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Pre-empting project failure by using a premortem technique

In healthcare, a post-mortem might be required after a patient has died, to try and establish *why*, and sometimes *when and how* the patient died. When projects or initiatives fail, we often carry out a 'post-mortem', trying to understand the factors that contributed to the failure, with the aim of learning lessons and not repeating the same mistakes. This article discusses the management technique known as the 'premortem'.

Introduction

The 'premortem' is a strategy that aims to consider why a project *might* fail, thinking prospectively rather than retrospectively. The main principle of the premortem is to imagine that your project has failed (when is still alive or yet to be born) and then to consider what factors have resulted in the failure of the project or initiative.

Many projects are destined for failure with exceptionally high rates reported in software development projects (Cerpa et al., 2016), whilst Pellettiere (2006) cites a 70% failure rate of all change initiated programmes. Despite the high risk of change initiatives failing, organisations need to make changes (often substantial) in order to remain competitive (Klarner et al., 2008). It may be that a reason for such a high failure rate of changes is the lack of clear structures or organisational tools to help facilitate such changes, or lack of consideration for potential threats and weaknesses against a change process. Organisations that have positive experiences and attitudes towards change are more likely to succeed in making changes (Heckmann et al., 2016).

One phenomenon observed as a potential contributor of failure is 'groupthink', where a psychological pressure for consensus causes those who disagree to suppress concerns, and where the group is less likely to consider alternative decisions (Janis, 1972). The premortem technique helps change agents or project champions to create a scenario whereby a project has hypothetically failed. Trying to decide what has gone wrong provides a safe forum for those dissenting about how to proceed with a project the opportunity to voice their concerns (Klein, 2007). Imagining an event has

already occurred 'prospective hindsight' increases the ability to identify reasons for future outcomes by 30% (Mitchell et al., 1989). There is of course the potential for time and resources to be dedicated to risks and threats that may never materialise, but then if we could accurately predict the future, we may never make mistakes, and any sensible organisation makes provision for risks.

How to carry out a premortem

One strategy for conducting a premortem is that the members of a group involved in a project independently write down reasons they can think of for why a project may fail, be they personal, environmental, internal or external before collating all the reasons for failure suggested by the team (Klein, 2007). Here, different techniques might be used to generate reasons for failure, such as a carrying out a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats), PESTLE analysis (looking at external factors – Political, Economic, Sociocultural, Technological, Environmental)) or risk analysis (looking at the probability of things going wrong, and the possible impact). Amongst other open-access resources, the MindTools™ website provides many examples of different management tools, see www.mindtools.com.

Once the reasons for failure are collected, then the group can work together to address areas that can be strengthened and mitigate threats and weaknesses. There may be reasons that are outside of an organisation or person's control, but by focussing on the Weakness/Threats of a 'SWOT' analysis, this feeds into the risk analysis, with the premortem offering prospective hindsight that other methods do not address (Klein, 2007). Where technology and pace of change is growing, the corresponding increase in complexity and uncertainty makes risk harder to predict, and potentially more significant. Another technique which could help generate discussion and identify solutions is derived from law, conflict resolution and mediation: to consider BATNA, WATNA and MLATNA (Carneiro, Novais, Neves, 2014) in relation to each of the reasons for project failure identified.

- BATNA – what would be the Best Alternative (to a Negotiated Agreement) i.e. to the project failing for X reason
- WATNA – what would be the Worst Alternative (to a Negotiated Agreement) i.e. to the project failing for X reason
- MLATNA – what would be the Most Likely Alternative (to a Negotiated Agreement) i.e. to the project failing for X reason

Adding the premortem technique into the range of project planning tools helps teams to provide greater insight into risks, develop a range of flexible strategies (Gallop et al., 2016) and identify issues that may not have been considered before.

