

WHITE PAPER



Procurement Solutions for Financial Managers

Business Process Management Solutions for
Financial Management

TABLE OF CONTENTS

1.	Audience.....	3
2.	Introduction.....	3
3.	Delivering Corporate Finance Solutions with BonitaSoft.....	4
3.1.	Product Features and Benefits	4
3.1.	Services: Support, Advice, and Consulting	5
4.	Methodology	6
4.1.	Drive.....	6
4.1.1.	Create	7
4.1.2.	Compare	8
4.1.3.	Comply.....	9
4.1.4.	Collect Approvals.....	10
4.1.5.	Compensate Suppliers.....	11
4.2.	Monitor	11
4.2.1.	Spend Analysis.....	11
4.2.2.	Suppliers' Relationship Monitoring	13
4.2.3.	Legal/Policy Compliance Monitoring	13
4.3.	Optimize	14
4.3.1.	Custom KPIs and on-the-fly calculations.....	14
4.3.1.	Dashboards.....	16
5.	Conclusion	17
6.	Next Steps	17

1. Audience

This whitepaper is for financial managers and executives, such as Chief Financial Officers (CFOs) and Chief Procurement Officers (CPOs), who seek: to better understand their procurement process with respect to IT's implementation and management of it, to optimize it, and to forecast its related cash flow impact and requirements.

2. Introduction

Procurement is a strategic process for an organization, not only for the organization's day-to-day livelihood, but also for its competitive advantage. Supply Chain IQ conducted a survey in 2010 to understand the challenges procurement professionals face, as well as the major challenges today's economic climate presents. The survey revealed the top three concerns to be: managing supplier relationships, price volatility of commodities, and managing expectations of stakeholders. Meanwhile, the current economic climate has brought challenges across the board in terms of the competitive landscape, cost volatility of raw materials, and general volatility of the economy. A Business Process Management (BPM) solution that enables procurement managers to optimize their processes and includes reporting and dashboards of key performance indicators (KPIs) is key to overcome these challenges.

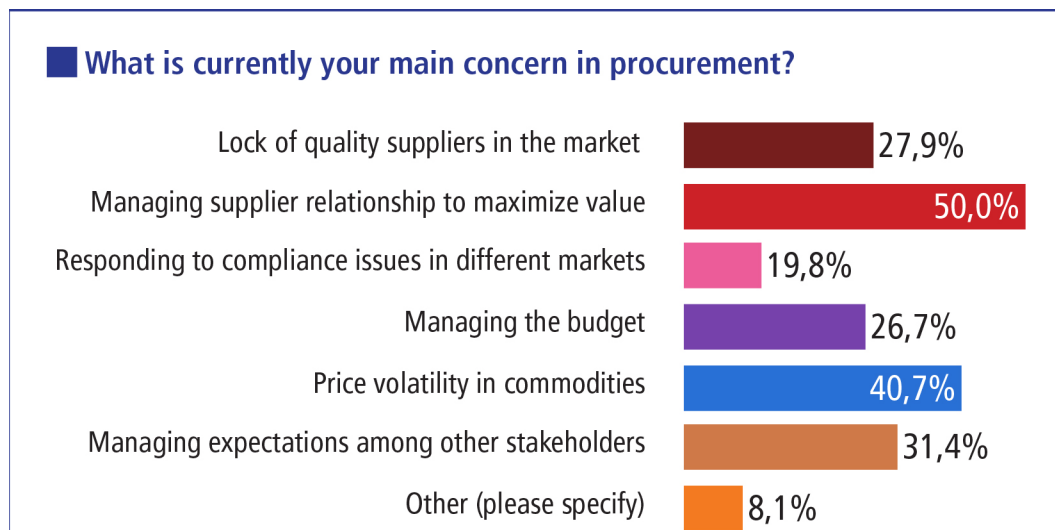


Figure 1. Main Concerns in Procurement, Source: Supply Chain IQ

■ In the current economic climate, what would you suggest has changed in the procurement function?



Figure 2. Challenges due to the Economic Climate, Source: Supply Chain IQ

The following are some scenarios where the procurement process can make or break an organization's business:

- The CFO does not understand precisely when money will be taken out of the bank or the financial system. Even though the CFO understands how everything should work, what if, for example, a bank holiday in a foreign country delays a critical money transfer for a procurement purchase?
- The CFO may struggle with one of the organization's top scientists who is trying to procure something that is seemingly not relevant to the bottom line of the business. Could that acquisition lead to expenses that could bankrupt the company?
- In a perfect world, employees will look for the best possible supplier with the best possible terms, use only what they deem to be necessary, and then post the expense to the balance sheet. But what overall corporate constraints might the employee be missing in the procurement process?
- Take two competing firms, one with better than industry average efficiency of the Procurement Process and the other with the lower than the industry average. Everything is the same except the Procurement Process. Could the Procurement Process serve as the strategic, competitive advantage to become the dominant player? When considering historical examples like Amazon.com, Dell, and Wal-Mart, it seems to be the case.

This paper explores how BonitaSoft BPM solutions can make the Procurement Process a strategic tool for your own organization's clear competitive advantage.

