



Delivery and Value Assurance™
A Framework for Successful Enterprise Risk Management



by Bit Economics, LLC
In Ovation of Innovation™

Strategic Performance Insights

Don't Get Hung Out To Dry

On a daily basis, your business is exposed to ever-increasing risks from more places; from Mother Nature, Acts of God, Economic and Political Events, to Malice, Fraud and Crime. Yet little exists today to support inexpensive, comprehensive and holistic management of these enterprise risks ... until now.

Bit Economics, LLC is an innovative solution designer and advisory services firm with patented and proven assurance solutions for enterprise risk management. We help firms achieve more profitable business performance through more comprehensive and effective enterprise risk management practices.

Risk management capabilities must extend beyond financial arenas into underserved, yet highly consequential, strategic and operational risk areas.

Effective risk management is a critical driver for safeguarding profitability and responding to failures or disruptions.

INTRODUCTION

Business has never been as complex as it is today. Globalization, outsourcing, regulatory pressures, and ever-advancing technology sophistication and complexity drive a substantial portion of the total risk organizations face; far greater, in some industries, than more common monetary risks such as credit, liquidity, or capital structures.

Although techniques for addressing monetary risks have a head start, a holistic enterprise risk management (ERM) approach should address these and also extend into underserved, and highly consequential categories such as operational risk; comprising processes, people, physical assets and technology, as well as strategic risk; including governance, stakeholders, and market structures.

Different enterprise risk management control frameworks may have more, or fewer, categories of risk. COSO's ERM framework, published November 2004, prescribes high level categories of Financial, Strategic, Operational, Compliance, and Reputational. The AICPA lists Environmental, Strategic, Operational, and Informational risk categories. What's important is that your organization's enterprise risks, in totality, are covered by your risk management control framework.

We're seeing growing momentum from organizations to improve their enterprise risk management. Both COBIT and the COSO ERM frameworks have helped spur these efforts and so have regulatory actions such as Sarbanes-Oxley

and Basel II. Even if your organization is not subject to the Basel II capital accords, effective risk management is still a critical driver for safeguarding profitability and responding to failures or disruptions.

Other factors drawing attention to the significance of ERM include global competition, economic and labor issues, industry consolidations, litigiousness, growing privacy and fraud concerns, and the reality of terrorism. The risks resulting from these factors cut across organizational boundaries and so too will their management and mitigation. These factors have tested, and will continue to test for a long time to come, the success of an enterprise's risk management capability.

Ongoing investments are the mainstay of an enterprise's growth strategy. Most organizations have hundreds, if not thousands, of simultaneous, ongoing investments in products, services, processes, facilities, systems, business partners, etc. All these investments directly and indirectly impact the profit potential of the organization and are therefore well positioned to benefit from consistent, holistic, and effective risk management and assurance practices.

Notably, and what makes our assurance approach so significant, is that an enterprise risk management capability is both, itself, a set of iterative and ongoing investments as well as a significant factor in virtually any other type of investment.

The Delivery and Value Assurance™ model for risk management is methodology and control framework agnostic.

Current techniques for identifying risks typically involve arduous cataloging of an exhaustive list of potential risks.

In too many places, risk management is conducted like independent, specialized checkups.

The Delivery and Value Assurance™ approach we advocate is an efficient, cost-effective, repeatable, and uniform risk management and assurance model for monitoring, overseeing, measuring, and managing risks for any investment, business or IT. Most importantly, it is methodology and control framework agnostic.

CHALLENGES IN RISK MANAGEMENT

To date, ERM efforts on the whole typically suffer from three key challenges:

- ❶ They are usually done as fragmented, "one-off" consultative assessments.
- ❷ The risk measures are not comparable.
- ❸ The risk measures are not additive.

Each distinct risk effort usually starts from scratch, with its own team and approach. It is usually done for a specific business area or core process. In these cases, no attention is paid to the likelihood that it will need to be repeated over time to get additional or lasting improvements. In other words, no process or framework exists for ongoing *delivery assurance*.

