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Plan-Build-
Run as an
Emerging
ADM Model



Plan-Build-Run (PBR) separates strategic, customer-facing and development-oriented tasks from operational, IT-facing and maintenance-oriented tasks.

IT has traditionally been organized so that Application Development and Maintenance (ADM) is a monolithic unit, with both development and maintenance functions combined in one entity. While this model offers the ability to leverage scale, adapt to changing business requirements and develop subject matter experts in business domains, it can also create problems. These include lack of communication between siloes, loss of visibility into IT spending and limited funding for innovation or new development.

To address these issues, a relatively new organizational model is gaining increasing traction in business enterprises. Termed Plan-Build-Run¹ (PBR), this approach separates strategic, customer-facing and development-oriented tasks from operational, IT-facing and maintenance-oriented tasks.

Adoption of PBR is being driven largely by the need to expand the new development pipeline, enhance responsiveness and reduce maintenance costs. Moreover, as IT becomes an increasingly important source of competitive advantage, businesses are becoming more willing to undertake the inherent risks involved in transformational change initiatives such as moving to a PBR model.

This ISG white paper explores the relevance of PBR to today's changing business environment. Critical success factors involved in determining whether PBR is appropriate and managing the change process are also discussed.

¹An ISG survey indicates that 65 percent of large outsourcing engagements in the last three years implemented the Plan-Build-Run (PBR) model (see Figure 3). While other alternative models – such as Demand-Supply and Business Process-Based – are also being deployed, PBR is gaining the most attention and is therefore the focus of this paper.



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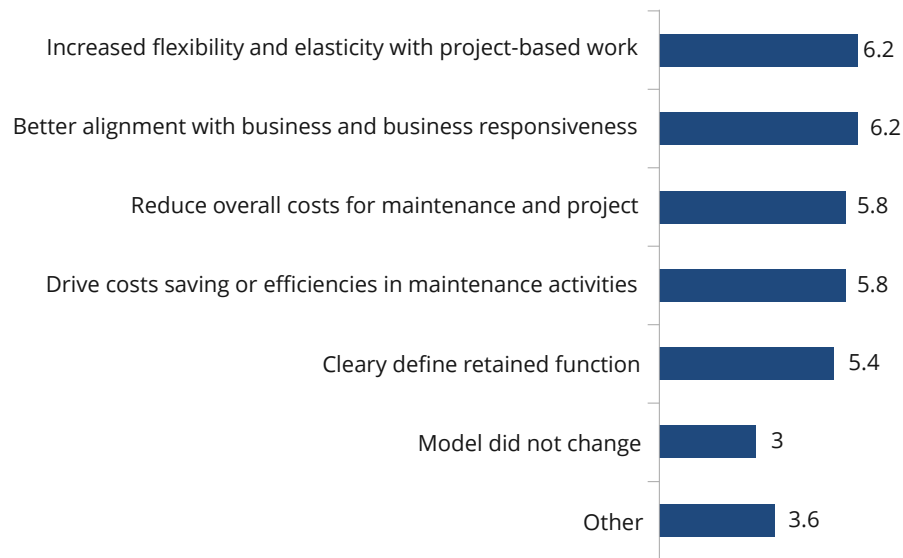
SPEED AND SPENDING PRIORITIES

ISG clients frequently express dissatisfaction with IT's ability to deliver new projects on time – a problem which affects the enterprise's ability to compete. Many companies also believe that IT spends too little on new development, and are frustrated by a lack of cost transparency.

Moreover, budget cuts in recent years have left IT scrambling to ramp development resources quickly enough to meet business requirements. This has fueled a growing focus on reducing maintenance costs and diverting savings to new development projects.

These challenges are prompting many businesses to seek new operating and organizational models. Figure 1 below – based on an ISG survey of enterprises with median revenue of more than US \$7 billion – shows the relative importance of various drivers that are leading companies to seek new organizational models for ADM.

Organizational Model Transformation Drivers (7-extremely important, 1-not important at all, N=25) (Figure 1)



PLAN-BUILD-RUN

Broadly speaking, the **Planning Unit** in a PBR model comprises IT strategy planning, enterprise architecture, business services portfolio management and consulting services to both business and IT. Financial management (budgeting, accounting, and managing charges to the business), IT performance and risk monitoring and supplier management are also included.

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Enterprises differ in terms of how closely the units are linked. Portfolio management and IT performance and risk monitoring can be run fairly independently. Supplier management can also lie outside the core planning function. Another variable is the extent to which supplier management, project scheduling and demand management are devolved to the units tasked with actual execution (i.e. “build” and “run”). While the specifics vary by enterprise, the overarching organizing principle for the plan function is to separate business leadership and corporate strategy from delivery-focused teams.

