Assignment 2: Evaluating Methods

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1. Introduction

Risk analysis is the process by which risks that might currently affect an organisation or have the potential to in the future are identified, classified and treated (Sweeting, 2017, p.126). The emergence of analytical risk methods is a format for representing risk management, increasing accessibility for managers and stakeholders concerned with risk management activities (Hopkin 2018, p.32). An array of analytical methods are available, including the balanced scorecard, PESTLE risk classification, scenario analysis, event trees, amongst others. Three risk analytical methods are defined and applied to a mobile payment project implemented by a Nordic commercial bank.

The bank developed a mobile contactless payment solution that works within Apple Wallet, Samsung Pay or Google Pay, allowing customers to make payments with their mobile phones. A risk management process focusing on the operational risks impacting the project was implemented using a project risk register which rated risks by impact and likelihood and including actions to be taken by the project managers to mitigate risk. Selected risks from the risk register are used as application examples throughout the analysis.

The methods provide structured frameworks for a project management team to classify, analyse and evaluate operational risks, and a summary of the authors preferred method is discussed.

2. Bow-Tie Analysis

Hopkin (2018, p.32) states that a bow-tie is a tool for representing risk management activities. It represents the risk management process using a simple model to analyse risk and to gain a greater understanding.

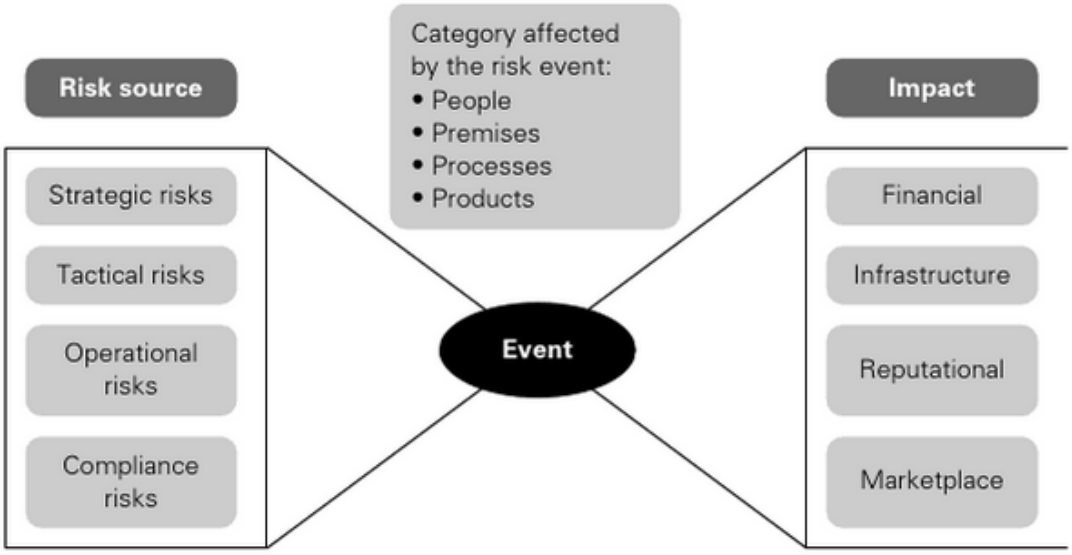

Figure 2.1 Bow-tie representation of risk management. (Hopkin, 2018, p.132)

The purpose of the bow-tie analysis is to demonstrate that the sources of risk can lead to events that have consequences (Hopkin, 2018, p.132). The model's left side highlights the source of the risk divided into the STOC (strategic, tactical, operational, compliance) core areas of the organisation from which risks arise. The risk source can also be divided into short-term, medium-term and long-term risks or any other classification system the organisation uses.

The right-hand side of the model states the impact of consequences should the event in the centre of the model occur. The impacts in this care are classified using the FIRM (financial, infrastructure, reputational, marketplace) risk scorecard but can be classified using alternative models.

The centre of the bow-tie is the risk event. The event in the example is classified using the 4Ps categories of operational disruption (people, premises, processes and products).