3. Delivering Corporate Finance Solutions with BonitaSoft

BonitaSoft offers a full range of Business Process Management Suite (BPMS) editions and services as well as system integrator partners to overcome the challenges described in the prior section.

3.1. Product Features and Benefits

BonitaSoft's BPMS editions include features for business process modeling, application design, dashboards, and deployment to overcome all the challenges described in the prior section. The open source edition of the suite is called Bonita Open Solution (BOS), and BOS is appropriate for building your first projects. BonitaSoft's commercial editions add increasing levels of functionality in the form of annual Subscription Packs that include technical support. Subscription Pack Editions include business process model templates such as the Procurement Process template described in this white paper.

An overview of key features and benefits for all BonitaSoft BPMS editions follows:

- **Business Process Modeling.** Business users can easily define business processes using a user-friendly graphical interface and an intuitive industry standard notation called BPMN 2.0. This enables a businessperson to easily define the process that can also be easily understood by the technical team that will implement the process as an application.
- **Application Design and Generation.** BonitaSoft's suite enables application designers to quickly and easily build web application forms with the look-and-feel desired, directly based upon the business process model.
- **Connectors.** Another challenge with deploying BPM solutions today is that typical BPM products do not provide easy ways to interact with other corporate systems. In a practical sense, this is very limiting because most business processes require interaction not only with people but also corporate systems. BonitaSoft and its community provide a library of hundreds of connectors with external systems such as email, applications, and other corporate systems to ensure that the business processes can interact with corporate systems in a practical and useful way.
- **Process Template Best Practices.** The BonitaSoft BPMS commercial editions add process templates for Corporate Finance including: procurement, authorization, and payroll. These process templates give you a head start in deploying applications that perfectly fit your business. BonitaSoft and its system integrator partners can help you customize the process templates and corresponding applications to your requirements.

Dashboards. As described in the prior section, ultimately Procurement managers need to monitor the progress of business processes. This is achieved in BonitaSoft products with a feature called Business Activity Monitoring (BAM). BAM provides reporting of KPIs on business processes within a Dashboard. With these Dashboards, Procurement managers can track business objectives against realities of the day and take corrective action as required.

3.1. Services: Support, Advice, and Consulting

The commercial editions of the BonitaSoft products include technical support to help with your product questions and any issues that may arise.

To meet your project requirements and deadlines, BonitaSoft offers advisory services of best-practices for using BonitaSoft products, and its system integrator partners deliver end-to-end services. These services ensure a complete solution, either based upon existing process templates or adding completely new ones.

4. Methodology

To build an effective Procurement Process there are three “gears” to the methodology. First is the ability to drive the Procurement Process. Second is the ability to monitor the progress of each component or sub-process, and the third is the control to optimize it. The following sections explore each gear or factor in more detail.

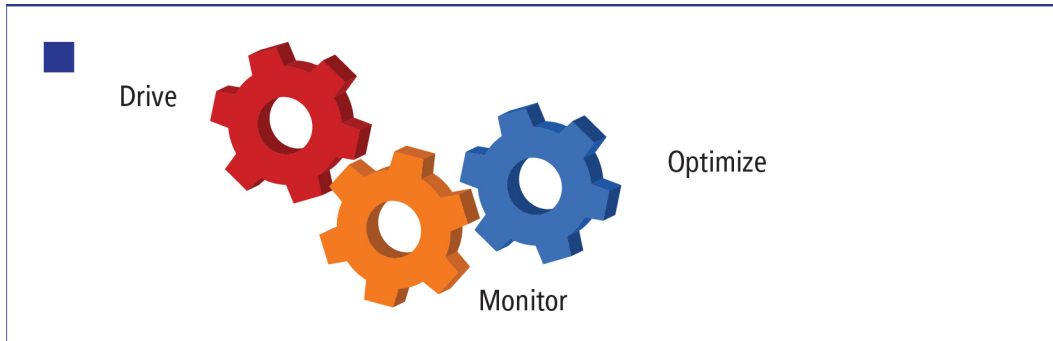


Figure 3, The Methodology of the Procurement Process

4.1. Drive

The “Drive” aspect of the methodology consists of five steps that cover the lifecycle of the purchase order (PO) from creation to the compensation of the vendor. The goal of the “Drive” aspect of the methodology is to provide the CFO with a framework to drive the requirements and policies for building an effective and automated Procurement process.



Figure 4, A Financial Intelligence Framework

The framework aims to create “Financial Intelligence” in each step of the Procurement Process. Financial Intelligence is a set of automated policies created by the CFO that can be enforced at each step of the Procurement Process. The goal of creating Financial Intelligence at the step level is to make the Procurement Process less Centralized, yet under the control of the CFO at all times. In other words, the aim of the framework is to create a Procurement Process that is manageable by the CFO without any bottlenecks (See Figure 5 and Figure 6).



