
Business Rules Implemented and Controlled by Business

Business Rules Forum 2005

David DeCrescente

Travelers

November 2005

Business Rules Implemented AND Controlled by Business

- Agenda
 - Business Motivators – Speed & Quality
 - Home Grown Rules Tools Experiences
 - Rules Tools Needed for Policy Managers to Independently Controlled Rules
 - Additional Considerations for Business Controlled Rules

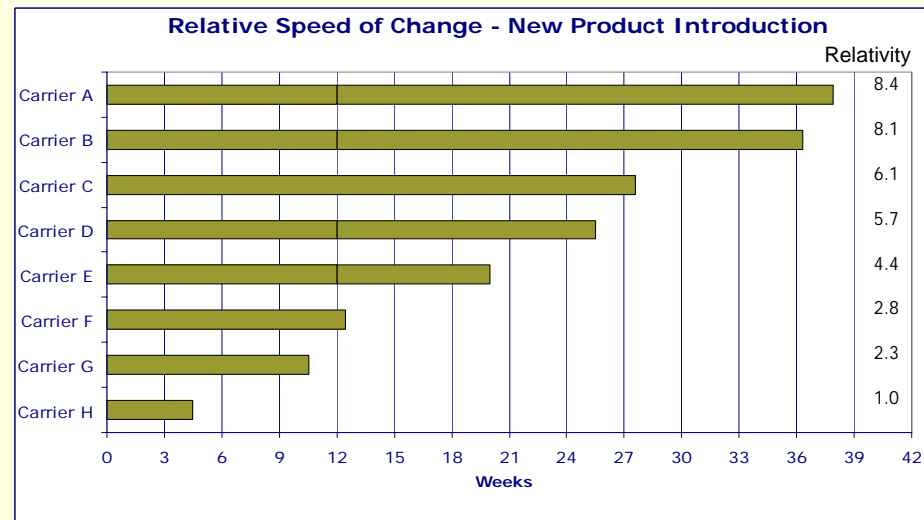


Business Motivators – Speed & Quality

Business Motivators – Speed & Quality: Speed in Adjusting Product & Service Strategy

- A business must maintain growth with profitability for long term viability
 - Must meet or exceed customer needs and expectations
 - Must meet or exceed competitive offerings
- To respond to these demands, a business needs to be able to adjust product strategy efficiently
 - Identify new opportunities and implement before the competition – windows of opportunity are growing shorter
 - Respond quickly to competition with product adjustments
 - If the market does not respond to your innovations, be able to adjust and change strategy quickly

Business Motivators – Speed & Quality: Speed in Adjusting Product & Service Strategy



- Does your company know its ability and speed to execute relative to its competitors?
- Some competitors are working on delivery while others are in the marketplace and working on the next innovation – Carrier H!

Business Motivators – Speed & Quality:

Balance Speed and Quality

- Be first *and* deliver with quality!
 - Capitalize on innovations. Be first to introduce (Speed)
 - Be quick *and* have a complete offering (Quality)
 - Limits competition's response
 - Attracts customers and sustains loyalty
- Leverage knowledge workers to achieve speed & quality
 - Knowledge workers know what to do and why (Quality)
 - Equip knowledge workers with tools to apply and implement their expertise (Speed & Quality)
 - Optimize hand-offs. Enable workers to fully manage their steps of the process and to be self sufficient (Speed)

Business Motivators – Speed & Quality:

Automation is only one ingredient

- Automation can enable speed and quality
 - Enables speed, however it is not the sole influence of speed
 - Enables quality by providing consistent, reliable, recreate-able results
- The quality of automation is only as strong as the process it implements, so...
 - The process must be well defined and designed
 - The automation must be configurable to adapt to adjustments to the process it implements

Business Motivators – Speed & Quality: Business Rules Are a Key Enabler

- A repository of business rules is knowledge that enables staff:
 - Resilience to normal staff turnover and retiring knowledge workers
 - To be more creative and innovative
 - To shift and assist in other critical business endeavors
- Reduce dependence on “tribal knowledge”
 - *“Only Sue knows how that works and is on vacation this week”*
- Be positioned to rapidly assess synergies of mergers
 - Perhaps be able to identify new opportunities or offerings



Home Grown Rules Tools Experiences

Home Grown Rules Tools Experiences: Rules Engines

- Motivation often comes from IT desire to be responsive to business changes by easing IT software maintenance effort
- Design often displaces complexity from programming languages to obscure and complex representations in databases
- Often, the priority is to deliver the engine where the business processing impact is needed and support for rule management is deferred

Home Grown Rules Tools Experiences: Rules Management Tools

- Rule management tools (i.e. “maintenance facilities”) are complex and expensive to design and develop
 - Often deferred because “utilities can get the job done”
 - Challenging to cost justify – typically, a small user base
- Home grown tools often intend business user ownership and result in using IT utilities
 - are too technical and rudimentary for business policy managers to operate independently
 - can hinder speed because desired business changes sometimes become tied to software delivery process and schedule (a function of engine purpose & design)

Home Grown Rules Tools Experiences: Rules Management Tools (cont.)

