Front-Page Risks: Risks Commonly Occurring and Reported in the Canadian News

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Joint Risk Management Section
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PREPARED BY

Sim Segal

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EXECUTIVE SUMMARY

This research study was designed to answer the following questions:

1. What are the most commonly occurring risk categories?
2. What are the most commonly occurring risk subcategories?
3. What are the most commonly occurring individual risks?
4. Which individual risks tend to make front-page news?
5. Which risks generate the most extensive coverage in the form of repeat articles?

The scope was defined as significant downside risk events experienced by Canadian nongovernmental organizations as reported in the first 10 pages of either Section A (Front) or Section B (Report on Business) of *The Globe and Mail* in a 2012 weekday (Monday-Friday) edition, as recorded in their online archives ("GlobeArchives").

Some key results are highlighted below; however, the reader will receive the most benefit from reviewing the figures and tables in the Results section, which provide a detailed presentation of the information collected. This research was, by design, fact-based, and there was no attempt to infer any conclusions from the data. In addition to the detailed appendices of information and the highlighted results, the reader may find additional value from the description and illustration of the approach used to produce the information. The approach used is based on the value-based enterprise risk management (ERM) approach, in particular the risk categorization and definition (RCD) tool and approach, as further described in my book *Corporate Value of Enterprise Risk Management*.

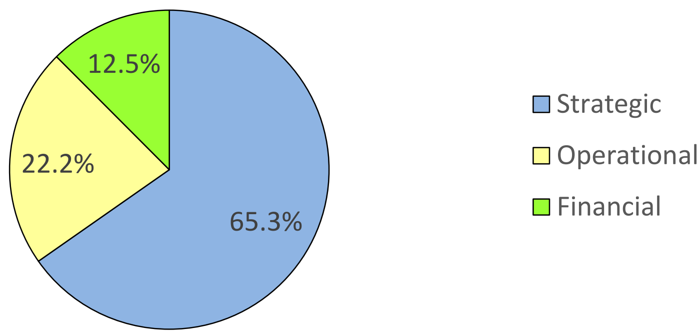
Before reviewing the results, it will be helpful to review Appendices 1 and 2 for the definitions of risk categories and subcategories, respectively, because these may differ from those used in various organizations.

The reader should use caution in placing undue reliance on some of the research results, and should reference the Considerations and Limitations section before making any inferences.

Here are some highlights of the results:

1. Many ERM programs focus all or most of their efforts on financial and insurance risks. One reason for this is a common misconception that financial and insurance risks represent the bulk of the organization's risks. The results of this research study clearly dispel this myth. Figure 1 shows that strategic risk accounts for about two-thirds of all risks; operational risk accounts for about one-fifth of all risks; financial risk represents about 10 percent of all risks; and insurance risk is virtually negligible and for practical purposes is included in the financial category results.

Figure 1: Risks by Category



2. Competitor risk is the top strategic risk subcategory, accounting for one-quarter of all strategic risks.
3. Legislative/regulatory risk is the second-most-common strategic risk subcategory, representing almost one-fifth of all strategic risks.
4. Strategy risk and execution risk are the No. 3 and No. 4 strategic risk subcategories, respectively, each with about one-seventh of all strategic risks; an examination of the underlying risks related to the strategy risk subcategory indicates that 55 percent of these risks correspond to a suboptimal market strategy, 24 percent to a suboptimal product/services strategy, and 21 percent to a suboptimal distribution channel strategy.
5. Human resources risk is far and away the top operational risk subcategory, accounting for almost one-half of all operational risks.
6. Compliance risk and litigation risk are the No. 2 and No. 3 operational risk subcategories, with 18 percent and 16 percent shares, respectively.
7. Disaster risk is the next most prevalent operational risk subcategory, representing one-tenth of all operational risks.
8. Five of the 15 most-cited risks are competitor risks.
9. Price war risk is 2.8 times more likely to appear on a front page than an average risk event.
10. Talent management risk—inability to recruit or retain employees is 1.6 times more likely to appear on a front page than an average risk event.
11. Legislative/regulatory risk—general is 1.6 times more likely to appear on a front page than an average risk event.
12. The risk generating the most repeat coverage is conduct—internal fraud (although removing one such outlier article that was repeated 43 times drops the ranking down to No. 12).
13. The second-most-likely risk to generate repeat coverage is deterioration of relationship with regulators.

PROJECT OVERSIGHT GROUP

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APPROACH

There were three steps in the research:

1. Define scope.
2. Identify risk events.
3. Categorize risk events.

STEP 1: DEFINE SCOPE

The first step was to define the scope of risk events to examine. The scope was defined as significant downside risk events experienced by Canadian nongovernmental organizations in 2012.

The following points further clarify this scope definition:

- "Significant"—material enough to be reported within the first 10 pages of either Section A or B of *The Globe and Mail* on a weekday (Monday-Friday) edition, as recorded in their online archives ("GlobeArchives").
- "Downside risk events"—unexpected occurrences that have, or can reasonably be expected to have, caused a shortfall in achieving the objectives expected in the organization's strategic plan.
- "Experienced by"—the downside risk event occurred in the recent past, in the present, or is emerging or reasonably expected to emerge.
- "Canadian"—an organization with its headquarters located in Canada or a subsidiary or branch of an organization that is located in Canada.
- "Nongovernmental organizations"—all organizations (including corporate entities and noncorporate entities such as nonprofits) other than government agencies and Crown Corporations.
- "In 2012"—reported in *The Globe and Mail*, weekday edition, during calendar year 2012.

STEP 2: IDENTIFY RISK EVENTS

Articles in *The Globe and Mail*'s archives ("Globe Archives") were analyzed to identify downside risk events. This was effectively a screening process where out-of-scope articles were eliminated. Examples of articles that were treated as out-of-scope included, but were not limited to, the following:

- Speculative articles based more on opinion or theory than on fact
- General articles lacking the specifics necessary to identify a source of risk
- General articles discussing a poor economy without mentioning a downside impact to any individual organization, any specific industry sector, or even to all sectors.

Risks were defined as an event that has resulted, or would reasonably be expected to result, in an adverse deviation from the expectations in the organization's baseline strategic plan. For corporate entities, this manifests in a decrease in distributable cash flows, which equates to a decrease in company value. For noncorporate entities, this manifests in a shortfall in achieving one or more of the organizational objectives.

This was a massive effort, involving the screening of over 10,000 articles (a conservative estimate, based on 52 weeks of issues, five weekday editions per week, and at least 40 articles per edition). This process resulted in identifying 637 articles that were in-scope for this research study.

