

Driver-based model- trends factors affecting its adoption

Naveen Kunnathuvalappil Hariharan

University of the Cumberland, United States

Abstract

Despite the fact that the notion of driver-based modeling is not new, many businesses have implemented it to support detailed business unit planning. This study highlights a few dimensions about the driver-based planning models. First, it highlights the recent trend and practices of adoption of driver-based models. Second, it discusses the fundamental reasons for adopting the driver-based planning model. As the examples of this trend, we investigated the uses of these models in two different sectors, namely, chain restaurant sector, and Fast-Moving Consumer Goods (FMCG) sector. The findings show that people are attempting to forecast more regularly, which is why adoption and curiosity are so popular. Another reason driver-based models are becoming more popular is the increased availability and visibility of data that ERPs and other technologies have enabled. Another reason of employing driver-based modeling is that the necessary technology is now available and affordable.

Keywords: chain restaurant sector, Driver-based model, FMCG

1. Introduction

Key economic indicators change quickly, and quarterly estimates are obsolete in weeks or even days. Long-established cause-and-effect linkages between economic indices, such as domestic output and unemployment rates, and basic company results, such as revenue, profit, and charge-off rates, are being uprooted by policy actions. Meanwhile, as they juggle many requirements from a wide range of stakeholders, including senior leadership, the board, and regulators, the strain on financial modeling and forecasting teams has increased.

Driver-based forecasting gives organizations insight into the internal and external factors that influence their performance. Forecasters may generate predictions that show how an organization can maximize its business under various scenarios by bending the drivers based on global, micro, and internal factors (Liu et al. 2011). Financial outlook can be created in near real time by automating the data collection process and feeding driver values into the business' forecasting models. This helps inform cash flow and profitability analysis, budget and resource planning, market demand prediction, and other strategic analyses. The outcome is a scenario planning approach that is speedier, more flexible, more transparent, allowing financial firms to respond more quickly to rapid change.

Driver-based budgeting (DBB) is a type of resource allocation that considers the most important drivers, focusing on the indicators that are most likely to influence performance and represent the company's goals. Rather than relying on written explanations, DBB tells the tale using data and a rules-based methodology (Nikkola 2011).

Organizations can better understand the significant cause-and-effect relationships that influence their business by focusing on drivers rather than outputs, and then focus on what is genuinely important. They can also swiftly update the internal drivers and linkages that have the greatest impact on financial success as business and economic conditions change. External factors, such as the influence of

government relief initiatives, may be easily integrated, tested, and tracked in an integrated driver-based planning ecosystem.

2. Trends and reasons for adopting driver based models.

Although the notion of driver-based forecasting is not new – many organizations have used it to support detailed business unit plans and rigorous stress tests – due to a distributed governance environment and data gathering activities, these models can take weeks to execute and months to update. To speed forecast scenario analyses, a consolidated, higher-level, and more agile driver-based forecasting capability is now possible. The derivation of summary linkages and inputs to a centralized, flexible driver-based capability to rapidly construct new sensitivities and scenarios can be aided by detailed underlying models ([Barrett 2007](#)).

People are attempting to foresee more regularly, which is why adoption and curiosity are so popular. People are increasingly moving toward continuous forecasting, or at the very least, more frequent forecasting. With driver-based models, this is significantly easier to accomplish. Those projections don't have to be as detailed, and they can be updated on a more frequent basis. Because business is changing at a faster rate, firms must change their assumptions more regularly. Driver-based modeling is an excellent tool for this.

Another reason driver-based models are becoming more popular is the increased availability and visibility of data that ERPs and other technologies have enabled. Some businesses, on the other hand, are unsure how to acquire access to the important drivers, while others are so entrenched in their rigid processes that they can't see how to change. Companies who have done this well have a lot of data and make sure that operational budgeting and forecasting are integrated into their FP&A process.

Another incentive to use driver-based modeling is that the technology to make it possible is now available and affordable, especially in multi-dimensional scale across time. Companies can use the technology to create a transparent calculation model that separates the calculation into rates and drivers. As a result, compared to the use of Excel where several, complex formulae are required, there is less resistance to its adoption.

Most organizations would make surface adjustments while rebuilding or recalibrating more complex models to reflect the changing environment. Although an overlay may yield a more precise response, it reduces transparency into the key factors that influence the outcome. However, by using an agile driver-based model with sufficient dimensionality (e.g., detailed product and geography), the organization was able to increase accuracy and transparency by updating relationships at the relevant part of the portfolio.

