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Tejas Patel, a qualified Chartered Accountant, is certified in International Financial Reporting Standards (IFRS) and is a functional consultant for finance and reporting with the Banking Industry Practice of TCS. He has over ten years of experience in working across several domains including banking, information technology and real estate. His key responsibility areas include risk and finance integration, IFRS and FATCA. Tejas works closely with delivery as well as product teams and has contributed immensely to conceptualizing and designing solutions for IFRS compliance for the TCS BaNCS suite of products.
The prevailing business and regulatory environment in the banking and financial services sector demands disclosure of granular and integrated information related to the risk and finance functions. A failure to meet the requirements may lead to increased supervisory review and reputational risk.

Current systems and processes within many financial institutions struggle to provide an integrated and granular view of the necessary information. This adversely impacts business performance due to their effect on risk and finance capabilities and higher operational costs. Managing the risk, finance and regulatory compliance aspects in a dynamic business landscape is proving to be an uphill task, especially after the global financial crisis. Chief risk officers (CRO) of banks are grappling with the challenges of financial reporting and regulatory disclosure requirements, managing complex, dynamic and overlapping regulations, business strategy planning and front office decision making, measuring and managing risk adjusted profitability, integrating impact of risk into pricing, capital management, and treasury operations. Furthermore, CROs are also questioning the adequacy of existing risk and finance processes to manage Black Swan events.

This has driven financial institutions to undertake a major overhaul of their risk, finance and compliance management functions, given the fact that greater alignment between risk and finance will positively impact enterprise level business performance. Financial institutions will need to take a call on the level of integration they intend to achieve based on their own evaluation of associated investments and returns.
Introduction

In the prevailing financial environment, global financial institutions are still evolving approaches to manage and sustain some of their core businesses. Managing the risk, finance and regulatory compliance aspects of a dynamic business landscape simultaneously is proving challenging. Additionally, today’s stringent regulatory environment demands prompt submission of specific information about the business. Failure to meet these demands can lead to severe consequences, from more inquisitive queries to intervention and penalties to suspension of operations.

The underlying weaknesses in the risk, financial and compliance management functions of financial institutions were exposed by the financial crisis, thereby necessitating a thorough overhaul of these functions. In this scenario, business processes need to be remodeled in order to get better information for effective decision-making, risk management, financial reporting and regulatory compliance.

Effective decision making demands closer to reality, faster, more frequent and more consistent information about a financial institution's risk exposure, capital needed to support it and the resulting impact on its present and future profitability. It also requires the ability to generate risk-adjusted performance measures (RAPM) such as risk-adjusted return on capital (RORAC) at a granular level, by customer, country, asset or sector.

However, current systems, processes and data within many financial institutions are incapable of providing this complete view. The result is increased opportunity costs, both through the impact of missed business opportunities and higher funding and capital costs.

This paper takes a closer look at the need and approach for the integration of risk and finance in order to realize business benefits in the long term.

Risk and Finance Integration
– For Strategic Benefits

For most financial institutions, the business and IT landscape associated with the areas of risk, finance and regulatory compliance is complex. The IT infrastructure is characterized by overlapping and redundant business processes, and isolated and inflexible legacy systems. As a result, to comply with new regulations, institutes resort to tactical workarounds leading to inefficiency and high operating costs.

As depicted in Figure 1, currently the risk and finance functions converge and share information primarily during reconciliations and disclosure phases. In order to create additional business value and reduce compliance risk, these functions ideally need to converge further upstream to provide a single view of the financial institution's assets and liabilities comprising financial transactions, positions, collaterals, deposits and so on.
Key business performance measures such as topline and bottom line which have, till now, been monitored as per conventional accounting methodologies will need to be augmented by risk adjusted performance measures such as economic profit and RAROC. These measures have both risk and finance components and hence clearly establish the need for risk and finance integration. As depicted in Figure 2, RAROC requires integration of key risk measures such as expected losses, economic capital and finance measures such as operating profits, provisions and Non-Performing Assets (NPA).
Economic capital is allocated to business lines based on which RAROC is measured and fed into the capital management and business performance measurement processes. Some financial institutions are already leveraging these measures to compare the profitability of their business lines, customers and products, and also to evaluate major business decisions such as mergers, acquisitions and divestitures.

In addition to the above strategic benefits emanating from the integration of risk and finance functions, additional tangible and tactical benefits that can be realized from the integration of these functions include:

- Improved access to relevant information for decision-making, risk and capital management, financial reporting and regulatory compliance.
- Increased transparency leading to greater understanding of performance, risk and capital at the business-unit, product and portfolio levels.
- Quick and sound decisions that reflect real risk-adjusted returns and are based on a deeper understanding of true profitability.
- Mitigated operational risk, compliance risk and reputational risk.

