

WHAT IS “RISK”?

RESULTS FROM A SURVEY EXPLORING DEFINITIONS

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INTRODUCTION

There is currently an active debate among risk management practitioners about the definition of risk. Given the long history of risk management it might be surprising that this question still excites any interest at all. But risk management like all disciplines is not standing still, and the definition question is part of the ongoing development of risk management as an essential tool for the effective manager.

One aspect of the definition debate centres on the question of whether the term “risk” should only be used to refer to uncertain events which could have an effect which is unwelcome, adverse, negative or harmful (i.e. “threats”). There is little doubt that the common usage of the word is associated with these types of effect – risk is bad for you. However there is another view which is held by an increasing number of risk practitioners (especially in the project risk management field) that risk management should address uncertainties with positive impacts (“opportunities”) as well as those threats traditionally covered by the process. This has led to a perspective that the term “risk” should include both threats and opportunities. Some risk practitioners strongly oppose this move, while others feel that it is an essential forward step. Each side of this debate claims support from the silent majority, either stating that nobody wants to change the definition from threat-only, or asserting that there is a growing appetite for change. Neither of these statements currently has any objective supporting evidence, and both are based on anecdotal data.

SURVEY PROCESS

The Risk Management Specific Interest Group of the Project Management Institute (PMI® Risk SIG) and the Risk Management Working Group of the International Council On Systems Engineering (INCOSE RMWG) are international practitioner networks representing significant groupings of professionals active in project risk management. Leading members of these two bodies therefore decided to poll members and others to gauge international opinion on the definition question. A simple questionnaire was designed (see Appendix) to explore what definitions were currently in use by the organisations represented by respondents, as well as the personal perspectives of respondents.

The questionnaire was distributed by email to members of several professional bodies to which risk management practitioners belong. This included the PMI Risk SIG, INCOSE RMWG, the Risk SIG of the UK Association for Project Management (APM), the UK Institute of Risk Management (IRM), and the Global Association of Risk Professionals (GARP). The total number of members from these groups who were invited to participate by email in the survey was approximately 2000 (note that the actual total membership of these groups is much higher, but not all could be polled by email). The survey was distributed on 1 September 2001, with a return date of 31 October 2001.

SURVEY RAW RESULTS

Respondents

A total of 186 responses were received, representing a response rate of about 10%. This rate is typical of surveys conducted by email, and provides some assurance that the results might be representative of the general views of risk management practitioners in the groups surveyed.

Respondents came from a wide range of industries, with high representation from consultants (32% of respondents) and IT companies (29%). There were also significant numbers of responses from people working in the communications industry (9%), and government agencies (8%).

Most of the respondents claimed to be members of the PMI Risk SIG (73%), and 15% stated that they belonged to an IPMA-affiliated body such as APM. Only small numbers reported membership of INCOSE RMWG, IRM or GARP, and 10% belonged to some other body. However 15% of respondents were members of more than one professional body so there is some overlap between these results.

Question 1 : Organisational definition of risk

Respondents were asked in the first question (Q1) to choose a definition of risk closest to that used by their organisations, with four options given, as follows :

- a. Risk is an uncertain event or condition which, if it occurs, would have an undefined or unknown impact on achievement of objectives.
- b. Risk is an uncertain event or condition which, if it occurs, would have a negative impact on achievement of objectives (threat).
- c. Risk is an uncertain event or condition which, if it occurs, would have a negative or positive impact on achievement of objectives (threat or opportunity).
- d. Some other definition.

Results are shown in Figure 1 below.

The results show that about half of the organisations with which respondents work (54%) use a definition of risk with exclusively negative effects, i.e. a threat-only definition. About a third (34%) use a broader definition of risk which includes both threats and opportunities.

