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# KNOW YOUR SOURCES

## CONSEQUENCES & COST

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## **1.0 'Know Your Source' Principles**

### **1.1 Introduction to KYS**

Everyone must be aware of 'Know Your Client', however there has never been an equivalent impetus for 'Know Your Source'. To count just 3 reasons, inertia, takeovers, not ever been a management consideration. So why should information buyers now consider this as being relevant, or even significant, to them now?

KYS will prove to be a key pillar within a comprehensive corporate data governance strategy, and in this report's 3 sections we will provide reasons why it makes good business sense, plus demonstrating examples when such policies are not applied.

As a primary motivation, KYS can yield practical cost savings benefits in addition to a reduction of time and effort in allocating management and administrative resources.

If this is not enough, look no further than the regulators as a secondary motivation, with best practice exposure/cost control as an added component, even a benefit.

In addition, KYS naturally flows freely into adding value to 'Big Data' initiatives.

### **1.2 Good Business Reasons for KYS**

The inability to understand where market data and financial information is being sourced from is a business weakness which should be addressed to meet 3 fundamental purposes.

1. Intellectual Property Rights (IPRs). Not knowing the ultimate sources of the information supplied could well mean market data being used out of the scope of contracts, which can introduce liabilities when the source owners seek to claim their dues. Market Data vendors do not voluntarily pass on the source owners policies, or report usage unless specifically told to do so. Naturally the major exchanges insist on compliance, but it does mean there are sources which inadequately enforce their IPRs. This is changing.
2. Understanding exposure to sources and distributors at each business level allows a better understanding of the total spend with each, and every, supplier (*See Section 3.1*). Increased awareness of how much is being spent on each supplier creates greater leverage for:
  - Generating bulk discounts.
  - Leveraging the relationship for greater use of specific suppliers' products and services.
  - Enhances the Buy Side/Sell Side relationship for mutual benefit.
3. To gain a greater understanding of the source of the information contained within blended services such as datafeeds. Datafeeds often consolidate different types of data, i.e. indicative prices and tradable prices, examples being OTC prices via TR DataScope or Bloomberg B-Pipe.

### **1.3 Regulatory Impacts**

Regulatory impact on market data sourcing and consumption is changing profoundly, somewhat subtly, but surprisingly rapidly, the market place for data. Whereas previously regulators mandated institutions on how to price the market, for instance requiring two separate sources for OTC market valuations, new regulations are now more pro-active by defining how and what types of prices must be sourced.

Notable cases in point include the IOSCO Principles for Index Creation with its clearly defined requirements for due diligence in sourcing data, and the upcoming Fundamental Review of the Trading Book (FRTB) which regulates how a Bank's trading book will be priced using tradable pricing. FRTB in particular, is causing consternation to Trading Heads who may be forced into pooling proprietary trading data with close competitors.

This places new and additional pressure on the data consumer to:

- Increase the depth of reach of data sourcing hierarchies to include documentation outlining justifications for selecting specific sources to meet pricing requirements, with continuous validation emphasising data quality control. It means enabling a complete view of what data is used where, and for what purpose.
- Introduce more robust data sourcing policies and processes, complete with full audit trail detailing selection criteria, supported by contract and document management detailing permitted usage for compliance.
- Have an increased understanding on which types of pricing are being used throughout the trading and pricing cycle, i.e. tradable prices, indicative prices, traded prices, evaluated prices, reference data, and where that market data comes from.
- Know your source exposure intimately from contract to group level.

### **1.4 Why 'Know Your Source'**

- Knowledge of sources allows a greater understanding of the information and market data flowing into the business.
- It improves cost control and maximises the revenue benefit from utilising market data as a positive resource.
- It reduces resources required for management and administration.
- It increases compliance with IPRs and regulatory requirements.

