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HUMAN ELEMENT

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Effective (and Agile) Enterprise Risk Management? Yes We Can!



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Effective (and Agile) Enterprise Risk Management

Today's Agenda

- 1. Review a Case Study
 - ERM Initiative at a SaaS Company Called OurERM: Managing Risk. Together.
- 2. Apply What You Have Learned Today
 - What to Do (and Not to Do)
- B. Q&A / Open Discussion

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1. Review a Case Study



Key Business Risk Areas

Risk Areas	Key Factors
Brand and Reputational Risk	 Catastrophic ("black swan") events may disrupt our business If our goodwill or amortizable intangible assets become impaired, then we could be required to record a significant charge to earnings
• Competitive Risk	 If we cannot continue to develop, acquire, market and offer new products and services or enhancements to existing products and services that meet customer requirements, our operating results could suffer
	• Failure to manage our sales and distribution channels effectively could result in a loss of revenue and harm to our business
 Compliance and Regulatory Risk 	We are subject to risks associated with compliance with laws and regulations globally, which may harm our business

Key Business Risk Areas (...cont'd)

Risk Areas	Key Factors
• Financial Risk	 If our customers fail to renew subscriptions in accordance with our expectations, our future revenue and operating results could suffer
Information Security and Privacy Risk	 Security breaches in data centers we manage, or third parties manage on our behalf, may compromise the confidentiality, integrity, or availability of employee and customer data, which could expose us to liability and adversely affect our reputation and business
	 Security vulnerabilities in our products and systems could lead to reduced revenue or to liability claims Increasing regulatory focus and expanding laws on privacy
	issues could impact our business models and expose us to increased liability

Key Business Risk Areas (...cont'd)

Risk Areas	Key Factors
Operational Risk	Introduction of new technology could harm our business and results of operations
	 We rely on data centers managed both by us and third parties to host and deliver our services, as well as access, collect, use, transmit, and store data, and any interruptions or delays in these hosted services, or failures in data collection or transmission could expose us to liability and harm our business and reputation
	 Our intellectual property portfolio is a valuable asset and we may not be able to protect our intellectual property rights, including our source code, from infringement or unauthorized copying, use or disclosure

Key Business Risk Areas (...cont'd)

Risk Areas	Key Factors
Key Personnel Risk	If we are unable to recruit and retain key personnel, our business may be harmed
Market Risk	 Revenue, margin or earnings shortfalls or the volatility of the market generally may cause the market price of our stock to decline
 Supplier and Third- Party Risk 	 Failure of our third-party providers to adequately address service requests could harm our business and adversely affect our financial results
• Transaction Risk	 We may not realize the anticipated benefits of past or future investments or acquisitions, and integration of acquisitions may disrupt our business and management

The Key Business Risk Areas Determine the Discussion Items for Executive Leadership

- What are our business objectives and strategies? What are our financial targets, e.g.,
 profitability, size and revenue growth? What values do we want to build and reinforce?
- What markets do we choose? What relative market position do we seek? What is our business model for winning in our chosen markets?
- What specific possible future events do we face? Are they related?
- How sensitive are our strategies, markets, earnings and cash flow to the occurrence of future events? How risky are our tangible and intangible assets for creating value?
 What are the loss drivers affecting those assets?

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Discussion Items for Executive Leadership (...cont'd)

- Which specific future events could, if they occurred, affect the Company's ability to achieve its objectives relating to quality, innovation, timeliness, safety, compliance, etc., and to execute its strategies successfully? Which events would affect our market share?
- How capable are we of responding to events beyond our controls that may happen in the future?
- Do we know what our expected returns are, as adjusted for risk? Do risk-adjusted returns vary by business unit? By major product? By geography?

Discussion Items for Executive Leadership (...cont'd)

Finally, if we decide to accept the exposures inherent in our business model that give
rise to our existing risks, do we have sufficient capital to absorb significant unforeseen
losses should they occur?

The Leadership Discussions Help Define the ERM Services

"What are the risks, how are they managed, and how do you know?"

- 1. Develop a common understanding of risk across multiple functions and business units so we can manage risk transparently and cost-effectively on an enterprise-wide basis
- 2. Improve capabilities to respond effectively to "black swan" risks (low probability / critical, catastrophic risks)
- 3. Build safeguards against earnings-related surprises

- 4. Link risk management to more efficient capital allocation and risk transfer decisions
- 5. Integrate risk management into critical management activities, e.g., strategy-setting, business planning, capital expenditure and M&A due diligence and integration processes

The ERM Services Help Define the ERM Organization...

