Register No: IP030872

RISK ASSESSMENT AND RISK MANAGEMENT POLICY (GUIDELINES)

OF

PORTSMOUTH SUPPORTERS' SOCIETY

LIMITED

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1.0. Introduction

Risk matrices are used by most organisations to support effective risk assessment processes; and are useful tools for promoting robust discussion and consistency when prioritising risks. They also provide focus for decision makers on the highest priority risks through the presentation of concise visual data. However, risk matrices are not without limitations [inexperienced risk assessors or methodologically flawed]; and frequently generate misleading ratings that could easily lead to suboptimal resource allocation to risk treatments. Hence, there is an inherent methodological problem associated with all risk matrices. For example, risk matrices can correctly and unambiguously compare a small fraction of randomly selected pairs of risks; and then mistakenly assign a higher qualitative rating to quantitatively smaller risks to the point where the risk matrix, inadvertently, negatively correlates frequencies and severities leading to worse-than-random decisions. Furthermore, categorisations of severity can seldom be made objectively; and requires, therefore, a subjective assessment [interpretation] of likelihood and consequence without oversimplifying complexity or volatility of a risk [risks are relatively static over time]. Hence, risk matrices are designed to provide qualitative or semi-quantitative ordinal information; and not precise mathematical data. Risk matrices should only be used to support risk informed decisions [not as a tool for making decisions]; and in conjunction with a clearly defined (1) risk statement; (2) robust likelihood and consequence definitions; (3) a hierarchy of controls to prioritise risk treatments; and (4) expected monetary value or cost/benefit of risk treatments.

2.0. Defining Risks [Risk Statement]

CASE (Talbot, 2010) is a tool for defining a risk statement [articulating risks - likelihood and consequence]; and informs the decision making process with reference to the following four characteristics:

1. **C** onsequence - what is the impact of this risk?
2. **A** sset - what asset(s) are at risk?
3. **S** ource - what are the threats/actors behind this risk?
4. **E** vent - what particular type of incident is being considered?

3.0. Likelihood and Consequence Definitions

The ability to make accurate judgements under conditions of uncertainty, or the ability to select from a range of likelihoods and consequence ratings is difficult because the decision making process is often tempered by biases and heuristics. Hence, risk matrices are an invaluable and a practical decision support tool when describing a risk and making some sort of determination regarding the type of consequences and the likely extent of those consequences if the risk eventuates. Further, likelihood [ratings] can be framed in quantitative, semi-quantitative or in a qualitative way. If there is not sufficient data for a quantitative analysis; and a need for something more granular than simply 'likely' or 'unlikely', risk matrices are ideally suited for semi-quantitative analysis. Hence, there are many ways of representing likelihood, but most commonly likelihood is defined by using the CPF Index.

1. Chance: a qualitative assessment of likelihood.
2. Frequency: the rate at which something occurs or is repeated over a given sample.
3. Probability: a statistical or actuarial assessment of likelihood.

Once risks have been identified it should be recognised that risk estimated in this way is not an absolute value of risk, but simply allows the relative risk associated with each hazard to be compared [the higher the numerical value the greater the risk]. This simple numerical

risk evaluation means that a number can be assigned to describe the severity and the likelihood, which are then multiplied to give a risk rating for each hazard. This does not necessarily make the evaluation more accurate, but using numbers makes the task of prioritising more straightforward as well as demonstrating the thinking that went into making a particular risk evaluation.

3.1 Chance, Frequency and Probability

Chance		Frequency[1]	Probability
Almost Certain	Is expected to occur in most circumstances	Has occurred 9 or 10 times in the past 10 years in this organization or circumstances are in train that will almost certainly cause it to happen	95%
Likely	Will probably occur in most circumstances	Occurred more than 7 times over 10 years in this organization or in other similar organizations or circumstances have such that it is likely to happen in the next few years	65%
Unlikely	Could occur at some time	Has occurred 2 or 3 times over 10 years in this organization or similar organizations	35%
Rare	May occur only in exceptional circumstances	Has occurred or can reasonably be considered to occur only a few times in 100 years.	5%

The table above provides options for selecting the optimal expression of likelihood, but natural frequencies (third column) will typically provide the Board with an option most likely to deliver the optimal results.