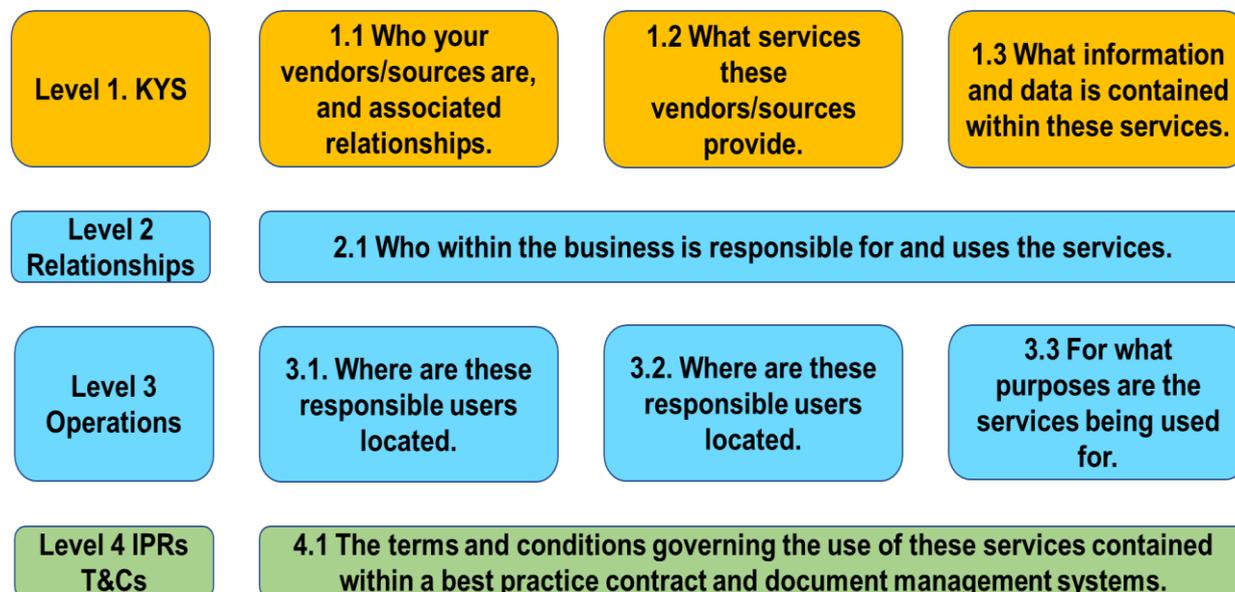
Implementing a KYS strategy is straightforward, all the components exist within each business, it is a question of creating relationships through:

- Profiling the sources and vendors, understanding what they do and what they provide, linking the suppliers own business relationships.
- Having functional contract and document management systems. I have found this to be a major structural deficiency as both vendors and banks.
- Creating a market data inventory register as part of an overall corporate data governance strategy.

## 2.0 Profiling Information Sources: Principles & Practice

### 2.1 Market Data Vendor Profiling

This is the heart of 'KYS', the ability to share knowledge within a Data Governance framework that delivers information on:



There is a requirement to apply common terminologies and meta data so that users requiring access to information can assess or develop:

- What is available within the business.
- Identify where overlaps exist in both data content and coverage.
- Ongoing strategies for sourcing data that already is subscribed to within the business, and therefore avoid the need to duplicate either subscriptions or obtain competing products.

This would then create the foundations for a corporate Market Data Asset Register.

In addition, there is a vital link in making such a register a valuable business tool. This is to create performance metrics which are periodically validated to ensure continued quality of service. *(We shall address this in more detail when looking at qualifying the requirements for market data sourcing).*

Financial institutions to an extent do profile their market data vendors, but in limited ways, for instance Gold Source for Reference Data. However, based on experience there are weaknesses:

- Profiling is limited to specific areas.
- There is limited validation.
- Far too much discretionary input from users out for an easy life which ramps up spending, often unnecessarily.
- Hierarchies are developed in horizontal silos, when the complete relationship flow than top down suppliers to end users in each silo needs to be transparent.

## 2.2 Gold Source Methodologies

The Gold Source methodologies used up to now even by the larger Banks are relatively unstructured and subject to significant discretion at the user level. For instance, each business unit might have its own preferred hierarchy of data, but if there is a data issue, say for a corporate action, an individual might be able to bypass the hierarchy without a requirement to explain the reasons why.

It also means there are different hierarchies for different purposes, i.e. one for real time data, and a second for reference data.

The table below depicts a sample reference data hierarchy table based on a ‘medalled’ authoritative source data profile, where the Level 1 is the ‘Gold Source’, Level 2 the ‘Silver Source’, and Level 3 the Bronze Source.

The principle is simple and should be effective, the price or information required for an application should be obtained from the preferred Gold Source. If this is not available, or there is a validation issue, the Silver Source, then Bronze Source come into play.