STEP 3: CATEGORIZE RISK EVENTS

Risks were categorized in three ways:

a) By source

b) By industry sector

c) By uniqueness.

a) Categorizing risks by source

Risks are herein defined consistently by their originating source. Unfortunately, risks are often inconsistently defined—sometimes by source and sometimes by outcome. For example, “reputation risk” or “ratings downgrade risk” are both examples of risks improperly defined by outcome. There are multiple independent sources of risk that can trigger each of these outcomes; each distinct source of risk must be identified separately to properly support the various aspects of examining risk:

- Consistent scoring in a qualitative risk assessment
- Development of robust risk scenarios recognizing all downstream impacts
- Identification of mitigation opportunities.

Defining risks by their originating source is also critical for proper categorization.

Risks were categorized using the Risk Categorization and Definition (RCD) tool and approach, which I have developed based on years of research and client work in ERM. The RCD tool lists categories, subcategories and individual risks, using an approach that is customized to each organization (and in this research study, a modified version to accommodate inclusion of a wide range of organizations) that facilitates the mapping of all risk events, where the risks are defined by source and at a consistent level of granularity. The appendices provide definitions of the RCD categories and subcategories used for this research study. In the Results section, Table 3 shows those RCD categories, subcategories and individual risks corresponding to the 102 individual risks for which at least one risk event was identified in Step 2 of this research study.

When an article referenced more than a single risk source as occurring, fractional weights were assigned to each individual risk source; for example, if two risk sources were referenced, then a weight of one-half (0.5) was ascribed to each.

b) Categorizing risks by industry sector

Industry sectors were initially categorized based on a natural grouping of organizations that shared similarities aligned with a source-of-risk focus (grouping organizations exposed to similar sets of risks), and differs somewhat from formal industry classification systems, such as the North American Industry Classification System. This initial categorization generated a number of industry sectors with less than a credible amount of research data. Therefore, industry sectors were consolidated into a final list of 15 industry sectors, which includes one sector called “Other,” containing a number of industry sectors with a small number of results, and another sector called “Multiple Sectors,” corresponding to articles that referenced a range of industry sectors.

When an article specifically referenced a risk as occurring in more than one industry sector, fractional weights were assigned to each of the industry sectors; for example, if two industry sectors were referenced, then a weight of one-half (0.5) was ascribed to each.

Table 1 shows the 15 industry sectors and provides detail on the components of the sector, where relevant.

Table 1: Industry Sectors

#	Industry Sector	Components
1	Energy	Oil & gas, other energy
2	Entertainment & Tourism	Entertainment, tourism, sports & gaming, toy & game
3	Farming & Fishing	
4	Financial	Banking, investment management, insurance, other financial
5	Food & Beverage	
6	Health Care	Pharmaceuticals, pharmacies, other health care
7	Media & Publishing	Media, publishing, social media
8	Metals & Mining	
9	Real Estate & Construction	
10	Retail	
11	Services	
12	Telecommunications	
13	Transportation	Automotive, other transportation
14	Other	Biotech, charities, consumer goods, education, manufacturing, pulp & paper, technology, tobacco, waste management
15	Multiple Sectors	This is the category for articles that referenced more than one industry sector or a broad range of industry sectors

c) Categorizing risks by uniqueness

To avoid overweighting specific risk events that appeared in more than one article, repeat articles were identified and tracked separately. The initial article referencing a specific risk event was identified as the “unique” article with subsequent articles covering the same risk event identified as “repeat” articles and tracked separately. This information was used to analyze which risks generated the most repeat coverage, which is shown in the last part of the Results section. A limitation to acknowledge here is that a “unique” article may not have been the first such article, since an earlier article may have appeared prior to the research study period (e.g., a January 2012 article may have been a repeat article of a December 2011 article); similarly, repeat articles published following the research study period would also not be captured in our calendar-year-only research study.

CONSIDERATIONS AND LIMITATIONS

When reviewing the results of this research study, the reader is cautioned to keep the following considerations and limitations in mind:

- The research relies on the coverage of risks in weekday editions of *The Globe and Mail* as a proxy for materiality. This is a reasonable and practical linkage. However, *The Globe and Mail*'s editorial and marketing biases are likely to skew the results to some degree, with their covering some risks more or less than their actual representation in the market. The reader is cautioned to keep this in mind when relying upon the results.
- This is a one-year study, and the results may be skewed by any unusual trends or market cycles occurring in 2012.
- The results are influenced by the risk categorization and definition used for risk categories, subcategories and individual risks, which reflect choices on grouping and levels of granularity.
- The research is based on information provided in *The Globe and Mail* articles, which may occasionally be incorrect, incomplete, or draw incorrect inferences as to the underlying causes of the risk events, despite the publication's quality controls.
- Some of the results showing cross-tabulation (such as risk subcategories by industry sector) have lower credibility since they rely on a smaller number of observations; the reader should take care in relying too heavily upon such presentations of results.

RESULTS

This research study was designed to answer the following questions:

1. What are the most commonly occurring risk categories?
2. What are the most commonly occurring risk subcategories?
3. What are the most commonly occurring individual risks?
4. Which individual risks tend to make front-page news?
5. Which risks generate the most extensive coverage in the form of repeat articles?

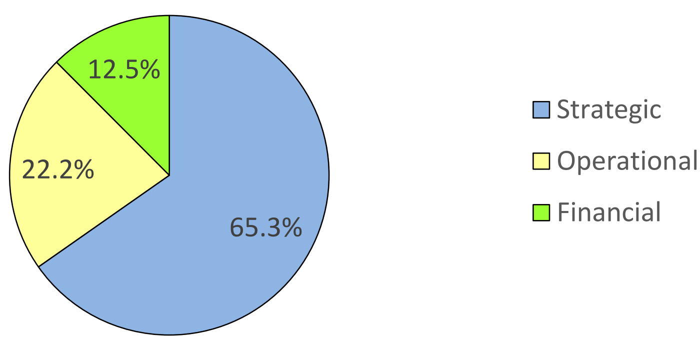
Before reviewing the results, it will be helpful to review Appendices 1 and 2 for the definitions of risk categories and subcategories, respectively, because these may differ from those used in various organizations.

1. WHAT ARE THE MOST COMMONLY OCCURRING RISK CATEGORIES?

Many ERM programs focus all or most of their efforts on financial and insurance risks. One reason for this is a common misconception that financial and insurance risks represent the bulk of the organization's risks. The results of this research study clearly dispel this myth.

