

PERSPECTIVE

Emerging Trends in Insurance : Role of Loss Control Engineering



- Sumesh Vijayakumar, Sekar Ganesan

Abstract

Traditionally during soft markets where margins are severely under pressure, carriers look upon Loss Control Engineering (LCE) primarily to provide confidence on the quality of risk. But there has been limited focus on building in-house capabilities, robust processes or systems to optimize LCE. Now, with evidence of hardening in insurance markets (especially in P&C segment) and lower yields from investments, there is a clear shift towards stricter underwriting decisions and identification of "Best in Class" risks through LCE.

We believe that the emerging industry trends will push Loss Control Engineering into prominence, and carriers will leverage loss control services to create market differentiation and customer perception as loss prevention partners. These will deliver significant business value to carriers, including reduced loss ratios, right pricing of risks, enhanced decision making through risk analytics etc.

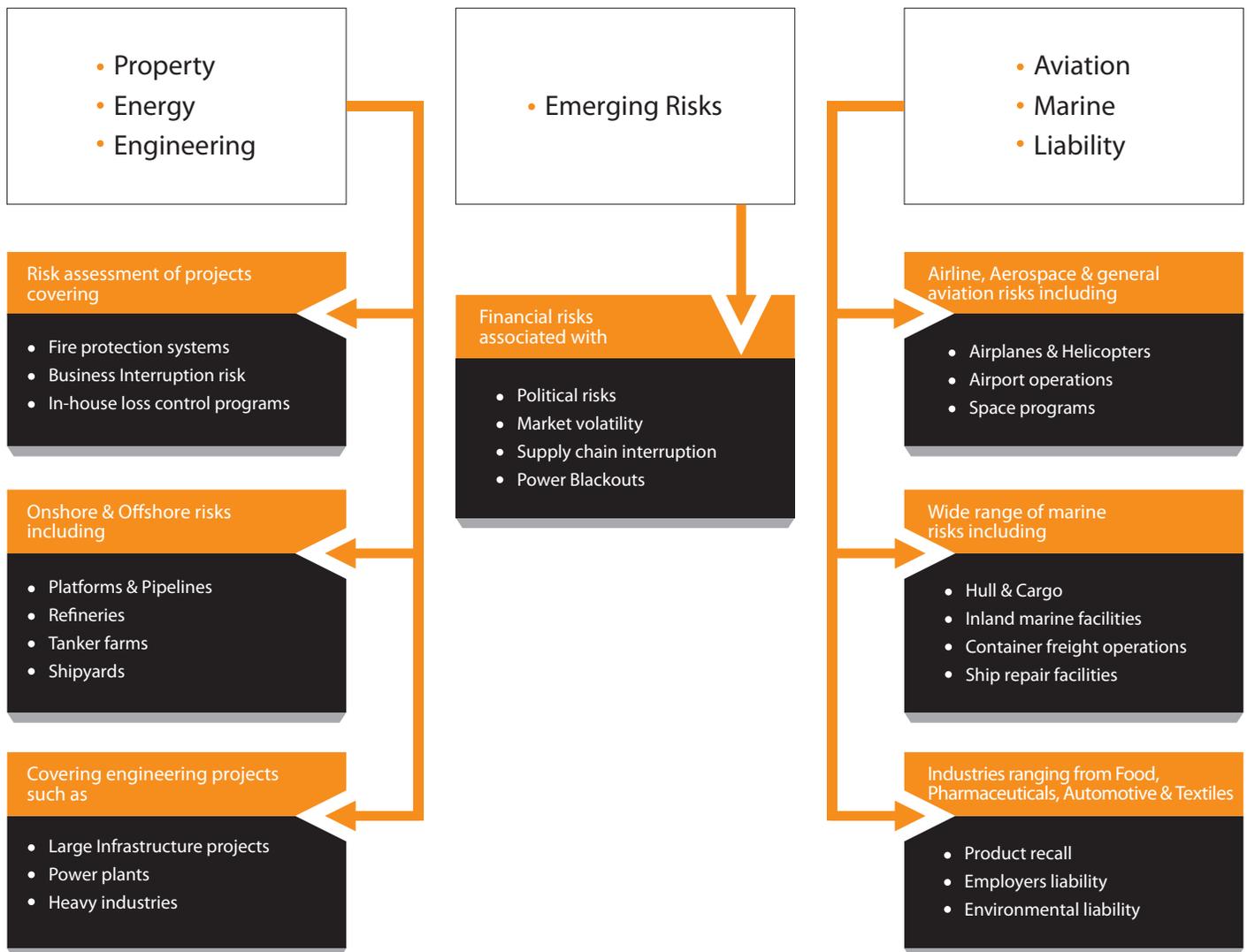
This paper aims to pre-empt some of the evolving trends and opportunities, loss control organizations can leverage to stay ahead of the curve.

