Business Driven Process Management
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Introduction

Changing market drivers, increasing competitive pressures, global presence and rapidly evolving customer needs are placing greater pressure on businesses to streamline their processes and take control. The "B" in BPM stands for Business, and these are the people who interact with the process on a regular basis, who understand the operational limitations, and who have ideas for improving the process. There is an increasing desire among the business users to get into the driver's seat while creating business applications. Business users want to manage the design and execution of business processes. This is especially true for business processes where IT has been unable to keep pace with changing business needs. Oracle BPM enables business users to take control and drive improvements for their processes. This whitepaper discusses how Oracle BPM empowers business to participate effectively in the entire process life cycle starting from definition, feedback, modeling, design through implementation and management of business processes.
Business Driven Process Design

Business value of BPM

Key values a business can derive from BPM are visibility, agility, and efficiency. Long term business success depends on these values.

Business visibility is all about seeing what is occurring in the business. If one cannot see change, one certainly cannot adapt to it. Improving business visibility requires information availability at the right time. Real-time visibility with the analysis of events and processes provides the most accurate and timely information to aid decision making. Repeatable and measurable processes that cross departmental and system silos help to provide a better understanding and the ability to predict trends. Role specific dashboards increase business visibility and operational confidence enabling better decision making in a timely manner. Visibility is also critical to make sure companies comply with SLAs committed to their customers as well as meet all regulatory standards mandated by various agencies.

Improving efficiency means better worker productivity. BPM can help improve efficiency by providing tools, like process simulation, to analyze the processes at the design time so you can eliminate bottlenecks and expensive paths from your process. It also provides efficiency in building and managing process applications by aligning tasks with responsibility across business and IT functions. Efficiency to create solution is improved by simplifying the application design, development, and management tasks by using unified tools.

Lastly, better management and automating of business processes can dramatically reduce cycle times and cost. It can enable redeployment of labor and remove the inefficiency of paper-based processes.

There are many ways to measure efficiency. The actual metrics depends on your business. You may measure it in terms of cost savings, workers’ productivity, effective reuse, and improved quality of output.

Business agility is all about being able to adapt to the changing circumstances. Clearly, visibility, agility, and efficiency are all inter-related, but if your systems are not designed to change easily, even the most efficient organization with good business visibility will be at a disadvantage. If there is a need to change the business process due to change in business demands, you should be able to make that change immediately. You should not have to wait for months for updating applications as forced by rigid packaged application systems.
Figure 1. Continuous improvement with Oracle BPM Suite

Greater efficiency frees up resources that are key to making timely changes. The right level of visibility gives you the confidence that the change is the right course. Most important, however, is that your infrastructure support adaptation and provide component reusability so that dynamic change is possible.

The figure above depicts a high level BPM life cycle and business users are taking a leading role in each phase of the cycle - design, management, execution and improvement. In the next sections, we shall discuss how business users can drive the business process management initiatives as well as collaborate with IT to create agile business process applications.

Process Modeling

Traditionally business users capture and document their business processes requirements and workflow using documents, spreadsheets or a tool like Microsoft Visio. The documents are then passed to an IT developer who does the process implementation based on their interpretation of the requirements. These requirements tend to be voluminous and non-standard leading to classic Business IT gap. Moreover, even harder is to propagate and track requirement changes. Oracle BPM addresses this impediment by enabling the capture of business process flows and requirements in explicit, visual, concise, and standard modeling notation. The standard notation is Business Process Modeling Notation (BPMN) version 2.0 and promotes a shared understanding of business processes across different stakeholders. BPMN 2.0 lets users create visual flowcharts that capture happy paths, alternative paths, exception flows, process conversations, and capture handling of business events. BPMN 2.0 plays an important role in enabling business users to go beyond just creating standard process models. BPMN 2.0 is not only a process model but also an execution model. The execution
details are just overlaid on top of the process model, to make it execution ready. Both business and IT tools share the same meta-model, same BPMN diagrams, and related artifacts - that is, this is not import/export, but just multiple tools working with same assets.

Oracle BPM suite supports a unique WYSIWYE technology. It means What You See is What You Execute. This allows for a superior collaboration between business and IT. The process models that are designed by business analysts can be easily viewed and enhanced in the developer toolset, BPM Studio without any loss of design. Application developers can then update the model with integration points or enrich the UI elements to convert the business processes into deployable applications keeping the model designed by business intact.

