How BI Competency Centers Drive Enhanced Reporting and Analytics

To harvest information and translate insights into competitive advantage, organizations need to centralize and coordinate how business intelligence is gathered, shared and governed across the entire organization via standard processes, roles and tools.

Executive Summary

In these fast-changing times, getting the right information to the right user and at the right time is the most practical and effective way to enable proactive decision-making. The exponential and ungoverned growth of both the demand for and sources of business intelligence (BI), however, is constricting, and in some cases extending, many organizations’ decision-making processes.

A business intelligence competency center (BICC) can help organizations to establish sustainable internal capabilities for delivering enterprise BI solutions that streamline the tool selection and implementation process – adding much-needed methodology, policies, process, governance and support models – which can lead to more informed and just-in-time decision-making.

Many organizations realize the value of efficiently managing data warehouses as a way to turn their information into a competitive advantage and convert insights into assets that drive their growth objectives. However, many companies are simultaneously grappling with silo structures and disparate tools and technologies amid rising demand from business users for information to be delivered in formats and timing that meets their needs. Ever-changing market dynamics, as well as elevated user requirements and expectations, are placing intense demand on actionable business intelligence that can be pulled from existing IT systems. Most companies realize that technology is just an enabler and there is more to data and information management than merely implementing disparate tools.

Dealing with competing priorities and growing budgetary constraints, decision-makers must manage their tactical and strategic initiatives efficiently across business units for efficient BI delivery. To achieve this level of effectiveness, there is a need for a comprehensive and centralized approach to information management activities that integrates technology, policies, best practices, people and programs to deliver enterprise BI.

Establishing a BICC as the centralized unit empowers the entire organization to coordinate BI across all business units. Moreover, the BICC, once established, lays down and enforces best practices and procedures for sharing and communicating insights gleaned from standard tools and techniques by decision-makers across the entire organization.
organization. To enable this, the BICC creates a roadmap by establishing realistic goals, objectives, and then defining processes, frameworks, and execution and governance models, as well as assigning responsibilities to key individuals.

This white paper outlines the steps involved in implementing, monitoring, and maintaining a BICC. It addresses utilization of resources, and streamlining of processes and communication channels. It emphasizes the need for driving business value by aligning business intelligence strategy with that of the enterprise, resulting in significant cost savings and ROI.

Evolution of a BICC
Most organizations have grown their business intelligence solutions in a nongoverned environment. This has resulted in the adoption and use of multiple tool sets and diverse competencies across the enterprise. Chaos has ensued, as many departments have hired their own BI resources, acquired disparate and incompatible tools and created their own databases for data mining and extraction.

A BICC can have a dedicated team — handpicked from various business units and the IT department — working full time for BICC or working part-time as their primary or secondary responsibility.

New technology paradigms are providing innovative platforms for business users to “self-service” BI and enable “extreme analytics” (for processing large volumes of data and/or running advanced analytics to create predictive models) where users have direct access to structured and unstructured data and a wealth of information generated by enterprise systems of record. As we will reveal, more effective ways exist for organizations to make better business decisions, grow market share and operate more efficiently. Also, the large transactional databases and sophisticated software tools now available imbue BI with the capacity to foster top-line growth. As demand and reporting needs have grown, organizations have demanded better governance, standards, security, and processes to enhance BI delivery.

With the convergence of the Internet, technological virtualization and in-memory processing, information of all types and formats can now be delivered in a self-service mode. This not only makes the process interactive, but faster and easier. Business users are now demanding a similar experience with BI information delivered anytime, anywhere in a self-service mode. Organizations need to be sensitive to such internal demands and adoption of newer technologies; for starters, they are effective and efficient for ensuring that end-to-end information management processes are totally aligned with the overall organizational objectives.

The question is how to address these business demands, the integration of new technologies and changing user needs by the IT organization, while maintaining informational transparency and delivering high value BI solutions with optimum resources. This is where a well-established and well-run BICC comes into play.

BICC and Its Building Blocks
As noted earlier, the BICC is a structured framework consisting of best practices, technology and policies and a team of people responsible for managing all aspects of an organization’s BI strategy, IT programs, and various technology platforms to meet the organization’s broader goals. The BICC provides a body of centralized knowledge and best practices necessary to make goal optimization a reality. The BICC’s primary aim is to bring highly-skilled and experienced internal resources into a dedicated team to determine standards and governance for BI lifecycle management. A BICC can have a dedicated team — handpicked from various business units and the IT department — working full time for BICC or working part-time as their primary or secondary responsibility.