Asset Class	Level 1 Source	Level 1 Vendor	Level 2 Source	Level 2 Vendor	Level 3 Source	Level 3 Vendor
Asset Backed Securities	Evaluated	Vendor A	Evaluated	Vendor E	Contributors	Vendor C
Government Securities	Source A (US)	Vendor A	Evaluated	Vendor E	Contributors	Vendor D
	Source B (UK/EUR)	Vendor A		Vendor E	Contributors	Vendor D
	Evaluated (ROW)	Vendor A		Vendor E	Contributors	Vendor D
Corporate Bonds	Source A (US)	Vendor A	Evaluated	Vendor E	Contributors	Vendor D
	Evaluated (ROW)	Vendor A		Vendor E	Contributors	Vendor D
US Municipal Bonds	Evaluated	Vendor B	Evaluated	Vendor D	Evaluated	Vendor A
Convertible Bonds	Evaluated	Vendor A	Contributors	Vendor E	Evaluated	Vendor D
Asian Debt	Evaluated	Vendor A	Evaluated	Vendor C	Contributors	Vendor E
Commodities (Softs)	Evaluated	Vendor C	Evaluated	Vendor D	Contributors	Vendor D
Money Markets	Evaluated	Vendor A	Evaluated	Vendor D	Contributors	Vendor E
FX Rates (End of Day)	Source C	Vendor D	Source D	Vendor A	Contributors	Vendor E
FX Rates (Intraday)	Contributors	Vendor D	Contributors	Vendor E	N/A	N/A
Exchange Traded Equities	Primary Exchange	Vendor D	Primary Exchange	Vendor C	Primary Exchange	Vendor E
Exchange Traded Derivatives	Primary Exchange	Vendor D	Exchange	Vendor C	Exchange	Vendor E
Investment Funds	Funds Administrator	Vendor C	Funds Administrator	Vendor E	N/A	N/A

This currently provides ‘flat earth’ hierarchies when a more dynamic organisational approach allows for market data to be sourced, utilised, mapped and tracked from the enterprise level down through the business units to the application thereby leveraging the data as a true resource, and to meet regulators requirements.

Asset Class	Asset Sub-Class	Traded Location	Venue Type	Price Frequency	Source Type	Vendor
Example: Fixed Income	Supra-National	i.e. By Individual Country, Region	i.e. Exchange Traded or OTC	Real Time, Snapshot, Intra-Day, End-of-Day	Contributed,	By Level Per Requirement
	Government Bonds				Tradable, Traded,	
	Municipal Bonds				Evaluated,	
	Corporate Bonds				Reference Data	
	Convertible Bonds				(i.e. Corporate Actions)	

The table above defines in a simplified display the sources and types of market data available to the business. It then needs to be mapped to real world utilisation, for instance within:

- Trading Systems
- Risk Management
- Portfolio Management
- Regulatory and Client Reporting

Using Big Data principles with the latest analytical and database tools a financial institution can then identify what data it has access to, for what purpose it is being used, where, and by whom. If necessary to the instrument level.

By linking this information to data sourcing and policies, that financial institution has access to usage, cost of market data, and associated IPRs.

### **2.3 Creating a Market Data Asset Register**

This Market Data Asset Register detailing the complete range of information and sources available to the business becomes a valuable business resource at all levels allowing all users to leverage the universe of available market data, quickly, simply and efficiently, so providing a tangible benefit to the corporate bottom line.

Yet this is not complete. The Market Data Asset Register needs to be combined with an effective contract and document management system under-pinned by corporate standardised file conventions (Most organisations have poor methodologies for document management). This should allow permitted users to have access to the contractual terms and conditions relating to permitted usage of the market data services being supplied, and importantly for the contract periods.

The Market Data Asset Register now evolves into a complete Data Governance environment for promoting information as the core business resource to participate in and benchmark financial markets while being compliant with permitted usage.

### **2.4 Why Profile & Create a Market Data Asset Register**

On the one hand, compartmentalisation of information is often necessary to preserve confidentiality, especially regarding commercial and contractual terms.

On the other hand, making information available to a wider audience is usually business positive.

By profiling the information, from whom it comes from, and the terms of usage, combined with controlled access to commercially sensitive within a market data asset register provides business benefits:

- Maximises usage of market data for the business.
- Reduces compliance risk.
- Improves management efficiency.
- Becomes an useful component of best practice data governance.