Figure 5, Reviews and Feedback in the Procurement Process

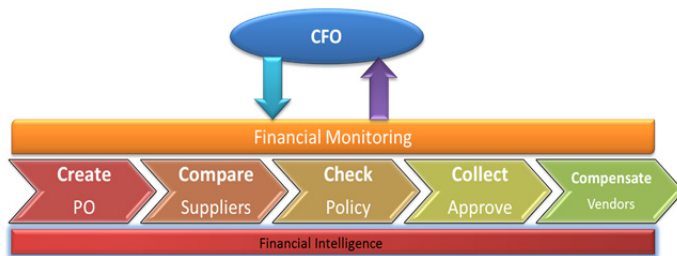


Figure 6, Monitoring the Procurement Process

4.1.1. Create

Traditional Procurement Systems provide end-users with static forms to interface with backend systems. Static forms are passive by nature and do not provide the user creating the PO with information regarding the following steps. Furthermore, static forms do not reflect the financial impact that the PO has on the business unit or on the company in general.

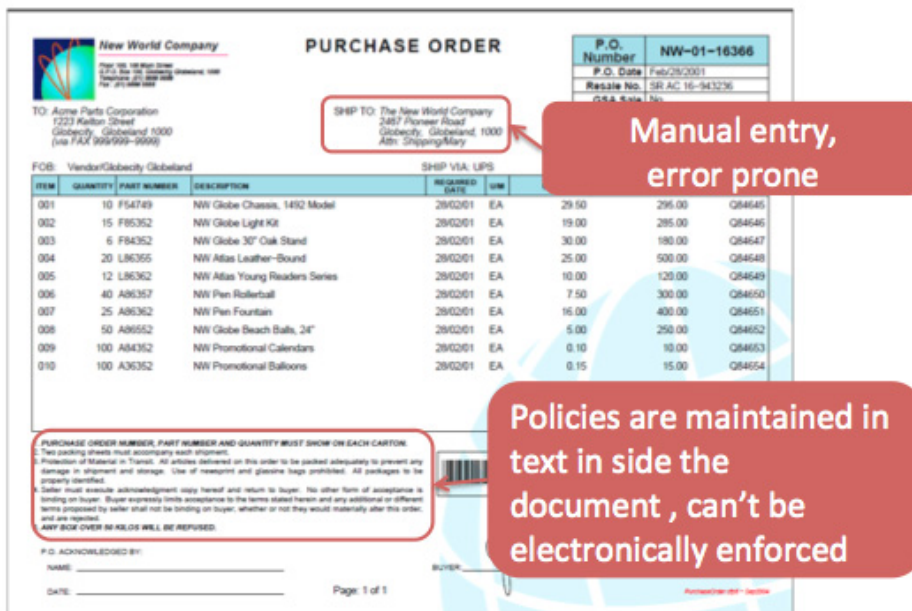


Figure 7, Example Issues with Traditional, Static POs

The “Create” aspect of the Procurement Process Methodology has to do with building “intelligent” POs. Intelligent POs are dynamic forms that are built as the user enters information into the system and provides immediate feedback on the PO creation process. Such immediate feedback reflects policies set by the CFO and Financial Intelligence.

The following are examples of intelligent POs which provide information on the product and the approval process:

- a. As users add products to the PO, the system can provide them with information regarding price estimation, reviews and feedback by other business units and users. Such intelligence can help users choose more suitable products with which to start.

- b. A procurement system that is context-aware of the employee budgeting requirements can show such financial constraints.
- c. Before submitting their POs, users can get information regarding similar POs in the system and their statuses. For example, one can see a list of similar POs that were previously rejected, the reasons for the rejection, and suggested remedies can be provided to get the PO approved.

Giving users immediate feedback via “intelligent” POs is allows them to leverage the domain knowledge and expertise to find alternatives that benefit the company. For example, the scientist or the technician creating the PO may know of alternative materials that have the exact same effect but can be purchased at lower prices. Since the Procurement Process deals with every PO in the organization, leveraging the domain knowledge and expertise of employees submitting POs to purchase more efficiently can have a substantial impact on the bottom-line.

