WHAT IS "RISK"?

Volume II

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If we both think exactly alike, then one of us is unnecessary.

Introduction

There is currently an active debate among some risk management practitioners about the definition of risk. Given the long history of risk management it might be surprising that this question is still capable of exciting 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.

This particular definition debate centers on the question of whether the term "risk" should be used to only refer to uncertain events which could have an effect which is unwelcome, adverse, or harmful (i.e. "threats"). There is little doubt that the common usage of the word is associated with these types of effect – everyone knows that risk is bad for you. However, there exists a view that risk management should address uncertain events that could have positive impacts (what I would call opportunities) as well as those that are expected to have negative impacts. This has led to a perspective that the term "risk" should include both threats and opportunities and that "Risk Management" should encompass both risks and opportunities. Some risk practitioners strongly oppose this move, while others feel it is essential. 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 are both based on anecdotal data.

Without getting into the particulars of the debate, I tried to determine how much of current literature, procedures and processes would need to be changed if the definition of risk was changed to encompass positive impacts (opportunities). This paper provides an interesting cross section of how many organizations view risk.

An interesting thought to include in the debate is that even if all definitions of "risk" included both negative and positive impacts, almost all people and organizations tend to plan their projects and operations as if everything positive that can happen will automatically happen. Planning your projects that far up the impact continuum tends to eliminate any chance of a positive impact occurring that has not been planned for, as all possible positive impacts have already been assumed as happening. In other words, optimistic assumptions are taken as the basic plan for the project and there are simply no more positive impacts left to occur. If all of those planned-for positive impacts do not

occur (high probability approaching certainty), then the project cost, schedule and/or performance constraints will not be met.

This paper is Volume II of my ongoing research into what people and organizations consider as the definition of risk. This definition is the basis for how they conduct their Risk Management process and, in most cases, what is considered during the Risk identification and assessment steps of the process. Volume I provided 50 definitions chosen from random sources, and this paper is the same - simply a list of 50 definitions randomly chosen from numerous sources not included in Volume I. The *italics* are mine. They are included to point out what the reference assumes is a risk – just negative impacts or both negative <u>and</u> positive impacts. Assuming that these 100 references are somewhat representative of the literature set as a whole (a very uncertain assumption), then approximately 82% of all literature pertaining to risk and risk management assumes a risk implies a **negative** impact. Changing all the existing risk management processes, procedures and methodologies to include **both** negative and positive impacts would seem to be a very daunting and costly task. Changing the mindset of all the people who are normally in the risk information communication chain would also seem to be a very difficult task. The possibilities for misunderstandings would increase exponentially.

Risk Definition References

1. Risk: *The quantifiable likelihood of loss or less-than-expected returns*. Examples: currency risk, inflation risk, principal risk, country risk, economic risk, mortgage risk, liquidity risk, market risk, opportunity risk, income risk, interest rate risk, prepayment risk, credit risk, unsystematic risk, call risk, business risk, counterparty risk, purchasing-power risk, event risk. See Also actuary, aggressive, flier, conservative, hedge, alpha, asset allocation, at risk, risk-free return, Capital Asset Pricing Model, modern portfolio theory, capital market line, insurance, underwrite, cost of capital, diversification, efficient portfolio, equity risk premium, exposure, preservation of capital, sensitivity, legislative risk, benchmark risk, excluded risk, legal risk, operational risk, price risk, regulatory risk, reinvestment risk, systemic risk

Reference: http://www.investorwords.com/cgi-bin/getword.cgi?4292

- 2. Software Risk Definition: A Software Risk is...According to David Gluch's A Construct for Describing Software Development Risks, a risk is a combination of an abnormal event or failure and the consequences of that event or failure to a system's operators, users, or environment (pg. 27). A risk can range from catastrophic (loss of entire system; loss of life or permanent disability) to negligible (no system damage; no injury). Risks are also categorized according to the likelihood of occurrence. Reference: http://osat-ext.grc.nasa.gov/rmo/riskdb/definition.htm
- 3. What is risk? The last question is a very difficult question to answer, primarily because there is no real answer. *Risk assessment is, to a large extent, a matter of personal judgment.* Some view risk and uncertainty as synonymous, while others view only the downside of uncertainty as risk. Still others measure risk in terms of probability—the probability of losing money, or the probability of failing to make quotas. Reference: http://www.sis.slb.com/media/software/valuerisk/SPE 62966.pdf

4. Disaster Risk Definition: *Damage to a particular entity* (e.g. property, infrastructure) creates losses to other entities (negative stochastic externalities).