Introduction

In the traditional sense, loss control consultants (engineers) or risk consultants are professionals practicing the art / science of safety engineering and risk management, working with insurance carriers. They survey insured for risk exposures, identifying exposures to loss and how the insured can proactively manage these exposures. They investigate various factors (such as nature of business, scale, existing loss prevention etc.) and submit a loss control report to either the underwriters or the clients directly, which will influence underwriting decisions. With changing times, more and more insurance carriers look at LCE as providing a whole suite of products and services that moves into client servicing, not just evaluation.

Loss Control Engineering (LCE), services have been around since the early formative years of insurance in the form of fire protection surveys. The objective has evolved over time to what it is today, i.e. insurance providers sharing their collective risk management experience to the insured with the aim of loss prevention rather than loss restoration. In return, insurance carriers have greater visibility into risk and can ensure mutual transparency.

The various service lines in a typical Loss Control Engineering organization include:



Why Loss Control Engineering is important in the current context?

In September 2012, MarketScout (an electronic insurance exchange in US) reported that commercial lines rates were up 5% and personal rates increased 3%⁽¹⁾. This is based on an industry survey of insurance carriers, primarily focused on commercial lines. In our view, this hardening of P&C insurance market (albeit modest) will put the focus back on

stringent underwriting discipline, robust loss control programs and right pricing.

Continued soft market in the past years meant that carriers had taken their "eye off the ball" with respect to their loss control processes and systems. There is potential for P&C carriers to holistically assess the end to end loss control engineering processes with a view to make them

more efficient and streamlined; ultimately providing underwriters with consistent information. With growing prominence of disruptive technology, and changing customer expectations due to increasing 'black swan' events, it is imperative for LCE services to provide value added differentiation.

Emerging trends	Relevant area
Vehicle performance data to help drive positive behavior	Vehicle insurance
Sensor technology for better home protection	Home owner policies
Advisory functions for healthcare customers	Life and Health policies
Information security trainings at personal / corporate level	Emerging areas
Increasing risk exposure in emerging markets (due to rise in population density and asset accumulation)	Property cover
Emerging chemical hazard risks such as Bisphenol A (BPA) issues	Liability risks
Proliferation of social media and influence on organizational goodwill	Reputation risk

Hardening market conditions caused the average total cost of risk (TCOR) among 14 industries to surge by five percent in 2012. In comparison, the TCOR increase seen in 2011 was only 1.7 percent over the previous year⁽²⁾. Also the scale and complexity of claims is increasing, e.g. insured losses due to Tohoku earthquake

and Tsunami (Fukushima disaster) were estimated at USD 21-34 Bn⁽³⁾. Emerging risks such as environmental impact due to fracking, identity / data theft hazards due to cyber risks, business interruption resulting from political instability etc., are on the rise.

In our view, there is significant business value that can be achieved by increased focus on streamlined loss control processes, for insurers and insured alike. Some of the prominent benefits that carriers experience are - reduction in loss ratios, right pricing of risks, enhanced risk analytics etc.

Current business models and their challenges

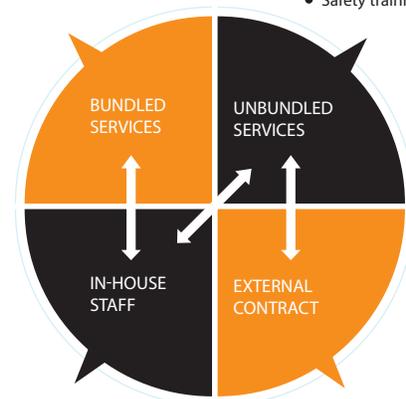
Generally insurance carriers employ loss control engineers to conduct on-site surveys (in some cases desk top reviews) and confirm hazard classification and management controls before underwriting decision. Post confirmation of cover, loss control service kicks in to assist customers in controlling and reducing loss costs. These services are provided either through insurer's in-house staff or contracted / outsourced to service providers.

Customers today have the option of availing loss control services as bundled and un-bundled services, based on whether it is part of the insurance contract or purchased separately from external qualified vendors. Key difference is -

Bundled: Loss control engineer is answerable to specific insurer, guidelines are approved by an underwriting authority and mandates recommendations.

Unbundled: Approved loss control consultant who work with insured's risk management team, follow industry standards, to craft the most effective loss control program and insurance coverage.