In the long term, a mature and integrated risk and finance function will help financial institutions achieve strategic targets for measures such as capital adequacy and liquidity ratios. Hence, risk and finance integration is no longer a ‘nice to have’ initiative but is gradually evolving into a necessity for realizing long term transformational benefits.

Risk and Finance Integration Approach

An approach for the integration of risk and finance functions must focus on key aspects such as business processes and functions, regulatory requirements, information management, architecture and program governance. Figure 3 depicts a high level approach for integration.
Integration of risk and finance within a financial institution needs to be managed top-down on the lines of a major transformation program implementation, irrespective of the scope. A basic level integration would just consist of an IT integration of risk and finance data while a mature integration would encompass a large transformation initiative involving a major revamp of business processes and systems.

The key steps in the integration approach include:-

A) Identification of overlaps – One of the key steps in a risk and finance integration program would be to identify the overlaps across risk (credit, market and liquidity risk), finance (financial and management accounting) and regulatory compliance areas (International Financial Reporting Standards, United States Generally Accepted Accounting Principles, Basel and Dodd-Frank and others). Established business processes, functions and the requirements inventory serve as a foundation for this exercise. Figure 4 provides a snapshot of overlapping functions across the enterprise risk and finance areas where there is a natural synergy between functions due to overlaps in regulatory guidelines. These overlaps help identify redundancies across business processes, functions and applications, and the extent of synergy that can be derived will vary depending on the scope of integration.

<table>
<thead>
<tr>
<th>#</th>
<th>Risk Category</th>
<th>Basel Reference</th>
<th>IFRS Reference</th>
<th>US GAAP Reference</th>
<th>Business Requirements Summry</th>
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| 4  | Credit Risk, Securitization Risk | Pillar 3 | IFRS 7 Para 36 (a), (b), (c) Para 37, Para 38, Para 16, 20 (e), Para 42E - G | US Gaap ASC 310-10-50, 310-30-50, 310-40-50, 942-210-545 & 599-825-110-50-20 | 1) Max Credit Risk Exposure (Excluding CRM and Netting effects)  
2) Quantification of CRM and Netting risk mitigation  
3) Credit Quality (excluding past due/impaired)  
4) Credit Qualit (past due/impaired) Collateral, Credit enhancement details, Collateral management  
5) Allowance for credit losses  
6) credit risk transferred into securitisation vehicles, derecognition of assets |
| 5  | Credit Risk | Pillar 2 | IAS 39 Para 76, 85-102 | US GAAP ASC 310-10-35c, 310-10-35-10 | 1) A comprehensive process to produce accurate, timely and reliable estimates of risk parameters is required  
2) Need for an internal risk rating system |
| 6  | Liquidity Risk | Pillar 3 | IFRS 7 Para 39, 39B11E | US GAAP ASC 825-10-50-23 (proposed) | 1) Contractual maturity analysis for derivatives and non-derivatives - Para 39  
2) Liquidity Risk management (liabilities) - Para 39, B11E |
| 7  | Pillar 3 | Pillar 3 | IAS 1 Para 54, 77, 78 | US GAAP ASC 942-505-50 | 1) Presentation of capital either in Financial Statements or in the Notes |

Figure 4 – Risk and Finance Regulatory Overlaps (Illustrative)

B) Integrated Architecture – This step involves creating an integrated business, application and information architecture taking into consideration the overlaps identified in the previous step. This architecture represents target state business capabilities and helps in carrying out a business gap analysis. The financial institution’s existing applications across risk, finance and compliance functions can then be mapped to the target state business architecture to derive the application architecture which helps identify gaps in technology capabilities. The next step is to map the information segments to the application architecture for arriving at the information architecture. The business and application architecture should be highly flexible with the ability to adapt to ever changing business and regulatory requirements.
C) Implementation Roadmap - One of the key elements of the implementation process is to design a common data repository which can serve as a single source of information for all risk and finance functions including accounting, risk management, capital adequacy, liquidity and disclosures. A common business driven taxonomy covering all the areas is a pre-requisite for creating a common data repository. The application and information architecture should be designed such that it enables real time or near real time availability of information, ensures transparency, provides high quality data and allows auditability of front and back office operations. There need to be inbuilt validation and control mechanisms in the data repository to avoid reconciliation issues associated with the transformation of data as per the business rules of risk and finance. Continuous cross validation of the data during the transformation process brings down the overall cost of reconciliation.

D) Program Governance – A joint steering committee comprising the CRO, CFO, senior risk and finance executives and board members should be formed to ensure alignment of business processes and disclosures with policies. A cross functional task force that would focus exclusively on the integration aspect should support the joint steering committee. One of the key recommendations from regulators to financial institutions is regarding improving governance across risk and finance functions. Internally, financial institutions need to increase the acceptance of these programs with a clear buy-in from senior management and a top-down governance model.