Automating the collecting of driver data is a vital component of successfully constructing agile driver-based forecasting. The majority of the information will be available internally, but it will be scattered among many systems with differing levels of depth and quality. Forecasters may also need to obtain extra data from third-party vendors, such as macroeconomic data feeds. It is crucial to ensure that the financial data can be traced back to its source and that it adheres to the organization's data and financial model principles. It's also crucial to ensure that forecasting data is used consistently and that it matches what's being used for internal reporting, incentive programs, and other assessments across the firm.

Many businesses are implementing next-generation technologies, such as data lakes, to quickly absorb and cleanse internal and external data. This consolidated, integrated data storage is linked to sophisticated projection and modeling capabilities, allowing forecasts with several levels of granularity to be prepared under various situations. Forecasters used to spend weeks manually collecting relevant data, cleansing and preparing it for use in the forecast, and then repeating the process for numerous rounds. This process can be finished in hours thanks to automation, allowing for more flexible forecasts.

A popular tactic is to form two support groups for the process: one for production and the other for analytics and strategy. The production group can ensure that the forecasting process is consistent, efficient, and reliable, as well as retain the logic and relationships that already exist. They are responsible for ensuring that relevant data is available and flowing through the model, collaborating with business partners to continuously validate the model's core drivers (or identifying new ones that will impact the prediction), and maintaining and facilitating the use of forecasting tools. Meanwhile, the strategy-oriented group can generate and revise hypotheses regarding the factors that will help them achieve better results. Specialization and collaboration are critical in this role.

3. Driver-Based Planning in restaurant chains sector

Driver-based models have been utilized in some restaurant chains for years. Given improved access to data and technology, the sophistication of the models has increased. The hunt for important drivers delves deeper, to the level of business units and products. Restaurants, on the other hand, avoid getting bogged down in the intricacies, focusing instead on the most important income statement components ([Chapman et al. 2009](#)).

Breaking down and finding the primary contributing elements to certain line items in restaurants, whether they're an expense, revenue, or cash flow, and whether they're on the balance sheet or income statement, is what driver-based modeling is all about. After determining the underlying variables — or drivers — of a line item, the next step is to collect data, which leads to the production of the numbers that appear in the financial statement forecast.

It takes more than the number of units to accurately anticipate sales. The restaurant chain must also know what type of business each unit is in, as well as sales pricing and other external elements. Because an FP&A professional has access to so much data, analysts can usually compile these components quickly to create a revenue estimate. Expenses are the same way: Data from both internal and external sources, such as macroeconomic issues like fuel prices, is increasingly being utilized.

Since the advent of spreadsheets, some restaurant chain firms have been employing driver-based models. What has changed is the amount of sophistication based on the information available. Some experts warned businesses not to go too deep or they would lose their path.

It has been suggested that restaurant chains focus on the income statement first, rather than attempting to discover drivers for each line item. It has been suggested to select the ones that will have the greatest influence on the company. Not only would attempting to accomplish everything slow down FP&A, but it will also increase the risk of error. FP&A must collaborate with all relevant stakeholders to identify the correct drivers. Identifying the revenue drivers may be simple in this scenario. However, FP&A does not always have all of the necessary drivers.

On the revenue side, FP&A for restaurant chains that use driver-based models starts with average unit sales from the previous year for each location. They use external economic data on customer and industry trends, as well as the seasonality of the business, to adjust for the numerous varied retail locations. Analysts can begin to make educated assumptions about where sales and revenue will wind up once all of those drivers have been brought together. As a result, the driver-based models are regularly used in the forecasting process.

The upside is that it improves forecast accuracy, which translates to a bottom line impact, as long as the proper balance between a model that is too specific and one that is too broad is achieved. When restaurant chain organizations use the drivers to get a good understanding of what sales and revenues will be, they can staff properly, apply the correct capital to the right resources, and so on. Because of this, the top management is able to make better decisions, improving financial performance and

profitability. Companies may better manage risk with driver-based models, which naturally lend themselves to scenario analysis. Continuing with the revenue scenario, a manager would wonder what happens if, for example, gasoline prices rise by a certain percentage. If this is a model driver, the manager would be able to immediately apply the increase and observe the effect.