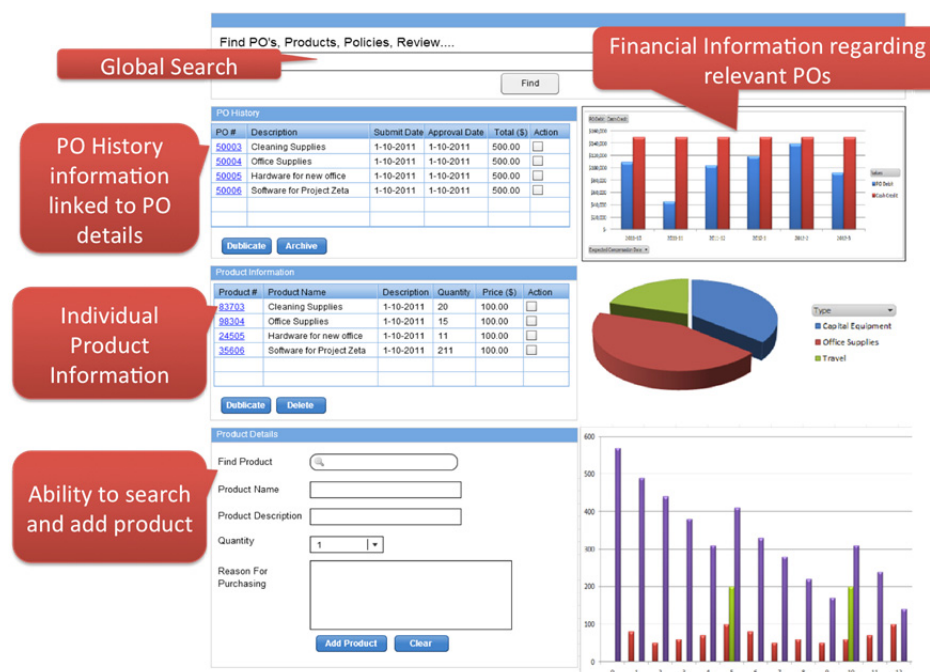


Figure 8, PO Dashboard, for Building and Viewing POs

4.1.2. Compare

The goal of the “Compare” aspect of the Procurement Process Methodology is to provide a benchmarking framework. Such a framework can enrich the content of the PO for better decision-making. The “Compare” aspect aims at comparing the content of the PO against industry pricing and terms. For example, one can compare pricing information of a PO across a list of approved vendors and then with the industry average (See Figure 9).



Figure 9, Benchmarking Framework

The benchmarking framework can be leveraged in the following ways:

- **Evaluate suppliers’ performance against industry rates.** For example, labor rate of a specific job function in reference to industry standards (e.g., Database Administrator hourly rate)
- **Allows for the CFO to evaluate the effectiveness of the suppliers’ selection process.** Evaluation criteria for suppliers may include certification and customer references. Understanding the prices and terms may result in modifying the suppliers’ selection process to include rate ceilings.
- **Benchmarking data can be leveraged in negotiating better terms and conditions with suppliers.**
- **PO Enrichment.** Benchmarking data can enrich the PO with information to be leveraged in the following steps of the Procurement Process. For example, providing the “policy engine” and “approvers” with price comparison might allow for better policy enforcement.

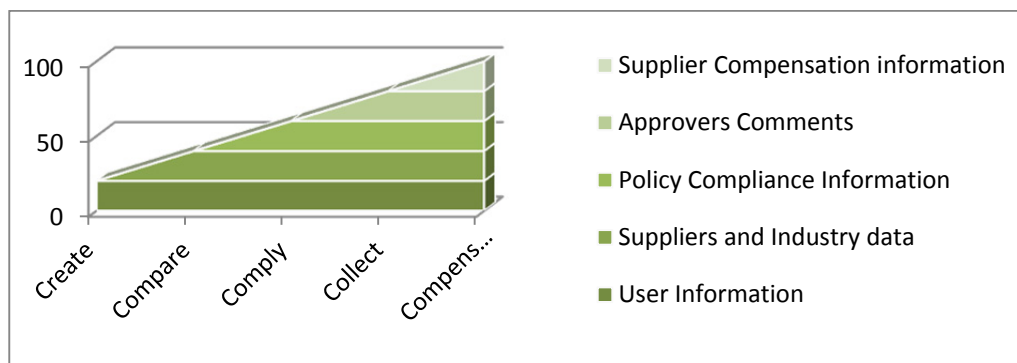


Figure 10, Cumulative knowledge

The last two sections of this white paper demonstrate how to leverage KPIs and Dashboards in building comparative reports that highlight areas of “unusual activities” (spikes, etc.).

4.1.3. Comply

Once the PO is enriched with data from the “Compare” stage (i.e. pricing, terms, user reviews, etc.) a compliance check can be performed prior to approval. The purpose of the “Comply” aspect of the Procurement Process Methodology is to create a compliance mechanism with administrative, operational and financial rules as follows:

- **Administrative Rules** are usually set by approvers to enforce policies that benefit the strategic goals of the relevant business unit or the company in general (depending on the approval level). For example, an immediate supervisor might put a rule that prevents employees from submitting POs that contain materials unsafe for the work environment while the General Manager might put rules that prevent approvals of POs containing items that are already available in the company's warehouse or POs containing items from certain category of suppliers.
- **Operational Rules** are for complying with other systems in the company like the inventory management system and other aspects of the ERP.
- **Financial Rules** are set up by the CFO and the accounting team. For example, budgetary limits, SOX compliance, suppliers exceeding industry average pricing by multiple folds, etc.

Most financial policies are either written in text based documents or are "tribal knowledge" (e.g., a document that describes the travel expense policy for the Professional Services team. Therefore, companies have to depend on the approvers, the accounting team and the CFO to manually enforce such policies on POs. In addition, many companies are faced with the challenge of enforcing rules that are situational or cyclical. Read "Procurement Solutions for Solution Architectures," which describe "Decision Tables" and "Process Configuration Dashboards". These transform such rules into electronic rules that can be implemented in each "intelligent" PO with the relevant feedback.

