

# Business Context Viewer (BCV) for SupplyChain and Financial Systems

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## Abstract

The increasing complexity of supply chain and financial operations in large enterprises requires comprehensive visibility and data integration. Usually supply chain and financial systems have key information lying out of the transactional system, which impacts the key decision power. Business Context Viewer (BCV) panels in SAP business suite systems provide real-time, context-specific insights within SAP Fiori applications, thereby enhancing decision-making capabilities and operational efficiency. This article explores the role of BCV panels in creating value addition to supply chain and financial systems, focusing on their architecture, integration strategies, and case studies demonstrating their impact.

**Keywords:** BCV, analytics, side panels of analytics, In-memory side panels, context sensitive reports, context based calls, query views, search connectors, business suite BCV panels

## Problem Statement

Organizations often struggle with disconnected insights across supply chain and financial data, leading to inefficiencies and decision-making bottlenecks. Complex systems and algorithms frequently fail to integrate or let the downstream or upstream system seamlessly, resulting in gaps in actionable insights that can be detrimental to business performance.

## Introduction

Effective management of supply chain and financial processes is critical to achieving operational excellence and sustaining profitability. However, in many organizations, supply chain data such as inventory levels, supplier performance, and production schedules are often not integrated with financial data like cost analysis, cash flow management, and budgeting. Business Context Viewer (BCV) panels offer a solution by consolidating and contextualizing this data within SAP Fiori applications.