One of the main functions of a BICC is to continuously share vision and thought leadership with executive management for enterprise-wide BI technology platform deployments and solutions to advance key organizational strategic objectives, and to foster much-needed executive buy-in.
BI is increasingly becoming a strategic organizational initiative. As such, companies are always seeking ways to better manage and support deployments across various user groups, business units and regions – and this often addresses global initiatives. By creating a BICC, companies can better standardize and manage BI technology deployment to turbo-charge performance. A BICC can be established in different flavors and sizes but the final structure and its service portfolio largely depends on an organization’s culture. But while BICCs generally differ across organizations, their guiding principles and the primary processes are uniform: Technology, management and delivery are standardized to promote repeatable and predictable BI deployment (see Figure 1).

Steps for Establishing a BICC
To create a successful BICC, an organization must focus intently on the unit’s approach, scope, design, broad framework, engagement model and functions.

- **Environment discovery and assessment:** To create a BICC that is tailored to the organization’s culture, business needs must be tightly aligned with the strategic vision and goals. A starting point is to gain a deep understanding of the foundational elements required to create the BICC. An inventory of the current landscape, systems, IT and business structures, strategies and people competencies must be assembled for the assessment. Maturity across the business units and the associated costs in running and maintaining the current way BI and enterprise information is managed will help define the possible operational gains and efficiencies. Another critical input as part of the discovery phase is to consider how licenses, version control, training and governance are managed in the current setup; conduct interviews of the key stakeholders and business users to consider pain points and take stock of future BI initiatives and objectives. These inputs, when combined with the elements of the BICC, will help determine an optimal approach or framework upon which business units and IT can agree.

Output from the environment discovery phase becomes the inputs for assessment and next steps, with the central idea of this next phase being to determine current state BI infrastructure gaps, competencies, strategies, human resource issues and the future state needed to create the essential elements of a fledgling BICC. This is a very important step in the process; a careful assessment and analysis of the current state and the organizational needs will determine the direction for building blocks and the design of the BICC. The following are the core building blocks for the BICC:

> **Establishing the BICC’s scope:** The needs of every organization, including its people,
culture and their IT systems, vary; hence, the size and services of a BICC varies. It is therefore imperative to define the scope and reach of the BICC for the business and IT systems needs that it will serve. The BICC is designed to meet the lifecycle of programs whether it is playing a support and maintenance or development function, or if the goal is to provide enhancements or to support a large turnkey global initiative. The scope definition for a BICC should be such that the design of the BICC is kept flexible enough, aligning to the internal processes and organizational culture in order to meet the growing business needs and personnel changes over time.

**Designing the BICC framework**: With the growing complexity of managing information on multiple technical platforms, the importance of having a proper but flexible structure in place for strategic deployment is as important as the deployment roadmap itself. To ensure consistency and repeatability, the BICC must continuously work toward bridging any gaps between business and IT. Besides improving BI delivery and deployment, efficiently run BICCs must also drive down costs and facilitate faster adoption of the BI tools lifecycle to achieve better economies of scale.

**Selection of the team**: Handpicked people from various business units and IT departments that represent key stakeholders are more effective at serving the purpose of meeting an organization’s broad requirements. Identifying the right combination of experience and skills that will best serve the BICC is therefore an important step. A balance between the business and IT departments should be maintained to ensure that subject matter experts (SMEs) are able to provide the expertise meeting the BICC objectives. A typical core team consists of a department head from the BI function, a solution architect, a technical program manager and a business analyst. However, an organization should consider adding a support team to the core team consisting of SMEs with expertise in human capital management, supply chain management and customer relationship management, to create a more robust structure.

**BICC Engagement Model**

The BICC structure presented in this white paper is a two-tiered framework. The outer, or second, tier acts as the service arm consisting of seven distinct processes that enable the BICC to properly function. It includes: governance and change management; strategic planning; program maintenance; communication management; support and delivery management; knowledge management; and resource management. The first, or core, tier contains the BICC framework that consists of five components: the management component sitting atop four other tightly integrated components (see Figure 2).

- **Management component**: This constitutes the joint team responsible for the system as a whole, management of all processes related to the BICC and its business purpose, greater involvement from the shared services across
IT silos and a high degree of risk-sharing (operational, engagement and business). This function delivers a great deal of value addition, reusability and efficiency in delivery processes.

• **Organizational components:** This group is responsible for the CoE’s operations and for delivering the required services and maintaining excellent quality and timeliness of deliverables. It consists of:
  - Steering committee.
  - Management office.
  - Core team.
  - Extended team.

• **Essential components:** This group consists of mutually exclusive teams – in terms of all skills – that are involved in different capacities in all engagements. Its components consist of:
  - Development team.
  - Testing team.
  - Support team.

• **Enabling components:** Enabling the set up and operation of the BICC, this group of components is critical for achieving BICC operational stability. It consists of:
  - Educational services.
  - Infrastructure environment.
  - Skills development and training.