### 3.0 Understanding Data Source Exposures

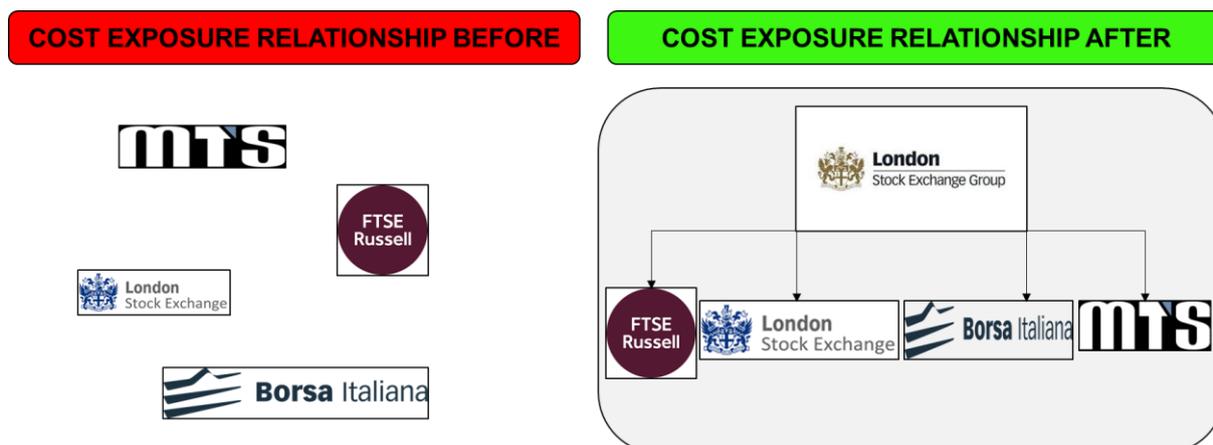
#### 3.1 Calculating Exposure

Exposure analysis to understand how much is being spent with specific vendors not only at a contract level but also at a group level. Too many institutions have a fragmented view of their suppliers' universe.

Two real world examples include Company X which has the following exposures to group companies but treats each supplier independently:

Group	Supplier	Cost PA	Group	Supplier	Cost PA
LSE Group	Borsa Italiano	\$200,000	Thomson Reuters	VB/E/S	\$320,000
	FTSE Russell	\$1,500,000		StarMine	\$480,000
	LSE Data	\$500,000		Street Events	\$20,000
	MTS Data	\$150,000		TREP	\$1,700,000
		Vestek		\$200,000	
		WM Markets		\$100,000	
<b>TOTALS</b>	<b>EXPOSURE</b>	<b>\$2,350,000</b>	<b>EXPOSURE</b>		<b>\$2,820,000</b>

This translates to fragmented relationships with suppliers, inadequate views of exposure to sources of critical data, and the inability to maximise the relationship through leveraging agreements and costs at a group rather than contract level.



The same scenario is repeated across multiple diversified information providers including Standard & Poors GMI, CME Group, and ICE, and is likely to increase with new entrants into the market like Google, or IHS through purchase.

Moving to more consolidated views of sources is easily within the grasp of any institution or vendor seeking to understand their exposures, and it will become ever more important as the distinction blurs between data sources and aggregators, i.e. ICE's purchase of Interactive Data, or Bloomberg and Thomson Reuters having their own trading venues.

### **3.2 From the Sources & Vendors Perspective**

Inevitably regulators focus will broaden to encompass the data sources and market data vendors themselves. Potential scenarios include:

- Requiring licences to produce and then distribute original and derived market data, with particular focus on Fair Market Values and Evaluated Pricing.
- Promotion of increased emphasis on quality control at the source end. Currently exchange contracts specifically do not accept liability for incorrect pricing, and if liabilities are to be introduced downstream at the output level, then logic suggests this will work itself upstream to the actual source.
- Increased due diligence on the methodologies and processes for developing derived data products, especially evaluated pricing, with audit trails.

This means the end user of the market data will have to know that their sources have the correct regulatory approval and are compliant with any regulations that affect their sources and distributors ability to supply information.

### **3.3 Summary**

- Market Data Consumers will have to make more stringent assessments of their market data needs and sources potentially down to the instrument level, certainly beyond the asset class level. and with restricted discretionary selection of market data by individual users, especially for reference data and use in risk management.
- This needs to be backed by effective market data sourcing methodologies, on-going validation of suppliers' data and knowledge of what type of price is being used for each business purpose.
- In a more complicated relationship environment understanding how a market data consumer interacts with its supply chain at all points from source to delivery onsite is a critical business requisite.
- The likely result is an ever greater premium on accurate, consistent, and timely market data backed up by more stringent vetting processes for data sourcing mandated by regulators and the consumers own clients.
- This does not have to result in higher costs, it does mean greater emphasis on 'Smart Sourcing' market data strategies.

An effective implementation of a 'Know Your Source' strategy can provide positive business benefits:

- Efficient cost control, and even the potential to reduce costs.
- Makes
- Greater leverage in maximising the value of the services provided by suppliers.
- Creates a deeper and more meaningful relationship between supplier and user.
- Provides a better return on market data investment as a resource that will benefit the business' P&L.