3.2 Risk Rating (Probability x Severity = Risk Rating)

Risks Rated 1-4		Severity			
		1	2	3	4
		Negligible	Minor	Major	Catastrophic
4	Almost Certain	4	8	12	16
3	Likely	3	6	9	12
2	Unlikely	2	4	6	8
1	Rare	1	2	3	4

Furthermore, each hazard is given a severity rating of 1 to 4 depending on whether the Board judges it to be negligible, minor, major or catastrophic. The likelihood can be similarly rated depending on whether the Board judges it to be rare, unlikely, possible or almost certain. The ratings for severity and likelihood are then multiplied together to give a numerical value for the risk ranging from 1 to 16.

1. **Note:** Frequency is another way of expressing probability data, but case studies have demonstrated that most people to understand likelihood in terms of frequency.

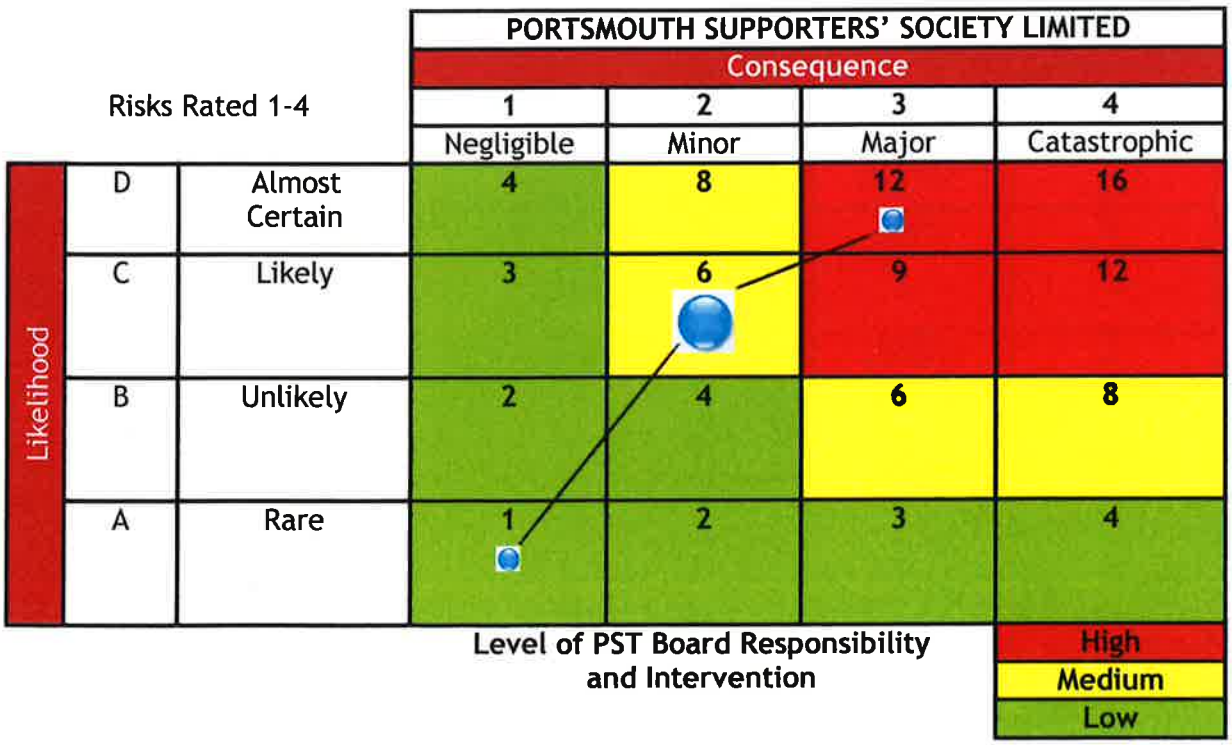
4.0. Using a Risk Matrix

The purpose of a risk matrix is not to obtain a precise estimate of the risk, or to determine the potential impact on objectives in detail; but to assess and prioritise a list of risks. Indeed, where there are too many identified risks the Board will need to aggregate them into groups and then decide what risks require urgent management attention and those risks to be monitored. The use of red-yellow-green types of categorization reflects this broad classification of risks into high, medium, and low priority. In some cases it may be enough merely to rank risks against each other to determine relative prioritisation. All 'red' risks should be treated as high priority. For the purposes of the illustration above a 4×4 risk matrix with 4 levels of risk (Rare, Unlikely, Likely and Almost Certain) has been used to provide granularity. However, even with a well-defined risk the likelihood and consequence may not be as they appear. In the hypothetical case above the risk assessors initially downplayed the likelihood as 'Unlikely' ('occur at some time' or 35%) because people typically assess probability of an event by the ease with which instances or occurrences can be brought to mind. However, on considering the Frequency column and the historical incident reports it becomes apparent that it had occurred more than 7 times in the past 10 years and was therefore a 'Likely' 6. However, to obtain a realistic risk rating it is more useful to consistently use the highest (or worst) likelihood and consequence to rate the risk because a risk matrix which considers only one category of consequence and/or only one estimation of likelihood is likely to be of limited value and will yield inconsistent results.