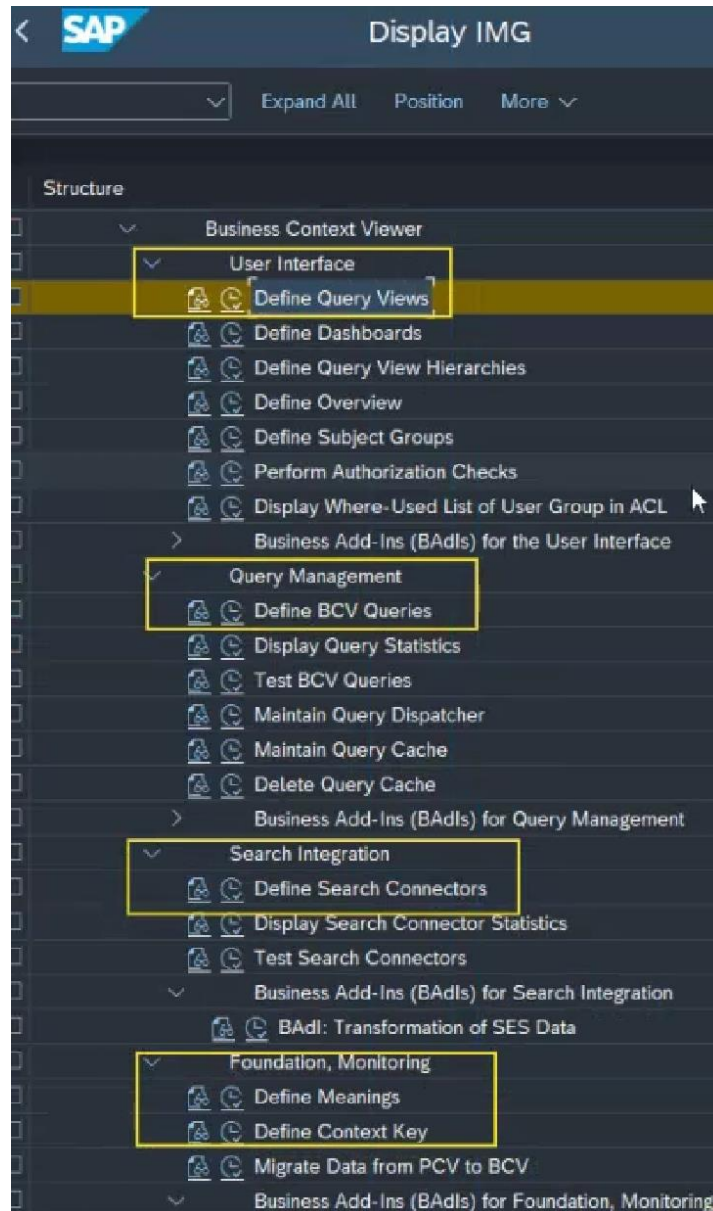
## BCV Side Panels Overview

Business Context Viewer (BCV) panels are analytical components within SAP that provide real-time contextual information through data visualizations directly within Fiori applications. These panels can integrate data from SAP ERP modules and external systems, enabling decision-makers to access actionable insights based on their roles. These panels can be agnostic to the source of the data, rather be designed to be viewed in-line with the applications or Fiori-tiles that that is intended.

## Features of BCV Panels

**Data Integration and Visualization:** Real-time insights from multiple SAP and non-SAP systems are visualized through interactive elements like charts, dashboards, and exception alerts.

BCV out of box for standard functions: Business functions like Product Lifecycle Management(PLM), Recipe management, Project management, Enterprise asset management(EAM), Service Parts Planning(SPP) and some financials like Record to report.



**Role-Based Contextualization:** Information is tailored to specific user roles and responsibilities, enhancing the relevance of the data.

**Proactive Alerts and Notifications:** BCV panels can trigger alerts based on predefined rules, enabling exception management.

### Architecture and enablers for Implementing BCV Panels

SAP recommends several prerequisites and best practices for enabling BCV panels effectively:

**Activate Enhancements for Business suite foundation :** A compatible SAP NetWeaver platform and SAP ERP or S/4HANA installation. All SAP Business suite foundation applications, like SAP CRM, SRM, S4

can be configured to have the BCV panels & also those can provide the dataset to the analytic panels. Activate business function /BCV/MAIN\_1.

Authorizations: For BCV there are preconfigured roles and authorizations to begin with. BCV Administrator (SAP\_BCV\_ADMIN2) : This role provides authorization for all the activities that an administrator of BCV needs, including configuration and monitoring tasks.

BCV User (SAP\_BCV\_USER2): This role provides authorization for all the activities that an end user of BCV needs. If this is accessed by an Fiori app/external UI, system users must be provided with this role.

BCV External User (SAP\_BCV\_EXTERNAL\_USER2)

This role provides authorization for all the activities that an external user of BCV needs. An external user is a user working in a demilitarized zone (DMZ) system.

Access control list(ACL): This is another way to control the authorization for the user community and the admin through the netweaver NW ACLs. This is more of a decentralized access control system for large organizations. Users can be provisioned to directly create, change, display, and delete NetWeaver ACLs. Users can provision or withdraw authorizations for BCV objects without an admin, instead a process group can contain all the NW ACLs accountability. If authorizations for a BCV object are changed frequently, the use of NW ACLs simplifies the assignment of authorizations & this would be the way to go. (help.sap.com on BCV NW ACLs)

**Configuration Center:** Business context viewer can be configured via the SAP customizing methods, but it's recommended to do so in the Configuration Center. This would be the central point of entries for BCV. Menu path > Business Context Viewer > Business Context Viewer Homepage.

Some of Major BCV configuration cockpit activities are outlined here, to see a realistic integration between complex systems that get valuable insights. Refer diagram 1 for the configuration cockpit highlighted with the major configuration steps.

1 Define Context key, like a namespace for the business scenario or entity. Context key identifies the application using BCV and the business object in the process. In the below diagram 2, context key MDGMAT is configured for Material master of MDG..

Customizing path: Cross-application components > Processes and Tools for Enterprise application > Business Context Viewer > Foundation, Monitoring > Define Context key (refer diagram 1)

**Diagram 2: Configuring Context key for MDG-Material master.**

Classification of Applications Using BCV					
Context Key	Application	Obj. Type	Namespace	Context Key Name	Context Key Description
MDGF_0G	MDG	MDGF_0G		Master Data Governance for Financials 0G	Master Data Governance for Financials (Dat
<input checked="" type="checkbox"/> MDGMAT	MDG	MAT		MDG Material	MDG Material
MDG_AF	MDG			Master Data Governance Framework	Master Data Governance Framework
QAM_ACTIVITY	QIM	QAM_ACT		Quality Activities	