- Onsite Hazard assessment surveys
- Hazard identification surveys
- Loss analysis
- Loss prevention surveys
- COPE & UW reports
- Hazard consultation
- Safety training



- Loss management analysis
- Safety program development & implementation
- Property damage loss estimation
- Claims consultation & loss investigation

Source:

- (1) (<http://www.hshi.com/pc-market-trends-and-conditions/>)
- (2) (2013 RIMS Benchmark Survey, Advisen Ltd).
- (3) (www.rms.com/Publications/2011TohokuReport_041111)

All these inherent variances bring to light following significant challenges to insurers and the insured:

Category	Challenges due to	Business impact
Organizational Design	Siloed organizational structure and sub-optimal processes/systems	<ul style="list-style-type: none"> • Fractured organizational setup resulting in limited global delivery capabilities and scalability • Non-standard processes, leading to process inefficiencies, and non-portability of results • Lacks process benchmarks and industry best practice sharing
Technology Adoption	Slow adoption of technology and inefficient resource models	<ul style="list-style-type: none"> • Disparate systems capturing critical risk information in non-standard formats, risk of missing the “big picture” • Scalability of operations • Lack of enterprise wide case management • Cost of risk engineering • Administrative burden on highly paid engineers
Internal Standards and Controls	Varying compliance requirements and emerging risks	<ul style="list-style-type: none"> • Privacy issues and concerns • Inconsistency in survey guidelines and recommendations wording • Lacks visibility into process compliance • Data aggregation, integration and governance issues • Sub-optimal data mining capabilities restricting usability of risk intelligence for underwriting decision

What are the potential solutions to overcome these challenges?

Organizational redesign:

A transformative re-think of the operating model spanning across business processes, organizational units and stakeholder groups is recommended to optimize the loss control information flow. Smart sourcing and leveraged shared services will dramatically impact end-to-end process transformation for loss control units.

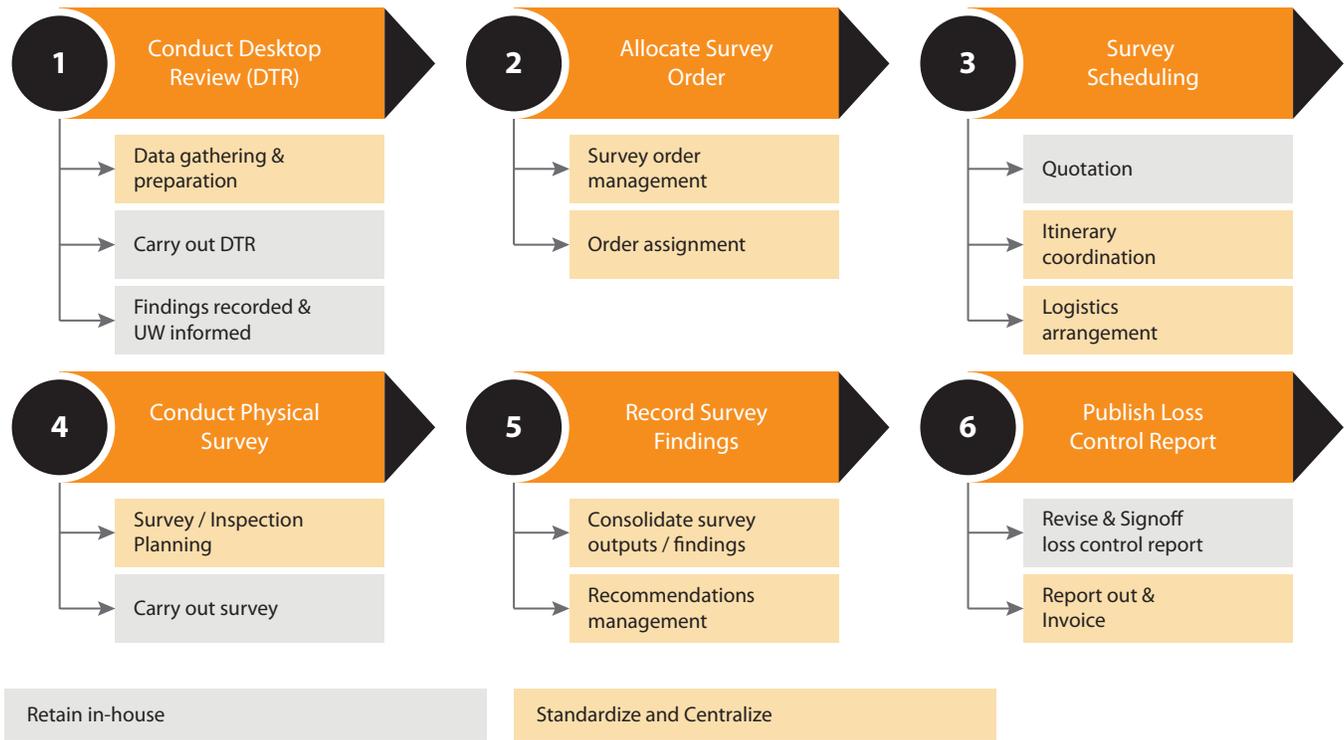
More than 50%* of tasks handled today by loss control engineers are administrative (non-core) in nature, hence can be harmonized and aggregated. Process re-engineering to decouple core and non-core loss control tasks will allow carriers to leverage managed services, to improve scalability within their loss control organizations and deliver operational cost reduction upwards of 40%*. This will provide the highest potential for gaining increased productivity and customer touch without the need to hire additional staff or look to outside resources.