4.1.4. Collect Approvals

The previous three steps of the Procurement Process Methodology are for creating the PO and enriching it with information that allows the Approvers to make more informed decisions. The process of Collecting Approvals must at least ensure that the following conditions are satisfied:

- **Ensuring that the PO is delivered to the right Approvers.** An Approvers Committee must be defined with detailed information about each approver (i.e. spending limit, geography, category of purchases, etc.). BPM can take the Approvers Committee information and build rules out of it and then route the PO accordingly.
- **Ensure that Approvers have the right information.** The Procurement Process System should provide sufficient information regarding the PO. Having a holistic view of the PO will result in approvers making better decisions. Additional information that may contribute to building a holistic view of the PO may include:
 - Comparative Analysis: for products and services across vendors and industry standards
 - Compliance Report: to detail if all the items requested for order are in compliance with policies
 - Audit Trail: to provide a historic view of the PO
 - Historic data: from similar POs
- **Ensure that the approval process is well coordinated.** The Procurement Process System must be able to deal with issues of having multiple approvers (Approvers Committee), escalation of PO, PO routing, etc.

4.1.5. Compensate Suppliers

The goal of the “Compensate” aspect of the Procurement Process Methodology is to allow the CFO to enforce policies on the process of compensating suppliers (See Figure 11). The CFO and the accounting team can “Drive” the compensation process by:

- Overlooking the process of matching POs and invoices.
- Enforcing policies when paying suppliers. For example, a Net 10 term may be associated with a certain discount percentage.
- Enforcing a “suppliers’ accreditation processes,” for example, requiring suppliers to be ensured and bonded.
- Building proper procedures to update the accounting system: accounts payable, forecast, etc.

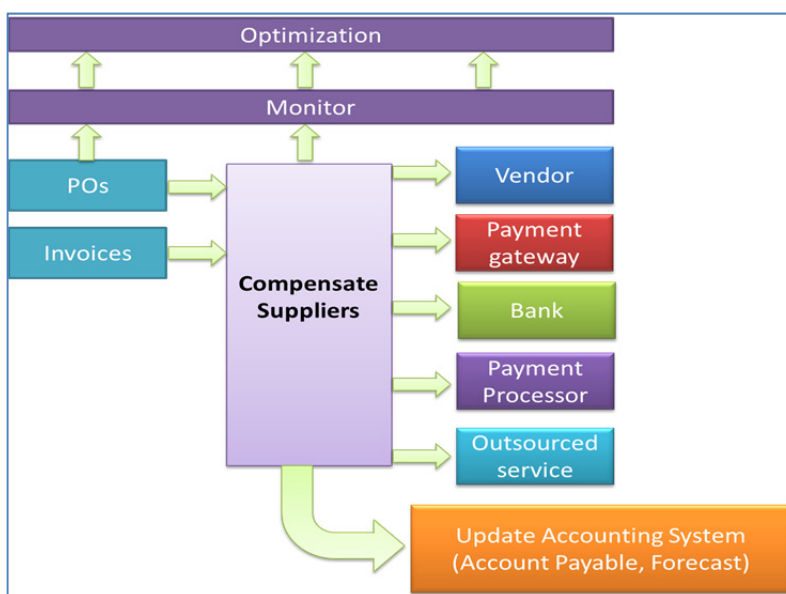


Figure 11, Compensating suppliers

4.2. Monitor

The goal of the “Monitor” gear of the Procurement Process Methodology is to provide insight into the Procurement Process. Such insight shows the impact of the Procurement Process on cash flow or Spend Analysis, suppliers’ relationships, and legal compliance.

4.2.1. Spend Analysis

It is vital for the CFO to ensure that all purchases are within the budgetary constraints of the company. Thus, the CFO needs insight into the cash flow requirements for the Procurement Process: both historically and forecasted. A historic insight of procurement cost in relevance to the procurement budget may reflect the overall health of the Procurement Process and its effectiveness. For example, identifying areas of “over budget” and “under budget.”

Forecasted cash flow requirements result from an aggregate view of all the POs that are being processed at various stages (PO pipeline). For example, Figure 12 (left) provides a forecast of cash

flow requirements for a period of six months. Figure 12 (right) provides a more detailed forecast by identifying the stage the PO is at.

Date/Purchase Type/Stage	PO's Value	Date/Purchase Type/Stage	PO's Value
October-2011		October-2011	
Capital Equipment	\$ 189,772	3. Comply	\$ 258,416
Office Supplies	\$ 60,049	Office Supplies	\$ 9,160
Travel	\$ 311,529	Travel	\$ 249,256
November-2011		4. Collect	\$ 222,559
Capital Equipment	\$ 46,038	Capital Equipment	\$ 136,588
December-2011		Office Supplies	\$ 30,846
Capital Equipment	\$ 21,282	Travel	\$ 55,125
Office Supplies	\$ 82,847	5. Compensate	\$ 80,375
January-2012		Capital Equipment	\$ 53,184
Capital Equipment	\$ 35,931	Office Supplies	\$ 20,043
Travel	\$ 83,111	Travel	\$ 7,148
February-2012		November-2011	
Capital Equipment	\$ 11,526	2. Compare	\$ 27,438
Office Supplies	\$ 117,501	Capital Equipment	\$ 27,438
Travel	\$ 9,928	3. Comply	\$ 18,600
March-2012		Capital Equipment	\$ 18,600
Capital Equipment	\$ 32,206	December-2011	
Office Supplies	\$ 55,956	2. Compare	\$ 104,129
Travel	\$ 4,323	Capital Equipment	\$ 21,282
Grand Total	\$ 1,061,999	Office Supplies	\$ 82,847
		January-2012	
		1. Create	\$ 31,315
		Travel	\$ 31,315
		2. Compare	\$ 68,041
		Capital Equipment	\$ 16,245
		Travel	\$ 51,796
		3. Comply	\$ 12,644
		Capital Equipment	\$ 12,644
		4. Collect	\$ 7,042
		Capital Equipment	\$ 7,042
		February-2012	
		1. Create	\$ 138,955
		Capital Equipment	\$ 11,526
		Office Supplies	\$ 117,501
		Travel	\$ 9,928
		March-2012	
		1. Create	\$ 85,246
		Capital Equipment	\$ 24,967
		Office Supplies	\$ 55,956
		Travel	\$ 4,323
		5. Compensate	\$ 7,239
		Capital Equipment	\$ 7,239
		Grand Total	\$ 1,061,999

