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RISK ASSESSMENT TOOLS USED IN THE SRM PROCESSES

1. Introduction

The following paper outlines strategic risk assessment process. According to Mark Fargo and Richard Anderson, there are seven major steps in the process of assessing strategic risks (Figure 1). Each of these steps will be explained in detail, with attached proposition of framework that can be utilized by any enterprise to capture necessary information related to discussed risks. The spectrum of proposed tools ranges from risk assessment solutions to supportive activities based on competitive intelligence. Overall process is designed to be tailored to specific needs of the organization. This means there is no one-size solution, which will fit all companies.

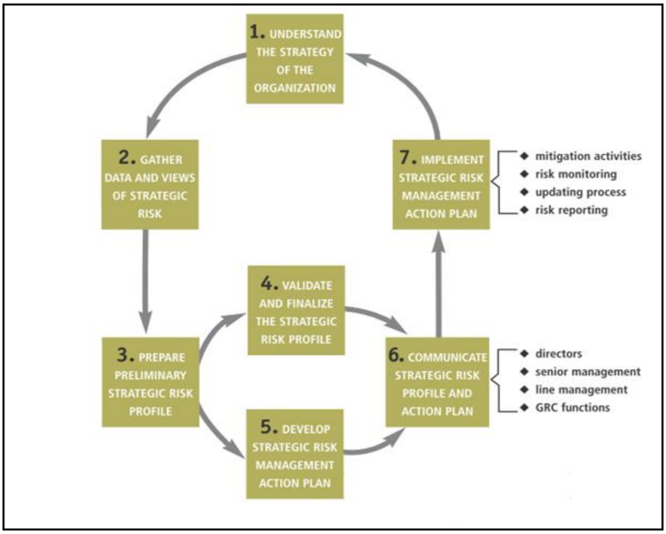

Figure 1. *Strategic Risk Assessment Process*

Source: M. Frigo and R. Anderson, *Strategic Risk Assessment*, “Strategic Finance” December 2009, p 27.

For achieving maximized results, corporate culture should support process design. Enlisted activities ought to be an integral part of business operations, and ultimately owned by the business management of different levels. It is also preferable that first six steps of the following cycle accompany the strategic planning processes. Otherwise risk management might become an isolated process, not supporting corporate strategy, thus it will lose its impact, and eventually not add value to the organization, but it will become a burden and another task on the checklist.[1]

2. Strategy of the organization

As a part of the first step, organization shall acquire a thorough comprehension of its strategy. It might happen that strategic objectives are not clear and are too vague i.e. our objective is to manufacture best quality products, and then management needs to think about re-stating them.[2] Once organization develops objectives that are tangible, the main focus is to identify risks which endanger achieving these goals. Thereby organization must have a deep understanding of the key elements building the corporate strategy.

The most popular, and already mentioned, method is to build detailed SWOT analysis. This should help to identify important strategic risks (Threats for T) and emerging Opportunities (O for Opportunities). Hence, the results of SWOT analysis can essentially give an input to the initial assessment phase of the risk management process. However, the SWOT analysis itself does not explicitly emphasize the importance of the different risk factors and does not provide organization with very risk-oriented framework. It is rather an open framework, which does not give guidance where the risks could be. Moreover, SWOT usually focuses on strategic and economic risks, whereas operational threats and hazards are normally omitted. Thereby SWOT framework needs to be complemented with other solutions, which will help an organization to make first steps in the process of understanding its strategy and associated with it risks.[3]

The Return Driven Strategy (RDS) framework developed by Mark Frigo and Richard Anderson should serve as a help here. It aims to deconstruct and examine the strategy first, and then to identify, categorize, and link its critical elements according to the framework's tenets and foundations. In other words, RDS is composed of 11 core tenets and 3 foundations that form a hierarchy of interconnected activities that organizations should execute to reveal satisfying financial performance. Management should ask themselves how their organization handles these points and what internal and external risks they see that are associated with the corresponding tenets.

The first RDS layer is called commitment and includes one tenet calling to ethically maximize wealth. This means that management needs to understand, define, and subsequently align all activities so they are in line with predominant objective to build shareholder wealth. In the same time, management must ensure that business operates within ethical boundaries outlined by society and respective communities. If risk management activities are not connected to wealth creation, then these particular tasks should be challenged, and most probably abolished. Second layer comprises two goal tenets. Management needs to know that business success can be accomplished through customers only. In other words, organization should target economically profitable customer groups that have sufficient size and growth opportunities, and at the same time should focus on fulfilling unmet customer needs to avoid commoditization. One of the possibilities is to persuade Blue Ocean Strate-

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[1] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p 26.*

[2] *G. Monahan, Enterprise Risk Management A Methodology for Achieving Strategic Objectives, John Wiley & Sons, New Jersey 2008, p. 13-21.*

[3] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 155-156.*

gy. In big short, this approach criticizes focusing on taking-over competition in already packed market space – red ocean – and praises creating a new space for unfulfilled customer needs – blue ocean.[4] Third layer encompasses three competency tenets, namely innovation, branding and delivery of offerings. Through continuous innovation of the products / services, organization is able to prepare offerings designed to fulfill needs or create new needs among customers. This should be complemented by a careful approach towards product branding as it bridges the gap between business and customer, and ultimately creates a stronger desire among potential buyers. Fifth and the last layer includes supporting tenets. These are activities that should be executed for the sake of success of higher level tenets.[5]

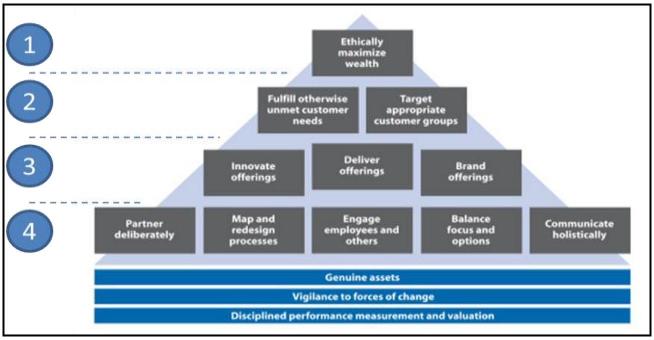

Figure 2. *The return driven strategy framework*

Source: Adapted from M. Frigo, *Strategic Risk Management: The New Core Competency*, "Balanced Scorecard Report", Jan-Feb 2009, p. 8.