Figure 1 shows the distribution of risks by category. See Appendix 1 for definitions of these risk categories. Strategic risk is the most prevalent risk category, accounting for approximately two-thirds of all risks. Operational risk is the next-largest risk category, accounting for about one-fifth of all risks. Financial risk is next, accounting for about 10 percent of all risks. Insurance risk is virtually negligible (0.1 percent) and for practical purposes is included in the financial category's risk results throughout this report.

Figure 1: Risks by Category



With this general result, the reader is encouraged to reflect on the following question: "Is our ERM program focusing its efforts, in the appropriate proportion, on each of the risk categories: strategic, operational and financial risks?" Strategic risk is by far the most prevalent risk category and yet most ERM programs either ignore it altogether or have insufficient rigor in their approach to addressing these risks. Even more worrisome are programs that only have rigor for the financial risks; such programs are not ERM at all, but rather should properly be labeled financial risk management programs (this situation is more prevalent in the financial sector).

Table 2 illustrates how this varies by industry sector, showing the percentage of strategic, operational and financial risks; the underlying number of articles upon which results are based is also shown, so that the reader can compare the relative credibility of the results. The order of importance of the risk categories (strategic > operational > financial) holds up for 10 of the 15 industry sectors. It is worth pointing out that the Financial industry sector, despite having a higher-than-average proportion of financial risks (21 percent versus the 12.5 percent average), also has the same relative order of importance of risk categories.

Five industry sectors show exception to this general finding:

1. Entertainment & Tourism: Strategic risks are about two-thirds of all risks, as in the aggregate results, but financial risks exceed operational risks, by a 19 percent to 15 percent percentage margin.
2. Farming & Fishing: Strategic risks are almost three-quarters of all risks, but financial risks exceed operational risks, by a 16 percent to 11 percent percentage margin.
3. Real Estate & Construction: Strategic risks are almost two-thirds of all risks, similar to the aggregate results, but financial risks exceed operational risks, by a 26 percent to 12 percent percentage margin. The higher-than-average percentage of financial risks is due to the high level of dependence of this sector on economic cycles and market prices.
4. Retail: Strategic risks are 84 percent of all risks, but financial risks exceed operational risks, by a slim 8.3 percent to 7.7 percent percentage margin.
5. Multiple Sectors: This is the only sector that has financial risks as the largest category, accounting for 58 percent of all risks. In addition, operational risks are the second-largest category with 23 percent, followed by strategic risks with 19 percent. These results reflect the fact that this grouping is articles referencing a range of industry sectors, and the most common articles in this grouping are those involving economic risk.

Table 2: Risks by Category and Industry Sector

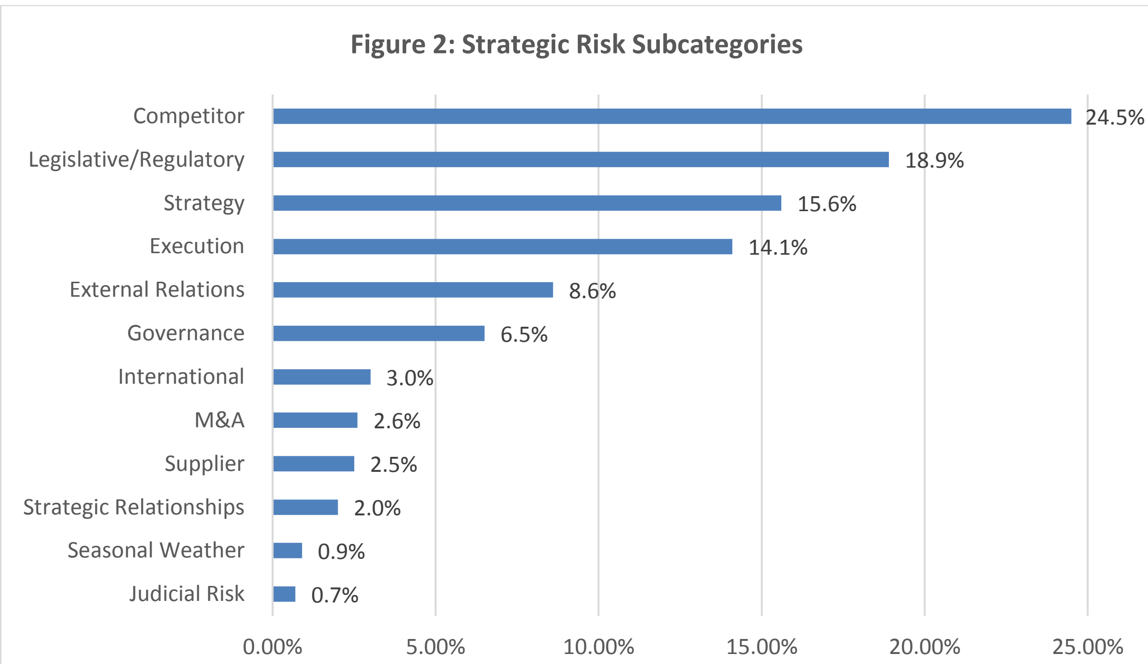
Industry Sector	Strategic	Operational	Financial	# Articles
Energy	74.1%	19.5%	6.3%	87.0
Entertainment & Tourism	66.3%	15.0%	18.8%	20.0
Farming & Fishing	73.8%	10.7%	15.5%	21.0
Financial	47.0%	32.1%	20.8%	84.0
Food & Beverage	78.7%	15.1%	6.2%	29.0
Health Care	76.5%	20.6%	2.9%	17.0
Media & Publishing	83.1%	13.6%	3.4%	29.5

Metals & Mining	61.0%	24.5%	14.5%	47.0
Real Estate & Construction	62.0%	12.0%	26.0%	25.0
Retail	84.0%	7.7%	8.3%	52.0
Services	59.1%	40.9%	0.0%	22.0
Telecommunications	85.5%	10.9%	3.6%	64.5
Transportation	51.3%	39.6%	9.1%	64.0
Other	59.0%	30.1%	10.9%	49.0
Multiple Sectors	19.2%	23.1%	57.7%	26.0
Total	65.3%	22.2%	12.5%	637.0

2. WHAT ARE THE MOST COMMONLY OCCURRING RISK SUBCATEGORIES?

Figure 2 shows the distribution of strategic risk subcategories. Competitor risk is the top strategic risk subcategory, accounting for one-quarter of all strategic risks. Legislative/regulatory risk is the second-most-common strategic risk subcategory, representing almost one-fifth of all strategic risks. Strategy risk and execution risk are No. 3 and No. 4, respectively, each with about one-seventh of all strategic risks; an examination of the underlying risks related to the strategy risk subcategory indicates that 55 percent of these risks correspond to a suboptimal market strategy, 24 percent of these risks correspond to a suboptimal product/services strategy, and 21 percent of these risks correspond to a suboptimal distribution channel strategy. External relations risk is the next-most-prevalent strategic risk subcategory, representing 9 percent of all strategic risks. Governance risk comes in as No. 6, accounting for 6.5 percent of all strategic risks. The remaining strategic risk subcategories all have less than a 5 percent share of the total.