Figure 12, Cash Flow Forecast

In addition to providing the CFO with historical, current, and forecasted requirements of cash flow, the capability to perform “what-if” scenarios must be provided as well. For example, Figure 13 shows the impact of Travel cost on cash flow.

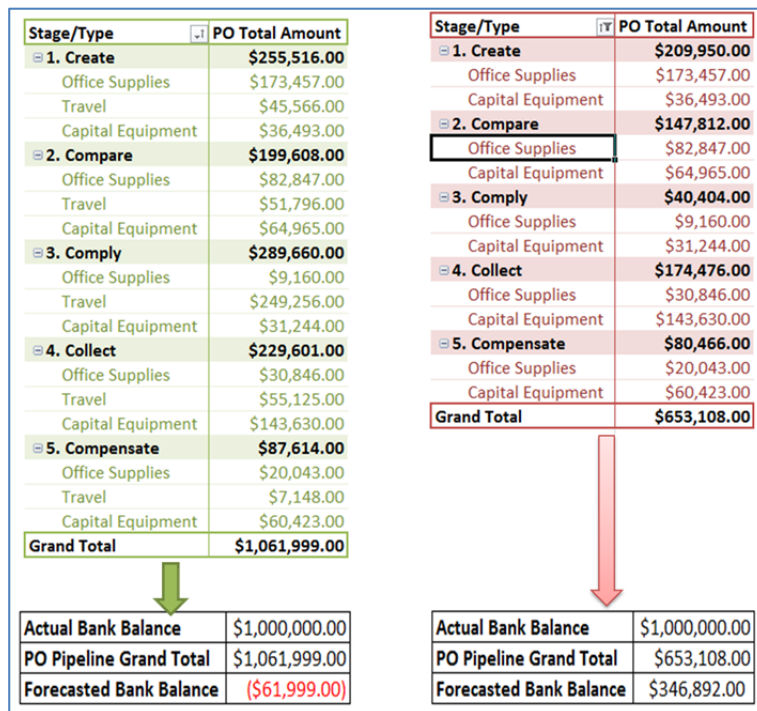


Figure 13, Impact of Travel Cost on Cash Flow

4.2.2. Suppliers' Relationship Monitoring

In order to optimize the Procurement Process the CFO should obtain business intelligence information regarding the quality and quantity of procured items. Such business intelligence information can help the CFO negotiate better terms with suppliers. For example:

- A report of top consumed products and services can help the CFO obtain volume discount from supplier.
- A report of items purchased at premium prices can help the CFO in obtaining a better "net terms" with suppliers (i.e. Net90 instead of Net30)

See the BonitaSoft white paper "Procurement Solutions for Solution Architects," to learn how BonitaSoft BPM and Dashboard technology can produce relevant reports that are proactive.

4.2.3. Legal/Policy Compliance Monitoring

The ability to obtain audit trail information on each PO created in the system and an aggregate view of all POs with historic information can allow for detection of "unusual activities". For example:

- Sudden volume increase in purchasing of certain items
- Approval of incompliant POs

Such information can be leveraged for fraud prevention, audits, SOX compliance and other legal purposes.

4.3. Optimize

Data produced by the Monitor gear of the Procurement Process Methodology can be leveraged to optimize the Procurement Process. The Procurement Process can be achieved through the continuous improvement of two important factors:

- **Reduction of purchasing cost.** Once the spend analysis data that is produced by Monitor is presented to the CFO with the ability to perform “what-if-scenarios”, the CFO can enforce external policies on suppliers’ relationships. For example, requesting the suppliers to provide volume discount or better “Net” terms. In addition, enforcing internal policies may help in purchasing cost reduction. For instance, the CFO may enforce a policy that requires all employees to book flights at minimum of 30 days in advance.
- **Reduction in the life cycle of the Procurement Process.** An optimization effort of each individual step of the Procurement Process can reduce the time required to purchase goods and services. For example, the CFO can enforce policies requiring approvers to review POs within three days of submission otherwise the request will be escalated to upper management.

Both of the factors mentioned above require robust monitoring capabilities and the ability to simulate processes to test the impact of new policies before enforcing them. In addition, the Process Configuration Dashboard can be leveraged to provide the CFO with the ability to change rules’ configuration without requiring any IT efforts.