• **Specialty components:** Focusing on value addition, including estimation standardization, technical, business and strategic consulting services, etc., these components are continuously on the lookout for opportunities for reusability. They consist of:
  - Estimation committee.
  - Enterprise information architecture group.
  - BI consulting group.
  - Value creation group.

Alignment of enterprise strategies with the BICC and execution of its functions are critical for achieving the target ROI. Efforts that are not both well-aligned to strategic vision and efficiently executed are at risk of failure, resulting in poor investment returns and demotivated teams.

Figure 3 demonstrates a flexible BICC model with its core framework consisting of five components, as outlined above. The outer core consists of seven processes, or service arms, which are functions of the BICC. The BICC must be flexible enough to meet organizational changes, taking into account the growing business needs, market and technology changes and personnel iterations throughout its maturity. Once established, the most important aspect of the BICC is its longevity – in particular for those with virtual teams working part-time for the BICC. Many organizations spend money, time and effort building BICCs that remain ineffective or even vanish due to a lack of internal support and effective communication of their success to senior management and key stakeholders. With senior manager buy-in, the BICC team, in turn, will remain motivated and stay engaged to further all BI initiatives. Our three-point guideline for BICC longevity includes:

• Ensure the BICC is managed effectively throughout its evolution.
• Continuously communicate the effectiveness of the BICC to key stakeholders.
• Muster the much needed internal support to keep the BICC staff motivated and to obtain the necessary funding for all BI initiatives.

### BICC Functions and Operational Priorities

To get started building a BICC, organizations must get their arms and minds around the following:

• **Prioritization:** The way new demands are handled and agreement on the prioritization process are critical to ongoing success. This is part of the overall governance model.

• **Tool consolidation:** In every large company there will be more than one reporting tool needed. The key is to recognize this but at the same time try to standardize a small set of tools.

• **Training:** Both technical and end-user training can be managed through the BICC.

• **Administration:** This includes managing the BI environment and providing support under service-level agreements with business users.

• **Methodology:** This involves defining standards to approach larger projects as well as standards around system configuration and reporting, etc.

• **Governance:** This involves establishing rules and guidelines around accessibility, prioritization, communication, etc. This will enable the business intelligence team to better manage expectations and demand from users.
• **Peer reviews**: This involves establishing peer reviews of modeling, integration, security, interfaces and reports and other work produced prior to moving work to a quality/test environment. The peer review is intended to validate that standards have been followed.

• **Business liaisons**: Identify “super users” or business liaisons from IT to help in various areas (e.g., finance, sales, marketing, operations, etc.). Business liaisons can be sponsored by both business and IT to gain an objective view of the requested work; it is the best way to handle that work.

• **Organization**: This involves defining clear roles and responsibilities and communicating them to every stakeholder in the organization to bring clarity and prevent any misconceptions or confusion.

• **Communication**: One of the key goals of the BICC is to keep everyone informed of activities and decisions. This cannot be accomplished without establishing clear channels for communication and facilitating access to those channels.

• **Development**: The BICC will have core and supporting staff to meet new demands and serve existing demand. By consolidating the tools and skills required, a leaner and more efficient development team can be assembled.

• **Support**: This is usually separate from development and is a part of the BICC that can be used to manage any errors or issues in the BI environment.

**Critical BICC Success Factors**

So you want to build a BICC. Here are the critical success factors:

• **Structure**: Drive the strategy; an hourglass structured approach to resourcing, service extensibility and framework flexibility can be helpful.

• **Approach**: Executive sponsorship and organizational support are must haves; remember,
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Looking Ahead

As business demand and reporting needs change, and with increased adoption of new technologies and tools, a need for better governance, organization standards, security and processes around BI delivery has emerged. A BICC provides the solution by aligning organizational vision with all the integrated components and processes for a unified approach.

The BICC provides a body of centralized knowledge and best practices necessary to make optimization of goals real to manage and to maintain the BI lifecycle. A BICC is always focused on the value drivers of the enterprise – hence, effective communication, senior management buy-in and executive sponsorship are very critical for its sustenance.

A BICC requires significant upfront efforts, but it pays off over a period of time through significant cost savings and adds value by streamlining processes, thus bringing in discipline for better-run BI initiatives across the board.

The BICC is an ever-evolving framework. As the organization experiences changes, it is important to review its structure, core components and processes periodically to check what is not working and make the appropriate adjustments.

About the Author

Krish Pydikondala heads Cognizant’s EAS Analytics Practice in North America. Krish has over 20 years of experience in information technology, including over 15 years of developing, designing, deploying and managing business intelligence solutions for Fortune 500 companies. He has conducted several BI architectural assessments, designed and deployed BI strategies and set up CoE s and BICCs. Krish holds a master’s degree in business administration from IIM Kolkata and earned his bachelor’s degree in engineering from DMET, Kolkata. He can be reached at Krish.Pydikondala@cognizant.com.

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