Besides four layers, there are also three foundations, which are said to be critical to the RDS framework, hence must be considered by management. First foundation is named Genuine assets, and it constitutes sustainable competitive advantage. It highlights that products and services offered by business can be copied by other market participants, leading to price competition and condensed cash flow returns. Therefore it is important for any business to create unique offerings that cannot be imitated by competitors. This can be achieved through patents, branding, specialization, and availability. Second foundation is named Vigilance to forces of change, which is management's ability to avoid threats and capitalize on opportunities. Organization should try to avoid threats and take advantage of opportunities coming from technological breakthroughs, cultural and demographic shifts, and finally government and legal changes. Third RDS foundation is Disciplined performance measurement and valuation. Management must have enough discipline to continuously link strategy to financial results. It is necessary to measure if strategic goals are achieved, or organization is

[4] *W. Kim and R. Mauborgne, Blue Ocean Strategy, „Harvard Business Review" October 2004, p. 76-80.*

[5] *M. Beasley and M. Frigo, ERM and Its Role in Strategic Planning and Strategy Execution, in: J. Fraser (ed.) and B. Simkins (ed.), Enterprise Risk Management, John Wiley & Sons, New Jersey 2010, p. 37.*

on the right track to achieve outlined targets. Ongoing performance measure serves as a support to achieve strategic goals and ultimate value creation.[6]

To summarize, Return Driven Strategy can be used by the corporate teams as a framework to set, assess, improve, and eventually execute the strategy. It can be integrated into strategy planning process, and further used as a method to assess the impact of events and scenarios on the business strategy. From the SRM point of view, RDS can be used in determination of risks that have adverse effect on shareholder's value, and in the same time, it can serve as a tool helping to consider the upside of the risk in the form of emerging market opportunities. Hence, dual nature of RDS, together with detailed SWOT analysis, allows organization to make first step in the strategic risk assessment process.

3. Collecting data on strategic risks

The aim of this step is to gather information on the risks associated with business strategy. Similarly to the previous step, there is no standardized approach to scan and analyze the risk environment, but it makes sense to start with considering the environmental situation, then moving to specific conditions that circumscribe industry in which business operates, and eventually give a focus to company's internal risk factors (Figure 3). Hence, there are three categories of risks grouped by their source – environmental, industry, and company.

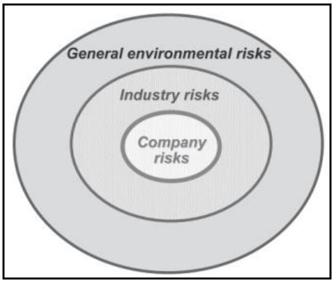

Figure 3. *Risks grouped by their source*

Source: T. Andersen and P. Schrøder, *Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures*, Cambridge University Press, New York 2010, p. 148.

3.1 General environmental risks

These are exogenous risk factors which mean they are outside of the management's control. General risks affect overall business environment, impacting all market players, but in different manner, depending on the industry. These types of risks are usually associated with political events, social trends, technological shifts, and economic developments. The most recognized technique to analyze these risks is the PESTEL framework. It gives focus to Political, Economic, Social, Technological, Environmental, and Legal issues. Originally,

[6] *M. Beasley and M. Frigo, ERM and Its Role in Strategic Planning and Strategy Execution, in: J. Fraser (ed.) and B. Simkins (ed.), Enterprise Risk Management, John Wiley & Sons, New Jersey 2010, p. 38.*

framework was named PEST, but due to increasing importance of environmental and legal factors, these two issues were added. Nevertheless, PESTEL framework comprises elements that organization should consider when thinking about general environmental risks.[7]

3.2 Industry risks

Industry risks are threats which prevail at the industry level, which means that corporate exposures are pre-defined by the industry characteristics, competitor's movements and corporate actions, which may affect industry development and customer preferences[8]. The most common framework used to analyze industry risk is the so-called Porter's five forces model. The intent of this framework is to examine the industry's attractiveness. Assessment is based on five key forces, specifically the threat of new entrants, the bargaining power of buyers, the bargaining power of suppliers, the threat of substitute products or services, and finally the intensity of competition in the industry.[9]

According to Michael Porter, before making any major strategic decisions, managers out to ask questions such as: "In what product areas should we avoid competition because market rival will respond aggressively?", "How should we interpret strategic decisions of our competitor?". Managers often forget to ask themselves these questions because there is a little demand for the answers from the executive management. Moreover, financial projections, based on which strategic decisions are made, do not take into account competitors characteristics. This contributes to making decisions, which might look good from the financial projection point of view, but looks worse in the competitive environment.[10] Moreover, executive members tend to fall into the trap of believing that they understand their competitors because they compete with them on a daily basis. In reality, this is misleading believe. Competitive analysis requires a critical and continuous examination. Moreover, elaboration should not only focus on current competitors, but also take anticipated market players into account. The future and possible competitors are often ignored in financial plans and business scenarios. Although this type of examination is challenging to complete, it can be handled by asking such questions: "What companies have a strategy that encourages them to compete in this market?", "What firms have supply chains that could accommodate participation in this market?", and "What firms might attempt to acquire one of the market players to make their way into this market?". Answering to these questions should help organization to attempt the forecast task of potential rivals. Additionally, it should provide better base to financial projections, and ought to contribute to better decision-making in strategic matters. All of these issues are presented in greater detail for both, future and present competitors, in two examples (Table 1 and Table 2). Each scorecard contains ten elements, that management team should consider while evaluating competitors. Enlisted elements should be marked from 1 to 5. In the potential-entrant's scorecard, (Table 1) an average score of 5 from all elements indicates that anticipated competitor is very likely to