Justifiably, most risk management efforts are performed like independent, specialized checkups (e.g., a supply chain risk assessment is done differently from a purchase-to-payment risk assessment, and by different people.)

However, there should exist a centralized assurance process that enables both relative and absolute comparisons of risk, and supports efficient allocation of resources. In this manner, a consolidated picture of risk and its financial effects can emerge and be considered. This is *value assurance*.

As an example, in a typical enterprise, many risk assessment projects begin at various times and are usually unaware of each other (e.g., supply risk, spend risk, interest risk, etc.). Each effort results in deliverables detailing the identified risks. Each of these may prompt follow-on actions in the form of new risk management efforts. Upon conclusion, each group disbands and the chain is broken.

This is depicted in the Existing Approach (top of Figure 1.0) where risk is fragmented, dissimilar (i.e., not comparable), and cannot be aggregated (i.e., non-additive). Under this approach, multiple actions might be taken, each resulting in cascade risks or domino effects. Although an individual action by a particular business area may be positive for them, when considered from an enterprise level, it could be harmful. In addition, when the process

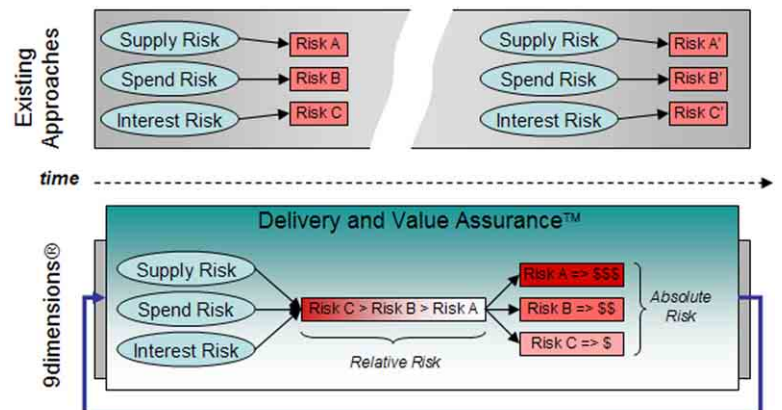


Figure 1.0

With our assurance framework, risk management projects are encapsulated allowing for both relative and absolute comparisons.

Until Delivery and Value Assurance™, it was impossible to envision a comprehensive, holistic risk management and assurance approach.

needs to be repeated, it will cost at least as much, probably more, to redefine, rescope, relaunch and redo the new effort from scratch.

With our assurance framework (Fig. 1.0 bottom - 9dimensions®), risk assessment and risk management projects are encapsulated -- defined in accordance with the dimensions of our framework -- allowing for both relative and absolute comparisons, as well as iterative and repeatable execution of the same effort at diminishing incremental costs.

Until Delivery and Value Assurance™ it was impossible to envision a standard, uniform risk management and assurance approach that can be applied across the enterprise, resulting in measures of risk that are additive and can be meaningfully compared.

A MODEL FOR SUCCESS

In order for comparisons to be possible, there must exist an encapsulation framework that can uniquely define each type of risk assessment or management effort ("investment type") regardless of the underlying methodology, workflow, or process, and it must do so for all categories of risk. Then, whenever and wherever a particular risk assessment or management effort is launched, it represents an embodiment of that pre-defined type. In other words, it must just as easily and consistently define a supply chain risk assessment, as an IT system deployment risk

evaluation, as a merger risk mitigation effort.

In our encapsulation framework, each investment type is a unique combination of components, across the dimensions of the framework, which together are considered to best assure delivery and value for any embodiment of that type. For example, Fig. 2.0 illustrates our encapsulation of a Supply Chain Operational Reference (SCOR) Risk Management investment type.