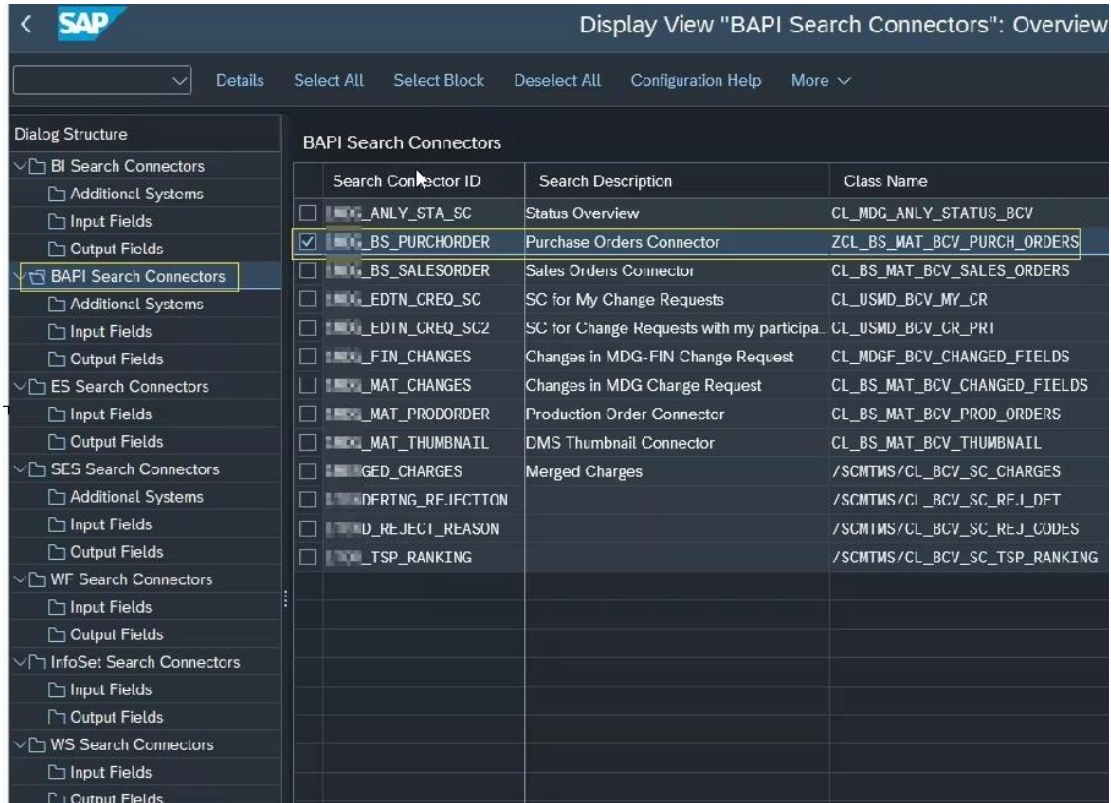
## 2 Defining Search connectors:

A search connector is the integrator of the data provider segments(one or many) and its technology with the Business Context Viewer (BCV) by providing search access to a specific data provider at a specific destination (logical system) or list of remote systems. It's much easier said than done.

