Component Business Modeling

A new perspective on cutting risk and compliance costs

IBM Institute for Business Value

Cost clarity

> "Global banks' misconduct costs have now reached over USD 320 billion – capital that could otherwise have supported up to USD 5 trillion of lending to households and businesses."

Mark Carney
Governor of the Bank of England.[1]

All too often, financial institutions manage risk and compliance by business or functional unit without looking at the company-wide costs. But with Component Business Modeling (CBM), it's possible to analyze these costs in a different way. With CBM, the enterprise is partitioned into manageable, relatively independent, discrete, modular and reusable business components. Using CBM, business segments that contain similar activities can be mapped across the enterprise. For the parts of a bank that service product lines such as risk and compliance, CBM offers a new way to break down the organization and gain more clarity around costs across functional units.

Rising cost, opportunity lost

Examining risk and compliance across the enterprise may improve a bank's ability to allocate strategic investments beyond business-as-usual budgeting. The three main pillars of financial risk are credit, market and operational, and managing these three areas represents about 12 percent of the total running costs of a typical bank.[2] Compliance costs are also substantial and growing rapidly because of regulations, such as Anti-Money Laundering Directives (AMLD) 4 and 5 in the European Union and Financial Crimes Enforcement Network Customer Due Diligence (FinCEN CDD) in the United States (see sidebar, *"EU and US regulations"*). In a recent survey of 34 banks, half of the respondents said compliance costs represented between 6 and 10 percent of each bank's total revenue.[3]

Although banks continue to be under pressure to create value and reduce costs, worldwide consolidation has increased the number of customers per bank. However, in an effort to keep costs under control, risk and compliance staffing is flat or declining.[4] In 2017, it was reported that one large bank was cutting compliance headcount by 2,000.[5] At the same time, while the regulatory burden on banks is declining in some geographic areas, such as in the United States, it is growing in others. In Europe, for example, regulations, such as the AMLD 4 and 5, have been exacerbating the cost problem since the first discussions on the regulations began in 2015. In 2018, the European Union is activating Payment Services Directive 2 (PSD2) and an updated Markets in Financial Instruments Directive (MiFID2).

To address cost problems, some banks, such as Barclays Accelerator, are looking to new technology and new human resources from "regtechs," which are companies that have specialized skills and technology for regulatory compliance.[6]

What is a Component Business Model?

The building blocks of CBM are "business components." A business component is a business in a microcosm. It has activities, resources, applications and infrastructure, along with a governance model. And it provides value in goods or services.

CBM can operate at several levels. At the highest level, a bank has about 35-50 components. These can be broken down again into more components at level 2 and become finer grained at level 3 (see Figure 1).

A sophisticated pre-built model may have more than 400 components for risk and compliance that can be used as a starting point for any CBM project. The CBM approach further classifies all the components into one of three groups: the *direct domain*, the *control domain* or the *execute domain*.

A model solution

EU and US regulations

AMLD –The EU's fourth and fifth anti-money laundering directives reinforce risk assessment obligation for banks, set transparency requirements about beneficial ownership for companies, aid banks' ability to follow suspicious money transfers, create a policy towards countries with deficient anti-money laundering and counter-terrorist financing rules, and help prevent terrorist financing and money laundering through the EU's financial system.[7]

FinCEN CDD – The Financial Crimes Enforcement Network of the US Treasury has established customer due diligence requirements for financial institutions. This regulation requires financial institutions to create written policies and procedures to identify and verify customer identities, verify identities of beneficial owners of new corporate accounts, develop customer risk profiles and report suspicious transactions.[8]

Although regtechs can be an important part of a solution, many banks – especially large and mid-sized banks – are deploying regtechs before they examine issues across organizational and functional boundaries.[9] CBM provides this type of logical view of business segments. It maps similar activities that are supported by human capital and technology assets.

CBM can operate at several levels. At the highest level, a bank has about 35-50 components. These components can be broken down again into more components at level 2 and become finer grained at level 3, (see Figure 1). At least one bank already has rebuilt its cost allocation hierarchy to mirror its CBM. Because CBM allows a variety of perspectives, banks can use it to operate across organizational boundaries in risk and compliance.