4.3.1. Custom KPIs and on-the-fly calculations

Key Performance Indicators (KPIs) allow for tracking specific metrics of the Procurement Process. BonitaSoft KPIs can be further customized for on-the-fly calculations and can be overridden to perform what-if scenarios. For example, Figure 15 is produced by the “Get Balance” process that is outlined in Figure 14. The column “PO Debit” is produced by a KPI on the “Post Total PO Amount” step and similarly the column “Cash Credit” is produced by a KPI on the “Post Total Cash Balance” step. The column “Excess Cash” is produced by customizing a KPI with on-the-fly calculations to calculate the difference between monthly “PO Debit” and “Cash Credit”. In other words, reports can be generated by setting KPIs to track specific metrics and can be further customized with specific calculations. Other examples of on-the-fly calculations may include localization, currency conversion and statistical calculations.

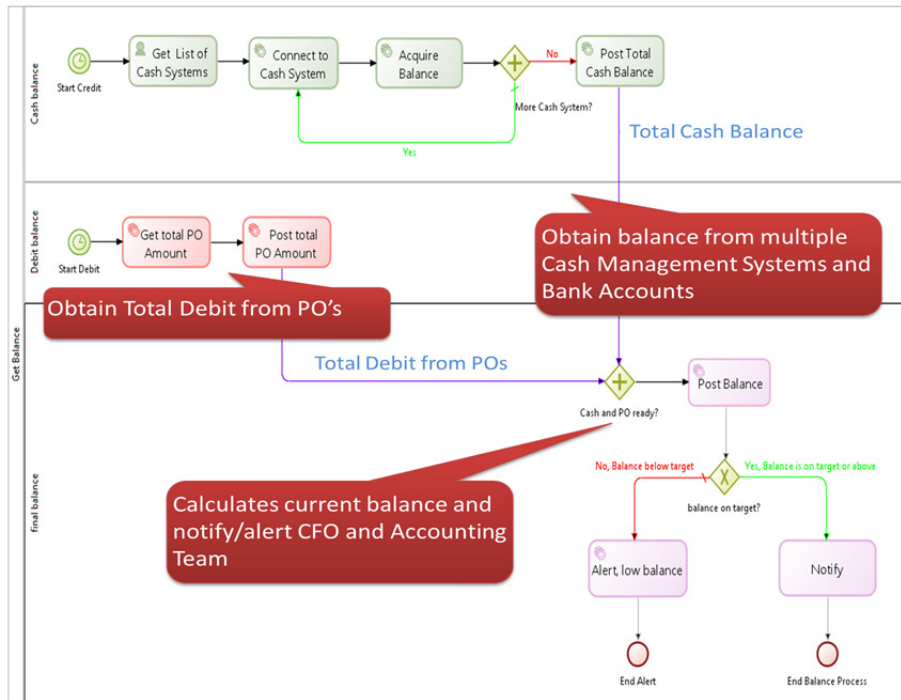


Figure 14, Sample Process for Cash Flow update

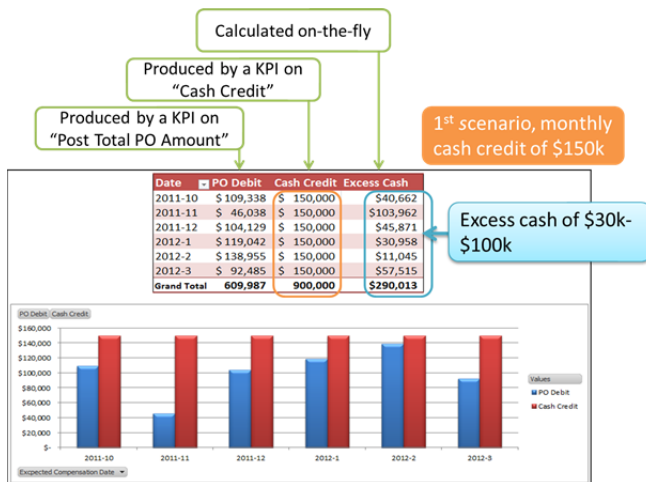


Figure 15, KPIs for Procurement

In addition to KPI customization, BonitaSoft allows for overriding KPIs to measure the impact on the entire Procurement Process (performing what-if scenarios). Such capabilities can be leveraged for testing hypotheses without altering the Procurement Process. For example, by examining Figure 15, there is excess cash for each month of \$30,000-\$100,000. In such a scenario the CFO might consider reducing the monthly cash credit to the procurement account by a certain percentage. However, the CFO might be faced with the challenge of measuring the impact of such a decision on the entire Procurement Process for the upcoming months. To solve such a challenge the CFO can run reports that are similar to the one in Figure 15 but with the assumption that the Cash Credit is reduced, for example by 5% or 30%. BonitaSoft will generate such reports by retrieving and recalculating the

“Date”, “PO Debit” and “Excess Cash” except for the “Cash Credit” column will be fixed at the new assumed rate.

Both figures (Figure 16 and Figure 17) assume a reduction in “Cash Credit” of 5% and 30% accordingly and reflect on the impact on the “Excess Cash.”