Reference: Howard Kunreuther, Center for Risk Management and Decision Processes, The Wharton School University of Pennsylvania:

http://www.proventionconsortium.org/files/dec_conference/kunreuther.pdf

5. Risk - Exposure to Gain and Loss

It is when the decision involves consequences for the decision maker we face a situation of risk. A traditional way of understanding risk is to calculate how much a certain event varies over time. The less it varies the minor the risk. In every decision where historical data exists we can identify historical patterns, study them and calculate how much they vary. Such a study gives us a good impression of what kind of risk profile we face. Risk - randomness with knowable probabilities.

Uncertainty - randomness with unknowable probabilities.

Reference: http://www.valuesim.no/risk/risk_definition.html

6. Security Risk: TMTA has obtained information it believes defines a security risk in the context of the Patriot Act of 2001. According to information obtained from the U.S. Department of Transportation, a "security risk" will be defined as any driver who has been convicted in the past 10 years of any of the following felony crimes:

Murder; Assault with intent to murder, Espionage, Sedition, Kidnapping or hostage taking, Treason, Rape or aggravated sexual abuse, Unlawful possession, use, sale, distribution, or manufacture of an explosive or weapon, Extortion, Armed or felony unarmed robbery, Distribution of, or intent to distribute, a controlled substance, Felony arson, Felony involving a threat, Felony involving willful destruction of property; burglary; theft; dishonesty, fraud or misrepresentation; possession or distribution of stolen property; aggravated assault; bribery; illegal possession of a controlled substance punishable by a maximum term of imprisonment of more than one year; and Violence at international airports.

Reference: Texas Motor Transportation Association, http://www.tmta.com/Resources/News/QuestionsAnsweredOv1521.asp

7. (Update from Volume I) Country Risk Definition: Country risk relates to the likelihood that changes in the business environment will occur that reduce the profitability of doing business in a country. These changes can adversely affect operating profits as well as the value of assets.

Types of country risk –

- 1. Political changes, expropriation (loss of assets, termination of operations), currency inconvertaibility (inability to repatriate profits, import), higher taxes (less after tax revenues), higher tariffs (higher import costs), elimination of FDI incentives (higher costs), domestic ownership requirements (loss of revenue, loss of proprietary info, more difficult management), local content requirements (higher costs)
- 2. Macroeconomic mismanagement: Governments may pursue unsound monetary and fiscal policies, inflation (higher costs, difficult planning, currency

depreciation), higher interest rates (higher borrowing costs in host country), recession (lower demand in host country), hard currency shortage (must use hard currency earnings to pay debts to foreigners)

- 3. Other: war (general disruptions), labour unrest (higher costs, work stoppages) Reference: http://www.creditworthy.com/topics/countryrisk_define.asp
- 8. Minimal risk -- Federal guidelines state that, "minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests."

Reference: http://www.mtholyoke.edu/offices/osr/irb/def_minimal_risk.html

9. **RISK:** The Simple Definition

Noun: Possibility of loss or injury, Someone or something that creates or suggests a hazard, (insurance) The chance of loss; a person or thing that is a specified hazard; an insurance hazard from a specified cause

Adjective: Riskless, At risk

Transitive Verb: Risked, risking, risks, To expose to a chance of loss or danger, To incur

the risk of

Reference: http://soa2.syn.net/risk/risk_definition.pdf

10. Risk:

- 1.[n] *a venture undertaken without regard to possible loss or injury*; "he saw the rewards but not the risks of crime"; "there was a danger he would do the wrong thing"
- 2.[n] *a source of danger*; "drinking alcohol is a health hazard"
- 3.[v] take a risk in the hope of a favorable outcome; "When you buy these stocks you are gambling"
- 4.[v] expose to a chance of loss or damage; "We risked losing a lot of money in this venture"; "Why risk your life?"

Reference: http://www.hyperdictionary.com/dictionary/Risk

11. Webster's 1913 Dictionary Definition:

- 1.\Risk\, n. [F. risque; cf. It. risco, risco, rischio, Pg. risco, Sp. risco, and also Sp. risco a steep rock; all probably fr. L. resceare to cut off; pref. re- re- + secare to cut; -- the word having been probably first used among sailors. See {Section}.]
- 1. *Hazard; danger; peril; exposure to loss, injury, or destruction*. The imminent and constant risk of assassination, a risk which has shaken very strong nerves. --Macaulay.
- 2. (Com.) Hazard of loss; liabillity to loss in property. {To run a risk}, to incur hazard; to encounter danger.

