



Prescriptive Analytics – Impact on Finance

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organization cannot build upon such insights for future data insights.

Consider various data-points such as financial, non-financial information including customer insights, and general market trends. Integrating information from different sources can be used to create dashboards that are specific, and can be tailored to the specific business unit to enhance the reporting Key Performance Indicators (KPI). If the underlying information which the KPIs is based is not reliable, timely, and relevant the analytics produced cannot be undertaken.

Different Types of Analytics – Overview

There are three basic types of analytics commonly used. From a strategic standpoint, it is important to understand. Each type provides insight into the operations of the organization.

Descriptive Analytics – is the traditional analytics undertaken by organizations.

- What has occurred? It allows organizations to understand what has occurred and why. It can provide a foundation for future potential outcomes.
- Benchmarking, and KPI analysis uses this information to measure the outcomes of performance both in financial, and non-financial terms.

Predictive Analytics

- What may occur? Using statistical algorithms organizations predict what may happen in the future based on probabilities.

- It combines information from various sources such as from ERP, SCM, and POS systems to identify possible customer patterns to identify trends in order to forecast sales, determine required inventory levels, as well as assist in financial projections.

Prescriptive Analytics

- Quantifies the effect of decisions in the future in order to advise determine plausible outcomes before decisions are made.
- It goes a step further than Predictive Analytics in that it focuses on why an event may occur.
- It uses a combination of historical analytics, combined with business insights, and statistical modelling in order to determine future outcomes including why it will occur.

Complexity of Predictive and Prescriptive Analytics

Predictive and Prescriptive Analytics are complex and require information from various data-points. It integrates information from both financial and non-financial, and historical, as well as the integration of real-time information. The use of statistical formulas, and perhaps the use of analytics software to manage the various sources of information can increase predictability.

Before Predictive or Prescriptive Analytics can be used it is important to ensure that Descriptive Analytics is functional, accurate, understood and used throughout the organization. Introducing a new analytics system when the foundational system is



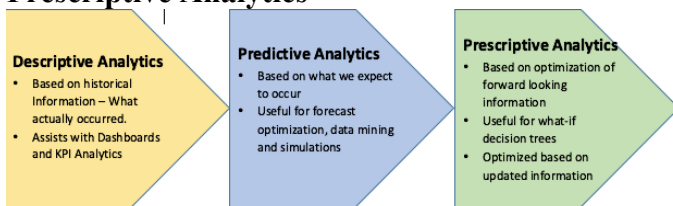
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not being used will not provide any tangible benefits to the organization.

Ensuring the relevance, reliability, and timeliness of information is key for a Finance Business Partner, it is also important when analyzing value-added information. As with financial analysis ensuring the integrity of information from Predictive, and Prescriptive Analytics is important from the various sources including the CRM, ERP, and other sources used to mine information.

Transitioning from Descriptive Analytics to Prescriptive Analytics



Information collected in various systems such as ERP systems has provided an overview of what has occurred including explaining anomalies. Traditional descriptive analytics lays the foundation for future planning with predictive and prescriptive analytics. In order to do so information from various information touch points such customer taste, preferences, market segment information can be used provide forward-looking insight for an organization to take a strategic course of action.

A traditional information system is based on what has already occurred and provides an understanding of customer tastes and preferences. It can also identify cause and effects for events that have had a

financial impact. Multi-divisional Organizational can have complex decision-making decisions including multiple product lines, cross-selling, and up-selling initiatives that can be complex and may be required to be tailored to the unique requirements of the client.

Prescriptive Analytics Ability to Transform Financial Analytics

Prescriptive analytics can provide forward-looking information for The Finance Business Partner by transforming how information is used for decision-making. It improves predictive making such as using what-if analysis and determining the impact on sales, and marketing, and operations.

It clarifies decision making in order to understand the trade-offs and consequences before an action is taken. Combining information from various touch-points allows for a better understanding of complex operations. Internal business units will increasingly need to collaborate not only in terms of information analytics software but also discussions in order to understand the complete impact of a decision throughout the organization.