Developing collective intelligence

Whilst confidence is an important trait for a leader to have, overconfidence can lead to individuals failing to see the whole picture, or leading without due consideration to alternative suggestions. A premortem approach reduces the danger associated with overconfidence, and generates a more reasonable and holistic plan. It also helps team members and other stakeholders buy into the project. Peabody (2017) cites the example of those using the premortem approach against 'Worst-Case Scenario' methods, with more reasons for failure generated with the premortem method and

more solutions proposed, suggesting the premortem approach changes how problems are viewed and solutions given. Involving the whole team in a decision making process, and encouraging the whole group to contribute to possible weaknesses improves the sense of value that individuals have within a group, but also allows the group to consider each individual's contribution (Matzler et al., 2016). Collective intelligence is described as having cognitive diversity where each person adds their information, independence where opinions are formed independently, decentralisations where people draw on their own specialist knowledge and effective aggregation where the collective knowledge becomes a collective decision (Surowiecki, 2005). This is in keeping with a transformational leadership style, which inspires others to show flair and take responsibility (Bass, 1990), and an inclusive and person-centred leadership approach (Niishi and Mayer, 2009). The premortem approach therefore encourages the whole team to utilise their skills, knowledge and experiences.

Advantages

- Consider the treats and weaknesses of a project by presuming hypothetical failure
- A strategy to break groupthink
- More likely to succeed in the project if threats and weaknesses are addressed
- Can turn weaknesses and threats into strengths and opportunities
- Can improve followership through active engagement of the whole team
- Improves collective intelligence in a group

Disadvantages

- Spending time thinking of causes of failure may waste time if they never happen
- Costs associated with addressing potential causes of failure that may never happen

Table 1: Advantages and disadvantages of the premortem

Conclusion

By making use of the premortem when initiating a project, or indeed using it as part of ongoing risk analysis, mitigation and avoiding of potential threats to the success of a project can be addressed. By addressing the weaknesses and threats you can improve the structural integrity and action of a project in motion, instead improving the strengths and maybe identifying new opportunities along the way. With the high potential for many projects to fail, it might be wise to carry out a premortem in a timely manner than be forced into doing a post-mortem when your project has struggled or failed.

References

Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational dynamics*, 18(3), 19-31.

Carneiro D, Novais P, Neves J. (2014) Inferring Conflict Resolution Styles. In Conflict Resolution and its Context (pp. 207-221). Springer International Publishing.

Cerpa, N., Bardeen, M., Astudillo, C. A., & Verner, J. (2016). Evaluating different families of prediction methods for estimating software project outcomes. *Journal of Systems and Software*, 112, 48-64.

Heckmann, N., Steger, T., & Dowling, M. (2016). Organizational capacity for change, change experience, and change project performance. *Journal of Business Research*, 69(2), 777-784.

Gallop, D., Willy, C., & Bischoff, J. (2016). How to catch a black swan: Measuring the benefits of the premortem technique for risk identification. *Journal of Enterprise Transformation*, 6(2), 87-106.

Janis, I. L. (1972). Victims of groupthink: a psychological study of foreign-policy decisions and fiascoes.

Klarner, P., Probst, G., & Soparnot, R. (2008). Organizational change capacity in public services: The case of the World Health Organization. *Journal of Change Management*, 8(1), 57-72.

Klein, G. (2007). Performing a project premortem. *Harvard Business Review*, 85(9), 18-19.

Matzler, K., Strobl, A., & Bailom, F. (2016). Leadership and the wisdom of crowds: how to tap into the collective intelligence of an organization. *Strategy & Leadership*, 44(1), 30-35.

Mitchell, D. J., Edward Russo, J., & Pennington, N. (1989). Back to the future: Temporal perspective in the explanation of events. *Journal of Behavioral Decision Making*, 2(1), 25-38.

Nishii LH, Mayer DM. (2009) Do inclusive leaders help to reduce turnover in diverse groups? The moderating role of leader–member exchange in the diversity to turnover relationship. *Journal of Applied Psychology*. 94(6):1412

Peabody, M. (2017). Improving Planning: Quantitative Evaluation of the Premortem Technique in Field and Laboratory Settings", Open Access Master's Thesis, Michigan Technological University, accessed via <http://digitalcommons.mtu.edu/etdr/374/>

Pellettiere, V. (2006). Organization self-assessment to determine the readiness and risk for a planned change. *Organization Development Journal*, 24(4), 38.

Surowiecki, J. (2005). *The wisdom of crowds*. Doubleday, New York.