It may be surprising that supplier risk only represents 2.5 percent of all strategic risks, but it is likely that many of these risks are embedded in the execution risk subcategory (product/services execution risk—unexpected increase in costs) since articles might be identifying an increase in costs without identifying the underlying cause, which is often an increase in supplier costs or a decrease in supplier capacity that increases costs.



How does this vary by industry sector? An answer can only be attempted for the two industry sectors with the largest number of articles, because as the data is sliced thinner there are far less observations and data credibility decreases. This was mentioned earlier in the Considerations and Limitations section, and the reader is cautioned specifically here not to overly rely on these results. Further, the reader is advised to interpret statements such as "… risk subcategory X is the top-ranked strategic risk subcategory in industry sector Y" to mean merely that this was what the data shows for the year of this research study, and not to infer that this is necessarily a stable result that will be closely repeated in the future. Finally, this is only attempted for strategic risk, because the number of data points is far lower for both operational and financial risks.

Figures 3 and 4 show the distribution of strategic risk subcategories for the most-represented industry sectors—energy and financial.

Figure 3 shows the distribution of strategic risk subcategories for the energy sector. Strategy risk is the top strategic risk subcategory, accounting for almost one-quarter of all strategic risks in the energy sector; this is higher than in Figure 2 (results for all sectors) where it ranked No. 3. Competitor risk is the second-most-common strategic risk subcategory, representing one-fifth of all strategic risks in the energy sector. External relations risk and execution risk are No. 3 and No. 4, respectively, each with about one-seventh of all strategic risks in the energy sector. External relations risk is far more present here than in Figure 2 (15.8 percent vs. 8.6 percent). Legislative/regulatory risk is the next-most-prevalent strategic risk subcategory, representing 9 percent of all strategic risks in the energy sector; this is about half of the result in Figure 2. The remaining strategic risk subcategories all have less than a 5 percent share of the total.

Figure 3: Strategic Risk Subcategories, Energy Sector

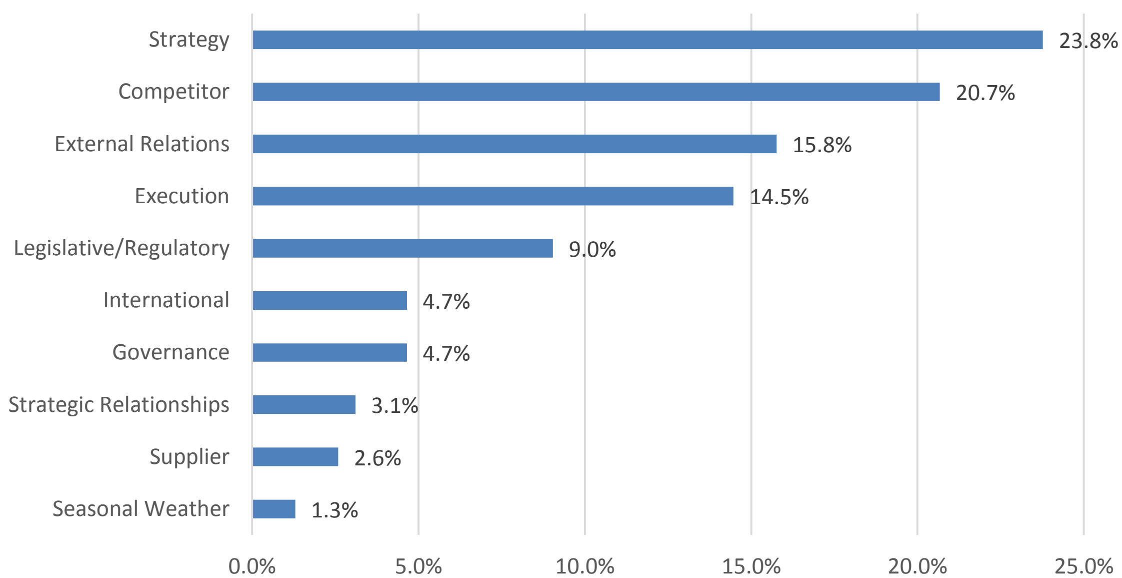


Figure 4 shows the distribution of strategic risk subcategories for the financial sector. The picture here is dramatically different from Figure 2 (all sectors). Legislative/regulatory risk is far and away the top strategic risk subcategory, accounting for over one-half of all strategic risks in the financial sector; this is a little short of triple its representation in Figure 2. Competitor risk is the second-most-common strategic risk subcategory, representing 14 percent of all strategic risks in the financial sector; its representation is more than 40 percent lower than its representation in Figure 2. Strategy risk is ranked third, representing about 10 percent of all strategic risks in the financial sector; this is about two-thirds of its representation in Figure 2. The remaining strategic risk subcategories all have less than an 8 percent share of the total.