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[7] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 150.*

[8] *Idem.*

[9] *C. Hill and G. Jones, Strategic Management Theory: An Integrated Approach, South-Western CENGAGE Learning, Mason 2008, p. 42.*

[10] *M. Porter, Competitive Strategy, Free Press, New York 1980, p. 47-75.*

enter new market and become organization's competitor. Whereas the higher average score obtained from current player's scorecard (Table 2), the stronger position of the competitor in the market is.[11]

Table 1. *Scorecard for competitive analysis of future market players*

#	Item	Score [1-5]	Question
1	Historical financial performance	-	How has business been performing recently? Have sales demonstrated recent trends? Are managers having issues with the costs?
2	Stated organizational goals	-	Do organizational goals indicate the company may become a future competitor? Is the company seeking to grow revenues, increase market leadership?
3	Attitude toward risks	-	Does the company have a history of taking risk to enter new markets? Do earnings display a smooth or lumpy pattern over the past five years?
4	Organizational culture	-	Does the firm have bureaucratic or flat structure? If bureaucracy, would the comments of top management indicate they are interested in expanding into new markets?
5	Strategic importance of new market	-	Would serving to new market benefit the company? Does the company's strategic goals are in line with new market?
6	Diversification plans	-	Has management stressed a strategy of diversification in order to smooth earnings? Is the business investing high amounts of capital into research and development (R&D) in noncore areas?
7	Incentive systems	-	Does management's remuneration takes into account growth in earnings, revenues, or share price? How are employees compensated? Are they rewarded for taking risks?
8	Beliefs of leadership	-	Are executives willing to take risks? Do they have convincing personalities? Could they influence investors and the board that a new line of business is in the best interests of the company?
9	Regulatory concerns	-	Would entering new market create antitrust issues for the organization? What is the competitor's relationship with politicians?
10	Contractual commitments	-	Does the company have contracts limiting its capacity to enter new markets? What commitments does it hold with its retail customers and suppliers?

Source: Adapted from H. Cendrowski and W. Mair, *Enterprise Risk Management and COSO*, John Wiley & Sons, New Jersey 2009, p. 44.

[11] *H. Cendrowski and W. Mair, Enterprise Risk Management and COSO, John Wiley & Sons, New Jersey 2009, p. 44.*

Table 2. *Scorecard for competitive analysis of current market players*

#	Item	Score [1-5]	Question
1	Stability of the business	-	Does the line of business represent a source of stable cash flows and earnings for the company? Are gross and net profit margins healthy? Have the revenues been growing?
2	Current market strategy	-	Does the business compete on cost or product differentiation? How would it react to new entrants? Has it successfully defended against entrants in the past? Does the company invest in R&D to ensure that its product lines are up to date?
3	Organiza-tional values	-	Does the competitor have an emotional identification associated with a particular market-place in which our organization operates? What is the root of this emotional identification? Does it focus on specific geographical markets associated with this emotional identification?
4	Beliefs about demand	-	Does the competitor believe the current market is increasing or decreasing in size? How has the company reacted to changes in demand? Has it built new facilities to accommodate increased demand, or has it allowed prices to increase rather than supply the market with additional goods?
5	Historical reactions to market entrants	-	How has the company reacted to new entrants? Has it responded by differentiating its products or cutting prices? Has the company succeeded in competing with newer entrants? Has it acquired or merged with some entrants in hopes of achieving better horizontal integration?
6	Beliefs of leadership	-	Have its executives been successful at cutting costs? Might it adopt similar strategies to run out new entrants? In what businesses have its leaders previously worked?
7	Financial position	-	Is the company in the financial position to stop a new market entrant? Does it have significant cash on hand? Can it afford a price war? Can it afford to raise entry barrier through thorough R&D?
8	Business alliances	-	Does the company have alliances with its competitors that would intensify its market position (e.g., joint ventures)? Does it have supply chain participants that are satisfied with their current levels of production and sales?
9	Operational position	-	How robust are the company's operations? What levels of capacity utilization are currently being experienced? Does the company's geographic location assist it in maintaining market share?
10	Employee talent	-	Does the firm have talented employees that help it maintain its market position? Would talented employees be willing to defect to a new competitor?

Source: Adapted from H. Cendrowski and W. Mair, *Enterprise Risk Management and COSO*, John Wiley & Sons, New Jersey 2009, p. 47.

3.3 Company risk

Company risks represent risk factors that are endogenous to the organization because they are a result of internal processes, technological systems, and actions taken by organization's employees. These risks are represented by such events like system breakdowns causing operational disruption, operational inefficiency, misreporting, fraudulent behaviors, legal mistakes, and even slow response to changing market conditions. Most common frameworks that are used to capture company risks, based on the analysis of internal environment, include McKinsey 7S model, VRIO framework, Porter's Value-Chain Analysis.[12]

VRIO Framework

VRIO framework (Table 3), offered by Jay Barney, is a tool that should help organization to identify strategic resources. According to the author, business is capable of achieving above-average profits if organization's attributes are[13]:

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[12] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 152.*

[13] *R. Chapman, Simple tools and techniques of enterprise risk management, John Wiley and Sons, New York*

a) Valuable
Resource is perceived to be valuable if it can be used to increase market share, achieve cost advantage or charge a premium price. Resource that is not valuable cannot be a source of competitive advantage.

b) Rare
If a valuable resource is not accessible to competitors, then it is rare, hence it can be a potential source of competitive advantage. Having rare resources is vital because when competitors are in possession of the same kind and quality resources, there is no inherent advantage of having it.

c) Inimitable
This is one of the key foundations of aforementioned RDS framework. It stipulates that if a resource cannot be easily copied then it is a source of potential competitive advantage. This means, resource should be problematic or expensive for market rivals to imitate or acquire i.e. brand recognition. If a resource is not difficult to be copied, it provides a temporary advantage only.

d) Organizable
Organizable means that business must be capable of exploiting available resources. If business is not able to take advantage of available resources, the business structure re-organization is needed.