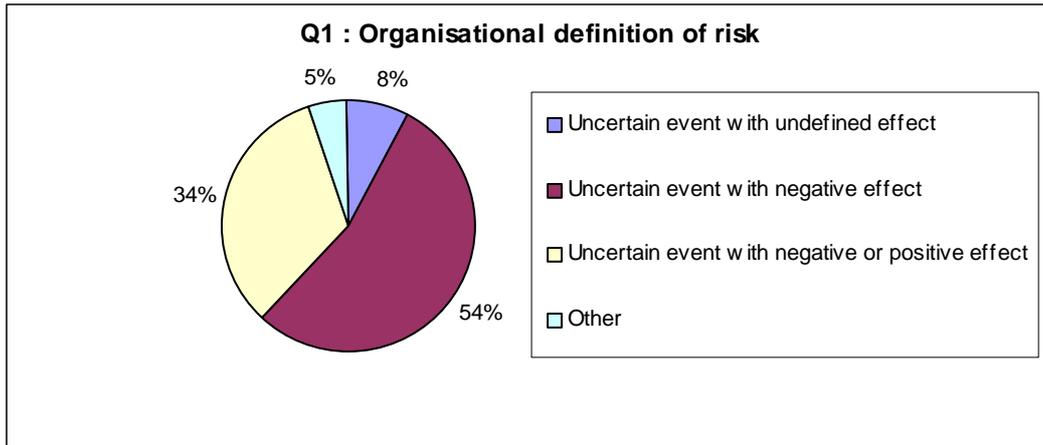


Figure 1 : Organisational definition of risk

Question 2 : Organisational approach to risk management

The second question (Q2) asked about the approach to risk management within respondents' organisations, to determine whether a threat-only risk process was used, and how opportunities were managed (if at all). Options for this question were :

- The risk management process aims to manage potential negative impacts on objectives (i.e. threats only). There is no process for explicit handling of opportunities.
- The risk management process aims to manage potential negative impacts on objectives (i.e. threats only). Opportunities are handled via a separate process that is not an integrated part of risk management.
- The risk management process aims to manage both threats and opportunities in a common (integrated) process.
- Some other approach not covered by the above.

Results are in Figure 2.

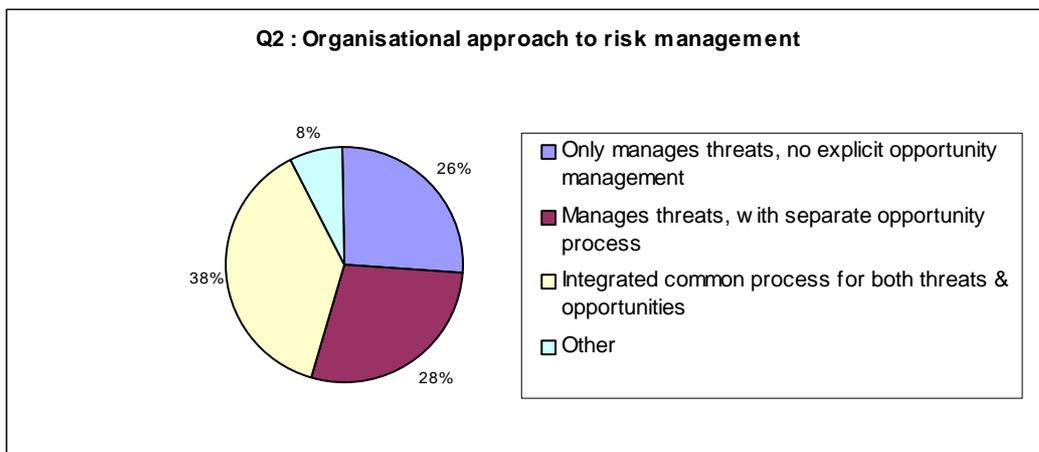


Figure 2 : Organisational approach to risk management

Over half of the organisations represented (54%) use the risk management process only to manage threats. These are split almost equally between those who only have a threat-focused risk process with no explicit opportunity management (26%), and those who use a separate process for opportunity management in addition to the threat-based risk process (28%).

Over a third of organisations (38%) have a common risk management process which is used to manage both threats and opportunities in an integrated fashion.

Question 3 : Personal definition of risk

People invited to complete this questionnaire were members of professional bodies which specialise in risk management. It is therefore possible that individual risk practitioners might hold a different view of risk from the organisations for which they work. The third question (Q3) was included to test this possibility. Individuals were asked which of the definitions of risk stated in the earlier question best reflected their own preferred definition of risk. The results are in Figure 3.