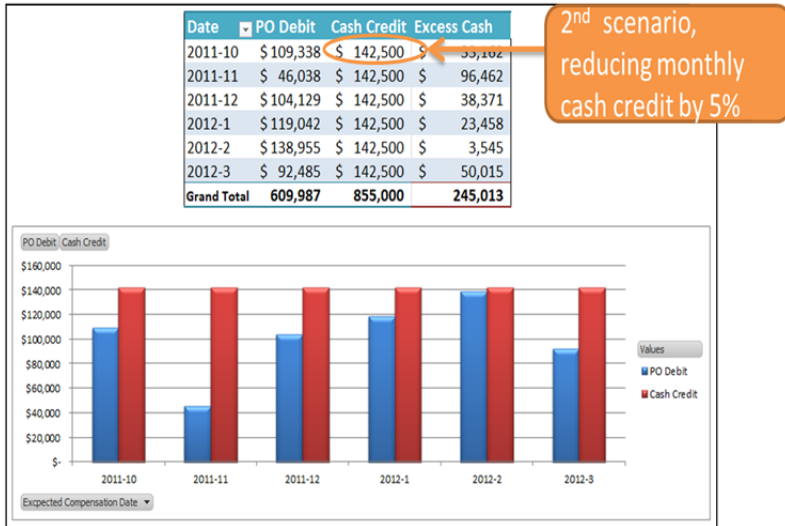


Figure 16, Adjusting Cash Credit by 5%

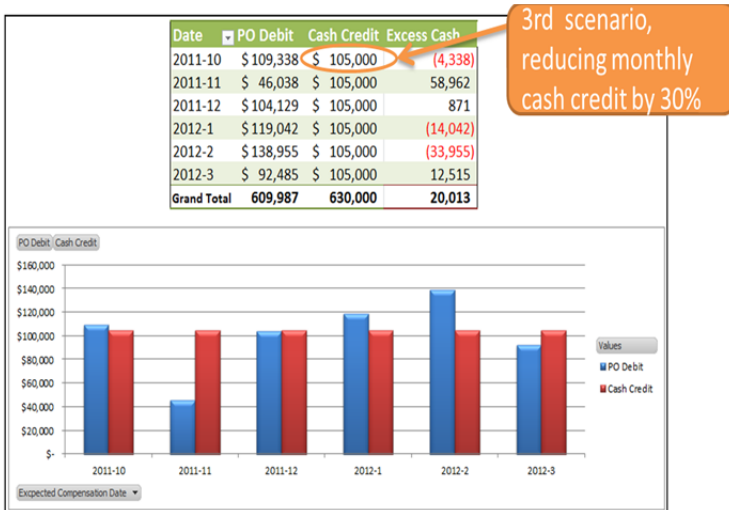


Figure 17, Adjusting Cash Credit by 30%

4.3.1. Dashboards

In order to facilitate access to Pre-built reports and custom KPIs, Dashboards are used to provide a web interface and access level restriction. Figure 18 shows a sub-set of KPI reports included with BonitaSoft dashboards.

Pre-Built Report Name	System Description	Procurement Process Advantage
Average Case Duration	Show average time to execute for cases completed within a given window	Average time required to complete a PO (from creation to compensation) for a specific period (i.e. quarter, month, etc.)
Logged user step status	Display the current status of the logged user's steps (Overdue, On track or At risk).	Average time required to complete a PO for a specific step in the Procurement Process.
Average Step Duration by Type	Show average time to execute for specified step type, completed within a given window	Average time required to process a PO for a given step in the Procurement Process. For example, average time required to process a PO for "Compliance"

Figure 18, A selection of 24 pre-built BonitaSoft KPI reports for monitoring and visibility into any process.

5. Conclusion

The Procurement Process is a critical process in the daily as well as strategic, long-term operations of an organization's business. BonitaSoft's BPM solutions provide the financial manager with the ability to understand the impact of the Purchase Orders on cash availability in the present and future. The "Drive, Monitor, Optimize" methodology and BonitaSoft BPM can allow the financial manager to attain a Procurement System that can keep purchasing within budget and under real-time control.

6. Next Steps

To attain the optimal business solutions, it's important for the business manager and technical team to work in tandem. We invite you and your IT team counterparts to download BonitaSoft's free, open source BPM suite, Bonita Open Solution, from www.BonitaSoft.com. For the technical audience there is a wealth of technical information that can be found at the community site (www.BonitaSoft.org).

Contact BonitaSoft today to learn more information about our Subscription Pack editions with advanced features and annual technical support. The BonitaSoft BPMS commercial editions include process templates for Corporate Finance including: procurement, authorization, and payroll. These process templates give you a head-start in deploying applications which perfectly fit your business. BonitaSoft and its system integrator partners can help you customize the process templates and corresponding applications to your requirements.

HEADQUARTERS

GRENOBLE, FRANCE

32, rue Gustave Eiffel
38000 Grenoble

EMEA, ASIA & LATIN AMERICA

PARIS, FRANCE

73-77, rue de Sèvres
92100 Boulogne-Billancourt

NORTH AMERICA

SAN FRANCISCO, USA

51 Federal St. Suite 305
San Francisco, CA 94107



www.bonitasoft.com