Risk and Finance Integrated View

An integrated view of risk and finance can be visualized from three perspectives:

a) Business view – This includes integration of business processes with risk adjusted performance measures such as RAROC, economic capital, economic profit, risk based pricing, capital allocation and so on, and integrated decision making. Adopting an integrated business architecture is an ideal way to gain an overall view of the integrated functions and associated business processes. Also, well designed business architecture will help identify the gaps and overlaps, and streamline processes for improved decision making and reporting.

b) Application view – To integrate the applications in the risk and finance areas, two approaches can be followed:

- Overhaul of all existing systems and processes and replacing them with a single suite of applications for both functions
- Rationalization of existing systems and processes to achieve integration

The view of the application architecture will depend on the type of model chosen:

- Model 1 - The first model will be transformational in nature and give a completely new view of the target state in line with best practices. However, this option may prove to be resource and time intensive for the financial institution.
- Model 2 - The second model will try to streamline and rationalize existing systems and processes by introducing workarounds and hence, may not be completely in line with best practices. This option will be less expensive with shorter implementation time
c) Data view – An integrated data view will seek to combine the commonalities between the requirements of risk and finance, both at the aggregate level and at a granular level. It should present a consistent and standard taxonomy across risk and finance for better data management and control.

Figure 5 shows an integrated high level business context view for basic integration in a financial institution. This can be achieved by integrating common underlying data emanating from various business transactions and defining the data transformational rules for multiple sets of users based on their respective needs. For instance, ground level staff might need details at a more granular level as compared to the organization’s management team who will need to review highly aggregated information.

However, at the more mature level of risk and finance integration, a financial institution can achieve integration at the data level as well as earn higher rewards by integrating common business functions and processes. The high level view at this level of maturity is shown in Figure 6:
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Figure 6: Integrated Finance and Risk Architecture- Context Diagram: Mature Integration

In Figure 6, we have identified areas where synergies can be leveraged to the fullest. To achieve this level of integration, a financial institution would need to re-organize the overlapping business processes and functions and take up major re-designing of processes that encompass finance and risk functions. This can be achieved by identifying overlaps and redundancies, and combining several tasks to reduce unnecessary versions, duplications and reconciliations. Achieving mature integration also entails training and re-deployment of staff in the new structure and roles. Such a major organizational transformation requires investments in terms of time and finance; however, the benefits will be immense and long lasting.

Risk and Finance – Integration challenges

Risk and finance integration programs often encounter unique challenges. Unless a financial institution takes cognizance of these challenges in the initial stage and has a strategy in place to counter them, the integration program may face roadblocks during implementation. Some key challenges that a financial institution should be prepared to encounter include:
Lack of clarity on end state operating model: Significant differences between the perspectives and cultures of the finance, risk and IT functions make it extremely challenging to arrive at an agreement on end state operating model.

Lack of coordination: Finance and risk integration programs are characterized by the presence of multiple teams operating in parallel in an isolated fashion without considering interdependencies, ownership and accountability across functions. This results in multiple challenges including changing priorities, limited resources, missed deadlines, cost overruns, and so on.

Complex data and IT landscape: Separate and multiple legacy data sources, inconsistent data definitions, and lack of a common language across functions resulting in inconsistent, inaccurate, incomplete data make it extremely difficult to identify common data elements.

Employee resistance to change: Employee resistance to adapt to the new operating model and organizational roles is another key challenge that needs to be handled with care by putting in place a strong change management plan.

Lack of clarity on approach: The choice between a phased approach to integration vis a vis a comprehensive ‘all or nothing’ approach could pose a challenge. After considering all the relevant factors, financial institutions should choose a suitable approach to implement a risk and finance integration program.

Conclusion and Next Steps

Historically, financial reporting and risk reporting have been undertaken by different teams, using independent systems and data to create separate reports, with limited interaction between the two. Whilst the risk and finance functions continue to retain unique focus, it is becoming increasingly essential for them to work together on important tasks such as stress testing, liquidity management, regulatory reporting, and related disclosures.

A successful integration of risk and finance functions requires the creation of a single and consistent data set in order to serve key functions such as credit risk, market risk, finance, product control, regulatory control, collateral management, operations and counterparty risk reporting.

An efficient control and consolidated view of risk demands greater alignment between risk, finance and IT. In reality, a new and significantly improved degree of alignment is a prerequisite for successful outcomes. It must be in place before starting any technical integration program, or the consolidation of risk data, systems and controls.

A financial institution needs to decide the level of integration (basic i.e. at data level or mature, at business process and functional level) it wants to achieve based on a cost benefit analysis of each model in relation to required investments and timelines. Investments in risk and finance integration related initiatives will definitely have a positive impact on enterprise level business performance and act as a key catalyst for the front office to effectively enable risk and finance data driven decision-making.
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