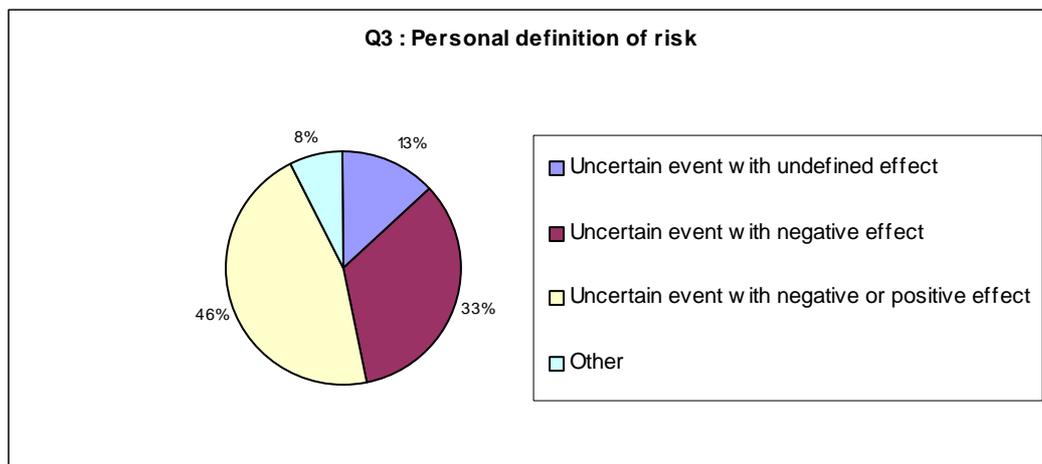


Figure 3 : Personal definition of risk

The distribution of replies to this question is the reverse of that reported for organisations, with almost half of the respondents (46%) stating that they prefer to use a broader definition of risk which includes both threat and opportunity. A third (33%) use a threat-only definition. It is interesting to speculate on whether this difference of opinion between the individual risk practitioner and their organisation might cause any difficulties in performing the risk process.

Question 4 : Support for changed risk definition

One of the main purposes of the survey was to identify whether risk practitioners would support a general change to the definition of risk to include opportunities as well as threats, since this is the topic of current debate among the risk community. The fourth question (Q4) asked directly whether respondents would (or already did) support such a change. Figure 4 below shows that 60% support a move towards a broader definition, with 30% opposed to change.

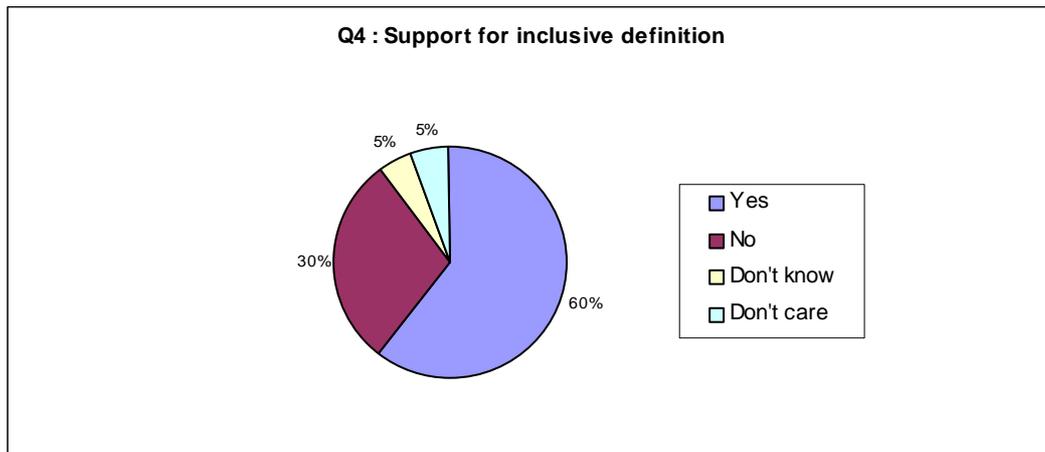


Figure 4 : Support for changed risk definition

ANALYSIS OF RESULTS

The above section presents the raw data from the survey, giving answers to each question as percentages of the total response. More detailed analysis however allows further conclusions to be drawn about the current perspectives on the nature of risk and the use of risk management. These are explored in the paragraphs below.

Industry-specific views of risk

Comparing responses to questions 1 and 6 indicates whether particular groups of respondents hold a shared view of risk. Since a large proportion of replies were received from consultants or those working in the IT sector, it is possible to see whether these respondents tend to hold threat-only definition of risk or a broader definition.

Among IT respondents, 55% replied that they defined risk only in terms of threats (Q1b), with 33% using a definition including both threat and opportunity. These proportions match closely the overall distribution from all responses (Q1b=54%, Q1c=34%). The split among consultants is rather different however, with 48% of consultants defining risk exclusively as threats and 40% using the broader definition.

Although numbers of replies from these sectors were smaller, it may be significant that about 60% of those from the communications and government agency sectors saw risk as only negative. The sector with the highest percentage using a “threat + opportunity” definition was transportation (66%) though the number of replies was not statistically significant.

Organisational vs. personal view of risk

Comparing the results of Q1 and Q3 reveals an interesting juxtaposition between the definition of risk used by organisations and that used by individual respondents.

About half of the organisations use a “threat-only” definition (Q1b) and a third use a broader definition of “threat + opportunity” (Q1c). However for individual risk practitioners, about half define risk to include both threat and opportunity (Q3c), while a third use “risk” to refer only to a threat (Q3b). There are a number of possible explanations for this finding, and the available data cannot determine between them.