A positive answer to each of these questions indicates that company is able to sustain a competitive advantage. For example, if resource is valuable, rare, and costly to imitate, organization should definitely exploit it because it is a potential sustainable competitive advantage. On the other hand, if a resource is not valuable, then company should drop it as it does not add-value to business operations, and puts company at risk of incurring higher than needed costs. VRIO framework by itself does not find sources of competitive advantage because all of the identified resources must be combined and managed as integrated package. The complementary framework which helps to accomplish this task is a Value-chain analysis.[14]

Table 3. *VRIO Framework*

Resource characteristics					**Strategic Implications**		
Valuable	Rare	Costly to imitate	Organization exploits it		Competitive implication	Impact on economic performance	SWOT Category
No	-	-	No		Competitive disadvantage	Below normal	Weakness
Yes	No	-	↗		Competitive parity	Normal	Weakness or Strength
Yes	Yes	No	↙		Temporary competitive advantage	Above normal	Strength and core competence

2006, Appendix 9.

[14] B. Witcher and V. Chau, Strategic Management: Principles and Practice, South-Western CENGAGE Learning, Mason 2010, p. 126.

Yes	Yes	No	Yes		Sustainable competitive advantage	Above normal	Strength and long-term competence

Source: Adapted from R. Chapman, *Simple tools and techniques of enterprise risk management*, John Wiley and Sons, New York 2006, Appendix 9.

Value-Chain Analysis

A Porter's Value Chain analysis has a dual nature. First, it helps organization to understand the elements of its operation that contribute to value creation, and those that do not add value. Hence, detailed value-chain analysis may assist to find operational inefficiencies contributing to higher costs. Second, idea of the value-chain paradigm is to create additional value without creating substantial costs to capture the value that has been generated. Comprehending these issues is vital because business is able to make above-average profits only when the value that organization creates is higher than the costs incurred to create that value.[15]

In general, the value-chain is a framework that business may use to examine its cost position and to identify the means that should be used to facilitate execution of the corporate strategy. Hence, firm's value-chain is grouped into primary and support activities (Figure 4). Primary activities constitute processes which contribute to product creation, sales, and distribution to buyers. These elements include manufacturing operations, inbound and outbound logistics, marketing, sales, and post-sale product service. Whereas support activities provide the support for the primary activities so they could take place. These are such services like procurement, technological development, human resource management, and firm's infrastructure.[16]

[15] *M. Hitt, D. Ireland, and R. Hoskisson, Strategic Management: Competitiveness and Globalization, Thomson Higher Education, Mason 2007, p. 89.*

[16] *Idem.*

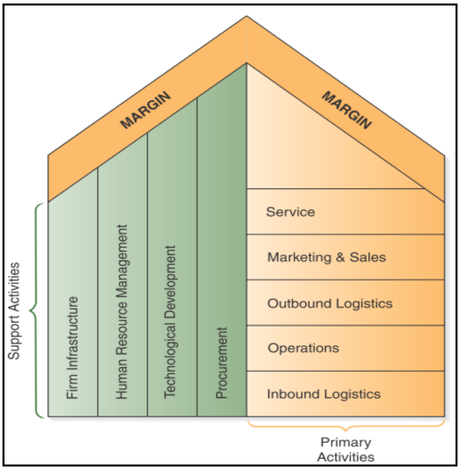

Figure 4. *Basic value-chain*

Source: M. Hitt, D. Ireland, and R. Hoskisson, *Strategic Management: Competitiveness and Globalization*, Thomson Higher Education, Mason 2007, p. 89.

Additionally, the following examination shows how a product moves from the raw-material phase to the final receiver. Thereby, all of the participating items should be examined in relation to competitor's capabilities to capture potential inefficiencies and resulting company risks. To be a source of competitive advantage, a resource or capability should let the company to execute a process in a manner that provides value superior to that offered by competitors, or to perform a value-creating activity that market rivals cannot accomplish. Only under these circumstances organization can create differentiated value for customers and hence have an opportunity to capture the rewards.[17]

3.4 Strategic risk framework

The above-mentioned approaches to scanning environmental, industry and company risk are usually used to examine the strategic position of the organization in terms of internal capabilities and external market conditions. In many cases, the output of these tools will include biased preconceptions as most likely they are prepared by central unit. To avoid this problem, it is needed to involve management from different levels and discuss with them the risks associated with core business strategy. There are several ways to do it. This could be a questionnaire, interview, or open discussion. It depends on the corporate culture and personal preferences. At this point, there is one watch-out. According to the study, it is not advised to ask simple open-ended questions about what and where an individual sees potential strategic risk. Providing a structured framework of focus areas makes interviews

[17] *M. Hitt, D. Ireland, and R. Hoskisson, Strategic Management: Competitiveness and Globalization, Thomson Higher Education, Mason 2007, p. 91.*

and questionnaires more productive.[18] Thus, components of strategic risk framework (Figure 5) should help with building a structure of the discussion. Elements of this framework correspond to the statements of the RDS framework. Hence, risk management process can be integrated with discussions over strategy planning, making ERM more strategy oriented rather than an isolated framework.

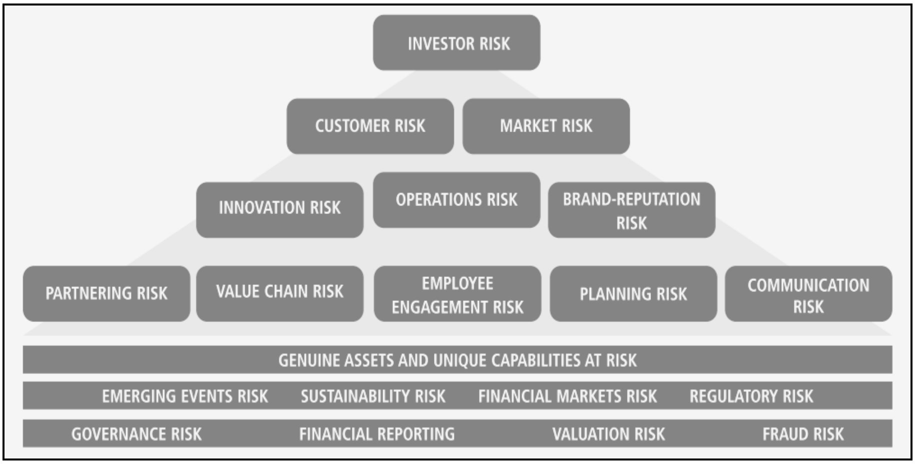

Figure 5. *Strategic risk framework*

Source: M. Frigo and R. Anderson, *Strategic Risk Assessment*, "Strategic Finance" December 2009, p 28.