Figure 4: Strategic Risk Subcategories, Financial Sector

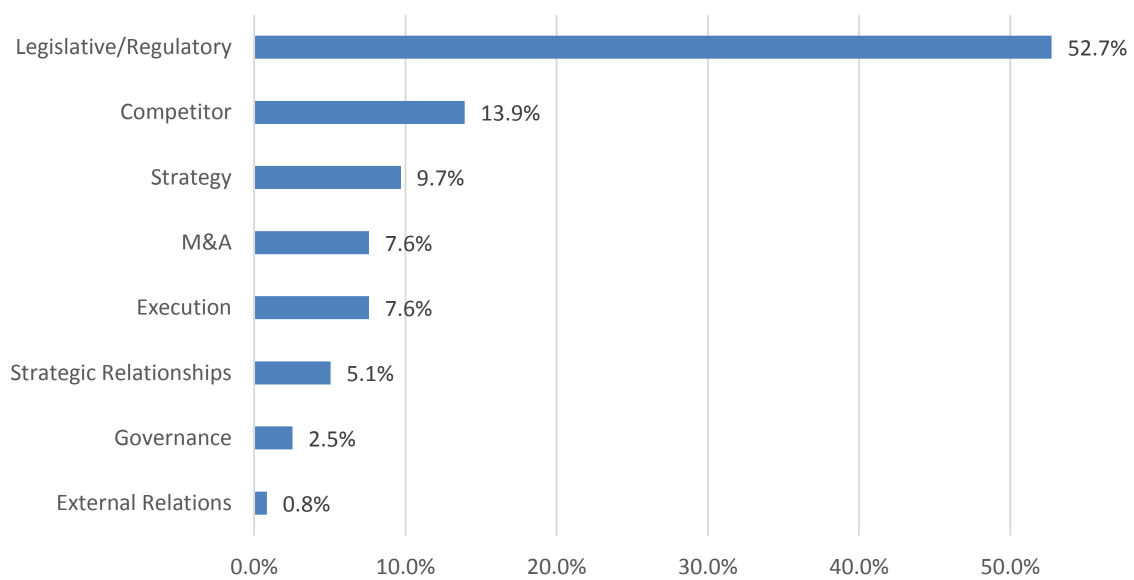


Figure 5 shows the distribution of operational risk subcategories. Human resources risk is far and away the top operational risk subcategory, accounting for almost one-half of all operational risks. Compliance risk and litigation risk are No. 2 and No. 3, with 18 percent and 16 percent shares, respectively. Disaster risk is the next-most-prevalent operational risk subcategory, representing one-tenth of all operational risks. The remaining operational risk subcategories all have less than a 3 percent share of the total. It may be surprising that technology risk only represents 2 percent of all operational risks. However, it is important to keep this, as well as all results in this research study, in context. Technology risk scenarios are routinely high on the list of key risk scenarios in an ERM program. The risks included in this research study are those risk events of such high magnitude that they are covered in the newspaper. The way to interpret this result here is that there is a low relative frequency of a massive technology risk event versus other types of risks, for the particular scope (time period; geographic regions; types of organizations) of this research study.

Figure 5: Operational Risk Subcategories

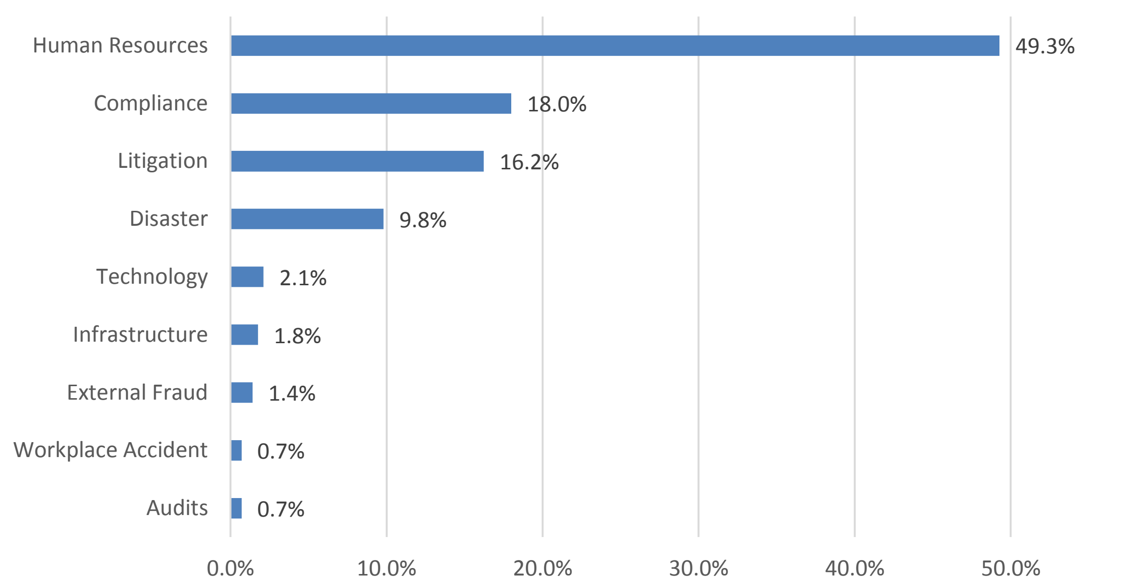
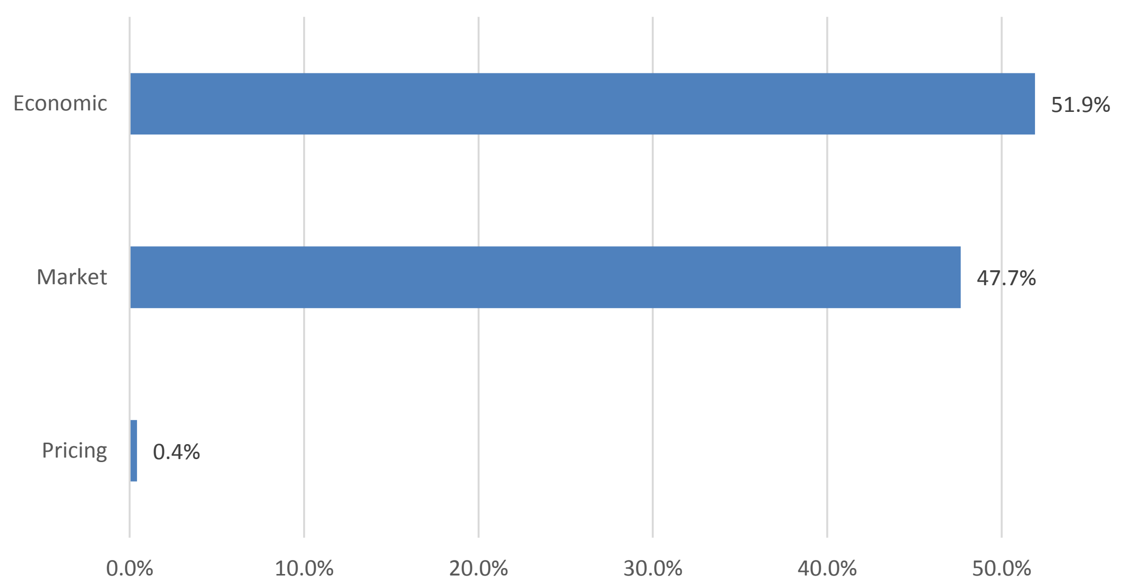


Figure 6 shows the distribution of financial risk subcategories. Economic risk is the top financial risk subcategory, accounting for 52 percent of all financial risks. Market risk is a close second, with 48 percent of all financial risks. Pricing risk makes up a negligible portion of all financial risks (pricing risk is an insurance risk, which for practical purposes is embedded in the financial risk category). A surprising result is that there are no credit risks or liquidity risks represented. In part, this may be due to the fact that although from a risk management perspective these risks are important, from an ERM perspective (the most important risks)—and especially in the context of this research study, which includes risks of such high magnitude that they are covered in the newspaper—these are relatively less important. Another factor is that although 2012 is a year during which organizations are still impacted by a slow recovery from the global financial crisis, Canada's economy fared far better than that of most countries.