Typically, the **Build Unit's** responsibility is program and project management, requirements management, development and testing, quality assurance and deployment.

The **Run Unit** manages the gamut of application maintenance, including minor enhancements, preventive maintenance, corrective maintenance and technical support. The unit typically also handles application performance management, Service Level Agreement (SLA) management and supplier management for services. The build and run organizations have a crucial interface at the time of service initiation.

Many organizations that have implemented the PBR model in an outsourced environment have added a Manage & Enable (M&E) component to centralize common Service Provider management functions. When M&E teams are formed, the Service Level Management and Performance Management functions are often performed within these team instead of the Run team.

The PBR model allows maintenance and development projects to be approached differently – specifically, maintenance can be managed with a focus on cost reduction and cost predictability, while development can be managed with a view to enhance speed, agility, quality and throughput. Another advantage of PBR is that resources can be grouped by skills, skill levels, incentives and experience, thereby streamlining workforce management.

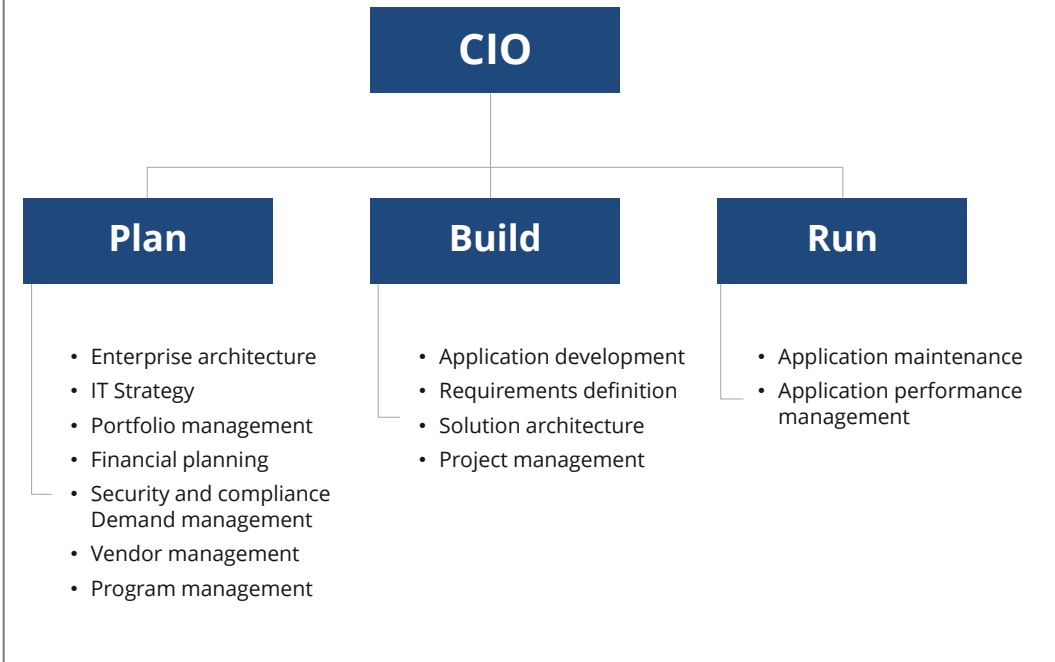
The primary disadvantage is that technical skill-based pools may be duplicated in different parts of the organization. For example, a J2EE pool could reside in both the build and run units. The framework also creates potential communication gaps at hand-off points between planning and development, and between development and maintenance.



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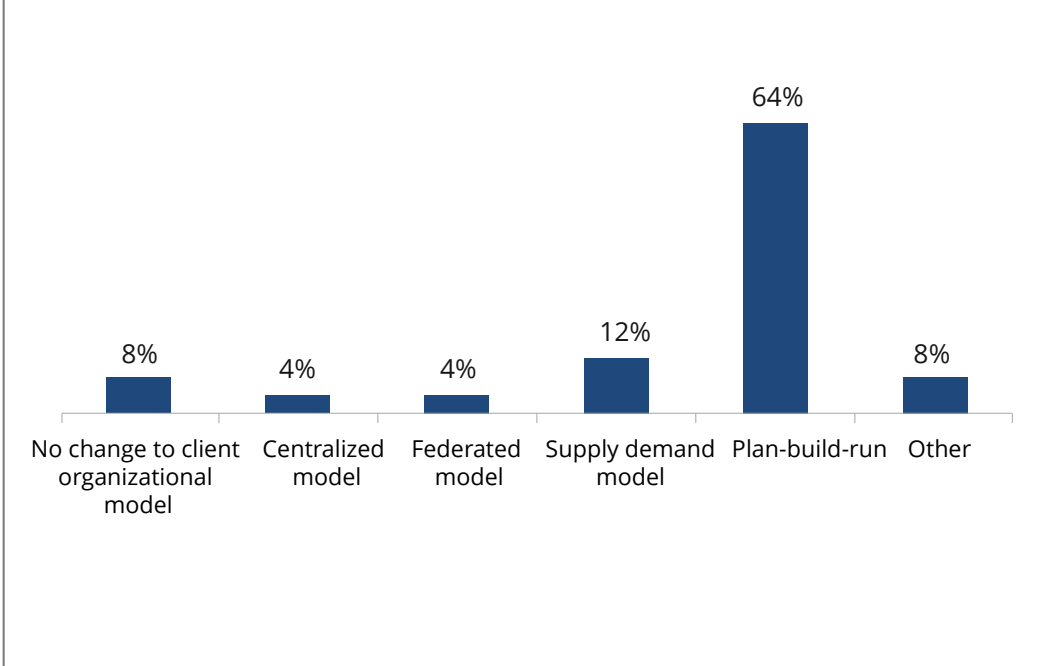
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Plan-Build-Run Model (Figure 2)



