Taxonomy Library

Risk Content
by **Risk**Business

Unstructured data abounds, structured data is more useful, appropriate classified structured data facilitates decision making

FINANCIAL SERVICES FIRMS HAVE traditionally focused a majority of their operational risk efforts on developing programme initiatives such as loss data collection, scenario analysis, self-assessment, capital estimation, etc. These programmes comprise, in effect, the muscle of a firm's risk management effort. By the same token, however, the taxonomic framework supporting each initiative makes up the skeleton—a subtler component, yet likewise essential in creating structure and value. Firms vary in the extent to which they have focused on taxonomy as a key element of value generation. Many use unmodified, high-level Basel categories, while some have adopted different hierarchies for specific initiatives. It is possible to "make do" with a quick formulation early on. Yet, in the long term, a programme with ill-designed taxonomy is likely to fare little better in practice than an athlete entering the Olympics with a strong set of muscles — but connected to rubbery bones.

An effective taxonomy framework may contain a variety of specific data elements. The ideal number and composition of these elements depends on the organisation's specific business needs and management culture. Some components are core data elements, likely to be included by virtually all organisations (risk category, line of business, etc.). Others are best described as supplemental, or specialised, variables that a firm may use to its advantage, but only if suitable. Lastly, in some topic areas, alternative hierarchy selections are available in the same "space" from which a firm may select.

The Taxonomy Library is a component of Risk Content by RiskBusiness and consists of a number of pre-defined libraries of core data hierarchy elements, with full definitional content. The Taxonomy Library covers 23 element types, including libraries of Risk Types, Risk Categories, Business Lines, Products Types, Process Types (Business Functions), Causal Types, Control Classes, Control Types and various Impact Types. These taxonomy elements are supported by taxonomy attributes, that is, various common classification mechanisms in the public domain, such as industry types, geographic segmentations, etc. and taxonomy dimensions, low-level sub-classification structures. The Taxonomy Library provides as standard, multiple versions for consideration within each element type.

The Taxonomy Library is delivered as an online encyclopaedia which can be used as-is, or where unique internal taxonomies can be customised to meet users' individual needs and strategies. Taxonomy Library subscribers can modify the contents of any hierarchy to suit their needs. Specifically, they may (1) add, delete or rename individual elements in a standard hierarchy, (2) edit definitions and other content associated with specific hierarchy elements, and (3) add entirely new hierarchies.

As an example of a taxonomy element, consider a Risk Category (or Basel II Loss Event Type) structure. The Taxonomy Library includes a multi-layer, unambiguous method of classifying risks, which can be used to uniquely classify loss events, undertake

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> *Taxonomy is the practice and science of classification. The word comes from the Greek τάξις, taxis (meaning 'order', 'arrangement') and νόμος, nomos ('law' or 'science'). Taxonomies, or taxonomic schemes, are composed of taxonomic units known as taxa (singular taxon), or kinds of things that are arranged frequently in a hierarchical structure. Typically they are related by subtype-supertype relationships, also called parent-child relationships.*

risk assessments and correlate against indicator and loss information. This use of detailed risk categories has immense power when used within a firm, which increases exponentially when used across an industry sector.

The Taxonomy Library allows you to query the encyclopaedia using key words. For example, if a business unit has suffered some event such as a system failure, a user can enter the term "system failure" and be provided with a structure representing the potential classification for that event. Defined qualifiers then assist in ensuring a single, unambiguous classification for that event. The user may then browse the possible detailed risk categories and, based on the qualifiers, select the most appropriate way to classify that event. The option is also available to query paragraphs of text in the same manner, retrieving all possible classification instances across all taxonomy elements, thus reducing loss classification time and improving consistency.

However, the Taxonomy Library is much more than just risk categories, covering product/service structures, business functions and process types, control types, scenario types, event impact types and business activities. A single taxonomic element, in isolation, has limited utility. Instead, individual elements take on meaning as part of an integrated data framework, supporting applied operational risk initiatives.

The connections among taxonomic elements in an enterprise or integrated risk framework can be demonstrated using a functional model of risk. The outlines of this model are quite straightforward: a firm attempts to execute an operational process, with certain expected outcomes in mind. But causal factors intervene, triggering an operational risk event. If not intercepted, the event leads to impacts (i.e., outcomes different than those originally expected). All of the intricacies of loss data definition and recording can be generated from this concise view. The schema just described also has the advantage of taking a behavioural perspective on operational risk; such an approach is well-positioned, over time, to capture key process dynamics needed for successful analysis.

In reviewing the taxonomy elements associated with each "stage" of the functional model described in the previous paragraph, a number of data elements can be associated with each; some core data elements, others supplemental or optional. The Taxonomy Service thus includes the rules necessary to deploy and use these within a business context, with user definable rules and multi-language support.

The Taxonomy Library has also been mapped to a range of industry standard taxonomies, including Basel II, ORX, GOLD, ORIC International, the KRI Framework, standard insurance contracts and various others. Facility is available to specify your own taxonomy and to map it to any of the other taxonomies supported.

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