Figure 6: Financial Risk Subcategories



3. WHAT ARE THE MOST COMMONLY OCCURRING INDIVIDUAL RISKS?

Table 3 lists the individual risks by decreasing number of article citations. There are 102 individual risks cited. Below are some interesting results:

- The 15 most-cited risks comprise over half of the citations (326 out of the total 637).
- Eight (and arguably nine) of the 15 most-cited risks represent risks initiated by external actors and therefore the occurrence of these risks is (largely) outside of an organization's control. Though the impact of such risks can often be mitigated, even those that cannot be practically mitigated must still be fully addressed in an ERM program, in part to properly quantify the overall aggregate risk exposure and to adequately disclose this to internal and external stakeholders.
- Five of the 15 most-cited risks are competitor risks.

Economic risk received the most mentions (41.3 articles).[1] This is in large part due to the fact that this risk is not as easy as other risks to disaggregate into multiple risks, nor is it typically useful to do so for ERM purposes. As mentioned earlier in the Considerations and Limitations section, results are influenced by the definitions used for individual risks, which reflect choices on grouping and levels of granularity. For example, if our risk categorization and definition approach did not choose to distinguish between different types of competitor risk, then competitor risk would be the most commonly cited risk in this study, with a total of 101.7 mentions.

It is also important to point out that this is not a comprehensive, exhaustive list, but rather a list of risks for which there was at least one article citing it as at least one of the risk sources for the event. It should be noted that a comprehensive, exhaustive list of risks not only does not exist, but is a dangerous concept that should be avoided in ERM work. New risks are always emerging and vigilance must be maintained. ERM programs that even hint of a risk list that is comprehensive can unwittingly discourage active thinking on the part of participants in the qualitative risk assessment.

With the above context in mind, the reader is encouraged to explore Table 3 while considering the following questions:

- Has our organization considered all relevant risks on this list?
- Is our organization under- or overemphasizing certain of these risks?
- Are there other risks related to these but not mentioned here that our organization should be considering but has not yet done so?

[1] Fractional results are generated by articles attributing multiple risk sources to a single risk event.

Table 3: Individual Risks

Rank	Category	Subcategory	Risk	# Articles
1	Financial	Economic	Economic risk	41.3
2	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—product-/services-related	34.0
3	Strategic	Competitor	Competitor actions targeted against the organization	25.5
4	Strategic	Execution	Product/services execution risk—unexpected increase in costs	23.8
5	Strategic	Strategy	Market strategy risk—misestimating market demand	22.8
6	Strategic	Competitor	Increase in competition	21.8
7	Strategic	Competitor	New entrants	21.3
8	Operational	Compliance	Compliance risk—general	20.5
9	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—general	20.5
10	Operational	Human Resources	Talent management risk—strain in labor or producer relations	20.0
11	Strategic	Competitor	Competitor risk—general	16.1
12	Strategic	Governance	Internal threat from shareholder(s)	16.0
13	Financial	Market	Commodity price risk	15.6
14	Operational	Human Resources	Talent management risk—inability to recruit or retain employees	13.8
15	Strategic	External Relations	Attack by special-interest groups	13.4
16	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—cost-related	12.7
17	Financial	Market	Interest rate risk	12.3

18	Strategic	Strategy	Distribution strategy risk	12.3
19	Operational	Litigation	Litigation risk—individual lawsuit	12.0
20	Strategic	M&A	Unsuccessful merger, acquisition or divestiture	11.0
21	Strategic	External Relations	Deterioration of political relationships	8.7
22	Operational	Human Resources	Conduct—criminal act	8.0
23	Strategic	Execution	Brand or value proposition execution risk	7.0
24	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—distribution-related	7.0
25	Operational	Human Resources	Talent management risk—loss of critical employee(s)	7.0
26	Strategic	Execution	Product/services execution risk—general	6.7
27	Strategic	Execution	Product/services execution risk—substandard quality	6.5
28	Strategic	Competitor	Price war	6.5
29	Strategic	International	International risk—general	6.5
30	Operational	Disaster	Environmental damage	6.5
31	Financial	Market	Equity market risk	6.0
32	Strategic	Competitor	Competitor innovation	6.0
33	Operational	Litigation	Litigation risk—general	6.0
34	Strategic	Strategy	Brand or value proposition strategy risk	5.8
35	Strategic	Strategy	Product/services strategy risk—general	5.8
36	Strategic	Strategic Relationships	Joint venture or alliance risk	5.3
37	Strategic	External Relations	Deterioration of consumer relations	5.3

38	Strategic	Strategy	Product/services strategy risk—misestimating costs	5.1
39	Strategic	Strategy	Market strategy risk—general	5.0
40	Strategic	Execution	Distribution execution risk	5.0
41	Operational	Human Resources	Conduct—defrauding customers	5.0
42	Operational	Litigation	Litigation risk—class-action lawsuit	5.0
43	Strategic	Supplier	Supplier disruption or failure	4.5
44	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—market-related	4.5
45	Strategic	Strategy	Market strategy risk—large customer injury or failure	4.0
46	Strategic	Execution	Product/services execution risk—lack of innovation	4.0
47	Strategic	Governance	Hostile takeover threat	4.0
48	Strategic	International	International risk—instability	4.0
49	Operational	Human Resources	Conduct—internal fraud	4.0
50	Operational	Disaster	Fire or explosion	4.0
51	Strategic	Seasonal Weather	Unseasonal weather risk	3.8
52	Strategic	Competitor	Competitor(s) flood market with supply	3.5
53	Operational	Human Resources	Talent management risk—unexpected increase in labor costs	3.1
54	Financial	Market	Exchange rate risk	3.1
55	Strategic	Strategy	Product/services strategy risk—misestimating asset productivity	3.0
56	Strategic	Execution	Product/services execution risk—encroachment on intellectual property	3.0

