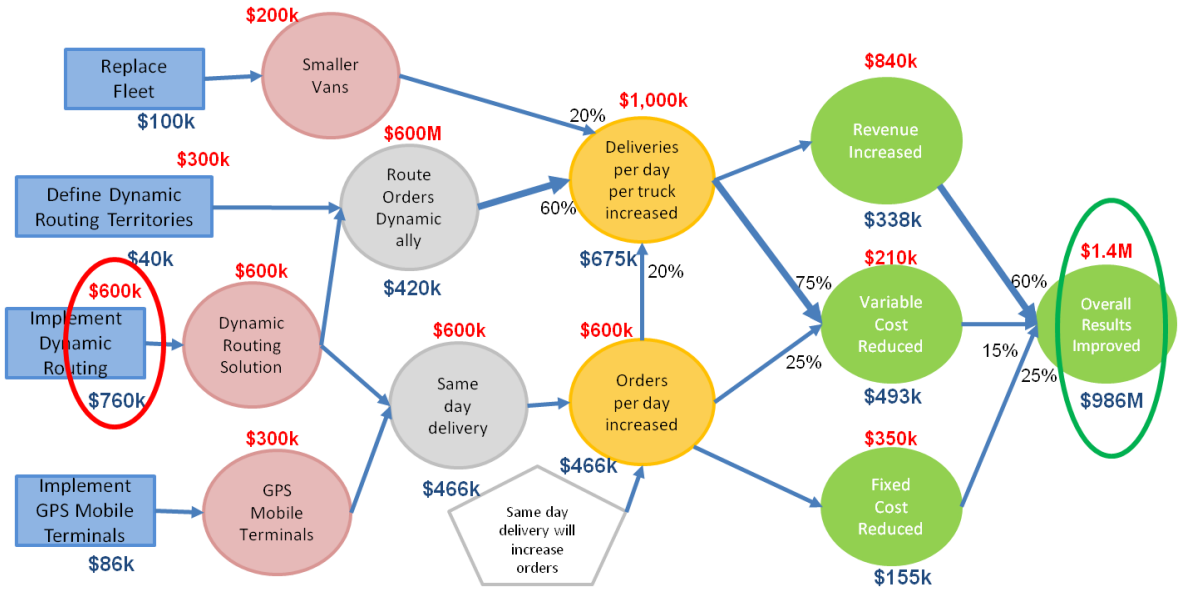

Exhibit 10: Propagation of investments/outflows through the Results Chain (left to right)

In Sam's case, the total investment from the four initiatives of $986k is propagated from left to right, as per Exhibit 7, where outflows are indicated in blue colour.

Analysis of Results

Looking at Exhibit 6, the overall portfolio has inflows of $1.4M and outflows of $986k, with an ROI of 1.4. We can do the same for each node in the Results Chain and we would find Implement Dynamic Routing, with inflows of $600k and outflows of $760k, and an ROI of 0.79, less than one. In deciding what to do we should consider that this initiative delivers a capability that is central to the strategy, and the overall plan for transformation would simply fall apart without this component.

In Top-down portfolio management, results should be analyzed at:

- The portfolio level (Results Chain top right symbol of Overall Results improved), as this is the only one that really matters for deciding to go forward or not
- At the business outcome level, to assess how much is being invested to achieve the specific outcome
- The business capability level, what the business needs to do, and when

In Sam's case, all these levels have positive ROI, and in the case of Dynamic Routing, maybe a less expensive solution could be considered, but the plan appears solid as it is. As a side note, if traditional bottom up portfolio management had been used in this case, two comments come to mind:

- How could anybody estimate, other than a guess, the inflows from implementing dynamic routing?
- A guess would have probably been used (i.e. increase sales by 5%) to justify an ROI, which would have meant absolutely nothing

Segmented Accountability

Top-down portfolio management provides a framework for governance that defines accountability to roles that actually have control of the results:

- Project Managers in charge of initiatives/projects are accountable for the delivery capabilities, according to schedule, budget and quality objectives. In this framework projects are not accountable for generating business or financial results.
- Business Managers are accountable for achievement of business outcomes, but not financial outcomes.
- Executives are accountable for achievement of financial outcomes and for the formulation of strategy. Once the strategy is translated into the "what" (business outcomes) and the "how" (capabilities) using a Results Chain, the rest of the organization is accountable for execution to this plan, but not for the ultimate financial results, as only executives can be made accountable to the strategy.