Syn: Danger; hazard; peril; jeopardy; exposure. See {Danger}.

- 2.\Risk\, v. t. [imp. & p. p. {Risked}; p. pr. & vb. n. {Risking}.] [CF. F. risquer. See {Risk}, n.] 1. To expose to risk, hazard, or peril; to venture; as, to risk goods on board of a ship; to risk one's person in battle; to risk one's fame by a publication.
- 2. To incur the risk or danger of; as, to risk a battle.

Syn: To hazard; peril; endanger; jeopard.

Reference: http://www.hyperdictionary.com/dictionary/Risk

12. Risk: The probability that an event will occur. It encompasses a variety of measures of the *probability of a generally unfavorable outcome*.

Reference: http://www.books.md/R/dic/risk.php

13. Risk: *Exposure to uncertain change. In popular usage, adverse change is appropriately emphasized.* Annualized standard deviation of return is the generic measurement of risk in most markets, but both asset and liability managers increasingly add other statistical measures, such as skewness and kurtosis, to a risk profile, or, even better, look at the entire probability distribution of returns and the maximum cost of adverse developments. See Kurtosis, Skewness, Standard Deviation (SD, σ), Volatility, and specific types or causes of risk.

Reference: http://www.amex.com/

14. Risk: *The probability that an investment or venture will make a loss or not make the returns expected*. This probability can be measured. There are many different types of risk including basis risk, country or sovereign risk, credit risk, currency risk, economic risk, inflation risk, liquidity risk, market or systematic risk, political risk, settlement risk, systemic risk and translation risk.

Reference:

http://glossary.reuters.com/index.asp?action=browse&match=risk&x=11&y=1

15. Risk - *The variability inherent in investment, speculative or trading activities*. The greater the variability, the higher the risk. Risk can be attributed to many factors. As such, the specification of a risk can described with the use of an associated qualifying term. These terms include but are not limited to credit, counterparty, liquidity, market, fraud, currency, roll, agency, coupon, event, corporate and country.

Reference: http://www.oasismanagement.com/glossary/

16. Risk management: Risk management can be described as the culture, processes and organization that helps a business to evaluate risk, assess its potential impact and plan the appropriate action to take *in order to avoid or control risk* by the most economical means. It is not possible or desirable to eliminate all risks, the objective is to implement cost effective processes that reduce risks to an acceptable level, reject unacceptable risks, and transfer other risks through insurance and other means. Reference:

http://www.abbi.com.au/dire/direct/directpublishingv2.nsf/content/Risk+Management+-+What+is+Risk+Management+and+Why+is+it+important

17. *Risk is the probability of negative consequences to an event or activity*, and it is constantly present in everyday life. Risk means different things to different people. Risks that exist in day-to-day activities often lose their intensity because they become familiar. In contrast, risks in new activities are often magnified due to their newness. This is true of any new technology, including biotechnology.

Reference: http://strategis.ic.gc.ca/epic/internet/inbac-bec.nsf/vwGeneratedInterE/bk00130e.html

18. Risk – A measure of both the harm to human health that results from being exposed to a hazardous agent, together with the likelihood that the harm will occur. In order for a health risk to exist, three things must be true: there must be exposure to a hazard, there must be a health effect, and there must be some likelihood that the health effect will occur.

Reference: Health Canada Decision-Making Framework for Identifying, Assessing and Managing Health Risks, August 1, 2000.

Risk refers to *the uncertainty that surrounds future events and outcomes*. It is the expression of the likelihood and impact of an event with the potential to influence to achievement of an organization's objectives.

Reference: Canadian Government Policy on Active Monitoring (of Risks)

Risk is the *chance of injury or loss* as defined as a measure of the probability and severity of an adverse effect on health, property, the environment or other things of value. Reference: Canadian Standards Association "Risk Management: Guidelines for Decision Makers (CAN/CSA-Q850-97)

19. Risk: *The variation in outcome from a specific act or set of activities undertaken within a specific environment.* You will note that risk deals strictly with unpredictability and is not associated only with negative outcomes. However, most of the people I deal with are only interested in the outcomes with negative potential. Therefore, when dealing with most folks, I mention the potential positive aspects of Risk Management with some degree of trepidation.