Using the SCOR investment type example, anytime a supply chain risk assessment is launched, you know just what needs to be done to assure the most successful outcome. It doesn't prescribe how to do it (remember, this approach is methodology agnostic) just what should be produced in terms of content or where one should be in terms of milestones. In this manner, the overall definition of a SCOR investment type can be improved over time, components can be easily leveraged from one effort to another (the content changes but

	Strategic	Tactical	Operational
Process	<ul style="list-style-type: none"> • Best practice summary • SCOR – Business context summary • SCOR – Metrics and benchmarks • SCOR – Gap analysis and validation 	<ul style="list-style-type: none"> • Program management plan • SCOR – AS IS material analysis flow • SCOR – Disconnect and opportunity analysis • SCOR – TO BE material flow 	<ul style="list-style-type: none"> • SCOR – TO BE execution
People	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • SCOR – TO BE implementation planning and team development 	<ul style="list-style-type: none"> • N/A
Technology	<ul style="list-style-type: none"> • Technology model view 	<ul style="list-style-type: none"> • Technology transformation model 	<ul style="list-style-type: none"> • N/A

Figure 2.0 - 9dimensions®, Supply Chain Operational Reference (SCOR) Risk Management Investment Type

not the general form or structure), and delivery and value can be assured across the lifecycle of each effort, cradle to grave, based on iterative and progressive confirmation of the growing existence of these components on a given effort.

Components arrayed across the nine dimensions of the framework, are the building blocks for success for that investment type. These components, and their underlying attributes, drive measures of hard risk. For example, when a component passes our existence test, risk is marginally reduced based on certain attributes of the component, but often only for a specified amount of time, called its "half-life". When the half-life expires, that component's marginal contribution to risk is automatically added back in. This is because common sense recognizes that many of the things a risk management effort does must be revisited periodically, or frequently, over the course of the effort.

It is this organic measure of risk that allows for relative comparisons. In addition, the components support and help in the calculation of confidence levels, used when making absolute comparisons of risk or in evaluating the validity of soft risks.

RISK MANAGEMENT ASSURANCE

Any risk management effort in itself is risky and may not succeed, or the effort may be completed but results may be suspect. Therefore, our risk management and assurance approach measures three

important variables that drive decision-making (Figure 3.0):

- ① **Delivery Assurance Risk** - A measure of the uncertainty and exposure associated with the effort itself. The DA Value evolves over time as the assurance process is conducted. It is used to prompt corrective action that in turn may cause the DA Value to be recalculated to reflect management and mitigation of process risk.
- ② **Value Assurance Confidence Level** - A value reflecting current confidence in the validity and accuracy of any dollars (e.g., NPV, ROI, PI, etc.) associated with the underlying object of study (e.g., Supply Chain Transportation Failure Costs.)
- ③ **System Risk** - Values or measures of soft risk that are estimated, forecasted, or otherwise quantified relative to the entire, complex set of interrelated elements within the scope of each assessment (e.g., Supply Risk, Spend Risk, Interest Risk, etc.)

Additionally, there are correlative (relationship) risks that can be quantified and which drive adjustments to overall risk calculations. Relationship risks are usually identified and addressed

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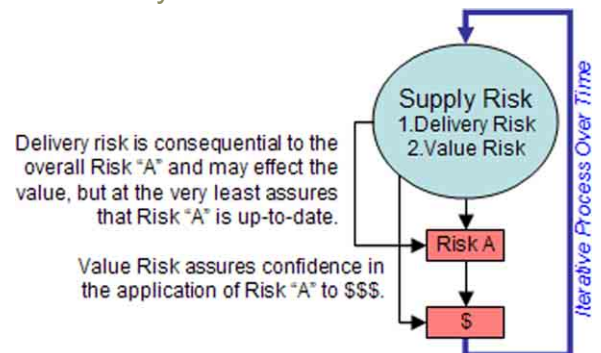


Figure 3.0

A centralized view of all system risks is needed to optimize where and when an enterprise mitigates, or merely observes and prepares alternatives; essentially a portfolio approach to enterprise risk management.

during risk mitigation efforts more so than during assessment efforts.