The bow-tie method illustrates the risk classification systems used by an organisation whilst ensuring that the potential impacts are considered, classified and

controlled to prevent the event from occurring. The controls are represented by the vertical lines on the left and side, whilst recovery controls are represented on the right-hand side of the bow-tie (Hopkin, 2018, p.32).

2.1 Application

The bow-tie representation provides a comprehensive framework for analysing individual risks associated with the project. The risks are not limited to operational risk, and the method allows businesses to create processes for capitalising on opportunity risks.

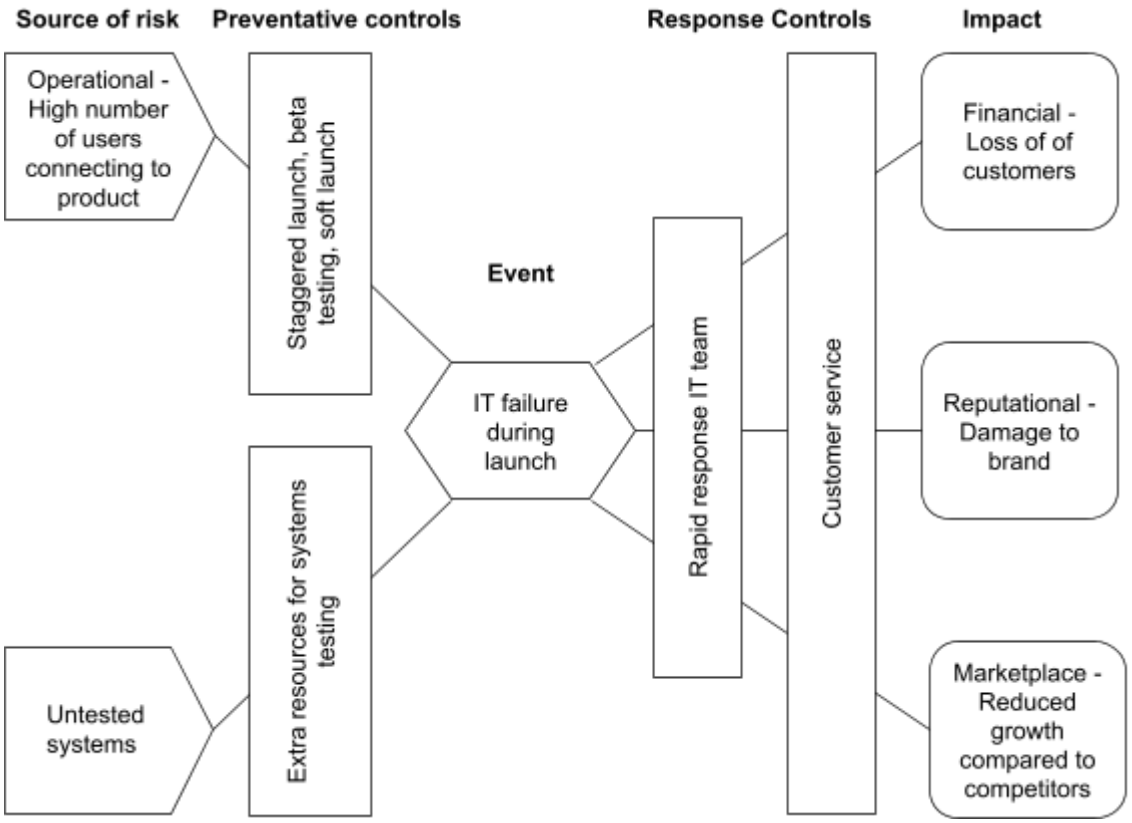

Figure 2.2 Bow-tie representation of a project operational risk from the project risk register

3. SWOT Analysis

Chapman (2011, p.148) states that "SWOT is an acronym for "strengths, weaknesses, opportunities and threats". The SWOT analysis headings provide a framework for reviewing a business as a whole or a series of issues such as: a strategic option; an opportunity to make an acquisition; a potential partnership; a new product; a business proposition; or outsourcing an activity. The logical order helps understanding, presentation, discussion and decision making.