57	Strategic	Governance	Fiduciary breaches	3.0
58	Strategic	Strategic Relationships	Parental status risk	3.0
59	Strategic	Judicial	Unexpected unfavorable court rulings	3.0
60	Operational	Human Resources	Poor performance of employees	2.5
61	Operational	Infrastructure	Equipment failure	2.5
62	Strategic	Execution	Market execution risk	2.3
63	Strategic	External Relations	Deterioration of relationship with regulators	2.3
64	Strategic	Supplier	Unexpected increase in cost of supplier products/services	2.2
65	Strategic	Supplier	Supplier product/service quality risk	2.0
66	Strategic	External Relations	Attack via social media	2.0
67	Strategic	External Relations	Complaints from shareholders	2.0
68	Operational	Human Resources	Poor or poisonous organizational culture	2.0
69	Operational	Compliance	Violation of market manipulation prohibition	2.0
70	Operational	Compliance	Violation of antitrust rules	2.0
71	Operational	External Fraud	External entity defrauds the organization	2.0
72	Strategic	Supplier	Loss or restriction of operating licenses	1.3
73	Operational	Disaster	Animal or plant disease	1.3
74	Strategic	Strategy	Strategy risk—general	1.0
75	Strategic	Governance	Insufficient oversight	1.0
76	Strategic	Governance	Excessive executive compensation	1.0

77	Strategic	Governance	Internal threat from board member(s)	1.0
78	Strategic	Governance	Internal threat from management	1.0
79	Strategic	Competitor	Consolidation of competitors	1.0
80	Strategic	External Relations	Attack by industry leader(s)	1.0
81	Strategic	External Relations	Complaints from credit-holders	1.0
82	Strategic	International	International risk—embargo or trade restrictions	1.0
83	Strategic	International	International risk—price controls or tariffs	1.0
84	Operational	Human Resources	Talent management risk—general	1.0
85	Operational	Human Resources	Talent management risk—suboptimal succession plan	1.0
86	Operational	Human Resources	Conduct—Policy or ethical violation	1.0
87	Operational	Human Resources	Process risk—suboptimal risk practices	1.0
88	Operational	Workplace Accident	Mine cave-in	1.0
89	Operational	Technology	Lack of technological capabilities	1.0
90	Operational	Technology	Technology security breach of intellectual property	1.0
91	Operational	Technology	Model risk	1.0
92	Operational	Audits	Risk of unexpected audit findings	1.0
93	Operational	Compliance	Violation of financial reporting requirements	1.0
94	Operational	Disaster	Avalanche	1.0
95	Operational	Disaster	Transportation accident (e.g., car, bus or airplane crash)	1.0
96	Financial	Market	Inflation risk	0.5

97	Strategic	Execution	Poor execution of restructuring	0.5
98	Operational	Human Resources	Process risk—general	0.5
99	Financial	Market	Market risk—general	0.3
100	Strategic	Supplier	Supplier over-production	0.3
101	Insurance[2]	Pricing	Longevity risk	0.3
102	Operational	Disaster	Drought	0.1

[2] As stated earlier, this sole appearance of insurance risk was categorized as financial risk elsewhere for expediency.

4. WHICH INDIVIDUAL RISKS TEND TO MAKE FRONT-PAGE NEWS?

Table 4 shows the 13 individual risks that had at least five front-page news articles during the year. Front-page is defined as either the front page of Section A (general news) or B (business section). There are two numbers shown in the table. The first is the actual number of front-page articles. The second is the corresponding number that would be expected based on the proportional representation of the individual risk and the average likelihood of a front-page appearance; for example, economic risk (first table entry) has 41.3 total article appearances throughout the paper, and with an average likelihood of 30.3 percent of the articles appearing on a front page (193 out of 637), we might expect 12.5 (30.3% x 41.3) of them to appear on a front page. Comparing the actual number of front-page articles to the number we would have expected provides an indication of whether there may be a tendency to over- or under-represent that individual risk on the front page.

Notable results (although another caution is warranted here, due to the small data sample):

a) Price war risk (rank 12 in Table 4) is 2.8 times more likely to appear on a front page than would be expected.
b) Talent management risk—inability to recruit or retain employees (rank 8 in Table 4) is 1.6 times more likely to appear on a front page than would be expected.
c) Legislative/regulatory risk—general (rank 3 in Table 4) is 1.6 times more likely to appear on a front page than would be expected.
d) Product/services execution risk—unexpected increase in costs (rank 4 in Table 4) is 1.3 times more likely to appear on a front page than would be expected.
e) Internal threat from shareholder(s) risk (rank 9 in Table 4) is 1.3 times more likely to appear on a front page than would be expected.

Risks that are more likely to generate front-page news should be of greater concern to organizations, because of the potential for greater reputational damage. As a result, this information may be another useful input into the decision-making process for any potential pre-event mitigation and/or post-event mitigation contingency plans for such risks.

Of the above list, items (b) and (d) appear more likely to have the potential for reputational damage, because they more directly reflect on the organization’s management.

Table 4: Risks Making Front-Page News

Rank	Category	Subcategory	Individual Risk	Actual # Front-Page Articles	Expected # Front-Page Articles
1	Financial	Economic	Economic risk	12.1	12.5
2	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—product-/services-related	10.0	10.3
3	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—general	9.8	6.2
4	Strategic	Execution	Product/services execution risk—unexpected increase in costs	9.3	7.2
5	Strategic	Competitor	Competitor actions targeted against the organization	9.0	7.7
6	Strategic	Strategy	Market strategy risk—misestimating market demand	7.8	6.9
7	Strategic	Competitor	Increase in competition	7.1	6.6
8	Operational	Human Resources	Talent management risk—inability to recruit or retain employees	7.0	4.2
9	Strategic	Governance	Internal threat from shareholder(s)	6.0	4.8
10	Operational	Compliance	Compliance risk—general	6.0	6.2
11	Operational	Human Resources	Talent management risk—strain in labor or producer relations	6.0	6.1
12	Strategic	Competitor	Price war	5.5	2.0
13	Strategic	Competitor	New entrants	5.0	6.5

5. WHICH RISKS GENERATE THE MOST EXTENSIVE COVERAGE IN THE FORM OF REPEAT ARTICLES?

Table 5 shows the top-25 risks generating the most extensive coverage in the form of repeat articles; this is shown only for those with more than two unique articles. These are ranked by the average number of repeat articles per unique article. Repeat articles are defined as articles involving the same risk event originally mentioned in the unique article, where the article either merely references back to the unique article or covers emerging developments of the ongoing story.

The top-ranked risk is conduct—internal fraud. This result is skewed by one such article being repeated 43 times (this involved a high-profile and lengthy court case). With this outlier removed, its ranking would drop to No. 12. The second-most-likely risk to generate repeat coverage is deterioration of relationship with regulators.

