

Focused SWOT: diagnosing critical strengths and weaknesses

Alex Coman^a and Boaz Ronen^{b*}

^aAcademic College of Tel Aviv-Jaffa, Tel Aviv, Israel; ^bFaculty of Management, Tel Aviv University, Tel Aviv, Israel

(Received 18 July 2007; final version received 10 April 2008)

Despite the problems involved in its use, SWOT (strengths-weaknessesopportunities-threats) analysis remains a major strategic tool for listing the strengths and weaknesses of an organisation, for recording the major strengths and translating them into value. This paper presents a straightforward methodology for making a structured analysis of strengths and weaknesses, based on an analysis of important value-creating events and the strengths and weaknesses that caused these events. The focused SWOT methodology distils the strengths and weaknesses into core competences and core problems, by using the core-competence tree and the current-reality tree. The core competences and core problems are then linked into a plan of action aimed at preserving and leveraging the organisation's core competences, while defending against exposure to core problems. Applications of the methodology are presented and it is demonstrated in a detailed case study.

Keywords: theory of constraints (TOC); SWOT; strategy; core-competence tree

1. Introduction

The strengths-weaknesses-opportunities-threats (SWOT) analysis is one of the most popular tools in use for defining an organisation's strategic action. The beauty of SWOT is its internal scrutiny of the organisation's capabilities, followed by environmental scanning to identify appropriate opportunities and threats. However, it has its flaws:

- No straightforward methodology has been proposed to identify strengths and weaknesses.
- Most SWOT analyses focus on an excessive number of the organisation's strengths and weaknesses rather than on the main ones, which makes it difficult to translate the findings into actions.
- There is no indication of causality among the strengths and weaknesses, nor are they ranked into any hierarchy.
- The SWOT analysis is typically a one-time event lacking mechanisms for acting upon and monitoring the changes in strengths and weaknesses over the longer term.

^{*}Corresponding author. Email: boazr@post.tau.ac.il

This paper only deals with the company's strengths and weaknesses. For a comprehensive discussion of opportunities and threats the reader is referred to Coman's (2007a) FAST model and Coman (2007b).

While diagnostic tools are listed in the literature they have not been organically linked to SWOT analysis to create a coherent diagnostic methodology. Aaker (2001) states that 'A firm's asset or competency that is capable of being the competitive basis of many of its businesses is termed a core asset or competency'. Prahalad and Hamel (1990) define core competences as 'the collective learning in the organisation, ... harmonising streams of technology, ... the organisation of work and the delivery of value' and suggest that developing core competences is the key to competitiveness. Core competences are a fundamental subset of the firm's strengths. They are distinctive in their essential contribution to the firm's value and in the difficulty facing competitors wishing to emulate them.

Ittner and Larcker (2003) find that while only 23% of the 157 companies they surveyed 'consistently built and verified the cause-and-effect relationships between the chosen drivers of strategic success and outcomes' their return-on-assets and return-on-investment were significantly higher than the rest of the companies.

This paper presents the focused SWOT analysis methodology to discover and diagnose the core competences and core problems of an organisation. The analysis consists of three tools:

- (1) The event-factor review (EFR), which analyses value creation and destruction events and generates a 'strengths and weaknesses' list for the organisation.
- (2) The core-competence tree (CCT), which distils the strengths list to generate a short list of core competences.
- (3) The focused current-reality tree (fCRT), which refines the weaknesses into a short list of core problems.

The methodology is based on the focused management philosophy (Ronen and Pass 2007, Coman, Koller and Ronen 1992) and Goldratt's theory of constraints (TOC) (Goldratt 1994). The methodology has been applied world wide in dozens of companies.

The paper is organised as follows. Section 2 discusses the shortcomings of current applications of SWOT analysis. We then present the focused SWOT methodology and its individual components, and follow with a demonstration of its application to real-life organisations, providing guidelines for its quick implementation. Section 3 describes focused SWOT's event-factor review methodology for the analysis of business events and derivation of strengths and weaknesses. Section 4 describes focused SWOT's discovery of core competences and core problems. Section 5 describes the construction of the focused current-reality tree and the core-competence tree. Section 6 describes a case study where the methodology was implemented. Section 7 concludes the paper.

2. Drawbacks of current SWOT analysis

The merit of SWOT as the leading tool for strategic analysis lies in its simplicity and clarity: scrutiny of internal strengths and weaknesses is followed by analysis of external opportunities and threats, enabling the company's management to seek markets or business opportunities that create value and identify potential events that threaten its value or position. The objective of the strengths analysis is to leverage the organisation's core competences and maximise their value-creation potential, while core problems need to be diagnosed so that they can be corrected. As noted by Hill and Westbrook (1997) and by Valentin (2001) the problem with SWOT is that it lacks a set of application tools.

