
Business Rules Market Adoption Survey Results

Sponsored by: Lambert Technical Services – Business Rules Development Practice

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Introduction

Business Rules (BR) concepts, processes and engines have established a permanent place in the business market and are increasing in use. In order to assess the current and emerging market for services Lambert Technical Services retained a sales and marketing consultancy, Whitespace Consulting, to better define the real-world status of BR practices and to ascertain the direction of future growth.

Background

Businesses typically have policies and procedures or guidelines as underpinnings guiding day to day business decisions. These generally are: locked in people's heads; buried in software programs; partially available through system configuration tables driven by software; fragmented and documented in various portions of the company. Business Rules approaches (as developed and explained by Ross and von Halle) create a logical framework for determining and defining those existing but inaccessible rules. Once defined, those rules can be accessed, maintained and applied to insure consistent business decisions. BR engine vendors supply software automation solutions to BR problems but not necessarily coupled with the analysis, rigor and discipline of the approaches as defined by the pioneers in the field.

In order to assess business opportunities, companies known to have an interest in BR approaches were surveyed. The intent of the

survey was to identify both successful BR projects and factors limiting success. It was anticipated that the results of the survey would yield information about needs within the various BR stakeholder groups.

Methods

Survey participants were identified through conference attendance lists, client contact lists and from other publicly available sources. Questionnaires were then distributed to several hundred potential participants representing approximately 75 North American companies known to have utilized or considered a business rules approach. Follow-up phone calls were used to help increase response. Respondents participated in either in-person or telephone interviews to discuss open ended questions in addition to the questionnaire.

Thirty-five individuals from 16 organizations agreed to participate. When multiple individuals from a single organization responded they were from different functional areas (e.g., business or IT) or from different business entities with a single organization.

The survey was designed for use with various stakeholders including business sponsors, business analysts, solution developers, technologists and business domain experts. Surveys and interviews utilized open ended questions to capture the different perspectives stakeholders hold on the benefits and issues surrounding their experiences with a BR approach. Survey responses were then compiled, reviewed and

interpreted where necessary, with the help of experienced BR practitioners.

Survey questions focused on the following key areas of interest:

- Identifying the business and systems investment priorities
- Factors driving the transition to a BR approach
- The expected ROI
- Rules methodologies & BR Best Practices
- Tools and technology for supporting rules approaches
- Implementation and integration with existing processes and systems

The survey did not explicitly solicit feedback on issues and concerns with the BR approach, but during the interview process many respondents did identify these.

Who did we speak with?

The survey sample represented companies at various stages in the BR development process. The respondents' level of BR expertise ranged from none to moderate. Respondents were equally likely to have come from either the business side or the IT side of the organization.

Companies which chose not to respond cited privacy concerns, concerns about their limited experience, or had decided to postpone or abandon their BR development efforts. There was no common theme for delaying or abandoning projects among this last group.

Respondent organizations were in varied phases of acceptance and implementation of rules processes. Some early adopters were still performing business, technical and cultural due-diligence, and others had progressed to an application pilot phase, while others were in production with new systems. Others had

adopted a BR approach alone and had no intention to implement specific rules engines or other new, related products.

Where are organizations investing in BR approaches?

All respondents expressed an interest in the benefits a centralized BR approach could provide.

Business applications and processes prioritized and selected for new BR approaches tended to have the following characteristics in common:

- Systems that utilized many complex calculations and/or were difficult to maintain.
- Mission critical with above average volatility.
- Systems with a high number of changes required, in many cases mandated by statutory or regulatory bodies
- Business processes that capitalized on rapidly developing or new markets
- Business processes where large cost reductions were believed achievable.
- Situations in which the intellectual capacity of high-knowledge workers could be captured and leveraged resulting in increased productivity.
- When consistency was the highest priority in the decision-making process.
- When inconsistency was an issue due to a combination of multiple applications, multiple data bases, multiple lines of business and branded services.