Figure 1
Selected components of a risk and compliance CBM map

examples	Group level risk	Business line risk	Front office and finance	Compliance and crime
Direct	Enterprise funding	Market risk policy	Limits maintenance	Senior management accountability
Control	Balance sheet simulation	Pricing and sensitivities	Collateral management	Monitoring of product suitability
Execute	Model validation and backtesting	Data provisioning and maintenance	Application development	Sanctions screening

Embracing sustainability

Using CBM to create a specific risk and compliance lens may give banks new insights, so they can better allocate their investments. Some may consider benchmarking against other banks instead, but such a perspective is problematic because risk and compliance functions may be positioned in a variety of organizational locations within the bank. Bank leaders may know how many people work for the chief risk officer (CRO), or the size of the risk change budget, but they may not be aware of the total cost of risk management and of the broader governance, risk and compliance (GRC) around it.[10] GRC is a structured approach to aligning IT with business objectives, while managing risk and compliance effectively. CBM can provide a clearer cross-company view of GRC.

CBM also can help assess where components interact and provide improved visibility into duplicate risk and compliance functions. Modeling can be focused on specific business areas, so that effort is not wasted on out-of-scope or non-strategic areas.

The CBM model can improve the collection of cost data within a chosen lens, which can enable a comprehensive, consistent, cross-company analysis for all new risk and compliance investments. CBM holds the promise of reducing long-run costs, as well as the annual burden on budgets and human resources.

Using CBM to answer key questions

With new digital agendas and customer experiences often taking up significant C-suite time and energy, CROs may want to make the compliance agenda and GRC every bit as compelling and urgent as Net Promoter Scores and the agile methodology. The cross-business nature of the CBM can give the CRO (or chief compliance officer) insight into options for cutting costs.

With CBM, key strategic questions can be answered more quickly and accurately than before. For example, CBM can help determine:

- The Know Your Company (KYC) activities that should be outsourced and activities to keep in-house.
- The work that is best done at the segment, division and corporate levels.
- The risks that are unique and need to be performed specifically for some products and the risks that use common models.
- The activities and data that can be shared across distinct business components.

Integrating trading front and middle offices

Increasingly, banks that trade financial assets heavily are attempting to accurately reflect the cost of risk for individual transactions. This need for accuracy results from the convergence of three driving forces: post-crisis market conditions, solvency regulations and accounting standards. The granularity of analysis is strictly defined as a function of desk organization, credit and counterparty netting arrangements and risk factors. Pricing current and future valuation must be consistent between front and middle office as do capital and profit and loss calculations.

Unfortunately, traditional information technology infrastructure was not designed to handle such a stringent set of requirements. Consequently, re-engineering the entire set of capabilities can be daunting. CBM is an effective tool to help address that complexity.

It highlights dependencies, data flows and core processes, while providing insights from which risk and trading architectures and risk and front-office operating models can be derived.

Risk and finance platform upgrade programs absorb significant levels of investments (more than 100 million USD in three years for tier-one banks).[11] CBM-driven rationalization, optimization and strategic planning have the potential to cut this expense by 20 to 30 percent.[12]

Streamlining the solution

Ultimately, CBM is only a means to an end. It can provide business leaders with a clearer view of critical risk and compliance overlaps, such as leadership, systems, data elements, people and oversight. Because agile development methods aren’t optimized for large-scale implementations, CBM’s holistic view helps make the scope of a program more secure. CBM also can reduce the chance of project failure and improve software delivery times.

Banks are complex organisms, but that isn’t the only reason they have failed to simplify. Understanding customers is also complex. Often specific, detailed views of a customer are sought for assessment purposes across multiple and often competing functions in the banking organization, such as for performing credit processes. Forming a reliable, single view of the character of the customer can be challenging without CBM.

Banks need to not only simplify, but streamline as well. Streamlined views of the customer using CBM can help bankers manage risk and compliance more effectively. A streamlined view can also help in engaging lawmakers and regulators in molding the future regulatory environment with greater clarity.

Making it work

Four sequential steps can help kick-start a CBM program:

1. Start with a base model. Template models already exist that can help accelerate the CBM process. Individual components can be adapted from a similar model. Decide which lens is most promising such as lenses for shared technologies (such as databases), shared work (such as fraud detection), processes (such as valuation sensitivities) or even a mixture.

2. Assign the cost elements per component, which define a technology cost or a people cost. For example, a starting point might be 25 percent and 75 percent of the total.

3. Define proposed changes as a part of the transformation plan to establish expected results. Next, calculate the effort to change and the likelihood of success. These calculations require some skill in estimation. Present the results to senior management and gain organizational buy-in for the cross line of business elements of change.

4. Start where the largest benefit is possible. For example 80 percent of a KYC investigation is in the analysis phase. An agile project that speeds up analysis pays off, either by using skilled workers or tools that do the job faster.

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