Figure 2. Business and IT collaboration

Oracle BPM enables a business user to define their business processes in BPMN 2.0 inside Process Composer, an intuitive, easy to use and web-based modeling tool. The process models replace the traditional requirements document and drive IT implementation. These models also serve as process documentation for dissemination and learning purposes. Further, using Composer, business users can not only define but also review and provide feedback on their business processes.

Process discovery and definition is an inherently collaborative effort. By enabling collaboration inside Process Composer, the tool brings together relevant stakeholders across the globe to model their processes collaboratively. Business users can invite other stakeholders to participate in the discovery and definition of business processes. Changes made to models by one user can be seen by another user in real-time. At any point in time, business users can take snapshots of BPM Projects and users can open up a specific version for read-only purposes or roll back to a previous version. The different versions of the BPM Projects are stored and managed in a central repository, the Oracle BPM design-time repository. The design-time repository servers as the system of truth and facilitates collaboration across business and IT tools.
Business user engagement is not just limited to modeling a process, but also extends to process related artifacts and other phases of the process development life cycle. Business users can design all aspects of a process like business rules, human task definitions; human task user interfaces (forms) and data definitions (data types) inside BPM Process Composer. Users can translate their business policies and author business rules in an easy to visualize spreadsheet like metaphor referred to as Decision Tables. They can define the participants, the deadlines and notification details and other aspects of the human tasks. They can discover business services and tie it to system steps in the process, perform simple data mapping and complete implementation of the process for execution.

Process Analysis

Oracle BPM suite arms business users with various techniques to analyze and optimize the process. One of such technique is process simulation. Process simulation lets users specify process step durations and costs and run various scenarios to find the optimum process design. Running simulation helps identify process bottlenecks, paths in the process that are most expensive and the paths that take up the most time. With this information, business users can fine tune the process design as well as determine how many resources would be required to process a certain number of instances.

Business users can also create simulation scenarios from the real-life data to see if the design that they envisioned is performing as per the desired objectives or not. If not, they can modify the process and deploy new versions of the process.
Process simulation can also be used to do analysis like Activity Based costing or to establish SLAs for process completions.

Figure 4. Simulation for process analysis and optimization

User Interface Design

Designing human task user interfaces is just as important as the process definition itself and requires considerable business involvement. Using BPM Process Composer, business users can now easily create user interfaces for their business processes by dragging and dropping controls from a palette. If required these can be enhanced by IT for more dynamic behavior. This accelerates time-to-solution and provides significant cost savings.
Figure 5. Business user friendly UI designer inside Oracle BPM Process Composer

Rules Management

Oracle BPM suite supports all kinds of rules that you may need to articulate your business policies. These rules can be added to the process models as process conditions, decision tables or as system steps that may call any other enterprise policy systems.

Figure 6. A step in the process can invoke rules maintained by business users
Commonly the rules are managed by a separate group of people than who design the process. Oracle supports the externalization of rules so that if the business condition changes you can change the policy rule independent of the process. This means agility for your business. You no longer have to deal with rigid applications and wait months if there is a need to update a process or a rule.

Process Testing

Once the process design is complete, all the rules and user interfaces are defined, business users can test the process using Process Player. It lets users run the process as if it is being run in production with all data and rule invocations. This helps business users to ensure the process is behaving the desired way before it is deployed in the production environment.

Figure 7. Process Player lets user execute the process from Process Composer for validating business requirements

Role of IT

The role of the IT developer in this business led modeling and composition paradigm is more of a business enabler. They are primarily responsible for creation of reusable, shared business services, data types, and other such implementation artifacts that require technical expertise. Tasks such as creation of complex mapping using XSLT or XPATH mechanism, adapter services to integrate with backend applications and scripts to perform custom work are delegated to the IT developers. However, changes
made by IT Developers can be shared back to business and viewed inside the business tool for further refinements by business. This seamless round-trip is possible because BPMN 2.0 is a model cum execution language. Business users can also step through or play the process inside the business tool and validate that their business requirements are met. This enables business users to do rapid, incremental and iterative development of their business processes. In short, Oracle BPM enables business user to compose and weave an end to end process inside their tooling of choice with zero or minimal IT effort.

Collaborative and Powerful Work Management

Business empowerment is not just limited to process development, but also extends to work management. Oracle BPM empowers business users to perform their work efficiently and effectively by providing them the right information at the right time within an intuitive interface. In addition to the traditional work management portal, it provides a collaborative work management interface called BPM Process Spaces to facilitate collaboration when business users perform the work associated with their business processes.

Oracle BPM suite provides a workspace where the end users go and perform their daily tasks. These tasks may include processing a claim, or opening a dashboard to see your team’s performance. It becomes a central desktop to perform tasks, check the status of a task, or view performance. This workspace is very configurable, and end-users can personalize the workspace as per their needs.