- Perhaps individual risk practitioners hold a more current view of risk than organisations, since it is their area of speciality. This might lead them to have adopted the wider definition including opportunity ahead of their organisations who are still using the older more traditional negative definition.
- Another possibility is that those individuals responding to this survey were a self-selecting non-representative group who felt more strongly about including opportunity in the risk definition than people or organisations at large. The predominance of project risk management practitioners may also have skewed the survey result, since other groups of risk specialists may prefer to regard risk as only covering threats (e.g. those working in financial risk, insurance, actuarial risk, health & safety risk etc.).
- Data quality must be considered when interpreting these (and other) results, since it is possible that respondents may be misrepresenting their organisation’s approach to risk management, whether consciously or not.
- Lastly, it is possible that the difference between organisational and individual views may represent a time-lag effect, since individuals can respond more quickly than organisations to changes in definitions, standards, best-practice or leading-edge.

Organisational consistency

Replies to Q1 and Q2 indicate a high degree of internal consistency in organisations in their approach to risk management. Q1 describes the definition of risk used in the organisation, with Q2 detailing the approach to risk management.

A third of organisations (62 replies to Q1c, 34%) use an inclusive definition including both threats and opportunities, and about a third (71 replies to Q2c, 38%) have an integrated common process for managing both threats and opportunities together. Analysis indicates that these are largely the same organisations (with 50 responses in common), revealing a welcome consistency of approach. In other words, most (80%) of the organisations which use an inclusive risk definition also have an integrated risk process.

Organisations which define risk exclusively in terms of threats (i.e. 99 replies or 54% answering Q1b) are also consistent, tending to reserve their risk management process for threat management. These are almost equally split between those who have no explicit opportunity management process (39 also answered Q2a), and those who use a separate process for managing opportunities (42 answered Q2b). Only 20 respondents answered either Q2a or Q2b who did not also answer Q1b. In other words, most (80%) of the organisations with a negative risk definition also have a threat-focused risk process.

Appetite for change

Q3 reveals that 13% of individuals use a definition of risk with a neutral (i.e. undefined or unknown) impact (Q3a), while 33% use a threat-only definition (Q3b), and 46% use a broader definition including opportunity (Q3c).

Q4 shows that 60% of respondents would support a general change in the definition of risk to include both threats and opportunities (Q4a), with 30% opposed to change (Q4b).

Analysis indicates that those respondents supporting change are largely the ones who already use either a wider risk definition or a neutral definition. Of the 112 individuals supporting change, 71% already define risk to include both threat and opportunity, and a further 16% use a neutral definition.

On the other hand, people whose personal definition of risk is exclusively negative tend to oppose change. 72% of those with a threat-only definition of risk oppose change, and 82% of those opposed to a broader definition hold a threat-only definition.

This might indicate division of the risk community into traditionalists who hold and wish to preserve the view that risk is synonymous with threat, and progressives who already take a non-traditional view and wish to see it more widely accepted.

Organisational membership

Analysis of organisational membership reveals that members of the PMI Risk SIG hold mixed views on the definition question, with 59% supporting change and 32% opposing it. PMI Risk SIG members might be expected to have been influenced by the new risk chapter in the 2000 edition of the PMI's *Guide to the Project Management Body of Knowledge (PMBOK®)*, which uses a broader definition of risk including both threat and opportunity. The other main group of respondents (15%) belonged to IPMA-affiliated bodies (largely the UK Association for Project Management), and these strongly supported change, with 82% in support of a wider risk definition and only 14% opposed.

The overwhelming majority of responses came from the project risk management community (88% belong to PMI and/or APM), and this may have skewed the results of the survey, since it is possible that they may not be representative of the body of risk practitioners as a whole.

CONCLUSIONS AND FURTHER WORK

This short limited survey has produced some interesting and significant data relevant to the current debate over the meaning that should be given to the term “risk”. Survey data shows that over half of organisations and a third of individuals currently use a definition of risk which is just negative, compared to a third of organisations and nearly half of individuals who use a wider definition including both threats and opportunities.

But the survey also indicates that the majority of respondents (60%) support changing the definition to be more inclusive. The results also suggest that many organisations do in fact use a common process to manage both threats and opportunities (38%),

compared to 26% whose risk process only manages threats, and 28% who have two separate processes for threat-risks and opportunities.

