

Original Article

# Business Planning and Forecasting using AI and Machine Learning with the SAP Analytics Cloud – SAC

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**Abstract** - Business Planning and Forecasting is "Steering Tomorrow with Today's Insights." Incorporating Digital Technologies into Business Planning and Forecasting has profoundly transformed how companies devise future strategies. It allows organizations to base decisions on data-driven insights, react promptly to shifts in the market, and, ultimately, secure a competitive advantage in the swiftly evolving business landscape. This fusion of digital technologies with business planning and forecasting has reshaped these practices, rendering them more focused on data, adaptable, and streamlined. Utilizing these tools empowers businesses to enhance their decision-making processes and, in turn, gain a competitive edge in today's ever-changing business arena.

Business and Financial Planning represent crucial components within the management cycle. Companies operate within complex environments characterized by diverse geographical settings, political landscapes, competitive dynamics, and varying business models, such as public sector and privately owned enterprises. Companies formulate strategic plans to achieve these goals efficiently depending on their overarching corporate objectives, which may involve increasing operating margins, boosting earnings, or reducing expenses.

In pursuit of these objectives, company executives must make timely and well-informed business decisions. Executives require access to essential information regarding expenditure, revenue, assets, workforce, and other relevant factors to facilitate these decisions. In today's competitive landscape, companies must devise strategies and decisions for the present circumstances and establish a clear vision for the future. This forward-looking vision is contingent upon a variety of factors.

This paper is intended to assist enterprises in making an informed choice when selecting a Business Planning and Forecasting Solution offered through SAP Analytics Cloud. This cloud-based Software-as-a-Service (SAAS) tool facilitates the development of a robust solution for Business Planning and Forecasting processes, encompassing features like Data Actions, Allocations, what-if scenarios, Rolling Forecasts, analytical capabilities, security, and performance. These capabilities are enhanced by integrating cutting-edge Artificial Intelligence and Machine Learning functionalities inherent to this tool.

**Keywords** - Enterprise Performance Management, SAP Analytics Cloud, Financial Planning, SAP HANA, Predictive Analytics, SAP S/4 HANA.

## 1. Introduction

SAP Analytics Cloud for Business Planning is primarily about creating detailed, data-driven business plans and budgets, whereas forecasting in SAC focuses on predictive analytics and generating insights into future trends. Both aspects are essential for effective organizational management, and SAC provides a unified platform that combines these capabilities for comprehensive planning and forecasting. While alternative tools in the market are suitable for business planning and forecasting, they may offer a different level of robustness than SAC. Often, customers need more awareness of the strengths and weaknesses of these tools, posing a challenge for companies seeking to make informed adoption

decisions. This article is committed to enlightening customers about the exceptional business advantages SAP Analytics Cloud offers as an all-encompassing solution encompassing business planning, forecasting, budgeting, predictive analytics, and business.

## 2. Competences

SAP Analytics Cloud offers a comprehensive range of business planning and forecasting capabilities. Its comprehensive approach, advanced analytics, and collaboration capabilities make it a valuable tool for enterprises looking to make data-driven decisions, maximize financial performance, and meet strategic objectives.



**2.1. SAP Analytics Cloud for Planning and Budgeting**

SAP Analytics Cloud is a Software-as-a-Service (SaaS) solution that enhances financial planning processes for organizations. When integrated within a unified analytics platform, its Planning and Budgeting capabilities facilitate collaboration, support data-driven decision-making, and improve adaptability in addressing evolving business conditions.

**2.2. SAC as Unified Platform**

SAP Analytics Cloud is a consolidated hub for Planning and Budgeting. It achieves this by seamlessly merging various data sources, facilitating collaboration, presenting advanced modeling and analytical capabilities, maintaining real-time data synchronization, and giving paramount importance to security and compliance. SAC empowers organizations to base their financial decisions on data insights, respond adeptly to evolving business dynamics, and enhance precision and efficiency in their financial planning procedures.