Strategic risk profile

Information which was obtained from the first two steps should be used now to outline risk profile. The presentation of the risk contours should be tailored to match the risk maturity and capabilities of the organization. The general rule is to keep risk profile simple. This information is intended to spur a debate and cause understanding at all management levels. Superfluous data may be counterproductive. People usually find graphical presentations supportive - for example, risk maps with colors to convey importance of a risk. Some organizations start with basic lists and then add detail and complexity as their risk management processes mature and gets more sophisticated.[19]

In the following pages, two methods to present risk profile will be outlined, namely risk maps with focus on timing, and risk interrelatedness matrix. The combination of these four factors, namely impact, likelihood, timing and interrelatedness should help management in the process of prioritization.

Risk maps - impact, probability, and timing

The most popular form of mapping risks is a two-by-two impact and probability / like-

[18] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p 28.*

[19] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p 29.*

lihood graph. It is essential tool of risk management that demonstrates the profile of the discussed threats. This topic was already presented in previous section, hence it will not be outlined here anymore. What was not presented, as it is not part of conventional risk management activities, is the risk map which takes timing of the threat into account as one of the key factors (Figure 6). It is important to consider risk timing because some of the exposures have short-term effects, while others feature long-term consequences. Thereby timing factor must be considered when organization is about to prioritize risks, and subsequently allocate resources to handle the particular issues. Usually risks at operational levels need immediate and ongoing actions, most likely in the form of high-frequency monitoring and mitigation initiatives. However they represent risk of lower impact on overall performance of an organization, unless they have accumulated. While exposures at the tactical and strategic levels represent risks that have long-term impact and its adverse effects are less immediate, it means they materialize after longer time than the risks at lower level. The risk maps and lists should serve as a base for the discussions on countermeasures that organization is willing to implement. Moreover, at this moment it is also advisable to debate about risk trends, in other words, if the probability of risk materialization (i.e. industry risk) tends to lessen or surge. Such approach should not only spur discussion about current risk situation, but should also cause a debate concerning future risk situation. Conclusions coming out of this dispute should serve as valuable input in the strategy setting process.[20]

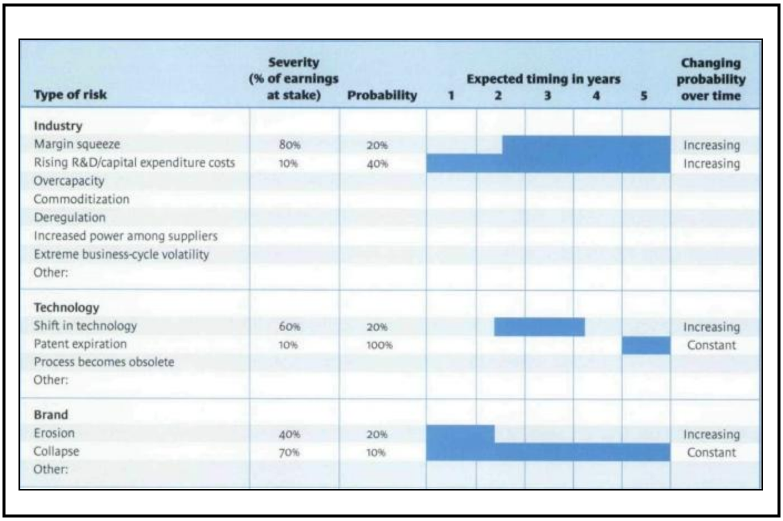

Figure 6. *Example of risk impact, probability, and timing maps*

Source: Adapted from A. Slywotzky and J. Drzik, *Countering The Biggest Risk of All*, "Harvard Business Review", vol. 16, Mar. 2005, p 83 and T. Andersen and P. Schrøder, *Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures*, Cambridge University Press, New York 2010, p. 157.

[20] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 157.*

Risk interrelatedness

Risk maps present threats in the separated form, they do not take into consideration the interrelatedness of the potential threats. Thereby, there is a need to extend impact-probability-timing analysis by risk influence matrix (Figure 7). It is important to follow this step because it provides an organization with a wider horizon of a risk landscape and subsequently allows it to more accurately apply resources to handle the potential issues, without missing important factors, which contribute to overall exposure. It is also a helpful tool when business organizes team which aim to work on respective risks, as they can operate on the basis of interconnected risks, making their effort more productive and effective, rather than focusing on multiple isolated threats.[21]

The main idea of influence matrix is to examine the interactions between different risk factors in a qualitative manner. First step is to assess the extent to which each individual risk factor has an impact on each other using a scale from 0 to 2. Null value stands for no or insignificant impact, while 2 for high impact. For example, looking at below influence matrix, e-insurance is a key element to establish a distinct position in the market, hence row 1, column 2 have assigned value of 2. Contrariwise, e-insurance does not have any impact on the access to door-to-door selling, hence the respective row and column is assigned a value of 0. The *Total column* represents how the particular risk factor affects other exposures. It reveals information on the importance of the particular risk factor and its ranking in terms of interrelatedness. These risks factors which obtain the highest results should be given top priority because working on these issues should affect other risks as well. On the other hand, the *Total row* shows how much each risk factor is affected by other risk factors – it is named a passive score. Low passive score indicates that risk factor is not affected much by other exposures, hence this risk factor cannot be handled indirectly by working on other issues because there is no or small interdependency. This means that if management wants to address the particular risk factor, with low passive score, then it needs to set up a separate initiative, which is a problem when number of available resources is limited.[22]