In TDPM these three camps are clearly differentiated, particularly when it comes to the link between business outcomes and financial outcomes. At any level, execution of the previous level could be flawless, but it cannot guarantee that results at the following level will be there. As an example, project delivery cannot guarantee that the expected business outcomes are going to be achieved, as they also depend on other projects and on external factors. TDPM allows the assessment of consistency in results at these three levels, allowing for early detection and adjustments when needed.

Execution using Top-down Portfolio Management

Project Delivery and delivery status reporting

Once the Results Chain model has been created and used to assess the financials of the plan, the "logic of the business" intrinsic in it can, and should be, used to define governance for execution. An obvious possibility is to aggregate delivery status, from projects/initiatives to programs to portfolios. This is a frequent problem in program and portfolio management: how to determine the aggregated delivery status from the component projects. TDPM provides an answer to this, using the same logic in the Results Chain and the relative contributions to aggregate status. Put in a different way, is the best logic available to aggregate any variable that builds from the bottom up.

The only condition needed to do this is to reduce project/initiative status to a number, which can be propagated. A number can also be associated to a "traffic light" convention based on pre-defined thresholds. This way, the Results Chain can be presented as a "dashboard" that not only shows Return on Investment, but also delivery status, benefit status and even risk.

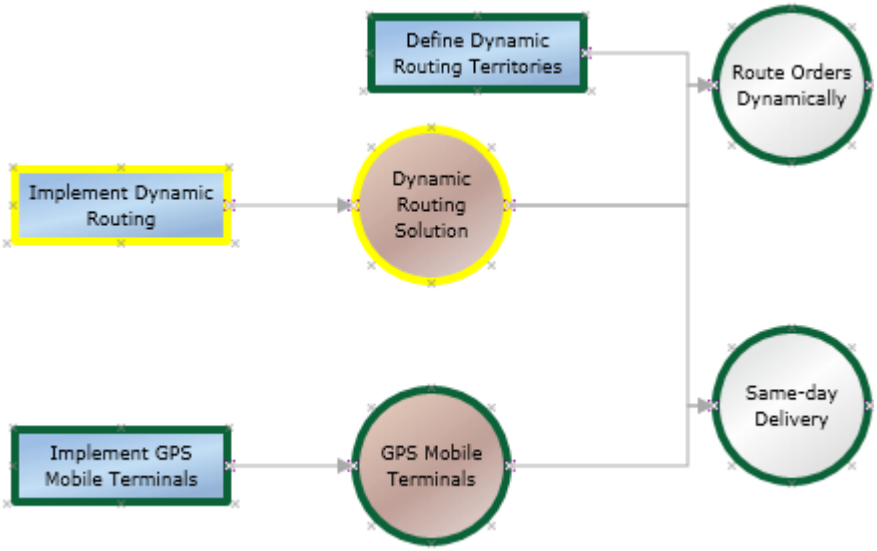

Exhibit 11: Traffic Light View of the Results Chain (BRMTool screenshot)

Metrics for business outcomes and benefit status reporting

The achievement of business outcomes is calculated through metrics, targets and actual measurements. Calculating the variance between target and actual measurement and comparing it to thresholds defined by the organization, a measure of "benefit status" can be calculated for each individual business outcome, and can also be presented in a traffic light convention. However, status of business outcomes cannot be propagated, as achievement of outcomes to the left (likely leading indicators) cannot predict the achievement of outcomes to the right (likely lagging indicators). This is why benefit status is not propagated in TDPM, but it can still be presented as a "traffic light" dashboard, similar to the one presented in Exhibit 8.