Prescriptive Analytics can improve the accuracy of decision-making by including the cause and impact of various decisions on other business units in the organization. With robust information, organizations can better plan their sales and marketing, supply-chain management, other resource requirements, and determine the financial impact accordingly. Cross-collaboration with business units is required to ensure goal congruence towards the strategic goals of the organization.



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Prescriptive Analytics – Transforming decision making

Prescriptive analytics can be used to determine demand and optimize supply chain and logistic demands thus allowing for pro-active changes to be taken accordingly. Healthcare organizations can use such analytics in order to manage patient care including case costing decision support analysis. The potential impact goes beyond just marketing, sales, and finance.

The amount of data that is available for analytics will continue to increase as information system tools become sophisticated. The challenge faced is distinguishing useful information from outlying information that can distract from the core decisions. Initiatives may include the combination the use of statistics, forecasts, and marketing information in order to align information from the various organization segments. As an example, Inventory levels are affected by sales and marketing initiatives; also, non-moving inventory has associated carrying costs. With the value-added information, the organization can optimize operating cash-flow.

Addressing Financial Compliance

Prescriptive Analytics can allow an organization to better understand customer patterns which can, for example, detect potential money laundering by monitoring unusual activity before it has a financial impact. It can also be used to ensure regulatory compliance within the industry and that of the government.

Impact on Various Business Units – Overview



Sales and Marketing – Prescriptive Analytics allows for an understanding of potential sales demand with greater certainty. With traditional analytics, organizations used best estimates to determine what demand may occur and plan accordingly. As such at times organizations may have over or underestimated demand which affects not only sales forecasts, but inventory, and cash flow management accordingly.

Supply Chain Management – Organizations can plan the production and distribution of their products accordingly in order to reduce potential bottlenecks in production. Prescriptive analytics can potentially benefit organizations if the usage is extended beyond the sales and marketing department to include other areas of the organization if deployed strategically.

Logistics – An organization may need to rebalance their distribution according to the demand of their products or based on the availability of a product. With an understanding of which products are required and when, organizations can route, or



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reroute shipments taking to account cost, demand, and optimal lead-time among other things.

Finance – *It is important for organizations to budget and forecast based on information that is as accurate as possible by partnering Finance Business Partner to use such analytics to project and analyze financial and operational information based on the organizational strategy. Prescriptive Analytics can provide the necessary tools to allow finance to collect, determine which information should be combined from other organizational business partners to ensure goal congruence with the strategic goals of the organization.*

Sources of Non-Financial Information

The Finance Business Partner will need to undertake value-added analytics that is strategic in nature by partnering with business units in for prescriptive analytics. The challenge will be to obtaining such information from the business units.

Ensuring the accuracy of such information is important. Also, a clear understanding of the composition of the information, and the ability to removing any outlying information in order to remain focused in the decision-making process is important. Without a clear understanding of the composition of information organizational resources may be allocated based on decisions thus tie resources that are necessary for organizational direction.

Budgeting and Forecasting

With the movement towards Zero Based Budgeting (ZBB) organizations are being challenged to better manage their budgets and forecasts. The challenge faced is to produce more accurate budgets that factor in sales demand, and other external factors. The use of rolling budgets that is based on up to date information will increasingly become important.

With such information, the Finance Business Partner is able to deliver decision-support analytics to the organization that is more relevant, and meaningful based on the strategic information. As well though the use of rolling budgets and forecasts it can be adjusted as the business environment changes.

Support Decision Based What-If-Analysis



Finance is an important link to providing decision-based what-if analysis. Combining information from various areas such as resource constraints, and opportunities an organization can gain better align its operations. Cash flow projects can be better projected through the use of forwarding-looking statements that better reflect the current, and future expectations of the organization.

The Finance Business Partner will need to get buy-in from the other business units of the organization.



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Communication and an open dialogue are necessary in order to ensure that existing descriptive analytics, as well as predictive, and prescriptive analytics is effective.

Conclusion

Finance and other business units will increasingly be challenged employ technology strategically that can qualify, and quantify the impacts of decisions in order to maximize shareholder value, or value-for-money in the case of government or not for profit organizations.

About the author

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