[21] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 158.*

[22] *Idem., p. 159.*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	E-insurance		2	1	1	1	1	2	2	0	0	2	1	0	0	1	2	2	2	0	1	21
2	Distinct positioning in the market	0		1	1	1	1	0	1	0	0	0	0	0	1	1	0	0	1	0	0	8
3	Insurance customers' loyalty	0	0		1	1	1	0	1	0	0	0	0	0	0	2	0	0	0	0	1	7
4	Partnerships	0	0	0		1	1	0	2	0	0	1	2	0	1	1	1	2	0	0	0	12
5	Consolidation in the industry	0	0	0	1		1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	5
6	Bank insurance	0	1	1	1	0		0	0	0	0	0	2	0	0	2	0	0	1	0	0	8
7	Transparent prices	0	0	1	0	2	0		2	0	0	0	0	0	0	2	0	0	0	0	1	8
8	Price competition	1	0	1	1	2	0	0		0	0	0	0	0	0	2	0	0	0	0	2	9
9	Access to door-to-door selling	2	0	0	2	2	2	0	1		0	2	0	0	0	1	0	2	0	0	2	16
10	Core insurance system	0	0	1	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	2	4
11	E-insurance platform	2	2	1	1	0	1	0	0	0	0		0	0	0	1	0	2	2	0	1	13
12	Quality of the customer portfolio	0	0	0	0	0	0	0	2	0	0	0		0	0	0	0	0	1	0	2	5
13	Risk management skills and knowledge	0	0	0	0	0	0	0	2	0	0	0	2		1	0	0	0	0	0	1	6
14	Culture	0	2	2	0	0	0	0	0	0	0	0	2	0		1	0	0	0	0	0	7
15	Customer leaving rate	0	0	2	0	1	0	0	1	0	0	0	1	0	1		0	0	0	0	2	8
16	Customer relationship building	2	2	2	1	0	0	0	1	0	0	0	0	0	1	2		0	2	0	1	14
17	Unified distribution	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0		0	0	1	4
18	Strategic positioning	2	2	1	1	0	1	0	0	0	0	0	0	0	1	1	0	0		0	0	9
19	Solvency	0	0	0	2	2	1	0	1	0	0	0	0	0	0	1	0	1	0		0	8
20	Expense ratio	0	1	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	0		7
	Total	9	12	15	14	17	10	2	20	0	0	5	10	0	6	20	3	9	10	0	17	179

Figure 7. *Example of risk influence matrix*

Source: T. Andersen and P. Schrøder, *Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures*, Cambridge University Press, New York 2010, p. 158.

4. Finalizing strategic risk profile

One of the most important parts of the entire assessment process is to ensure that members who have direct contact with enlisted exposures validate the risk profile. This makes analysis more credible and valuable for the next steps concerning action plans, and might help to negotiate greater number of resources in discussion with a lead team. Hence, once risks are profiled, it is necessary to present the output to organizational experts. This should warrant that the most objective and legitimate risk profile is outlined, and valuable insights are captured. However, report will have little value if inputs and comments from participants are not reflected in the final risk profile report. Moreover, not taking feedback from local experts into account might cause organizational stresses and discourage people from further participation in the risk management process.[23]

Speaking of communication, the form of interaction with organizational members is stipulated by corporate culture. In some cases it will be limited to e-mails only, in other follow-up interviews or group presentations and discussions will be conducted.[24] At this point, it is advised to remind participants to consider the upside for each risk. For example, the

[23] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p. 30.*

[24] *Idem.*

countermeasure for technological shit could be a *double betting,* which means investing in two or more versions of a technology simultaneously, so business can thrive no matter which versions wins. Although, company could lose money, making two well-placed bets could create significant growth opportunities. Betting on both the OS/2 and Windows operating system positioned Microsoft as a market leader, regardless of which system version prevailed[25].

5. Developing action plan countering strategic risks

According to Mark Frigo and Richard Anderson, before risk profile is communicated to top management and board, it is a good practice to already have prepared preliminary actions plan that could be presented to the lead team. Hence, it is advised to keep step number four and five together, and treat them as one initiative. It is also advisable to form multifunctional teams for every major risk i.e. brand risk may need people from marketing, customer service, and manufacturing[26]. Every team should be responsible for preparing adequate action plan, which ought to outline risk assessment made in earlier steps (nature of the risk, root cause, quantitative or qualitative risk impact on business), and assign responsibilities for each countermeasure. Specific actions that organization should take depend on the exact situation and corresponding risk profile.[27] Typically, action plans can be grouped into 2 interacting categories – core and supporting actions.

Core - Risk response activities

In line with ERM risk management strategy, organization might choose to avoid, reduce, transfer, retain or exploit the risk. This subject was already discussed in previous section.

Supporting - Risk monitoring activities

Risk monitoring processes are to support risk response options i.e. company might be willing to retain a risk given that it is contained within established norms. Hence, monitoring activity is needed to measure the risk exposure and determine if risks have rather increasing or decreasing tendency. An example of such tool is a *Balanced Scorecard,* which is discussed in section 0. Conclusions - Implementing and monitoring action plans countering strategic risk.[28]

Supporting - Periodic risk profile update

Strategic Risk Assessment process is not one-time task. Organization, as a part of its action plan, should regularly update the risk profile. This will help not only to identify emerging risks, but also detect raising business opportunities. The frequency of reporting depends on the availability of the resources and dynamism of the market in which organization operates.[29]

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[25] *A. Slywotzky and J. Drzik, Countering The Biggest Risk of All, "Harvard Business Review", vol. 16, Mar. 2005, p 82*