These results can be interpreted to mean that there is some pressure towards an expanded definition of risk, and that such a change would reflect current practice. However further data is required to test this tentative preliminary conclusion, drawing on the opinions of a wider constituency of risk practitioners. In particular, the general applicability of the results may be compromised by the concentration of responses from members of the project risk management community, and from the consultancy and IT sectors. It is therefore recommended that other practitioner bodies and other industry sectors should be encouraged to contribute to this or a similar survey, supplementing the current data and allowing stronger conclusions to be drawn.

Nevertheless, the preliminary findings from this simple questionnaire show that a significant proportion of organisations and individuals recognise both upside and downside risk, and that there is support for a change in the definition of risk to include both threats and opportunities.

SURVEY PROJECT LEADERS

| NAME | COMPANY | CONTACT | RISK ORGANISATION(S) |
|------------------|--------------------------|--|-------------------------------------|
| Dr David Hillson | PMProfessional Solutions | dhillson@PMProfessional.com | PMI Risk SIG, APM, IRM, INCOSE RMWG |
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| William Seeger | SAIC | william.r.seeger.jr@saic.com | INCOSE RMWG |

APPENDIX : INCOSE RMWG/PMI Risk SIG Risk Definition Survey

There is currently an active debate in the international risk management community about the definition of risk. Some feel that risk includes threats (downside risk or uncertainties with negative impact) *and* opportunities (upside risk or uncertainties with positive impacts); others feel that the definition should include *only* threats (uncertainties with negative impacts). The INCOSE Risk Management Working Group and PMI Risk SIG wishes to assess the body of opinion amongst active risk management practitioners by conducting a short survey through the main professional bodies and mail lists, and welcomes your participation.

Please indicate if you would like a summary of results by placing your name and email address at the bottom of this survey – note that individual responses will not be identified. **Responses to this survey should be sent by 31 October 2001. Thank you for your help.**

Complete each question by putting an x in front of the appropriate answer or inputting your answer after the question.

1. Which of the following definitions of risk is closest to that used by your organization?

- a. Risk is an uncertain event or condition which, if it occurs, would have an undefined or unknown impact on achievement of objectives.
- b. Risk is an uncertain event or condition which, if it occurs, would have a negative impact on achievement of objectives (threat).
- c. Risk is an uncertain event or condition which, if it occurs, would have a negative or positive impact on achievement of objectives (threat or opportunity).
- d. Some other definition (please state)

2. Which of the following best describes your organization's approach to risk management?

- a. The risk management process aims to manage potential negative impacts on objectives (i.e. threats only). There is no process for explicit handling of opportunities.
- b. The risk management process aims to manage potential negative impacts on objectives (i.e. threats only). Opportunities are handled via a separate process that is not an integrated part of risk management.
- c. The risk management process aims to manage both threats and opportunities in a common (integrated) process.
- d. Some other approach not covered by the above (please state).

- 3. Which of the definitions in Question 1 above (reproduced below) best reflect your own preferred definition of risk?**
- a. ___ Risk is an uncertain event or condition which, if it occurs, would have an undefined or unknown impact on achievement of objectives.
 - b. ___ Risk is an uncertain event or condition which, if it occurs, would have a negative impact on achievement of objectives (threat).
 - c. ___ Risk is an uncertain event or condition which, if it occurs, would have a negative or positive impact on achievement of objectives (threat or opportunity).
 - d. ___ Some other definition (please state)
- 4. Would you (or do you) support a general change in the definition of risk to include both threats and opportunities?**
- a. ___ Yes
 - b. ___ No
 - c. ___ Don't know
 - d. ___ Don't care
- 5. Would you like to receive a summary of the survey results?**
- a. ___ Yes : my email address is _____
 - b. ___ No
- 6. Indicate the industry sector/organization type in which you work.**
- a. ___ Manufacturing
 - b. ___ Research & Development
 - c. ___ Aerospace
 - d. ___ Defense
 - e. ___ Information Technology
 - f. ___ Construction
 - g. ___ Transportation
 - h. ___ Finance
 - i. ___ Government or Public Agency
 - j. ___ Consulting
 - k. ___ Energy
 - l. ___ Not-For-Profit
 - m. ___ Environmental
 - n. ___ Communications
 - o. ___ Agriculture
 - p. ___ Medical
 - q. ___ Other (please state)

7. Comments (optional)

8. Personal Details (optional)

- a. Name (optional) _____
- b. Organization (optional) _____
- c. Membership in Risk Management-related professional bodies (check all that apply)
 - 1. Project Management Institute (PMI)
 - 2. International Council On Systems Engineering (INCOSE)
 - 3. IPMA-affiliated body (e.g. UK APM)
 - 4. UK Institute of Risk Management (IRM)
 - 5. Global Association of Risk Professional (GARP)
 - 6. Other (please state)