Executive Sponsor

Chief Risk Officer

Sponsor organizational change

Help mature the Company's ERM program

ERM

Function Leader

Establish the foundational elements

Build the capabilities needed

ERM

Program Manager

Develop intuitive tooling and reporting

Onboard stakeholders

... and the Roadmap

Set Foundation

Build Capabilities

Enha

Adopt
Common Risk
Oversight and
Oversight an

Capabilities

Responses

Enhance Capabilities

Improve

Enterprise

Performance

Establish

Sustainable

Competitive

Advantage

Adopt Common Risk Language

Language

Charter, Framework, Documentation, Workflows

Governance

Establish Oversight and Governance

Risk Register, Risk Council

Assess Risk and Develop Responses

Risk Assessments

Design / Implement Capabilities

• Services, Processes, Tools

Continuously Improve Capabilities

wide

KPIs

Quantify Risk Enterprise-wide

Reporting

Capabilities

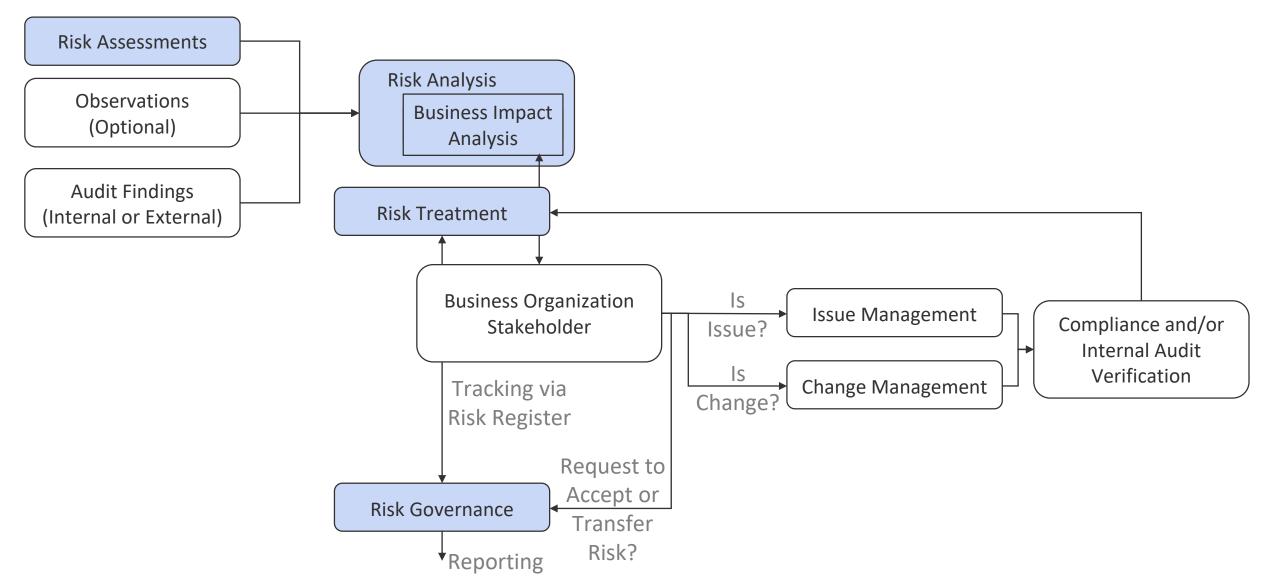
Improve Enterprise Performance

Benchmarking

Establish Sustainable Competitive Advantage

Integrate risk management into critical management activities

Which then Helps Define the Engagement Model



Start with the Risk Assessments

See for additional guidance and templates: https://infosec.mozilla.org/guidelines/risk/rapid_risk_assessment

Help make the following type of risk-based decisions:

- Is the security provided by a given platform appropriate to host a specific classification of data?
- How much should we care about maintenance, etc.?
- Is there anything obvious we should really look at fixing right now?
- Where should we focus our efforts to significantly reduce the business risks to or through the service?
- Did we forget anything, or have any blind spots we had not thought of?

Good Risk Assessments Are

- Quick! The risk assessment should take 30 60 minutes maximum.
- Very high-level. Can become a complete threat model over time though!
- Concise, readable. Short and with clear risk levels.
- Easy to update. Can be run during any phase of the project development and continuously updated.
- Informative. Collects risk impact and a data dictionary. Also collects information about how the service functions.
- Actionable. The assessment includes the recommendations from the enterprise risk
 management team with a priority for each item.

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Key Attributes Tracked in a Risk Register

Assessment

Vulnerability

Likelihood

• Impact

 Any Applicable Controls

Issue

Impacted Business
 Process

Status

Treatment

Plan {Accept, Correct,Residual RiskMitigate}

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2. Apply What You Learned Today

Apply What You Have Learned Today

Next week you should:

 Check out Item 1A. Risk Factors listed in 10-K SEC filings and identify the key business risk areas that apply to your company

• In the first three months following this presentation you should:

- Have leadership discussions, and define the ERM charter
- Use the charter to define your services. Use the services to define your organization. Use these both to then define the engagement model for collaborating with stakeholders

Within six months you should:

Drive implementation projects to achieve the first 4 milestones of your roadmap:
 Adopt Common Risk Language, Establish Oversight and Governance, Assess Risk and Develop Responses, Design and Implement Capabilities

Some Tips

What to Do

- Determine what ERM means for your company (true enterprise-wide risk management? Or just maintaining a "risk register" for auditors?)
- Remember the Guiding Principles
 - Perfect is the enemy of good
 - Business processes (not technology!) are the primary assets
 - Qualitative first, then quantitative
- Define your Services first, then Organizational Model, and finally the Engagement Model

(and Not to Do)

- Don't start with a "risk register" Remember, a risk register is only a tracking tool and not the ERM program itself:-)
- Don't try to solve everything together (pick loweffort business risks first. Establish processes that work for your company)
- Don't get hung up on scoring methodologies or risk management frameworks for the first year
- Don't start without an executive sponsor who can help you drive organization-wide change.
 Ideally, the Company's General Counsel is best suited for this role (Lawyers understand enterprise risk best – though some do have a tendency to make the bad news "go away").

Some Books that I Personally Found Helpful