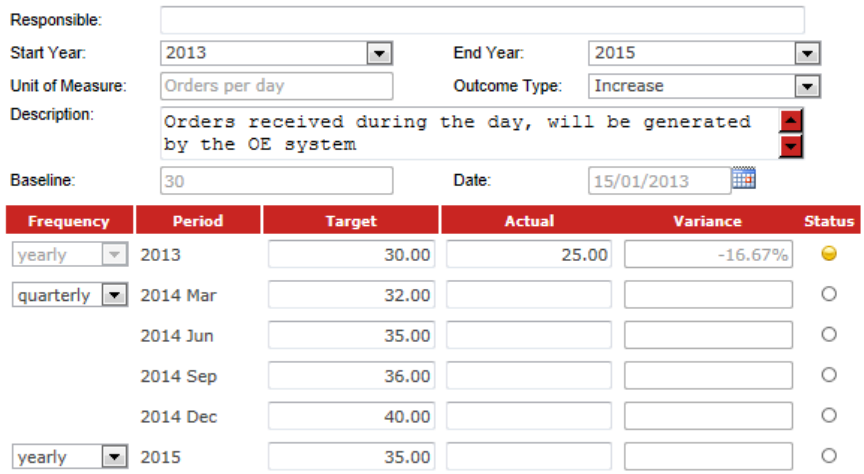

Exhibit 12: Metrics for Business Outcomes (BRMTool screenshot)

Delivery and Benefit Risk

Risk is another key element of business value that should be included in TDPM. There are two types of risks to consider:

- Delivery Risk, assessed at the initiative level, against sources of risk that are usually internal to the organization (availability of resources, complexities from technology, stakeholders, etc.). This assessment of risk can be presented as a number (not a percentage or probability), so it can be propagated from the left to the right using contributions.
- Benefit Risk, assessed at the business outcome level, against sources of risk that are external to the organization (economy, competition, political stability, etc.). Similarly, the assessment is propagated and combined with delivery risk, to come up with an overall assessment of risk at the portfolio level and at any node in the Results Chain, that combines both delivery and benefit risk. A traffic light view, similar to Exhibit 8 can also be produced to present risk.

Benefits of Top-down Portfolio Management

Improves overall business results

The main benefit of Top-down Portfolio Management is not that it provides a management framework and governance for benefits and portfolio management. The main benefit of TDPM is the impact on increasing the odds of success in executing a transformational strategy. It is at the company results level where the impact of using TDPM really shows.

Simplifies management of benefits

In TDPM, benefits from projects and program are achieved when metrics for business outcomes are met, and these metrics are measured anyway as part of strategy execution. Because of this we can say that in TDPM, benefits realization management is a by-product that requires little or no additional effort to perform. This is very different than other approaches for benefits realization management that define an additional layer of work on top of operations and project execution, which simply doesn't get done.

Improves return on investment

As stated above, the benefits of TDPM are in the execution of strategy and the impact on business results. However, it also provides valuable information to improve return on investment on the portfolio:

- Identify initiatives that require investments higher than their contribution, leading to revisions of the budget allocated, consideration of alternative solutions/technologies, etc.
- Identify areas of the portfolio that are not having impact on business results, and could be eliminated altogether, freeing portions of the budget.

Simplifies portfolio planning

Top-down Portfolio Management follows the way key stakeholders actually think. Because of this, once a core team in an organization learns the approach, it is relatively easy and fast to translate the strategy and define a portfolio to execute the strategy. This takes considerably less effort than the painful yearly exercise of prioritizing dozens, sometimes hundreds of ideas for projects, with a process that has too much potential for political jockeying and "decibel decision making".

Instead of funneling ideas from the bottom up with the hope that they will execute the strategy, it is much easier to just define the portfolio from the strategy. It is pure common sense.

The process most companies go through to plan their yearly portfolio takes months, while this process can be done in a few weeks, usually producing a two to three year plan, not just a yearly plan.

One more refreshing, and even surprising aspect of TDPM, is that, unlike the traditional tools based on bottom-up portfolio planning, TDPM does not require a high level of PPM maturity in the organization, as it uses only basic information from project delivery that exists in almost every organization.

Conclusion

Top-down Portfolio Management is a simple solution and yet, it resolves several very complex problems: strategy execution, management of benefits and portfolio planning and execution.

In addition to being simple, it fits with the way key stakeholders think anyway. This provides a framework where all these key stakeholders can interact with ease, as their questions are being answered and their concerns are on the table. Most important: it is based on the logic of the business, which is what key stakeholders really care.