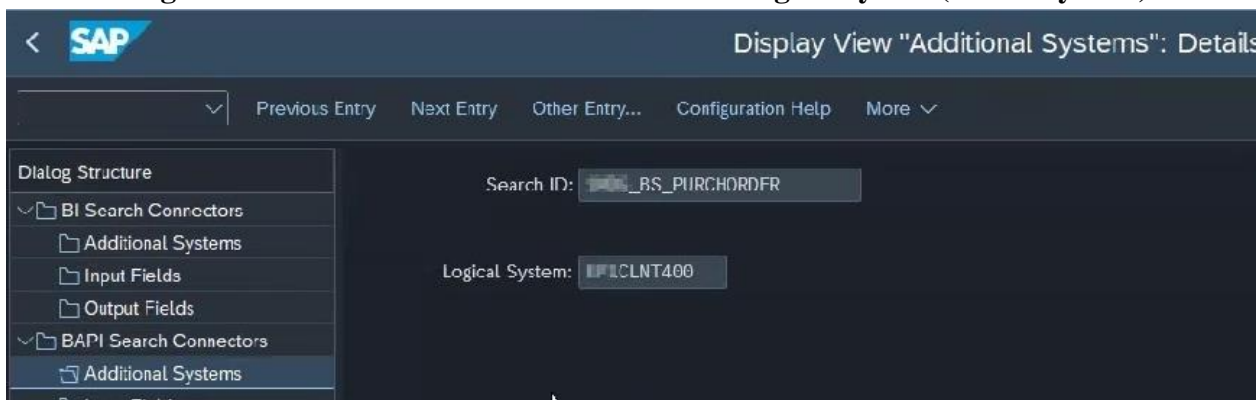
We have to carefully assess how the source system can integrate, with future changes and scalability in mind. Also consider the source systems data load capability. The definition of the search connector will

start by the search connector type, based on the technology, refer table 1. For the continuing example, search connector BS\_PURCHORDER is defined with a logical system, that is the connecting remote system. Refer Diagram 4.

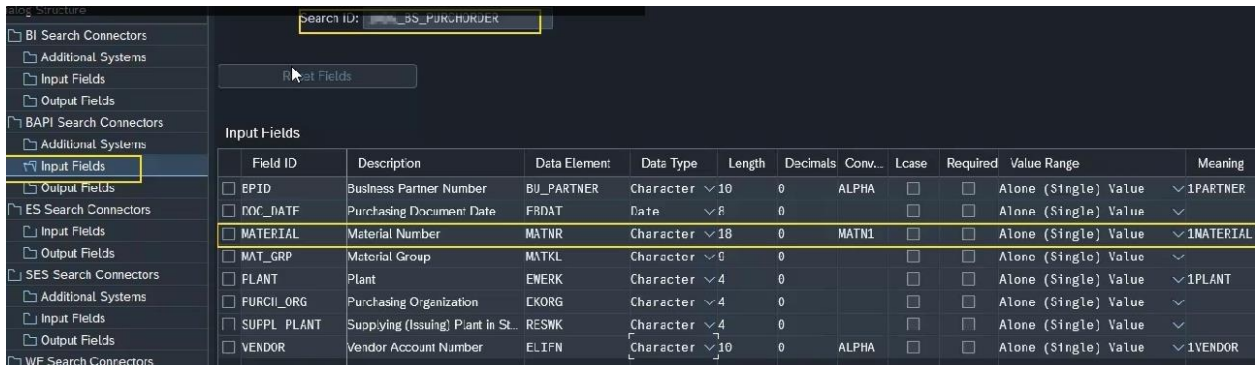
**Diagram 3: Configuring Search connector, Also dialog structure on the left explains the ways to configure the search connector.**



**Diagram 4: Search connector defined with the logical system(source system)**



**Diagram 5: Search connector with input fields.** This input can be directly from the context view of the Fiori or from another Query view, which supplements this data. Can be customized to define a range of input, case sensitive, required or optional fields.



**Customizing path:** Cross-application components > Processes and Tools for Enterprise application > Business Context Viewer > Search integration > Define search connectors (refer diagram 1)

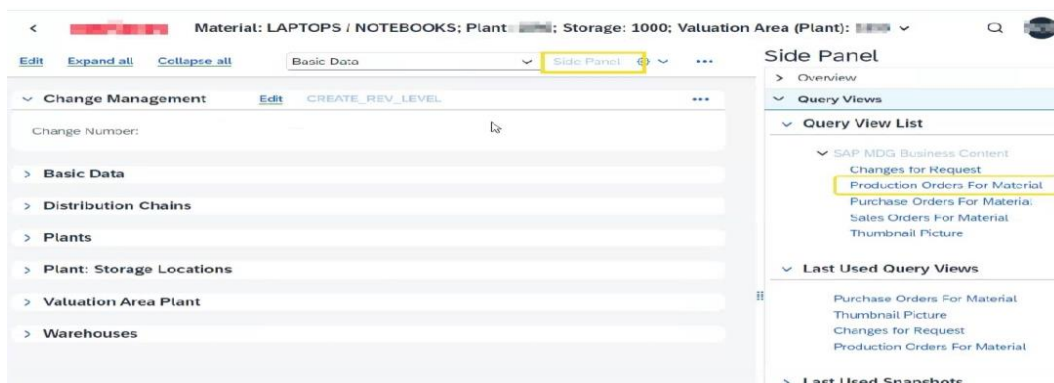
**Table 1: Search connector technology stack to connect with peers.**