Reference: RJonesAssn@aol.com

20. Risk: The combination of *events harmful to an entity's desired state of affairs*, the chance that the events will take place and the consequences of their occurrence, as a function of time.

Reference: NSA Corporate Plan for INFOSEC Action, April 1996

21. Requirement: Protect government information commensurate *with the risk and magnitude of harm that could result* from the loss, misuse, or unauthorized access to or modification of such information (OMB Circular A-130).

Reference: http://www.whitehouse.gov/omb/circulars/a130/a130trans4.html

22. Any definition of risk is likely to carry an element of subjectivity, depending upon the nature of the risk and to what it is applied. As such there is no all-encompassing definition of risk. Chicken & Posner (1998) acknowledge this, and instead provide their interpretation of what a risk constituents:

$Risk = Hazard \times Exposure$

They define hazard as ".. the way in which a thing or situation can cause harm," and exposure as ".. the extent to which the likely recipient of the harm can be influenced by

the hazard" (ibid). Harm is taken to imply injury, damage, loss of performance and finances, whilst exposure imbues the notions of frequency and probability. It can be argued that hazard is not the ".. way in which .." rather it is the 'thing' its self.

Reference: http://www.arcom.ac.uk/workshops/01-Loughborough/05-Greene.pdf

23. Risk definition: Flood risks result from two fundamentally different parameters, *namely VULNERABILITY and HAZARD*. A river which overflows is a natural phenomenon with random characteristics: it is the hazardous component of the risk. The fact that damage is caused results from the more or less significant sensitivity of the site where this phenomenon occurs: it is the vulnerability component.

Reference: http://www.oieau.fr/inondations/ang/chap1/defrisg.htm

24. Operational Risk: The definition put forward in Basel II, the new capital adequacy accord proposed for large international banks by the Basel Committee of banking supervisors from the Group of 10 leading economies, is: "Operational risk is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems, or from external events."

Reference:

http://www.chicagofed.org/bankinforeg/bankregulation/opsrisk/swensondefin.pdf

25. The term "risk" is often confused with "hazard". A high voltage power supply, a sample of radioactive metal, or a toxic chemical may present a hazard, meaning that they present the potential for harm. Concentrated acids, for example, clearly present the hazard to the user of serious burns if they are handled incorrectly. *The risk is the probability or chance that the hazard posed by the chemical will lead to injury*. Thus, concentrated sulfuric acid is a hazardous chemical; because it is very corrosive and reactive. However, provided it is handled in an appropriate way the risks it poses may be small.

Reference: http://physchem.ox.ac.uk/MSDS/glossary/risk.html

26. Definition of Minimal Risk: "the probability and magnitude of [physical or psychological] harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily [normally] encountered in daily life or during the performance of routine physical or psychological examinations or tests [of healthy children]."

Reference: http://humanvalues.wustl.edu/nelson/tsld009.htm

27. Risk: a combination of the probability, or frequency, of occurrence of a *defined hazard* and the magnitude of the consequences of the occurrence.

Reference: http://www.netcoast.nl/coastlearn/website/era/era_definition.htm

- 28. Security Risk: The Security Risk level of a system is a combination of the *importance of maintaining*:
 - The Availability of that system.
 - The Integrity of data housed on or managed by that system.
 - The Confidentiality of sensitive information stored on that system.

These form three axes of a three-dimensional space. Every computer system occupies some point in that space. It is prudent to implement Security measures on each system appropriate to its location in the Security Risk space.

Reference: http://m-tech.ab.ca/concepts/security_risk.html

29. Risk: The chance of something happening that will have an impact upon

objectives. It is measured in terms of consequences and likelihood. Reference: http://www.interdynamics.com.au/FAID/faid_rmdef.htm

30. Risk: A measure of the *inability to achieve program objectives* within defined cost and schedule constraints. Risk is associated with all aspects of the program, e.g., threat, technology, design processes, Work breakdown structure (WBS) elements, etc. It has two components, the probability of failing to achieve a particular outcome, and the consequences of failing to achieve that outcome.

Reference: http://cno-n6.hq.navy.mil/N6E/PPBS/

31. Risk: risk is the likelihood of variation in the occurrence of an event, which may have *either positive or negative consequences*.

Reference: http://www.ramprisk.com/riskglossary/glossary_p2t.asp

32. What is a risk? *An adverse event that is planned or unplanned* and can potentially impact an organization, operation, process, or project. It is usually defined in negative terms as an outcome. If a risk has a positive outcome, it will be an opportunity. If planned (i.e., defined, analyzed, and controlled), then countermeasures can be in place before the risk materializes. If unplanned, the risk can result from minor consequences to severe catastrophes. A probability of outcome is part of the analysis, as well as the financial impact.