What is driving the change to a BR approach?

For many of the businesses surveyed an immediate and crucial business problem that was most efficiently addressed by a BR approach motivated the transition. For others, architectural considerations identified the BR approach as an environment that allowed frequent application changes.

Many of the reasons offered were “soft” and more difficult to measure including:

- Protection against an aging IT support workforce and the risk of critical knowledge leaving the organization.
- Allowing business users more control to implement necessary changes and decrease time-to-market lead-times.
- Compensation for the lack of current system documentation and the dependence on limited resources in the application maintenance staff.
- To address issues created by perceived rigid technology standards in IT support organizations.
- Reducing the overall cost of maintaining existing systems.
- Developing higher quality, more relevant applications with better requirements input from the business side.

Most see the new approach as an opportunity to address time-to-market issues for their newly introduced goods or services or as a way to reduce application maintenance costs through the replacement of aging, less flexible systems.

How formal were the return on investment (ROI) justifications?

Few respondents had completed a formal ROI cost justification for their new BR approach. We could find no correlation between who introduced the concept of BR and the level of ROI analysis taken. Business owners were no more likely to perform detailed ROI's on the new environment than their IT counterparts. No single industry appeared to be more deliberate in their financial analysis than another when considering potential payback on a BR investment decision.

The investment in BR approaches was selected in part based on the expected ROI, as with more traditional systems development approaches. New systems provide decreased time-to-market, increased revenue opportunities, or competitive advantage through increased customer satisfaction levels. In many cases, ROI was justified by the speed of analysis and deployment of rules changes, agility of the methodology and the ability to make better quality business decisions consistently. Financial or hard ROI justifications were only a part of the decision equation.

Rules Methodologies and Best Practices

A combination of business and technology stakeholders typically discussed and then introduced the BR approach to most organizations. Joint business and information technology teams frequently worked hand-in-hand implementing the new BR environment. Tasks completed by these combined teams included selection of vendor-supplied tools and services.

Many respondents, particularly those implementing their rules in automated systems, addressed concerns that bridged the BR and IT development domains. Many had adopted an

existing rules methodology and attempted to integrate it with their standard software development life cycle.

There is general agreement that mature Change Management processes are critical when transitioning to a new BR approach. This new approach requires a mental shift in the way both IT and the business customer think about, and develop new applications. The roles and responsibilities of both the business user and IT support staff may change dramatically. In those situations in which only the business or IT staff discovered and introduced the BR concept, joint business-IT teams were usually quickly assembled in order to maximize all of the potential gains of the investment in the new environment.

Candid remarks on best practices best reflect the spirit respondents held in this area. These include:

- Select a methodology for gathering rules, before you select a rule engine. The benefit of a rule approach is NOT about implementation, but about design!
- Define your terms, all of them; I mean ALL of them
- Start rule mining and documentation immediately –business users should be trained to accomplish this
- [and in regards to] BR and data modeling, – capture BR separately.
- There will be great resistance from the data centric folks with using a rules approach. Remember this is not about IT.
- Focus on rules governance, methodology, and your culture. And then think about technology.

Where are there issues and concerns? What could be improved? How can vendors help?

Many respondents used the survey area on methodologies and best practices as an opportunity to share issues and concerns. Most participants had issues, concerns, challenges and difficulties with the BR approach they wanted to share. The issues varied according to the point where they were in their implementation effort. Although many surveyed felt satisfied with the amount of "higher-level" support available, most were uncomfortable or dissatisfied with the availability of practical implementation advice or the availability of adequately trained resources to help implement high-level advice.