**2.3. Collaborative Planning with SAC**

In SAP Analytics Cloud for Planning and Budgeting, proficient collaboration is the cornerstone of achievement and timeliness in your planning initiatives. Whether you aim to gather insights from colleagues on specific data points, efficiently delegate and complete tasks to drive the project forward or circulate private data versions for valuable input from key stakeholders, the collaborative features undeniably pave the way for success. SAP Analytics Cloud offers a range of collaboration tools, including Discussions, Data Point Comments, Calendar, and Version Management.

**2.3.1. Discussions**

We can start talks with SAP Analytics Cloud users to seek input, avoiding lengthy email threads. Its accessibility from any screen ensures focused, context-rich conversations among participants.



**Fig. 1 Collaborative planning**

**2.3.2. Data Point Comments**

We can engage directly with colleagues using the Data Point Commenting tool to seek input, offer feedback, or comment on specific table data.

To comment, select the cell, right-click, and choose "Add Data Point Comment." Like social media interactions, users can respond to or 'like' comments.

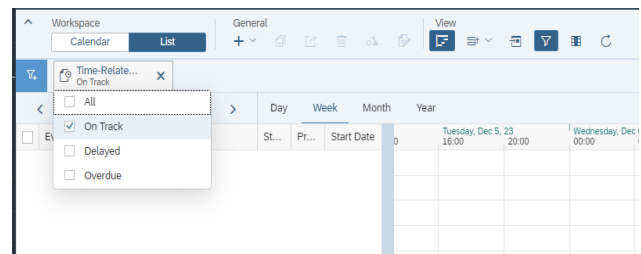
The screenshot shows a table titled 'Net Revenue' with columns for years 2016, Q1 (2016), Q2 (2016), Q3 (2016), and Q4 (2016). A red box highlights a 'Comment' button in the top right corner of the table area.

2016	> Q1 (2016)	> Q2 (2016)	> Q3 (2016)	> Q4 (2016)
39.63	10.86	11.24	8.43	9.10
12.27	3.25	1.96	4.91	2.15
4.20	1.17	0.79	1.39	0.86
25.48	8.04	6.41	5.41	5.62
31.88	7.40	7.34	9.87	7.27
25.24	6.54	5.57	7.73	5.41
53.60	14.42	11.96	11.45	15.77
9.54	2.03	2.05	3.21	2.25
64.99	18.53	18.77	13.64	14.06
27.84	6.88	5.76	9.45	5.75
26.14	6.47	7.47	7.41	4.79

**Fig. 2 Data point comments**

**2.3.3. Calendar**

In SAP Analytics Cloud, the calendar facilitates collaboration, showing tasks and allowing assignments.



**Fig. 3 Calendar**

**2.3.4. Version Management**

Version Management allows you to create private data versions for collaboration and experimentation, accessible via the Version Management icon in your planning stories' Tools menu.

**2.4. Data Integration**

The data integration process within SAP Analytics Cloud allows organizations to efficiently gather, modify, and analyze data from various sources. Data Integration guarantees data accessibility and currency, establishing a robust basis for data-informed decision-making and reporting across the organization.

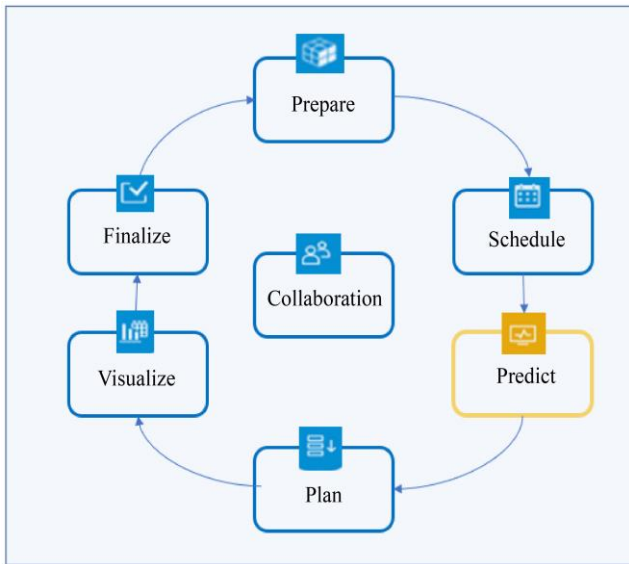
**2.5. Financial Planning and Analysis**

Financial Planning and Analysis (FP&A) holds a pivotal position within all organizations, overseeing critical functions like budgeting, forecasting, and meticulous examination of financial data to empower sound strategic decision-making.