Just as with risks more likely to generate front-page news, risks more likely to generate repeat coverage should be of greater concern to organizations, because of the potential for greater reputational damage. As a result, this information may be another useful input into the decision-making process for any potential pre-event mitigation and/or post-event mitigation contingency plans for such risks.

Table 5: Risks Generating the Most Repeat Articles

Rank	Category	Subcategory	Risk	Average # Repeat Articles Per Unique Article
1	Operational	Human Resources	Conduct—internal fraud	11.5
2	Strategic	External Relations	Deterioration of relationship with regulators	7.3
3	Strategic	Governance	Internal threat from shareholder(s)	3.2
4	Strategic	International	International risk—general	2.9
5	Strategic	Governance	Hostile takeover threat	2.5
6	Strategic	Execution	Product/services execution risk—substandard quality	2.3
7	Strategic	Competitor	Competitor innovation	2.0
8	Strategic	External Relations	Deterioration of political relationships	1.6
9	Operational	Human Resources	Talent management risk—strain in labor or producer relations	1.3
10	Strategic	Execution	Market execution risk	1.3

11	Operational	Compliance	Violation of market manipulation prohibition	1.0
12	Strategic	Execution	Distribution execution risk	0.8
13	Strategic	External Relations	Attack by special-interest groups	0.6
14	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—distribution-related	0.6
15	Strategic	External Relations	Attack via social media	0.5
16	Financial	Market	Exchange rate risk	0.5
17	Strategic	Execution	Product/services execution risk—general	0.5
18	Operational	Infrastructure	Equipment failure	0.4
19	Strategic	Strategic Relationships	Parental status risk	0.3
20	Strategic	Competitor	New entrants	0.3
21	Operational	Disaster	Environmental damage	0.3
22	Strategic	Legislative/ Regulatory	Legislative/regulatory risk—product-/services-related	0.3
23	Operational	Human Resources	Talent management risk—loss of critical employee(s)	0.3
24	Financial	Market	Interest rate risk	0.3
25	Operational	Disaster	Fire or explosion	0.3

APPENDIX 1: DEFINITION OF RISK CATEGORIES

This appendix provides the definitions of the Risk Categorization and Definition (RCD) tool risk categories.

Strategic

Unexpected changes in areas of strategic importance (e.g., viability of strategy, ability to execute strategy, competitors, etc.)

Operational

Unexpected changes in operations (e.g., effectiveness of HR, I/T, business processes, etc.)

Financial

Unexpected changes in external markets and prices (e.g., stock markets, bond markets, commodity prices, etc.)

Insurance

Inaccurate pricing, underwriting or reserving (typically related to insurance company products)

APPENDIX 2: DEFINITION OF RISK SUBCATEGORIES

This appendix provides the definitions of the Risk Categorization and Definition (RCD) tool risk subcategories; the corresponding risk category is also shown.

Risk Category	**Risk Subcategory**	**Definition of Risk Subcategory**
Strategic	Strategy	Viability of strategy does not match expectations (this is highly variable by organization and must be customized).
Strategic	Execution	Strategy is not implemented as expected (this is highly variable by organization and must be customized).
Strategic	Governance	Governance is not functioning as expected (e.g., insufficient oversight).
Strategic	Strategic Relationships	Unexpected change in strategic relationships (e.g., parent organization or joint venture partner)
Strategic	Competitor	Unexpected change in competitive landscape
Strategic	Supplier	Unexpected change in supplier environment
Strategic	External Relations	Unexpected change in public discourse about the organization caused by their inability to effectively manage external relations
Strategic	Legislative/ Regulatory	Unexpected changes in laws or regulations
Strategic	Judicial	Unexpected results from judicial rulings
Strategic	Industry Practices	Widespread abusive practices discovered in the organization’s industry
Strategic	Criminal prosecution of organization	Unexpected criminal indictments or convictions against the organization
Strategic	Seasonal weather	Temporary seasonal weather patterns to level that impacts demand for organization's products/services (e.g., warm winters or cool summers reduce energy usage; cold/rainy summers reduce soda consumption)
Strategic	M&A	Unsuccessful merger, acquisition or divestiture

Strategic	International	Unexpected changes in situation in, or actions by, foreign countries
Operational	Human Resources	Human resources are not performing as expected.
Operational	Technology	Technology needs not matching expectations
Operational	Litigation	Unexpected civil suits or judgments against the organization
Operational	Compliance	Level of compliance not matching expectations (e.g., may result in higher-than-expected fines)
Operational	Audits	Unexpected audits or audit findings (e.g., retroactive tax payments and fines)
Operational	External Fraud	Fraud or theft by an external party
Operational	Disasters	Natural or man-made disaster
Operational	Workplace Accident	Accident related to unique workplace environment (e.g., cave-in of mine)
Operational	Processes	Processes are not functioning as expected (e.g., processes are too convoluted).
Operational	Utilities	Unexpected interruptions of goods and services from a utility company (e.g., energy, water, Internet, phone, etc.)
Operational	Public Services	Unexpected strikes by public services unions (e.g., police, firemen or mass transit)
Operational	Infrastructure	Unexpected failure of infrastructure (e.g., road, bridge, tunnel or mass transit)
Financial	Market	Unexpected changes in market prices and rates; there are two types: a) Related to general market movements, which can impact the organization in various ways (though this is often the result of an economic source of risk) b) Related to a specific asset on the balance sheet.
Financial	Credit	Unexpected changes in credit markets; two types: a) Related to general credit market movements, which can impact the organization in various ways (though this is often the result of an economic source of risk) b) Related to a specific entity, either an issuer of a fixed income security or a credit counterparty

Financial	Liquidity	Unexpected changes in liquidity supply or demand (this has three impact levels: (1) untimely asset sales; (2) inability to meet contractual demands; and (3) default)
Financial	Economic	Unexpected changes in economy. This risk tends to exhibit itself in multiple, related ways, which can impact the organization, including: a) Gross domestic product (GDP) (growth prospects) b) Employment (supply/demand of employees) c) Consumer spendable income (ability to buy the organization's products/services) d) Inflation/deflation (costs of goods/services) e) Triggers market and/or credit risks.
Insurance	Pricing	Inaccurate pricing assumptions (e.g., mortality, morbidity, catastrophe, liability, persistency/lapse, expected deposits/contributions, etc.)
Insurance	Underwriting	Inaccurate underwriting (e.g., mortality, morbidity, catastrophe, liability)
Insurance	Reserving	Inaccurate reserving