A snap shot view of non-core loss control activities include:
Account / Location Management – Setting up of customer records & Objects of Insurance like locations etc.)
Order Management – Create and maintain work orders to lead to allocation.
Work Allocation – Assigning Loss engineers to site surveys and DTRs considering capacity, proximity to the survey location, skills required etc.
Report Formatting – Formatting final Survey / Risk report to the customer.
Invoicing – Raise and manage invoices for loss surveys, liaise with UW and finance, as well as manage accounts receivable for unbundled services rendered.
Recommendations Management – Documenting, tracking and flagging of recommendations.

Re-design of core loss control processes by eliminating non value adding activities (conservatively estimated at 25%) along with robust integration of loss control applications (platforms) with surrounding ecosystem, including hand held field devices will deliver additional top-line and bottom-line impact. Also a paradigm shift in the way core processes such as Desk Top Review's (DTRs) are done (e.g. utilizing centralized LC staff, retired specialists paid on a per review basis, process deskilling etc) would free capacity to interact with customers.

* based on Infosys analysis of end to end Loss Control Engineering process landscape.

Loss Control Engineering : E2E process view



Technology Adoption:

Technology led front office transformation:

- Dynamic web portals allowing customers to visualize risks, recommendations and the effects of risk mitigation actions. Allows corporate risk managers to develop enterprise wide risk management strategies
- Cloud based platform solutions providing customized real-time risk intelligence and analytics on a range of mobile devices. Leveraging cloud services for core loss control services will significantly reduce time to risk assessment and decisioning
- Real time feedback and predictive analysis based on insights from satellite imagery, geospatial and sensor data, thus shifting the model from "loss reimbursement" to "loss prevention". This can be extended from the commercial risks to retail / individual risks
- Technologies such as data appliances, no-SQL databases, and in-memory computing coupled with social media tools (such as Yammer, Chatter, OpenSocial etc.) will accelerate decisioning velocity
- Infrastructure provision models such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS) will shift the IT investment from capital expenditure to operating expenditure
- Data analytics services and tools that can help access public record databases and disseminate insights on customer segments and affiliation groups, will improve underwriting effectiveness and relevance of loss control organizations

Internal Standards & Controls:

Open and collaborative approach to data management

- Social media, Big Data and Analytics
- Data gathering processes and tools leveraging a blend of channels such as social media and mobile communications will provide better insights into risk data, fostering more dynamic relationships with customers and also reduce losses
- Data integration tools and apps that will help collect data from multiple homogenous and disaggregated sites and analyze risk profiles, finally providing support to visualize aggregated information
- Data enrichment and administration will be critical since bulk of loss control data falls under unstructured data, including digital survey records and non-standard recommendations. These will have to be governed as per the relevant compliance requirements, so as to prevent any potential breach

The way forward:

We believe that from being on the sidelines, loss control engineering will come to prominence in the insurance industry, driven by a combination of market and internal drivers. This will be accelerated through transformation of current business models, embracing evolving and disruptive technologies as well as greater focus on process standardization and optimization. In the coming years, loss control organizations that embrace and invest in process, technology and controls will not only drive market differentiation, but also will be better equipped to articulate the intrinsic value of their loss control engineering services and manage customer expectation.

While loss control organizations have a lot of ground to cover on technology adoption and process optimisation, they can accelerate the transformation through strategic partnership with mature service providers. These service providers will be able to provide innovative technology solutions, global delivery capabilities and robust process integration, thereby offering greater control and predictability to loss control functions.

About the Authors



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Sumesh has over 16 years of experience in the areas of Marketing, Operations, Business Process Re-engineering and Process Transformation. In his current role as transformation consultant, Sumesh provides support for Infosys BPO insurance clients to define and implement transformation strategies in their core insurance process landscape. He is also leading an Innovation and Transformation program aimed at delivering end to end business transformation benefits, for clients across industry verticals. Sumesh has a bachelor degree in pharmaceutical sciences along with project management credentials including PMP and Prince2. He is a certified six sigma (lean) practitioner.



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Sekar has more than 15 years of experience with the insurance industry, in creating solutions to business problems across technology and operations. In his current role, Sekar manages a portfolio of global clients across Life, P&C and is responsible for service delivery, client relationships as well as solutions and pre-sales. He holds a masters degree in statistics along with an MTech from Indian Statistical Institute, and is very active in external industry forums.



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