SAP Analytics Cloud (SAC), provided by SAP as an enterprise planning and cloud-based business intelligence solution, stands out as a valuable resource for executing FP&A responsibilities. Financial Planning and Analysis encompasses data integration, modeling, budgeting and forecasting, scenario planning, and visualization.

**2.6. Forecasting with Predictive Planning**

- Predictive forecasting considers various data points, including your dataset's trends, cycles, and fluctuations. This data-driven methodology enhances the efficiency of your planning processes as it relies on empirical evidence rather than subjective judgments.
- Utilizing SAP Analytics Cloud for predictive forecasting empowers you to gain insights into the critical factors impacting your business. Interactive visualizations provide a transparent depiction of your data, fostering objectivity and improving the precision of your planning endeavors.



**Fig. 4 Forecasting with predictive planning**

To leverage predictive forecasting within SAP Analytics Cloud, working with a dataset rich in historical data is advisable. A substantial historical dataset aids the system in identifying patterns, and the greater the historical context available, the easier it becomes to identify trends.

**2.7. Data Actions**

A data action within SAP Analytics Cloud is a versatile planning instrument, allowing for well-organized adjustments to planning data. Modelers are responsible for crafting these data actions, while planners can carry them out within narratives or schedule them using the calendar. Data actions find application in various scenarios, including data copying, inter-model data transfers, allocation processes, currency conversion tasks, and executing complex formulas.

**2.8. Input Templates for Planning**

Developing an input template for planning and forecasting within SAP Analytics Cloud typically entails the creation of a user-friendly interface. This interface allows planners to input and modify data seamlessly for purposes like budgeting, forecasting, and other planning activities.

**2.9. Allocations**

SAP Analytics Cloud's allocation capability empowers you to apportion data based on predefined driver values from specific source conditions to members within target dimensions. This functionality is commonly utilized to distribute indirect expenses within a budget or oversee the granular breakdown of a top-level planned value among individual leaf members.

**2.10. What-If Analysis**

Value driver trees in SAP Analytics Cloud are primarily applied in financial planning, analysis, budgeting, forecasting, and strategic decision-making. They offer organizations a systematic framework for assessing the potential consequences linked to various business factors. What-If Analysis becomes crucial in a dynamic business environment marked by continuous fluctuations and constantly evolving market conditions. Value driver trees equip decision-makers with essential insights to navigate changing circumstances and make informed decisions that guide their organizations toward the correct path.

**2.11. Integration with SAP Solutions**

The integration features empower organizations to make the most of their prior investments in SAP, granting access to real-time data and optimizing planning procedures throughout the organization. This integration fosters data uniformity, minimizes manual data input, and elevates the overall effectiveness of financial and operational planning within the SAP Analytics Cloud for Planning environment.

**2.12. Data Visualization**

Data visualization in SAP Analytics Cloud enables businesses to draw actionable insights from their data, effectively communicate discoveries, and make data-driven decisions. This ability is essential for improving corporate analytics, reporting, and performance monitoring across various sectors and departments.

**3. Conclusion**

Adopting digital transformation through implementing SAP Analytics Cloud for business planning and forecasting holds immense promise for organizations. This transformative journey offers numerous benefits, such as enhanced accuracy in decision-making, streamlined planning processes, and the ability to harness the power of advanced analytics. Organizations can unify their data analysis, planning, and forecasting efforts by leveraging SAP Analytics Cloud within a single, integrated platform. This improves efficiency and fosters collaboration among teams, leading to better-informed decisions and more agile responses to changing market conditions.

Furthermore, the platform's predictive analytics capabilities empower businesses to anticipate future trends and potential challenges, enabling proactive strategies and

mitigating risks. In a rapidly evolving digital landscape, SAP Analytics Cloud positions businesses to stay competitive and adaptable. As organizations continue to embrace digital transformation, SAP's comprehensive business planning and

forecasting solution plays a pivotal role in driving success, growth, and resilience in an ever-changing business environment.

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