Reference: http://www.exit-18.com/risk_management_definition.htm

33. Project risks are circumstances or events that exist outside of the control of the project team that *will have an adverse impact* on the project if they occur. (In other words, whereas an issue is a current problem that must be dealt with, a risk is a potential future problem that has not yet occurred.) All projects contain some risks. Risks may not be able to be eliminated entirely, but can be anticipated and managed, thereby reducing the probability that they will occur.

Reference: www.tenstep.com/templates/ AbbreviatedProjectDefinition.doc

34. Risk: The possibility that a *particular threat* will exploit a particular vulnerability of a data processing system. [2382-pt.8]

Risk assessment: 1. See risk analysis. 2. [In INFOSEC, the] process of analyzing threats to and vulnerabilities of an information system (IS) and the potential impact the loss of information or capabilities of a system would have on national security. The resulting analysis is used as a basis for identifying appropriate and cost-effective countermeasures. [INFOSEC-99] American National Standard for Telecommunications - Telecom Glossary 2000

Reference: http://www.atis.org/tg2k/

Risk analysis: A systematic method of identifying the assets of a data processing system, *the threats* to those assets, and *the vulnerability* of the system to those threats. [2382-pt.8]. In COMSEC (communications security), an organized method of estimating or calculating the probability of compromise. [After X9.49] 3. Synonym [in INFOSEC] risk assessment.

Reference: http://www.atis.org/tg2k/_risk_analysis.html

35. Legal Risk: The *risk of loss to an institution* (including reputational loss) which is primarily caused by defective transactions, non-voluntary legal liability incurred in the course of the operations of the institution, legal liabilities not falling with (a) or (b) above which are not consequent upon contractual commitments, and failing to take appropriate measures to protect assets owned by the institution.

Reference: http://www.ibanet.org/CommitteePDFs/SBL-E_Legal_Risk_Draft_Definition.pdf

Operational risk is the *risk of loss* resulting from the inadequate or failed internal processes, people or systems or from external events, including legal risk. Reference: EU Commission Services working paper issued 1 July 2003; http://www.ibanet.org/CommitteePDFs/SBL-E_Legal_Risk_Draft_Definition.pdf

36. Risk is a measure of the *potential inability to achieve* overall program objectives within defined cost, schedule and technical constraints and has two components: (1) the probability/likelihood of failing to achieve a particular outcome, and (2) the consequences/impacts of failing to achieve that outcome.

Reference: Risk Management Guide for DoD Acquisition, 5th Edition, June 2002

37. Definition of At Risk: A person can be considered at risk if they *are limited or disadvantaged* by resources: financial, educational, geographical, cultural Reference:

 $\underline{\text{http://www.mcnair.ucdavis.edu/presentations/1998/ppt/perezalonso/perezalonso1/tsld002}}.htm$

- 38. A. General market risk: This risk category comprises *price changes of a financial instrument, which are caused by changes of the general market situation*. General market conditions in the interest rate sector are characterized by the shape and the moves of benchmark yield curves, which are usually constructed from several benchmark instruments. The benchmark instruments are chosen in such a way so that they allow for a representative view on present market conditions in a particular market sector.
- B. Residual risk: Residual risk characterizes the fact that the actual price of a given financial instrument can change in a way different from the changes of the market benchmark (however, abrupt changes which are caused by events in the sphere of the obligor are excluded from this risk category). These price changes cannot be accounted for by the volatility of the market benchmark. Residual risk is contained in the day-to-day price variation of a given instrument relative to the market benchmark and, thus, can be observed continuously in time. Residual risk is also called idiosyncratic risk.

- C. Event risk: Abrupt price changes of a given financial instrument relative to the benchmark, which significantly exceed the continuously observable price changes due to the latter two risk categories, are called event risk. Such price jumps are usually caused by events in the sphere of the obligor. They are observed infrequently and irregularly.

 D. Residual risk and event risk form the two components of so-called specific price risk or specific risk -- a term used in documents on banking regulation, Bank for International Settlements (1998a), Bank for International Settlements (1998b) -- and characterize the contribution of the individual risk of a given financial instrument to its overall risk.