Plan-Build-Run has been the most commonly used model in recent outsourcing engagements, as shown in Figure 3

Organizational Models Implemented in Large Outsourcing Engagements Over the Last Three Years (N=25) (Figure 3)



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Advantages and Disadvantages of the PBR Model (Table 1)

Model	Advantages	Disadvantages
Plan-Build-Run	<p>Creates a dedicated function for strategic and governance-oriented tasks</p> <p>Enables independent management guided by different objectives</p> <p>Enables independent management of sourcing across development and maintenance; capacity can be handled separately</p> <p>Affords specialization by skill and skill level</p>	<p>Duplicates technical talent across build and run units</p> <p>Creates risk of loss of accountability across the software development lifecycle (SDLC) phases</p> <p>Not suitable for small organizations</p>



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PBR's efficiencies are based largely on the fact that development and maintenance can be managed independently. Handling sourcing separately allows extensive multisourcing for new projects, with sourcing decisions guided by considerations of quality, speed and access to specialized skills. Similarly, scale and cost considerations can guide sourcing in the run organization, and service providers can be consolidated. Proximity is more important in development, and therefore the build organization can prioritize onshore capabilities, and run can thrive offshore.

PLAN-BUILD-RUN REQUIRES SCALE

Build and run teams in a PBR-style organization would duplicate technical skills, such as Java and .NET. Such duplication is justified when the project queue necessitates enough capacity for separate build and run functions. Technical skills could be duplicated evenly across the plan and build teams. The planning function often staffs highly skilled resources full time – resources whose skills could make a difference downstream. For example, a full-time enterprise architecture professional's or team's skills can be gainfully used in solution architecture. The assumption is that the planning needs to have high capacity.

PBR requires a high degree of transformation that can result in large-scale role redefinitions, such as developers moving to maintenance-only roles.

MANAGING THE TRANSFORMATION – A CRITICAL SUCCESS FACTOR

Because operating model transformations are very large-scale projects, all standard change management procedures and guidelines must be followed. Operating model transformations have a number of specific risks in addition to those common to all large scale IT projects. The main risks are highlighted below.

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Inadequate comprehension of the new role. New roles must be well defined, training on what the new role entails and the new reporting hierarchies and hand-off points should be comprehensive, and the new organizational structure must be widely publicized. The roles on the plan team are particularly critical because the staff is the primary interface to the business. These roles need to be staffed with senior IT professionals that can help define solutions and work with business leaders to prioritize projects and manage an investment portfolio. Lacking this clarity, individuals and teams risk defaulting to familiar communication channels and work patterns that have become second nature over the years.

IT fails to communicate to the business the short-term impact on productivity, and the new business-IT interface points and communication protocols. The IT organization often builds the transformation plan meticulously but fails to communicate to business units the short-term impact on productivity and the new rules of engagement for interaction with IT. During a transformation, projects that were once prioritized are often dropped or delayed, with little coordination with the business. If the business is used to having a dedicated development team then the idea of working through a business partner to prioritize activities will be frustrating. As a result, the new operating model makes a poor first impression.

OPTIMIZING DEMAND MANAGEMENT

A successful PBR model requires effective demand management. The business case is predicated on the need to manage new development projects better and to keep application maintenance costs low. This requires that only appropriate requests – meaning those aligned with business priorities – are addressed. An absence of careful demand management can lead to the build unit of a PBR organization simply executing the wrong projects more efficiently, by using a dedicated and presumably more skilled workforce. Similarly, the run organization can be overwhelmed by a series of minor requests that aren't relevant to the business. That would result in costs spiraling and necessary minor enhancement requests going unmet. This would offset the very purpose of setting up a dedicated maintenance organization.