Not having the right personnel or tools is a possible stumbling block. The tools that restaurant chain organizations have, whether they be human or technical resources, limit them. They'll need people who can do the analytics and communicate with other departments to figure out what the drivers are and then incorporate them into the prediction, as well as the appropriate technology to collect the data.

4. Driver-Based Planning in Fast-Moving Consumer Goods (FMCG) sector

The major enterprises in the FMCG sector required a solution that could integrate financial and operational analysis and planning in order to effectively implement the driver-based planning methodology ([Brandenburg 2012](#)).

The notion of Driver-Based Planning can be summarized in one sentence: financial planning explained using operational data and business drivers (or Key Business Indicators - KBIs). It close the gap between projection, outlok, and resource allocation, which is something that traditional planning can't achieve ([Cahn 2003](#)).

The Business Intelligence analytics platform proven to be the best fit for the FMCG sector's demands due to its seamless integration of analysis, planning, and simulation in a single environment. Furthermore, one of the most essential criteria of the driver-based planning strategy could be met by the Business Intelligence analytics platform.

Selecting only those factors – which we refer to as "drivers" – that are observable in terms of managerial control. The driver-based planning can thus be 'digestible,' bridging finance teams with their operational business partners. In general, the KBI's FMCG sector monitors and regulates the following in its driver-based planning activities:

The bottling/canning line is one example. That line has a certain bottle-per-hour pace and a certain level of productivity based on the productivity of the individuals who work on it. The planner might have a staff of four operators, one technician, and two asset care planners to make that production line operate, and the company essentially has production volume or the volume of production that must be run on the line itself is forecasted.

The operators, technicians, and care planners who operate on the canning line can quickly verify and assess how much salary, social security benefit, payroll tax, and other aspects they need to pay. In real time, the company to see how much electricity and water the production line requires, as well as the required amount of maintenance and preventive care. These reports and analyses are effortlessly integrated with the BI software platform's simulation capabilities. For example, a production controller would want to assess a hypothetical operational modification in a production line's crew pattern, which would result in a shift in the work schedule. The controller can evaluate the financial impact of such adjustments, such as the cost of labor and the cost of utilities, thanks to the modeling features of BI software, allowing them to select whether modifications to the crew pattern or work schedule are optimal.

Managers can immediately obtain full control of operational data once a few computations and algorithms work in the background. Managers can get a detailed plan right now, which is exactly the idea behind bridging finance teams with their operational business partners and forcing them to

communicate. In this way, operational people - or any other business workers may link operational data to financial data immediately, keeping the company's financial health under control.

5. Conclusion

When utilized correctly, driver-based planning may help businesses make more forward-thinking and proactive decisions, which begins with determining where the company needs to go and how it will get there.

The true strength of driver-based forecasting rests in its potential to help businesses make better decisions. Financial firms can use driver-based forecasting to quickly determine which initiatives are most likely to move the needle, but it also lays the groundwork for sophisticated what-if and sensitivity assessments that can help them adjust their plans based on forward-looking estimates.

It's crucial to note, however, that driver-based modeling isn't a one-size-fits-all approach. Particular businesses choose to use drivers for some budget line items while avoiding them for others. For instance, a company may decide to apply drivers to sales revenue but not to marketing expenses.

In the end, the success of the DBB process hinges on the ability to select a small number of drivers that have the most impact on the business—and to adapt the drivers company focuses on year to year as its goals and the market change.

References

- Barrett, R. 2007. "Planning and Budgeting for the Agile Enterprise: A Driver-Based Budgeting Toolkit."
- Brandenburg, Marcus. 2012. *Quantitative Models for Value-Based Supply Chain Management*. Springer Science & Business Media.
- Cahn, Arno. 2003. *5th World Conference on Detergents: Reinventing the Industry : Opportunities and Challenges*. The American Oil Chemists Society.
- Chapman, Christopher S., Anthony G. Hopwood, and Michael D. Shields. 2009. *Handbooks of Management Accounting Research 3-Volume Set*. Elsevier.
- Liu, Yun, Zhi Xiang Hou, Dan Yu, and Yi Hu Wu. 2011. "Research on Forecasting the State of Driver Based on Chaos Theory." *Applied Mechanics and Materials* 48-49 (February): 954–59.
- Nikkola, Janne. 2011. "Profit Driver Based Forecasting, Case Rautaruukki Oyj." aaltodoc.aalto.fi. <https://aaltodoc.aalto.fi/handle/123456789/681>.