 Reference: http://www.quantlet.com/mdstat/scripts/xfg/html/xfghtmlnode20.html
- 39. Project Risk Management Definition A process whereby decisions are made to accept known or assessed risks and/or the implementation of actions to *reduce the consequences or probability of occurrence*Reference: Association of Project Management (UK) APMP Syllabus 2nd Edition,

Reference: Association of Project Management (UK) APMP Syllabus 2nd Edition, January 2000, Abridged Glossary of Project Management Terms (Rev. 4)

40. Project Risk Management Definition - The systematic process of identifying, analyzing, and responding to project risk. It includes *maximizing the probability and consequences of positive events and minimizing the probability and consequences* of adverse events to project objectives.

Reference: Guide to the Project Management Body of Knowledge, 2000 Edition, p127

41. *Risk:* The *probability of an adverse effects* caused under specified circumstances by an agent in an organism, a population or an ecological system.

Reference: http://www.who.int/pcs/harmon_site/harmonize/docs/Data-oriented%20terms.pdf

- 42. Risk The likelihood that a *particular threat using a specific attack*, will exploit a particular vulnerability of a system that results in an undesirable consequence. Reference: (Definition from National Information Systems Security (INFOSEC) Glossary, NSTISSI No. 4009, Aug. 1997)
- 43. Risks the conditions and events that represent *material threats* to the organization's achievement of its objectives or represent areas to exploit for competitive advantage. Reference: http://www.casact.org/research/erm/frame.pdf
- 44. Risk: Generically, *risk is the chance that something bad will happen*, and this is a perfectly apt definition in the world of investing as well. But because this leaves little room for measurement, risk in the context of investing simply refers to the variability of investment returns. The great trade-off in investing, of course, is between risk and return. Risky investments usually must offer at least some hope of a higher return than extremely safe investments. To invest successfully, it's important to understand the nature of the risks you face as well as your attitude toward them.

Reference: http://moneycentral.msn.com/investor/glossary/glossary.asp?TermID=456

45. Risk - "to expose (someone or something valued) to *danger*, *harm or loss*; to act or fail to act in such a way as to bring about the possibility of an (unpleasant or unwelcome event); - also - a situation involving exposure to danger; the possibility that something unpleasant or unwelcome will happen" (B125)

Reference:

http://212.187.155.84/wnv/Subdirectories_for_Search/Glossary&References_Contents/K eywordsContents/R/Risk.htm

- 46. Risk [r?sk] noun
 - 1. The possibility of incurring misfortune or loss; hazard;
 - 2. (Insurance) a. chance of a loss or other event on which a claim may be filed, b. the type of such an event, such as fire or theft, c. the amount of the claim should such an event occur, d. a person or thing considered with respect to the characteristics that may cause an insured event to occur
 - 3. At risk a. vulnerable; likely to be lost or damaged, b. (Social welfare) vulnerable to personal damage, to the extent that a welfare agency might take protective responsibility
 - 4. No risk (Australian) (informal) an expression of assent
 - 5. Take or run a risk to proceed in an action without regard to the possibility of danger involved in it verb [transitive]
 - 6. To expose to danger or loss; hazard
 - 7. To act in spite of the possibility of (injury or loss) example: to risk a fall in climbing

[ETYMOLOGY: 17th Century: from French risque, from Italian risco, from rischiare to be in peril, from Greek rhiza cliff (from the hazards of sailing along rocky coasts)] risker - noun

Reference: http://www.wordreference.com/english/definition.asp?en=risk

47. Risk: *A measure of uncertainty*. The chance of something happening that will have an impact on objectives. It is measured in terms of consequences and likelihood. In the business process, the uncertainty is about the achievement of organizational objectives. May involve positive or negative consequences, although most positive risks are known as opportunities and negative risks are called simply risks.

Reference: http://www.theiia.org/iia/index.cfm?doc_id=1605

- 48. A risk is *a potential problem*, which is characterized by the likelihood that an event, hazard, threat, or situation will occur and its undesirable consequence (IEEE 2001]. Reference: http://asusrl.eas.asu.edu/est/content/statistic/Risk-basedTesting.pdf
- 49. Risk: the chance of *something adverse happening*. Defined as the product of the probability of a hazard causing loss and the consequence of loss Reference: http://www.iee.org/Oncomms/pn/management/risk3.pdf

50. A Security Risk is the *probability of sustaining a loss* of a specific magnitude during a specific time period due to a failure of security systems.

Reference: http://www.risk-decisions.com/Risk-Management-Slides/tsld007.htm