The demand management function is therefore the most likely point of failure in operating model transformation.

The demand management function should establish and enforce clearly defined processes around different types of projects, as described below:

For Minor Enhancement Projects (projects that typically require less than 200 hours of development time):

1. Each budget holder and application owner needs to be aware of the capacity available for their individual work streams.
2. Accurate accounting of demand and effort is essential, and should be conducted or at least audited by an internal or external third party.

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3. Approve and prioritize minor enhancement projects and change requests through a well-defined process, based on a specific set of criteria.
4. Define authorization roles and procedures for approval and prioritization of requests – this is necessary to avoid the “squeaky wheel syndrome” and to ensure that personal relationships and clout don’t play a role in determining which projects get attention.
5. Aggregate minor enhancements into monthly and quarterly product releases; the release schedule should be made available to all stakeholders.
6. Alert budget owners to impending capacity breaches using a standardized reporting process.

For Major Development Projects:

1. Determine capacity for the development team based on resource requirements for planned projects and estimates of unplanned demand.
2. The governance unit needs to develop a defined process for approving and prioritizing unplanned major development projects. Such projects often originate as ideas in the business units, but could also come from internal IT or suppliers.

For Unplanned Major Enhancement Projects:

1. A two-level approval authority typically represents the portfolio and enterprise levels. Major development ideas must be formalized into a business case, with a budget, a net present value (NPV) or return on investment (ROI) projection, and a case must be made that the requisite NPV/ROI hurdles will be crossed. The portfolio-level decision making body can approve projects if the budget falls below a defined threshold, and if the proposed project is in alignment with IT’s strategic roadmap. Proposals with budgets above the threshold and that fall outside the portfolio roadmap are routed to the top-level decision authority.

RECOMMENDATIONS

Given their inherently high risk nature, organizational model transformations should not be undertaken lightly. More importantly, new model such as the PBR does not automatically build new competencies nor offset institutionalized deficiencies, and unanticipated challenges are likely. Indeed, ISG’s survey found 68 percent of respondents from enterprises that transformed their organizational model in the last three years reported the transformation was “difficult or “extremely difficult”.

A successful PBR initiative or any transformational project requires appropriate lower-level organizational constructs. Although the new organizational structures have certain inherent responsiveness advantages over the traditional model, real-world performance is considerably

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affected by lower-level constructs . These constructs include the quality of demand management, portfolio planning, demand forecasting, quality assurance and IT performance management.

A framework for measuring performance is also essential. Metrics need to enable before-and-after comparisons and should be based on the objectives driving the transformation project. The development-to-maintenance spend ratio is therefore likely to be a key measure. Other likely metrics include customer satisfaction, time-to-market for new applications, and measures of IT business alignment. A balanced scorecard approach can be used to evaluate whether the organizational design has indeed had the desired effect.

The PBR model offers an analytical framework for considering possible future states for different kinds of transformational initiatives, such as sourcing strategy redesign, portfolio rationalization or post-acquisition integration. As such PBR offers a logical way to group enterprise work streams by objectives and competencies, and provides a clear way to visualize interfaces, workflow and flow decisions.

For example, consider the problem of selecting the right sourcing strategy for an application portfolio. When seen through the PBR lens, casting the existing application portfolio on to the PBR framework can segment the portfolio by objective. Portfolios can be segmented by priorities such as high-quality execution, SLA compliance or low cost. If one service provider needs to play a preeminent position the vendor can be positioned in the appropriate part of the PBR model, with parts of plan and build fused. Using PBR as a decision framework helps define the implications of various sourcing strategies because the flow of information and decisions becomes apparent.

SUMMARY

The importance of software applications is increasing across corporate functions. For example, software's unprecedented importance to marketing can be attributed to the rise of digital platforms. Software has also become pervasive in that ultimate arbiter of strategic direction – consumer habits. Various facets of the consumer's life – shopping, entertainment, financial planning, travel planning and socializing – are increasingly dominated by software. Today more than ever, releasing well-designed software faster than the competition is a critical success factor. Corporate IT departments must reflect this new reality. Business needs to have a direct connection with parts of the application function that works on new projects, and the entirety of the application function must be geared towards providing enough capacity for new development to keep up with the market's frenetic pace.

For most companies, the structure of the applications function (and the broader IT organizations) does not represent deliberate, well-thought out design, but is something that the organization has drifted into. Today's structures often reflect the priorities of an earlier era. Given the complexities of organizational redesign, careful thought and analysis should always precede any transformational initiative. However, the new structures certainly warrant at least a deep study of the frameworks and their relevance to a specific enterprise.

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