- Lack of business controlled rule management tool:
 - Compromises quality of knowledge
 - Home grown solutions are often data centric with magic numbers and coded values, making it difficult to represent and communicate the knowledge
 - Over the long run, can inadvertently result in establishing a new form of “tribal knowledge”
 - Compromises speed due to built in hand-offs from the start
 - One skill set needed to know and enter data representation of rules
 - A different skill set needed to navigate the technology and make available for rule engine to apply for processing

Home Grown Rules Tools Experiences: BRMS Technology vs. Lookup Tables

- Many IT developers struggle to differentiate BRMS technology from lookup tables
- Lookup tables are fixed/rigid rule structures and reduce flexibility
 - Each row represents an instance of a rule
 - Columns combine to represent conditions and outcomes
 - Content is often cryptic and difficult to represent relationships
- Lookup tables for complex rules hinder speed
 - Seemingly simple at first, however rigid and time consuming to change in the systems
 - The frequency of business change to conditions and outcomes will impede speed to respond
 - Requires IT software development cycle when business/rule conditions and outcomes change (structure, not values)

Home Grown Rules Tools Experiences: BRMS Technology vs. Lookup Tables (cont)

- BRMS technology provides a basis for business controlled and managed rules
 - Eases technical translation to English, business-friendly terms
 - Adds usability of IF-THEN constructs to support more complex representations of logic than decision tables
 - Resilient to structure changes (IF-Then, not decision tables)
 - Provides ability to organize groups of logic for ease of manageability and control of execution (i.e. rule flows)
 - Current state of BRMS technology needs to provide a complete suite to enable business to manage rules independently

Rules Tools Needed For Business to Independently Control Rules

Rules Tools Needed For Business to Independently Control Rules

Policy managers need a complete suite of tools to achieve independence and control of business rules

- Rule Authoring
- Rule Unit Testing
- Rule Integrated Testing
- Rule Deployment

Rules Tools Needed For Business to Independently Control Rules (cont.)

Rule Authoring

- Must express rules using the everyday terms of the business policy managers (code/decode)
- Support multiple representations or constructs (If/Then, Decision Table, Decision Tree)
- Easy to organize, locate and search rules
- Ability to perform impact analysis and improve rule reuse

Rules Tools Needed For Business to Independently Control Rules (cont.)

Rule Unit Testing must provide ability to:

- Enter and maintain test data using business-friendly terms (code/decode)
- Enter and maintain test cases, a combination of
 - selected instances of test data
 - selected rule(s) that are the focus of a specific test objective
 - the expected result
- Be able to debug – what rules executed?
- Enable immediate execution
 - display actual result and expected result
 - isolated from IT software development activities
 - only rules and the engine, no dependency on other business processes or systems
 - no wait time for rule deployment in order to execute

Rules Tools Needed For Business to Independently Control Rules (cont.)

Rule Integrated Testing

- Why?
 - Ensure rule deployment will not disrupt production operations in anyway (system availability)
 - Verify the outputs of the rule engine do not disrupt interfacing system (quality of results)
 - Especially important for verifying impact of new output values on legacy systems
- How?
 - Executable image of production system
 - Dedicated environment to this purpose
 - Isolated from IT/software development processes

Rules Tools Needed For Business to Independently Control Rules (cont.)

Rule Deployment

- Policy Managers must be able to independently deploy rule changes from Unit Test to Integrated Test Environment and Production
- Must be business policy manager controlled and independent from IT processes and resources (i.e no manual intervention)
- Technically challenging to automate rule build, deploy, stop/start systems services
- Technical design decision: source code vs. business content model?



Additional Considerations for Business Controlled Rules

Additional Considerations for Business Controlled Rules

- Are policy managers ready to take ownership and perform tasks that have traditionally associated with IT?
 - Working with data and logic (“that’s programmer’s work”)
 - Manage to a Rule Development Life Cycle independently from the Software Development Life Cycle
 - Own and conduct quality assurance
 - Own and respond to production support crises?
- Is IT ready for business policy managers to assume control?
 - Production implementation without IT notification or approval
 - Changes to production systems outside the IT change control process and schedule
 - Business owning Quality Assurance, where there is history of inconsistent participation in existing SDLC

Additional Considerations for Business Controlled Rules (cont.)

- Production support
 - Adjust help desk triage process and contact lists
 - Route system failures to IT
 - Route issues of questionable business outcomes to business rules unit
- Avoid business staff capturing rules and delegating implementation and QA to IT areas.
- IT Language infusion with business language
 - Software and rules sharing terms like unit test, integrated test, deployment
- 100% business control of rules not achieved until 100% control of data definition and implementation into systems

Comments and Feedback Welcome

David DeCrescente

DADECRES@Travelers.com