The following remarks are examples of specific areas of concern that were voiced. These include:

- Rules Governance – "How do we determine the role of the business users in developing, managing and maintaining rules in our environment? How do we accomplish the Change Management necessary for this cultural shift?"
- Defining, testing, maintaining and tracking: "There is a need for more and better rules maintenance, tracking and testing tools. If we [IT] expect the business users to honor their obligations in this new approach, (the integration between rules and methodologies) they need better tools."
- "[We need] more help with BR lifecycle management vis-à-vis any new architecture designed."
- "[Vendor] Business Rule Engines must handle and provide maintenance for complex calculations [within] rules or risk creating technical and organizational complexities that substantially reduce the return on a BR approach."

- "[We need] a simple, cost-effective migration path for rules [in our existing format] to a vendor provided BR engine. "
- "[Our] biggest problem is changing the stakeholder's mind-set."
- "Robust security configuration options are lacking in systems built using BR approaches."
- "All facets of BR testing lack rigor – especially available tools for user testing."
- "[We] need more guidance and support [with] tools to help map business requirements to BR for traceability and maintenance."
- "Our IT department wants to replace our home grown rules solution. We are reluctant to do so, we believe we may lose control to the IT organization."

Conclusions

The market adopts rules methodologies for numerous reasons. ROI appears for the most part to be gained in apparent "soft" areas of speed, flexibility and accuracy which are often: 1.) difficult to quantify or 2.) hidden when staff work is reduced and personnel are redeployed so no savings are taken.

While the market continues to adopt BR methodologies and to implement rules-based systems there is nonetheless a perceived lack of available, trained resources. These resources include personnel, documentation and tools.

The business consumer of BR continues to struggle developing a cohesive approach, finding experienced and affordable resources to help in rules analysis and ensuring that the concepts are understood across the organization.

Providers of BR products and services need to focus not just on providing personnel for implementing rules engines but also to provide

mentoring to business staff in documenting and analyzing business rules.

Rules maintenance tools vendors need to ensure the usability and scalability of their tools. In particular they need to demonstrate the tools' effectiveness when compared to home grown documentation and provide a migration path into BR engines. If these features are currently available, news is not getting to the end user.

Project managers need to ensure that their implementation projects are appropriately staffed by the customer's business representatives and that those staff members are adequately prepared to express the business requirements for systems development.

Business sponsors would help the methodologies gain in acceptance if clear and accurate measurement of various factors in their business process were taken before and after implementation. This would allow for clear documentation of true ROI as opposed to relying on best guesses or gut feelings. Focused investigation in this area would be an appropriate follow-up survey and a valuable document for all stakeholders in BR approaches.

Author's note

Even though new to Business Rules approaches prior to this research, it is very clear this new environment is here to stay. We found a large Community of dedicated and passionate thought leaders and corporate stakeholders committed to ensuring the current momentum of Business Rules adoption continues. This new development environment may cause a disruptive shift in corporate culture and will require new emphasis on Change Management techniques for the transition to efficiently occur. In spite of the current obstacles we've identified to any Business Rules transition, whether a lack of major vendor commitment or readily

available, trained resources, the business benefits are too great to ignore. The competitive advantages created for early adopters of these new approaches, such as faster time-to-market and higher-quality solutions, easily justify the investment in these new, pioneering environments. It is also noteworthy that most business entities can benefit from these new, Business Rule approaches, even if only partially instituted – one not need to implement a business rule engine (BRE) to gain business benefit. Only the future will tell how

fast this BR adoption continues to occur in corporate America and which drivers will be most influential in causing the change. It seems only a matter of time until more major software tool vendors recognize the power of these new BR approaches and release new products and services to facilitate them. We look forward to continuing our discussions with you along the journey. Thank you for your continued interest and pioneering spirit.

Lambert Technical Services and Whitespace Consulting again thank all who participated in this survey and shared their knowledge, successes and pioneering experiences with Business Rules approaches. We hope to stay in touch with you further soliciting your experiences, issues and best practices in this promising new development environment.

Rules users or those interested - do you have other information to share? Vendors of products or services - are you interested in discussing the candid BR responses regarding BR issues and concerns?

Contact information at **Lambert Technical Services, LLC** to discuss
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