Delivery assurance risk and value assurance confidence levels are a function of the enterprise itself and its capabilities to deliver on that investment type. The purpose of these values are to help manage a multitude of efforts, centralize the process, apply the best people to the most needed areas, help identify shortfalls that may be redressed with outside help, training, or recruiting; and most importantly, keep the process alive, fluid and adaptive.

System Risk reflects the potential consequences of action, inaction, disasters, known events, and unknown events. In totality they are the risks that may occur for which an enterprise must have capital to survive, recover, replace, repair, pay-off, or any combination of these or other responses. It is

these capital or mitigation costs that have the potential to inhibit an enterprise's ability to grow or conduct necessary research and development for innovation.

Therefore, a centralized view of all system risks is needed to optimize where and when an enterprise mitigates, or merely observes and prepares alternatives; essentially, a portfolio approach to enterprise risk management.

THE STEPS TO SUCCESS

At the highest level, success begins with understanding and adopting a portfolio approach to risk management; an understanding that risk is an enterprise level concept, not only in theory but also in practice (see Fig. 4.0).

You must start with establishing an *assurance management structure*. By this we don't mean the typical program or portfolio office that

collects and aggregates hundreds of status reports, or that collates reports into bubble charts. We mean a true portfolio office such as those that manage pension and mutual funds.

Following the organizational aspects, the steps to success continue with identifying the *control framework* that best fits your enterprise (e.g., COSO, etc.) or creating a custom or blended control framework. The next step is to identify and fully define the risk assessment and management *investment types* your organization is likely to need. These two steps are done only once, but perhaps refined over time.

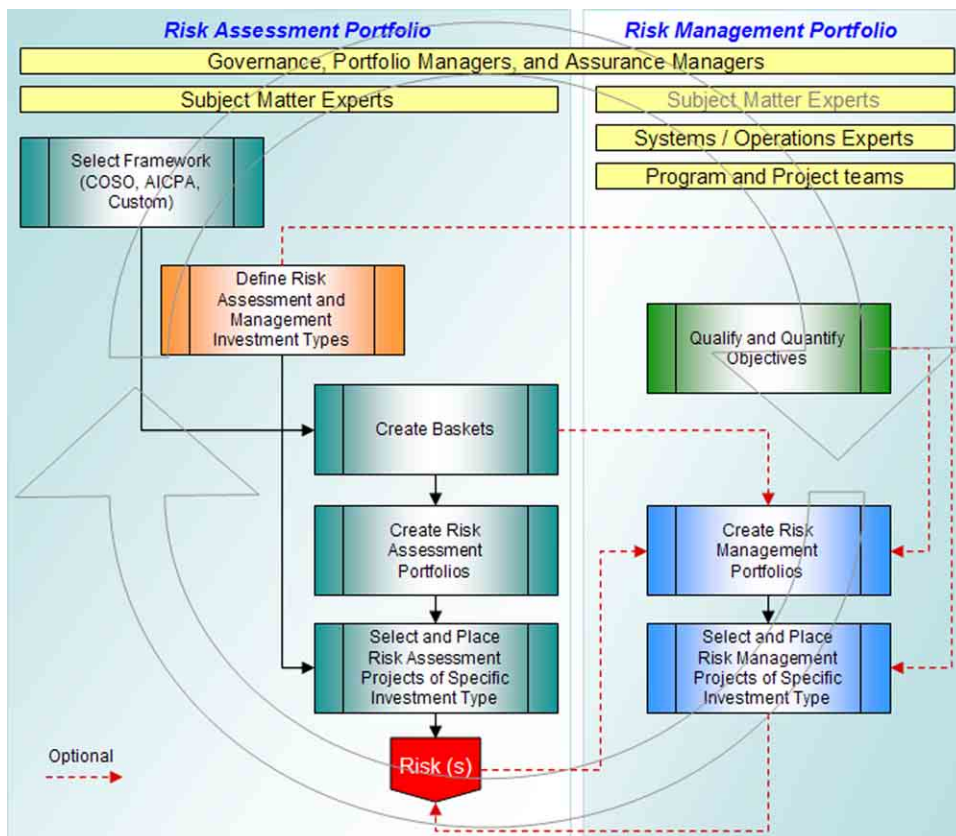


Figure 4.0

Successful enterprise risk management requires buy-in at each level, not just the one-time attention of specialists or personnel assigned from a specific department.