Figure 8. Web and mobile workspaces
Within BPM Process Spaces, users can not only access process tasks and data, but can also collaborate with each other via Wikis, discussions, documents and activity streams. Further, Oracle BPM Process Spaces supports synchronization of business calendar with process calendar for better management and tracking of process related work. Users can also create a BPM process instance specific collaboration page on the fly for working on highly collaborative, unstructured and long running processes. The Oracle BPM platform intelligently identifies relevant stakeholders for collaboration and automatically provides them appropriate privileges to join the collaboration space. The benefit of this is that all the collaboration is now happening within the context of the process instance instead of happening outside via emails or documents or other social mechanisms. This provides complete visibility into collaborations tied to decisions and actions taken on the process work by the business user. Further, these collaborations get archived along with process instance data for compliance and future reference purposes.

![Figure 9. Collaborative work management inside Oracle BPM Process Spaces](image)

In addition to the collaborative work management, Oracle BPM Suite provides a lot of power and flexibility to business users to perform dynamic work assignment. Business can re-assign, delegate as well as re-route their tasks to others. Various algorithms are available for task assignments and escalations. You can distribute the tasks or any step in the claims process using skill based routing or round-robin kind of assignment rules. This flexibility ensures that the operational managers can utilize their team effectively and maintain the optimum work load on users. They can also create new tasks on the fly, create sub-tasks and assign these to themselves or to other users. The available actions for a business user can be declaratively specified as part of the human task definition or dynamically changed on the fly at run-time.
Figure 10. Dynamic work assignment capabilities inside Oracle BPM Process Spaces
Further, business users can declaratively specify rules for vacation, delegation and re-assignment at a global level or at a process specific level based on certain business criteria.

Figure 11. Task assignment rules to manage work
Finally, Oracle BPM work management interfaces can be easily customized and personalized by the business user. Using wizards, the business user can quickly change the layout and the look and feel of their workspace. Business users can also hide/show the different BPM panels and customize the task table, and the process instances table. In addition, users can create different task views to organize their tasks and these views, as well as other customizations mentioned above, can be easily shared across other users and groups.

Business Driven Process Improvement

Measurement and Monitoring

One of the key requirements of business managers is to have visibility into its end-to-end operations. Managers need to know about the performance of their teams and supporting teams. Business managers need this information in real time so that they can steer the business as per the changing conditions. Reports displaying historical data are just not enough. Many times this is not possible due to disjointed systems or lack of information. It takes too much time to gather information from multiple systems and pull the data into spreadsheets and make sense of it.

Meaningful patterns can be identified by capturing key performance indicators in real time. These can be used to help improve business effectiveness. An operational manager might define and monitor any number of metrics such as:

- Order processing times
- Returned orders
- On-time delivery
- First call resolution rates
- Time to market
- Or any other process metric
Oracle BPM utilizes business activity monitoring to capture the events and data as the process advances. The events are collected for each step of an end-to-end process even if a step in the process is happening in an external system like SAP. This powerful functionality provides a timely, overall picture to business managers so they can make timely informed decisions.

These monitoring controls support many of the regulatory requirements set forth by SOX, HIPPA, and the SEC.

Process Analytics

BPM system captures all the data and events generated during the process execution. Business users can run various analytics, slicing and dicing this data to get insights to improve the process. If integrated with real time decisions the system prompts users to update the processes for the best outcome. This may mean readjusting the resources working on a step in the process or updating process rules. Business users have full visibility and empowerment to make changes to the process for improvements. Some improvements will need change in the process design. Those changes can be easily done by changing the process models, testing the new processes and deploying as a new version of the process.

Oracle BPM suite provides out of the box process analytics that can be used to analyze any type of process.
Figure 13. Oracle BPM Suite process analytics

Analysis like process performance, team performance, SLA jeopardy can be easily accessed via various widgets in the dashboard. These analysis charts and graphs provide drill down capabilities so that users can click through and go to the actual process instance and evaluate the root cause of any issue or alarm.
Conclusion

Oracle BPM empowers business participants to design and implement their business processes rapidly, without having to rely greatly on over stretched IT resources, leading to agile and cost efficient development. It promotes close collaboration between business and IT and ensures that processes reflect actual business needs. It enables business users to gain better control of their process related tasks and facilitates dynamic work redistribution enhancing user productivity and process efficiency. It puts business in the driver’s seat and provides them the ability to tune processes dynamically and meet changing business needs. For more information on Oracle BPM go to www.oracle.com/BPM