[26] *Idem.*

[27] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p. 30.*

[28] *Idem.*

[29] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p. 30.*

Supporting - Scenario Analysis

Scenario planning is a good tool to examine weak indications and test current beliefs. The analysis of scenarios is adopted from corporate finance, where it is approached in quantitative manner check the heftiness of projected cash flows and their net present value by estimating the effects of a limited number of assumptions, such as sales growth, operating margin, and new products. Usually this is accomplished by applying the Monte Carlo simulations. However, in the SRM field, scenario analysis is said to be a qualitative analytical tool. First, it is difficult to estimate value of strategic risks due to insufficient data. Second, the statistic models supporting quantified scenarios are built on restrictive assumptions. Moreover, there is a strong tendency among people to focus on figures instead of qualitative aspects, which are often more important[30]. Qualitative approach to scenario analysis encourages organizational members to think out-of-the box, and to organize loose risk scenario fragments into a consistent pattern and discuss its implications on the current and future strategy. Furthermore, it can help to reveal blind spots and disclose areas where further insight is needed.[31]

Having risk profile already prepared, the first step in scenario analysis is to elaborate a few environmental scenarios that arise as the consequence of different assumptions about the risk factors (i.e. competitor's movement, technological shift) that are relevant for the corporate strategy. The next step is to assess the consequences of the strategic risk factors, within the alternative scenarios, on corporate strategy and examine the organization's ability to respond. The third step is devoted to frame new strategic alternatives, if needed, and evaluate them given the various scenarios.[32]

Although scenario analysis is just playing with plausible stories based on competing assumptions, it can be a powerful analytical tool that helps managers assess the robustness of strategic alternatives when operating in an uncertain business environment. It also makes lead think about corporate response capabilities in the face of unexpected events and changes.[33]

6. Communicating strategic risks profile and action plans

At this stage, a business should have a revised and validated strategic risk profile, and preliminary actions plans to handle the exposures. They should be communicated to the organizational members now. As a matter of fact, *Information and Communication* is one of components of core components of ERM according to the framework proposed by COSO. It states "*The better the communication, the more effective the board will be in carrying out its oversight responsibilities, in acting as a sounding board on critical issues and in providing advice, counsel and direction. By the same token, the board should communicate to*

[30] *R. Millis, C. Print and S. Rowbotham, Managerial Finance, Shareholder Value and Value Based Management: Linking Business Performance and Value Creation, Mars Business Associates, London 1999, p. 27.*

[31] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 162.*

[32] *T. Andersen and P. Schrøder, Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures, Cambridge University Press, New York 2010, p. 163 - 165.*

[33] *Idem., p. 166.*

management what information it needs and provide feedback and direction"[34].

Proper communication of risk profile to enterprise is a challenging task for a management because it needs to properly convey the organization's view on the strategic risks and importance of executing action plans, which intent to counter the threats. As recommended by COSO, communication must also be directed to upward directors because this is a topic which requires their attention and interaction i.e. approval for the actions plans (Table 4). Moreover, all employees should receive communications about risk activities, policies, and overall guidance. Therefore, there ought to be a robust communication and sharing process in place between various risk and business units. In such form, communication process carries an opportunity to reinforce organization's risk-aware culture, and contribute to enhancement of risk response capabilities of the organization.[35]

Table 4. *Example of Strategic Risk Management Alignment Guide*

Risk Category (1)	**Risk Owner (2)**	**Risk Appetite Metrics (3)**	**Monitoring (4)**	**Action Plans (5)**	**Board Oversight (6)**	**Company Oversight (7)**
Reputation	CEO	Policy approved XX/XX/XX	Corporation Affaris	Approved & updated xx/xx/xx	Full Board	Executive Committee
Operational	COO	Metrics in place for all operating divisions	Operations Management daily monitoring and reporting	Plans in place for each trigger point	Risk Commitee	Risk Management & Internal audit
(1) Strategic risk categories as defined and used on an enterprise-wide basis (2) Member of management responsible for each risk category (3) Risk appetite or limit approved by management and the board (4) Monitoring activities performed for the risk category (5) Existence and status of action plans to address deterioration in the risk category (6) Board unit responsible to oversee management of the risk category (7) Company unit responsible for assurance or oversight of the risk activities of the category						

Source: M. Frigo and R. Anderson, *Strategic Risk Assessment*, "Strategic Finance" December 2009, p 30.

7. Conclusions - Implementing and monitoring action plans countering strategic risk

The true value of strategic risk management lies in this step, because action plans intent to counteract the identified risks in previous steps. Moreover, countermeasures are also intended to reinforce organization's ongoing SRM processes and "complete the circle", but not stop at this point. This is because of the dynamic nature of risks which requires continuous monitoring and handling. Hence, action plans should enable or enhance these types of processes.[36]

Description of action plans is not in the scope of this thesis as its structure depends on exact situation and business conditions, thus there is no standardized approach or frame-

[34] *R. Steinberg, M. Everson, F. Martens, and L. Nottingham, Enterprise Risk Management Framework, Committee of Sponsoring Organizations of the Treadway Commission, Chicago 2004, p. 75.*

[35] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p. 33.*

[36] *M. Frigo and R. Anderson, Strategic Risk Assessment, "Strategic Finance" December 2009, p. 33.*

work. On the other hand, risk monitoring can be introduced since approach to this kind of action plan is widely standardized. The most recognized monitoring framework is introduced by Robert Kaplan and David Norton in 1990s *Balanced Scorecard (BS)*. It is a management system that allows organization to set and track key business initiatives. According to the BS authors, once the business strategies are developed and deployed, they should be tracked regularly (i.e. monthly) through key elements (i.e. value of sales, number of customers) of the scorecard. These elements should cover different business perspectives engaged in delivering business strategy.[37] However, as it was stated earlier, BS was originally designed to track business strategies only. Conventional approach did not consider risks that endanger execution of these initiatives. Therefore, a Re-Balanced Scorecard model was proposed to reflect not only strategic Key Performance Indicators but also Key Risk Indicators (KRIs), (Figure 8.).[38]