Search Connector Type	Data Provision Technology	Description	Example
Database Search Connector	SAP Database Tables	Directly connects to SAP tables to retrieve structured data, ideal for real-time insights from transactional data.	Example: Accesses the COEP table to retrieve central financial postings and related cost center data. This enables finance managers to track material-related expenses within specific cost centers, providing insights into materials cost trends.
BI Search Connector	SAP Business Intelligence (BI)	Fetches data from BI queries or InfoCubes, used for analytical or historical data reporting.	Example: Pulls data from a BI query to analyze the monthly material costs by cost center, aiding financial analysts in understanding material cost impacts on overall financial performance.
Embedded Search (ES) Connector	SAP Embedded Search	Uses Embedded Search to perform cross-functional searches within SAP applications, ideal for linking related data across modules.	Example: Searches for purchase orders containing specific material codes and displays associated financial postings, providing an end-to-end view of material acquisition and related financial transactions.
InfoSet Connector	InfoSet	Combines data from multiple tables for complex reporting, especially useful for joined views across modules.	Example: Retrieves material master data and links it to the GLPCA table for General Ledger postings, enabling a consolidated view of material valuation and financial impacts for inventory reporting.

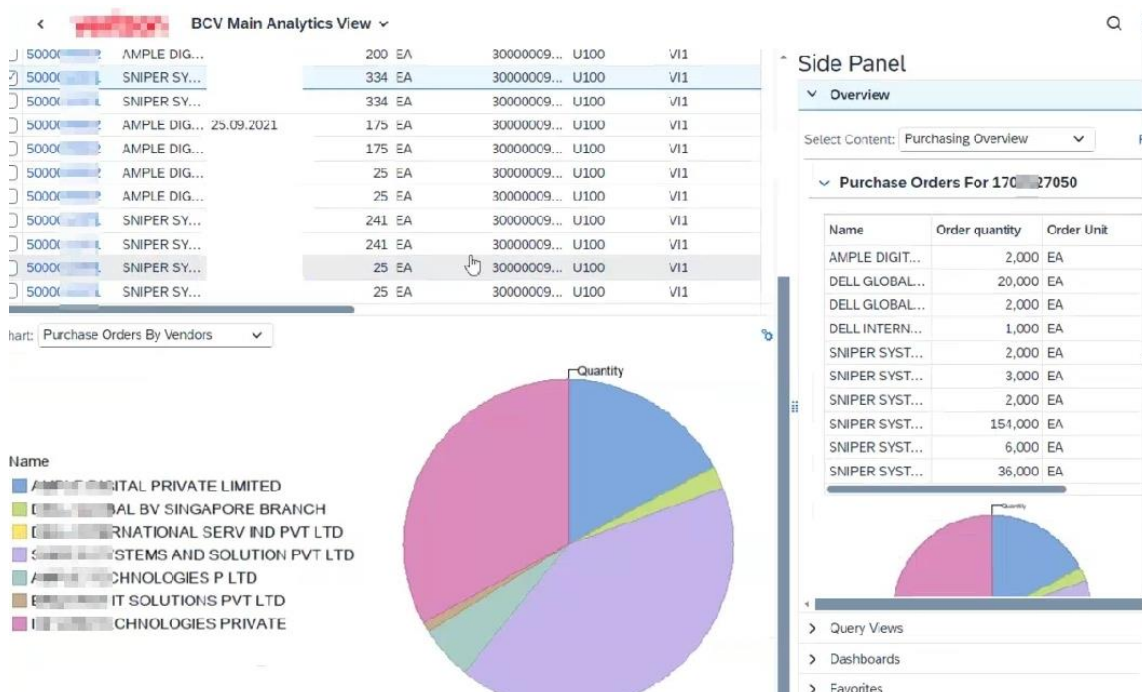
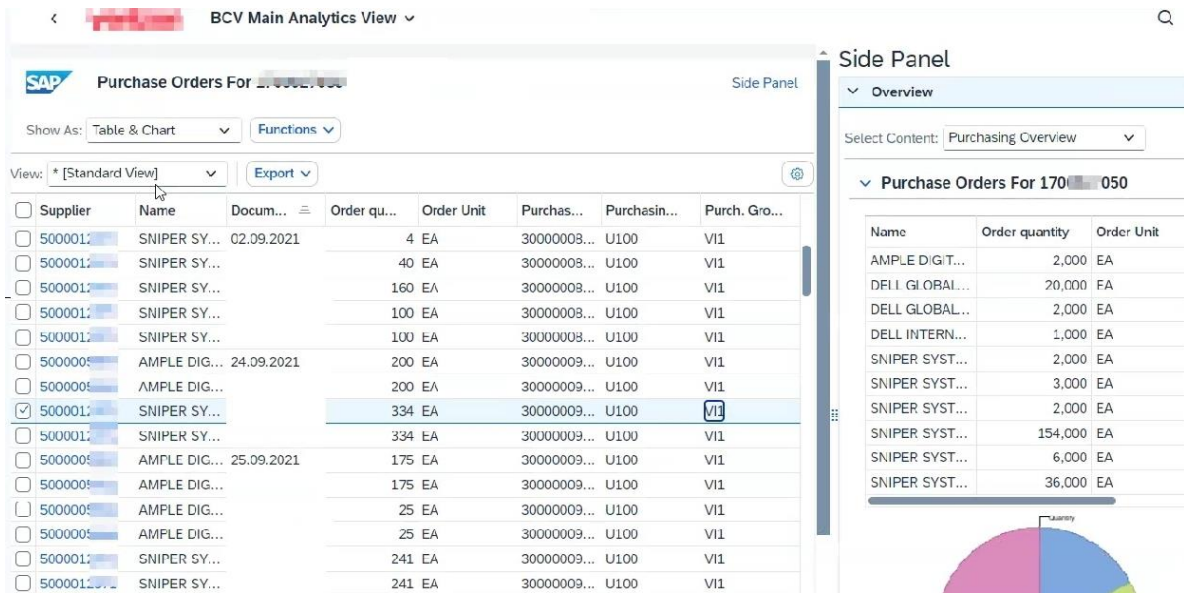
BAPI Search Connector	SAP Business Application Programming Interface (BAPI)	Uses BAPIs to pull data from SAP, ideal for business object functions that require transactional updates.	Example: Calls a BAPI to fetch real-time expense data related to materials from central finance, providing an overview of actual material consumption costs compared to budgeted amounts.
Workflow Connector	SAP Workflow	Connects to workflow data to monitor tasks, approvals, and statuses.	Example: Displays the approval workflow status for high-value material requisitions, allowing both financial and procurement departments to track compliance and budget approvals.
Web Service Connector	External Web Services	Integrates data from external sources through web services, useful for connecting non-SAP systems.	Example: Pulls external pricing data to compare supplier quotes with material costs, providing finance teams with insights into potential savings and cost control opportunities.
Generic Data Source Connector	Custom or Non-Standard Data Sources	Enables connection to custom sources for unique reporting needs.	Example: Connects to a custom-built data source that consolidates material cost forecasts with central financial data, helping finance teams to better budget for materials based on projected requirements.

**Query views:** This is the layout and format functions to the user screen and that with layering of search connectors. The results can be a list or a chart, form or a custom defined display type. Many out of box chart views are available. The query view contains additional information that is relevant for displaying data to the user, such as settings, sort sequence, field configuration settings, and so on.