5.0. Using risk matrices to present data

Even if an organisation chooses to use another method of assessing risks, the risk matrix is one of the most effective tools for conveying risk information. The Bubble Chart (Size of bubble indicates control effectiveness) below is a simple visual technique for conveying risk information.

<u>Bubble Chart</u> (Risk Matrix)



The hypothetical Bubble Chart above contains at least 9 pieces of information:

1. Current risk rating (Position 'C' on matrix)
2. Inherent risk rating if no controls were in place (Position 'D')

3. Past risk ratings (Position 'D')
4. Changes in risk ratings over time ('D' to 'C')
5. Expected residual risk after implementation of treatments (Position 'C')
6. Desired level of residual risk after implementation of treatments (Position 'A')
7. Likelihood (Vertical positions on matrix)
8. Consequence (Horizontal position on matrix)
9. Level of management intervention and responsibility required to address the risk (Colour of the grid square in which the risk is located)

Hence, risk matrices are an invaluable tool for any organisation seeking fast, effective and practical risk assessment processes, but they cannot be used in isolation. Any assumptions or embedded judgments need to be clearly articulated and in particular: (a) the risk description must be clearly defined and (b) the likelihood and consequence descriptors need to be clearly articulated using a variety of parameters. Risk matrices are not suited to every circumstance, but they do provide consistency and granularity to risk prioritisation as well as a point of focus for assessing and monitoring risks.

APPENDIX 1

RISK ASSESSMENT AND RISK MANAGEMENT EXERCISE (GUIDELINES)

RISK ASSESSMENT AND RISK MANAGEMENT EXERCISE (GUIDELINES)

Introduction
The purpose of this risk assessment and risk management session is to learn about risks and opportunities that impact on organisational effectiveness; and to consider the kind of strategic actions the Board might subsequently take to minimise risks and grasp opportunities. A successful risk assessment and risk management process should produce, amongst other things; changes in behaviour, heightened sensitivity and the ability to assess and analyse risk factors.

Process
The process moves from consideration of specified organisational risks to adoption of actions through the following five steps:

1. Assessment of probability
2. Assessment of impact
3. Categorisation of risks
4. Generation and evaluation of options for high impact scenarios
5. Generation of indicators for low risk scenarios

Elaboration of environmental risk
The five scenario statements below are bare statements that describe conditions that may be experienced in the present as well as the future. Hence, scenario planners need to develop circumstances under which risks might occur; and to think imaginatively on each of the discrete topics as well as consult widely.

Advice to participants: The time and effort required to undertake scenario planning should not be underestimated. After careful consideration and debate, you will have learned much about the way things might develop in future, and this is possibly the greatest benefit of the risk assessment exercise.

1. Assessment of Probabilities

Planners should consider the likelihood of the causal routes they have developed for each scenario statement. The suggested scale is severity/probability matrix. It is particularly important that the underlying reasons given for the judgement are clearly articulated and recorded because they will be used later to develop measures that can be used to reflect on trends as they unfold.

Advice to participants: Many studies have shown that the estimate of likelihood is one of the most difficult things that managers are required to do, and such estimates are frequently inaccurate. The purpose of articulating underlying reasons for your judgement is so that you can choose appropriate monitors to check whether or not events are unfolding as predicted.

2. Assessment of impact
Impact is a combined measure of the magnitude of the consequences should the scenario statements prove to be accurate. An 'appropriate scale' is a risk prioritisation methodology

and is an integral component of the severity/probability matrix. Planners should consider the impact on both current operations and strategies.

Advice to participants: The context of impact is always specific; and hence it requires planners to consult widely and at an appropriate level. For example, the separation of responsibility for assessing viability and allocating resources necessarily produces a hyphenated system of communication. Under these circumstances risk assessment becomes an instrument for not just unravelling the hidden complexities of hyphenated systems of communication; but informs the strategic plan by assessing strategic impacts. In short, it describes actions rather than aspirations.

3. Categorisation of Risk

For the purposes of this exercise, it is common to categorise risk in the following 2x2 matrix. The categorisation suggests different actions for different level risk.