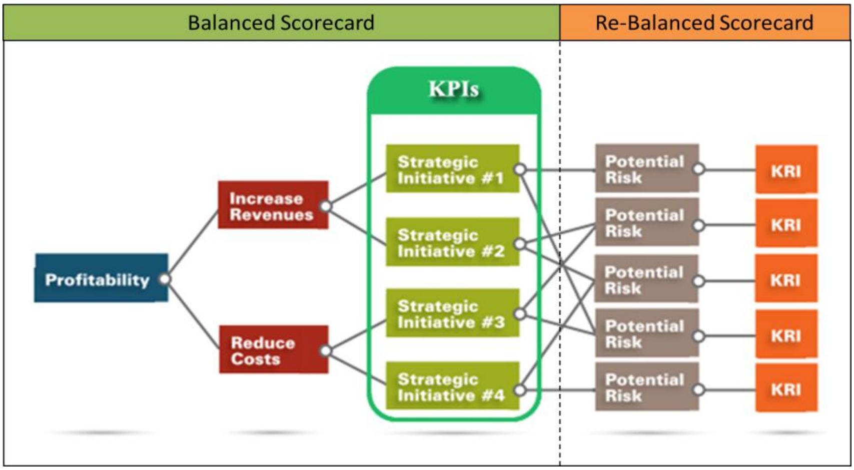

Figure 8. *Model of balanced scorecard for KPIs and KRIs*

Source: M. Beasley, B. Branson, and B. Hancock, *Developing Key Risk Indicators to strengthen ERM*, Committee of Sponsoring Organizations of the Treadway Commission, Chicago 2010, p. 2.

Following the discussion it must be noted that corporate managements habitually review summaries that include Key Performance Indicators (KPIs), intended to provide outline of the performance of the organization and its operating units. Although KPIs are important part of successful management of an organization because they help in identification of underperforming processes, they usually do not serve as “early warning indicators” of an emerging risk as they focus on results that have already occurred. Hence, it is important to differentiate KPIs and KRIs (Table 5). Key Risk Indicators provide business leaders with timely information about rising risks. In some instances, they represent ratios that manage-

[37] *R. Kaplan and D. Norton, The Balanced Scorecard: Translating strategy into action, Harvard Business Press, Harvard 1996, p. 2.*

[38] *M. Beasley, B. Branson, and B. Hancock, Developing Key Risk Indicators to strengthen ERM, Committee of Sponsoring Organizations of the Treadway Commission, Chicago 2010, p. 1.*

ment may track as indicator of developing risks, and potential opportunities, which point out the need for actions that need to be taken, thus increasing organizations response capability towards risks. Other KRIs may take more complex forms and include a combination of several measures into a multidimensional score about rising events.[39]

For example, accounts receivable collection assists to show the difference in KPIs and KRIs. A KPI for customer credit is likely to include information about delinquencies and write-offs. This measure provides data about a risk event that has already occurred - customer failed to pay. A KRI could be established to help forecast potential future customer collection issues so the credit function could be more proactive in countering customer payment trends before risk materializes. An adequate KRI for this example might be an analysis of reported financial results of the company's largest customers or overall collection challenges throughout the industry to see what trends might be rising among customers that could potentially flag potential problems with credit collections in the future.[40]

Table 5. *Comparison of Key Performance Indicators and Key Risk Indicators*

#	Key Performance Indicators (KPIs)	Key Risk Indicators (KRIs)
1	Define success for an objective.	Define risks for an objective.
2	May be outcome focused.	Identify the possibility of future adverse impact.
3	Measure of how well activity is being done.	Give an early warning to identify a potential adverse event.

Source: D. Miyake and T. Jackson, *Integrating Balanced Scorecard and Enterprise Risk Management,* Ascendant Company, Newark 2009, p. 38.

This ends the discussion on SRM process and frameworks that can be applied in the cycle. It is very important to remember that risk management activities are not one-time tasks. They need to be repeated on regular a basis, so the organization could sense changing environmental conditions. It is also needed to remark, that for complete integration of risk management into strategic planning, first six steps should accompany strategy management processes. This concludes theoretical portion of this thesis. In the following chapter, the concept of corporate environmentalism with results of empirical study will be presented.

8. Literature

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[39] *M. Beasley, B. Branson, and B. Hancock, Developing Key Risk Indicators to strengthen ERM, Committee of Sponsoring Organizations of the Treadway Commission, Chicago 2010, p. 1*

[40] Idem.

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Summary

The following paper outlines strategic risk assessment process. There are seven major steps in the process of assessing strategic risks. Each of these steps will be explained in detail, with attached proposition of framework that can be utilized by any enterprise to capture necessary information related to discussed risks.

This ends the discussion on SRM process and frameworks that can be applied in the cycle. It is very important to remember that risk management activities are not one-time tasks. They need to be repeated on regular a basis, so the organization could sense changing environmental conditions. It is also needed to remark, that for complete integration of risk management into strategic planning, first six steps should accompany strategy management processes. This concludes theoretical portion of verification taken hypothesis.

Keywords: risk, management, SRM, valuation.

NARZĘDZIA OCENY RYZYKA WYKORZYSTANE W PROCESACH SRM

Streszczenie

W opracowaniu przedstawiono proces strategicznej oceny ryzyka. Istnieje siedem głównych etapów w procesie strategicznej oceny ryzyka. Każdy z tych etapów został wyjaśnione, z dołączoną propozycja ram, które mogą być wykorzystywane przez przedsiębiorstwa do przechwytywania niezbędnych informacji związanych z omawianymi zagrożeniami.

Podsumowania dyskusji na temat procesu SRM i wspomnianych ram, które można zastosować w ich cyklu działalności, dokonano w oparciu o przeprowadzone badanie. Bardzo ważne jest, aby pamiętać, że działalność w zakresie zarządzania ryzykiem nie jest jednorazowe zidentyfikowana. Musi być regularnie powtarzana podstawa interpretacyjna, organizacja działa w zmieniających się warunkach otoczenia. Jest to również niezbędne z uwagi, że dla pełnej integracji zarządzania ryzykiem do planowania strategicznego, sześć pierwszych kroków powinno towarzyszyć procesy zarządzania strategicznego. Na tym kończy się część weryfikacja postawionej hipotezy.

Słowa kluczowe: ryzyko, zarządzanie, SRM, wycena.

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