While SWOT is primarily used for strategy development, it can be used to identify and analyse hazards, control and opportunity risks.

Strengths	Internal Weaknesses
Market dominance	Low market share
Core competencies	Few core competencies
Economies of scale	Old plant
Low-cost position	High-cost base
Leadership and management skills	Weak balance sheet and cash flow
Financial resources	Low R&R capability
Manufacturing skills and technology	Undifferentiated product
Research and development	Weak positioning
Brand and reputation	Quality problems
Differentiated products	Lack of distribution
Opportunities	**External Threats**
Technology innovation	New market entrants
New demand	Competitive price pressure
Diversification opportunity	Higher input prices
Market growth	Changing customer needs
Demographic and social change	Consolidation among buyers
Favourable political support	Threat from substitutes
Economic upswing	Capacity growth outstrips demand growth
Acquisition and partnerships	Cyclical downturn
Cheap funds	Demographic change
Trade liberalisation	Regulation and legislation
	Threat from imports

Figure 3.1 Factors relevant to a SWOT analysis (Chapman, 2011, p.580)

The strengths and weaknesses are internal to the organisation, whilst opportunities and threats relate to the external environment in which the firm operates. A SWOT analysis ensures that the organisation considers a holistic approach to risk classification by analysing the internal and external factors. (Sweeting, 2017, p.127).

The respective areas work in partnership so that strengths are relevant only if they are applied to taking advantage of the opportunities or counter weaknesses. In the same respect, weaknesses are only relevant if there are threats that exploit the weaknesses. In this case, the organisation should implement processes to counteract the weakness and reduce the threat exposure. (Sweeting, 2017, p.127).

According to Chapman (2011), there are 17 recognised steps to SWOT. These steps can are broadly outlined as:

1. **Preparation**: It should be established who should partake in the process. Selected participants should collect and review information on the internal and external factors affecting the organisation. A facilitator, whether in-house or external, should be appointed, which could be a member of the risk and compliance department in the case of risk management. The facilitator should prepare briefing packs for participants to avoid solely subjective opinions from participants.

2. **Workshop**: The method follows a workshop format where participants brainstorm the "SWOT" factors facing the company. Participants should decide how factors should be measured/quantified whilst using specific descriptions and avoiding broad statements. Factors are ranked for each quadrant with supporting texts to each factor.

3. **Action plan:** A plan to "tackle weaknesses, capitalise on strengths and opportunities and deal with threats."

4. **Review:** The action plan should be used before essential decisions to ensure that they align with the conclusions drawn from the analysis.

3.1 Application

The SWOT analysis takes a more holistic approach to identify risks by connecting the internal areas of the business with the external risk areas. This model is suited to the beginning of the project, where the feasibility of the project is considered and the connection to the organisation's strategic aims.

STRENGTHS	WEAKNESSES
• Experienced project team • Loyal customer base with long term connection to the bank • Experienced customer service team • Established brand • Large resources	• IT system failure during launch • Project budget management • Low growth rates in creditcard sector • Limited growth opportunities • Aging customer base
OPPORTUNITIES	**THREATS**
• Innovation where competitors have been slow • Capture new, younger customers • Develop attractive credit card product for the modern customer • Develop a product for electric vehicle owners • Increase growth rates	• New fintech entrants • Contracting fossil fuel market • Rise of electric vehicles threat to traditional petrol/diesel business. • Credit card fraud • Growing consumer credit choices

Figure 3.1 SWOT analysis of project risks

The SWOT factors identified by the workshop are ranked in importance, and a detailed action plan is prepared to tackle weaknesses and take advantage of opportunities.

The identified weakness of the low growth rate in the company's credit card business is in line with the organisation's strategy to grow the credit card business and is vital

when addressing the risk of new entrants to the market. Given the climate crisis, the market risk of a declining fossil fuel market is a critical risk to the organisation, and the bank must prepare an action plan to address the risk. The mobile payments project is a part of the bank's strategy to move into new markets such as vehicle charging, where payment methods are primarily contactless.

