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## AUTOMATING THE UNDERWRITING PROCESS

By Susie Cour-Palais

"It is very difficult to innovate in a sustainable way against your three closest peers on price, product and commission, but in terms of doing business, that is all about execution ... and that's an open race."

So said a panellist at a LOMA systems forum discussion on competition in life insurance ... in 2006.

Time and again, industry surveys tell us that distributors of life insurance products place service alongside, or even above, price when making the decision about where to place business. Underwriting speed, the ease of case submission and sales support stand out as the most important factors ... and it is clear that those companies that are using technology most effectively are the winners.

Over the past decade, in markets around the world, enlightened life insurers have directed a significant proportion of their technology budget towards automation of the new business acquisition process.

Breaking down barriers between front and back office

If we visualize what is happening now at companies automating the new business acquisition process, very simplistically we see three stages ([See Diagram](#))

1. Collection of information as structured data via an electronic application form adapted for multiple distribution channels and access points.
2. Data flowing into new business/underwriting and an underwriting rules engine for risk triage (quickly identifying cases which can be immediately accepted as applied for; and for the balance identifying the next steps, be that further evidence requirements, routing to a call-centre for teleunderwriting, or to manual underwriting). At this stage, the more sophisticated underwriting engines can also do some risk assessment up

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to various levels of substandard acceptance, without manual intervention.

3. Fulfilment of various functions in back office systems for further processing (e.g., evidence ordering, tracking and routing, correspondence generation, policy fulfilment).

There can be important differences between what companies are doing in terms of:

- the flexibility of the electronic data capture at the front end,
- the quality and scope of the rule-set in the underwriting engine,
- the transparency of the process to advisers—and possibly customers too,
- the extent to which an underwriter workbench or dashboard is available for case management,
- the connectivity to service providers and call-centers,
- the sophistication of their data capture and MI tools.

But perhaps the most significant difference is how far companies are willing to move traditionally back office underwriting functions to the front office—the extent to which they are breaking down the barriers between the external and internal world.

Exciting new business models are emerging, enabled by technologies not available five years ago such as:

- Flexible service-oriented architectures (SOA),
- Greater ability to create interfaces between applications,
- More portable and application compatible programming languages such as JAVA.

These technologies are all about eliminating data silos, improving accessibility to and manipulation of data, and improving transparency and communication. These aren't optional requirements, but central to a modern way of doing business.

What do we mean by underwriting engines?

There is a plethora of different so-called underwriting engines available, which have different functional specifications and are aimed at different parts of the new business acquisition process. Trying to assess whether a system is right for your company's specific needs can be a tortuous and bewildering process. Software companies promise systems which can do everything required and all but reproduce themselves. All too often terminology is hijacked and twisted by enthusiastic marketing literature.

At my company, SelectX, we have worked for many years with software companies and reinsurers who develop intelligent underwriting engines. When we review underwriting engines, these are the areas on which we focus:

- Electronic front-end:
  - for application data capture and validation,
  - configurable for multiple distribution channels.
- Business and underwriting rules design and maintenance module:
  - rules and dictionary authoring tools for business users,
  - knowledge base maintenance tools for business users,
  - test harness to enable quick testing of rule changes.
- Vendor connectivity:
  - support for requirements ordering, status tracking and routing,
  - laboratory interfaces,
  - Medical information bureau (MIB), Motor vehicle record and pharmacy treatment (Rx) interfaces [In North America only].
- Teleunderwriting support:
  - Teleunderwriting is increasingly important for all types of life underwriting. Leading systems have support functionality pre-built into their systems (e.g., scripting tools, call scheduling/routing tools, call recording storage and retrieval tools) or they have interfaces developed in such a way that systems can be integrated with external teleunderwriting operations.
- Management information and data analysis tools:
  - Possibly the most important development area in underwriting engines. The best systems have sophisticated data analysis tools which go far beyond canned standard reports.
- Underwriter workbench:
  - Some systems have underwriter workbench modules which allow for a single view of assessment information, workflow integration, requirements management, case storage and retrieval and automated correspondence.
- Web services
- Multiple language and currency capabilities
- Configurable security settings

Turning to the core engine within these underwriting systems, where the underwriting intelligence sits—in the last decade we have seen markets outside

North America (particularly the United Kingdom, South Africa and Australia/New Zealand) leading the world in developing the sophistication of rules logic.

The best engines have underwriting rules not just for life business, but for disability income, waiver of premium, total and permanent disability and critical illness.

And many don't stop at simple risk triage identifying only the standard rates/issued as applied for cases; but can go much further using dynamic drill-down rules logic which enables processing of a substandard business up to Table 4 (100 percent extramortality) and beyond.

So the latest generation of engines are not limited to simplified issue business and small face amounts, but are mainstream underwriting tools regarded as essential for the modern, competitive life company.

An important development in the latest generation of engines is the transfer of control to the business. Rules authoring and maintenance tools are designed for the business user not the IT expert, and data analysis and reporting too can be carried out without the need to go cap in hand to the IT department. Which brings us neatly on to underwriting data.

The importance of underwriting data

Underpinning much of what we want to do with technology is the data that flows from it. But are we using this effectively—indeed do we even recognize its value?

We are operating in a different business environment from five or 10 years ago. The financial downturn, the greater rigour of audits and rating agencies, the need to justify what we're doing—all rely on data being available and in a format that can be used for reporting.

One of the greatest benefits of electronic underwriting and straight through processing is that from the moment that information becomes data in an electronic river flowing through the organization, we have data in a structured format that can be manipulated. The leading software companies developing engines have recognized this and spent most of their development effort of the last few years creating data analysis modules which sit within their underwriting systems.

The result is that the game has changed for some companies, giving them a level of information they only dreamed of 10 or 15 years ago—this goes far beyond underwriting operations information. The data being spat out by some of these engines gives pricing actuaries and marketers timely insights into the characteristics of the customer base and the risks being taken on, allowing pricing and product features to be refined real time, not, as has historically been the case, years later or never.

## Strategic use of technology

The availability of data is leading to a shift in how technology is used by underwriting departments. At outset, the focus is always on underwriting speed, ease of case submission and sales support, but over time greater emphasis is placed on how to realize the strategic business benefits of technology.

Companies are starting to consider how they can mine the business benefits of the data being collected and how they can harness the flexibility of new technology architecture to develop new customer and distributor propositions.

[See Diagram](#)

A global view

At SelectX we are frequently asked why the deployment of underwriting engines in North America has lagged behind other developed insurance markets such as the United Kingdom and Australia. The reasons are complex but are largely down to regulatory constraints; more complex pricing and underwriting models which require more medical information; and a focus on sales to high net worth individuals (and correspondingly high face amount policies) rather than to the mid-market. The table below summarizes some of the issues.

[See Table](#)

However, we predict that almost every major life carrier in North America will implement an underwriting engine in the next five years, spurred on by sweeping changes in the insurance environment:

- The financial turmoil of the past two years has led to even more fierce competition for business and a desire to exploit the under-served mid-market.
- Availability of underwriting data in electronic format which can replace some or all of the traditional risk information in risk assessment. In particular, pharmacy profile (Rx) data and MIB and motor vehicle record information available in electronic format which can be utilized by an engine without manual intervention.
- Growth of teleunderwriting as a mainstream method of gathering risk-related information. Information collected over the phone is ideal for entering directly into an engine for initial risk triage.
- Greater regulatory and reinsurer demands for data.
- A wave of zealousness about exposing bad risks before they go on the books.
- A renewed focus on improving mortality and morbidity experience

through consistency and pricing based on data.

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