	High Probability	Low Probability
High Impact	1	2
Low Impact	3	4

Cell 1 High risk: Scenarios classified here require action to minimise exposure in future. Such actions are outlined in stage 5 below.

Cell 2 Medium risk: It is necessary to be sure, since impact is high. Organisational indicators must be set and monitored to show that the scenario is not unfolding as feared, since impact will be high.

Cell 3 Low risk: Here it is important that assessments of impact are checked as situations develop. Indicators should be developed, based on the reasons given for asserting that impact will be slight.

Cell 4 Minimal risk: The set of items in this cell is potentially infinite. Although it is possible to set indicators to monitor assessments of probability and impact, it is important that such information should be cheap to collect.

Advice to participants: Two by two grids might give you a false sense of precision or reduce the ideas to absurdity depending upon your proclivities. It is important to remember that the grid is not an output, it is merely a step to be used to help prioritise the issues raised, and signal appropriate risk management techniques for each scenario.

4. Generation and evaluation of options for high risk assessments

Option generation and evaluation is a larger strategic domain than general risk assessment because it involves scenario planning. Both creative thinking and consulting with those at the appropriate level should be used to generate options. These options should span a range from early warning, accelerating/developing an "at risk" activity faster, to stopping it altogether.

Option evaluation should be carried out by considering three tests for each option

1. *Suitability:* does the option actually reduce the risks to a tolerable degree.
2. *Acceptability:* Will key figures welcome or resist the option?
3. *Feasibility:* Are key resources - particularly time - available?

The best option is the most suitable, acceptable and feasible. Measurable actions and implementation processes should then evolve from the chosen option.

Advice to participants: It is always tempting to back the first option that sounds suitable, or one that is most acceptable. Both of these are likely to defer your problems, rather than reduce the risks.

5. Generation of indicators for low risk assessments

It is important to use underlying reasons for all assessments of low probability and impact to generate measurable predictions to show when the reasoning has been faulty or events have taken an unexpected turn.

Advice to participants: A familiarity with Popper is helpful here [conjecture and refutation]. Specifying the conditions when you will know that your guesses are inaccurate is not related to poor planning, but is sensible contingency planning.

Benefits of Completing the Scenario Process

If the techniques have been carried out properly, planners will be able to articulate their assessment of the specified risks more comprehensively. Further, it is likely that the learning and thinking involved will lead to the identification of other risk scenarios and opportunities for PST to develop.

6. Risk Assessment Template to be used in conjunction with the *PST Risk Assessment and Risk Management Policy*

Risks Rated 1-4		Severity			
		1	2	3	4
		Negligible	Minor	Major	Catastrophic
4	Almost Certain				
3	Likely				
2	Unlikely				
1	Rare				

Risk Rating (Probability x Severity = Risk Rating)

References

Bodde (2007) 'Managing Strategic Risk in an Age of Uncertainty'; Public Utilities Fortnightly, Reston, VA.

Rausand, M (2011) *Risk Assessment: Theory, Methods, and Applications*. Wiley, London

PST REGISTER OF RISKS AND ACTION PLAN 2015-16

Progress against the priority areas for action will be recorded in the 'Progress made' section and reported monthly at PST Board meetings 2016.

Risks and Opportunities

Priority Area	Risk rating	What will we do?	Lead	Completed by	Progress made as at date...
Audit Group Report	9		Ashley Brown/ Mark Farwell		
Recommendation 1.	6	PST Board Development programme facilitated by gb executive solutions	Ashley Brown/ Mark Farwell	23rd November 2015	PST Board undertook the fourth Board development 23rd November 2015.
Recommendation 2.	8	Risk Assessment and Risk Management Policy.	Ashley Brown/ Mark Farwell	31st December 2015.	Approved with amendments by the PST Board 23rd November 2015. [25th January 2016]
Recommendation 4.	8	Role Profiles for Chair, Vice Chair and Officers. Allocation of roles and responsibilities (portfolios) to PST Board members.	Mark Farwell	31st December 2015	Chair, Vice-Chair roles written and approved by PST 21st September 2015; so too the allocation of roles and responsibilities. Officers role profiles to be approved by PST on 25th January 2016
Recommendation 5.	6	Monitoring of objectives	Mark Farwell	31st January 2016	Ongoing
Recommendation 9.	4	Publish the schedule of PST Board meetings 2015-16	Mark Farwell	31st October 2015	PST Calendar published on the PST website 25th October 2015. Arrangements for the separation of operations/strategic planning ongoing