Our assurance approach brings risk management to each level and draws upon expertise precisely where it resides.

After the basic setup, you will need to create "baskets" that further break down the way in which you may wish to analyze, view or group your portfolios. In many cases, *baskets* simply reflect successive levels in the hierarchy prescribed by your chosen control framework.

Next, within one or more baskets, an enterprise may have multiple risk assessment efforts being applied to a unique system (e.g., Durable Consumer Goods Supply Chain, Non-Durable Consumer Goods Supply Chain, Core Spend, None-Core Spend, etc.) and perhaps further broken down by geographical region (e.g., US, Europe, Asia). These collections represent *portfolios* of related risk assessment *investments* (Fig 4.0, left).

The results and outcomes from these risk assessment efforts may drive any number of System Risks that then need to be addressed by successive investments in one or more risk management types that actively seek to avoid, accept, transfer, or mitigate these system risks. Each of these falls within its own hierarchy of baskets and portfolios representing collections of related risk management efforts (Fig. 4.0, right).

These portfolios may mirror the risk assessment portfolios or take their own structure to better reflect enterprise operations. The steps in this area follow the section above with one addition, the qualification and quantification of objectives that are then associated with each portfolio and observed throughout the risk management process.

Successful enterprise risk management requires buy-in at

each level, not just the one-time attention of outside specialists or personnel assigned from a specific departmental area. Our assurance approach brings risk management to each level and draws upon expertise precisely where it resides, to develop standardized investment types. Because those with the best knowledge about the investment type are contributing to its design, their buy-in is easier to obtain and they are more inclined to use and improve that which they helped create, on a sustained basis.

CONCLUSIONS

Delivery and Value Assurance™ strengthens enterprise risk management processes and facilitates greater transparency; two of the three key pillars described in Basel II and which may ultimately help reduce capital reserve requirements. The goal of enterprise risk management is to maintain a smooth flow of business and, in the event of disruption, minimize the costs and time required to get back to normal.

A 2004 survey specifically about operational risk management in financial institutions by Risk magazine and SAS shows that nearly 20% (of more than 250 respondents globally) have no capability whatsoever, and 9% of these are large enough, and consequential enough, to earn revenues in excess of \$1 billion. The survey further estimates high economic rewards from operational risk management including a 10% average reduction in capital as well as a 17% average reduction in operational losses, easily amounting to millions of dollars in benefits for many organizations.

The goal of enterprise risk management is to maintain a smooth flow of business and, in the event of disruption, minimize the costs and time to get back to normal.

Consistent with the challenges we listed earlier, the difficulties cited as major obstacles to successful implementation of an operational risk management capability were i) collating clean data; ii) poor awareness among staff; iii) lack of emergence thus far of clear regulatory standards; and, iv) organizational structure issues. These results further confirm the opportunity that exists to adopt Delivery and Value Assurance™ as a holistic and uniform enterprise risk management and assurance framework for all types of risk, business or IT.

Assuring delivery and value is an ongoing challenge for every firm. Organizations that manage risk well are the best at it. They are also more likely to achieve, if not exceed, their business objectives and financial goals because they have the capacity to identify and exploit opportunities, make good decisions, and respond and adapt quickly.

If ERM is applied right, you will see tangible results through increased profits, improved and enhanced processes, efficiency and productivity gains, and fewer surprises, and all this will ultimately enhance enterprise and shareholder value.

About Bit Economics, LLC

Bit Economics is an exclusive advisory services firm that works alongside senior level executives and their teams to catalyze change and spur innovation in business and IT.

We help firms develop a compelling investment assurance capability that drives higher valued initiatives, greater investment accountability, and superior financial performance.

We engage on the front lines to quickly turn the vision into reality; implementing effective delivery and value assurance processes, opportunity and threat management capabilities, and related methods, software and tools.



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