**Diagram 6:** BCV side panel in action, when a user accesses a ‘Material manage’ fiori app. While viewing a material, a highlighted ‘side panel’ link is clicked and it opens up the right pane with the options. The right pane has the configured ‘Production orders for Material’, which actually connects to the search connector from MDG systems to S4 system and gets the details.



**Diagram 7 & 8:** After the ‘purchasing view’ is clicked, the left lane is opened with Material relevant(Context based) purchase order details. In Fact we have the chart with quantity wise on Vendors with the open Purchase order. This key information helps users to make a right decision while processing a material in MDG.



**Value Addition to Supply Chain and Financial Systems**

BCV panels provide value addition by bridging the gap between supply chain and financial systems. Key areas of impact include:

**1. Enhanced Visibility Across Financial and Supply Chain Processes**

BCV panels provide real-time visibility into supply chain metrics, such as supplier lead times and inventory levels, and link them with financial KPIs like cost variations and budget adherence (Williams

& Brown, 2020). This integration enables supply chain and financial managers to make decisions based on a holistic view of operations.

## 2. Proactive Risk and Exception Management

Through real-time monitoring and alerts, BCV panels help organizations proactively manage risks in supply chain and financial systems (Johnson, 2021). For instance, panels can alert users to cash flow issues caused by delayed supplier payments, allowing finance teams to take corrective action.

## 3. Optimized Resource Allocation

BCV panels enable data-driven resource allocation by linking production schedules with financial constraints. This ensures that resources are utilized optimally without exceeding budget limits (Lopez & Green, 2019).

## Case Study: Improving Inventory and Financial Efficiency through BCV Panels

### Background

A global consumer goods company faced challenges in aligning inventory management with financial planning. Disconnected systems led to discrepancies between inventory levels, procurement costs, and financial forecasts.

### Solution

The company implemented BCV panels to integrate inventory data from SAP MM with financial metrics from SAP FI. Key features of the BCV panels included:

**Inventory Level Dashboard:** Real-time inventory levels displayed alongside procurement costs, with drill-down options to analyze variances.

**Financial Impact Analysis:** Contextual insights into the financial impact of inventory decisions, including cost deviations and cash flow analysis.

### Results

The BCV panel implementation led to the following improvements:

**Increased Inventory Turnover:** A 20% increase in inventory turnover due to real-time monitoring and alignment with financial forecasts (Smith, 2020).

**Reduced Procurement Costs:** A 15% reduction in procurement costs was achieved by linking inventory levels with supplier payment terms (Kumar & Patel, 2019).

**Improved Financial Forecasting:** Enhanced alignment between supply chain and financial systems improved forecast accuracy by 10% (Richards, 2021).

## Integration Strategies for BCV Panels

To successfully integrate BCV panels within SAP Fiori applications, organizations should follow these strategies:

**Define Key Use Cases:** Identify specific areas where integrated insights are critical, such as inventory management, supplier performance, and cash flow forecasting (Walker & Singh, 2018).

**Utilize Standard Data Providers:** Where possible, leverage standard SAP data providers to minimize custom integration complexities (Johnson, 2021).

**Configure Role-Based Panels:** Tailor BCV panels to specific user roles, such as supply chain managers, financial controllers, and procurement officers (Smith, 2020).



### Challenges and Mitigation Strategies

Implementing BCV panels may present challenges related to data integration, user adoption, and system performance. To mitigate these challenges, organizations should:

**Establish Data Governance Policies:** Implement data governance frameworks to ensure data quality and consistency (Lopez & Green, 2019).

**Optimize Panel Performance:** Regularly monitor and optimize BCV panel performance based on user feedback and system analytics (White, 2018).

**Conduct User Training:** Provide comprehensive training to users on interpreting and utilizing BCV panel insights effectively (Walker & Singh, 2018).

### Conclusion

BCV panels offer significant value addition to supply chain and financial systems by consolidating and contextualizing insights within SAP Fiori applications. Through enhanced visibility, proactive risk management, and optimized resource allocation, BCV panels enable organizations to bridge the gap between disconnected supply chain and financial data. The successful case study demonstrates how BCV panels can drive efficiency and decision-making in complex business environments.

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