Project managers would review the action plan as the project progresses to ensure that decisions align with the workshop's conclusions.

4. The Delphi Method

Brown (1968, p.7) stated that the method is "the technique used for eliciting opinions with the object of obtaining a group response from a panel of experts. Delphi replaces confrontation and debate with a carefully planned, orderly programme of sequential individual interrogations usually conducted by questionnaires."

The method is a sequence of questionnaires interspersed with feedback from respondents. Respondents are asked to give reasons for their expressed opinions, and these reasons are subjected to a critique by fellow respondents. The technique emphasises informed judgement Brown (1968, p.7).

Pfeiffer (1968) outlines the basic structure of the method as:

1. A group of experts such as department managers or employees with experience and expertise regarding the risk in question are selected from within the organisation.
2. The first questionnaire is sent to the panel of experts asking for opinions involving experiences and judgements, a list of predictions and a list of recommended activities.
3. The second round includes a collated list sent to each expert, asking them to rate each item in terms of importance.

4. The third questionnaire includes the list, the ratings indicated and the consensus, if any. The experts are asked to revise their opinions or discuss their reasons for not coming to a consensus with the group.

4.1 Application

The Delphi method is suited to quantifiable risks and can be applied to the risk that the project is completed over budget:

1. Individuals with project finance, management and risk experience, and IT specialists are asked to take part in the analysis.
2. A questionnaire is sent to the participants asking for their experiences of budget planning and judgements regarding the proposed budget. The participants are asked to predict the total project cost at completion and a list of recommended activities to complete the project within budget.
3. A collated list of the participants' points is sent to each participant, asking them to rate each point in importance.
4. A third questionnaire includes the list, the ratings and a consensus reached. The participants will then revise their opinions or discuss their reasoning for not reaching a consensus in a workshop format. A final statement of the group consensus is presented, such as the recommended budget amount with recommendations to achieve this.

5. Analysis of Methods

The overriding benefit of using any risk analysis method is that it provides a structured framework to classify, analyse and evaluate risks. All three methods provide a clear, documented structure to be adhered to, from preparing a project risk management framework to the implementation and review stages.

The primary difference between the models is the feasibility of implementation. Both the bow-tie and SWOT analysis methods can be easily implemented through

workshops and brainstorming, whereas the structure of the Delphi technique requires extensive work from a facilitator to prepare the questionnaires and collate the consensus. This method is, in theory, the most time-intensive and requires a significant time commitment from participants. The structure of the technique lends itself to the avoidance of "group think" in the first round of the technique, but the nature by which ideas are ranked may result in a group consensus that is the average of the views or least disagreeable alternative as opposed to a decision maximising approach.

In terms of the SWOT analysis and bow-tie methods, the SWOT analysis offers a relatively basic and well-known framework that is simple to operate in workshops and lends itself to participants considering the interconnected areas of the organisation and how internal strengths are to external opportunities or the reallocation of resources to mitigate weaknesses. This method is best suited to analyse strategic risk and analysis of a company's high-level risks.

The bow-tie method provides a framework for analysis that identifies the source and impacts of risk and within classification methods such as FIRM and STOC. It decomposes an event into components and structures a response that stimulates a solutions-oriented approach for risk mitigation and crisis planning.

6. Conclusion

The methods all offer a structured framework for companies to approach risk classification and analysis. In terms of ease of implementation and the ease of stimulating the creation of risk mitigation procedures and event responses, the bow-tie method is the preferred risk analytical method. Regarding whether the choice of risk analytical method is important, it is concluded that any risk analytical method is better than none. The formal structure and documentation offered by all methods is regarded as the most crucial aspect of using a risk analysis method. However, what is concluded to be of greater importance is the effective implementation of a risk method or framework. A world-class risk analytical method is of no use to an organisation if it is poorly implemented and, in some respects, may itself be a creator

or exacerbator of systemic risk due to the false confidence created by using a method used in an ineffective setting.

7. References

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