Having reviewed over 500 executive presentations of large US and international companies and based on our practical experience we have observed significant variance in terms of analytical rigor. We thus propose the following criteria for the evaluation of strengths and weaknesses lists:

- (1) *Concise*: Four or five items per list. Executives burdened with routine responsibilities do not have time to effectively implement larger quantities of action items (Davenport and Beck 2001). Most of the surveyed companies meet this criterion.
- (2) *Actionable*: Items should call for actions. They should easily allow for the crisp definition of action goals provided to executives charged with remedying the problems. Many companies list weaknesses such as 'Asia' (ThyssenKrupp 2006), which cannot readily be transformed into action.
- (3) *Significant*: The items in the lists substantially impact the company's value. Actionable weaknesses that have a negligible effect on the company's value should be eliminated from the analysis.
- (4) Authentic: The lists should obviously be authentic rather than wishful thinking.

We discuss three case studies of SWOT analyses by major international companies. We describe the SWOT outcomes and assess the quality of the SWOT analysis and the rigour and applicability of the above criteria.

Consider the SWOT analysis performed by an Australian telecom company. *Strengths*:

- Strong brand.
- Extensive distribution.
- High quality service low churn (customers abandoning the company for its competitors).

Weaknesses:

- Slow to react to competitive threats.
- Perceptions of poor value.
- Behind in the pre-paid area.
- Lack of focus in the youth market.
- Unclear data strategy.

These strengths and weaknesses meet the criteria for effective analysis.

- (1) Concise: Three strengths and five weaknesses.
- (2) *Actionable*: Most weaknesses focus on a clear well-defined issue within management's control or influence.
- (3) *Significant*: Churn has a significant impact on the value of a telecom company; this highly competitive arena requires rapid response to opportunities and threats.
- (4) Authentic: The list seems robust and authentic.

However, many companies do not meet these criteria. Consider this example of a SWOT analysis performed by a leading global IT services company:

Strengths:

- Competitiveness in the North, South and Central American markets: signings growth.
- Build-to-order growth.
- Asian growth (without Japan).

Weaknesses:

- Short-term signings, revenue and profitability (in March).
- 'Europe performance'.
- 'Japan performance'.

These lists consist of outcomes rather than causes to be taken care of.

- (1) *Concise*: The lists are concise.
- (2) *Actionable*: The lists are not actionable as they list business successes and failures rather than exposing the core competences or core problems of the company.
- (3) *Significant*: The items are significant.
- (4) *Authentic*: The lists miss the point by focusing on external phenomena. Not a single internal strength or weakness is identified.

A leading European automobile manufacturer produced the following lists.

Strengths:

- Technical competence.
- Well-known brands.
- Committed long-term shareholders.
- Loyal employees.

Weaknesses:

- Lack of innovation.
- Lack of growth.
- Insufficient profits.

Let us evaluate the lists.

- (1) Concise: The lists are concise.
- (2) Actionable: 'Lack of growth' is an effect and does not point at specific action.
- (3) Significant: The items are significant.
- (4) *Authentic*: The strengths list is somewhat unrealistic. The company's stated technical strength is not corroborated by the market perception and its benchmark performance relative to competitors such as Toyota.

Table 1 summarises the strengths and weaknesses identified by executives of the three companies listed in the case studies.

In conclusion, existing SWOT analyses often suffer from serious drawbacks. We therefore suggest the formal application of structured methodologies to push

	Australian telecom company	Global IT services company	European automobile manufacturer
Strengths	Strong brand.	Competitiveness of the North, South and Central American markets: signings growth.	Technical competence.
	Extensive distribution. High quality service, low churn (customers abandoning the company for its competitors).	Build-to-order growth. Asian growth (without Japan).	Well-known brands. Committed long-term shareholders. Loyal employees.
Weaknesses	Slow to react to competitive threats.	Short-term signings, rev- enue and profitability (in March).	Lack of innovation.
	Perceptions of poor value.	Performance in the European market.	Lack of growth.
	Behind in the pre-paid area. Lack of focus in the youth market. Unclear data strategy.	Performance in the Japanese market.	Insufficient profits.

Table 1. Summary of the three case studies.

towards more rigorous and actionable analysis. This we call the focused SWOT methodology.

3. The event-factor review

To generate a quality list of strengths and weaknesses, we introduce the event-factor review as a rapid and effective mechanism for deriving strengths and weaknesses from business events.

As demonstrated in detail in the case study described in Section 6, the process consists of a brief analysis of six to nine events that had a significant impact on the company's value. Such events include winning or losing tenders, meeting technical challenges, influence in standards committees, meaningful market share gains or losses, and substantial profits or losses in a given market segment.

We divide the events into successes and failures contingent on their impact on the company's value. From each event we derive strengths and weaknesses. Note that a won contract can reveal strengths as well as weaknesses, such as ineffective implementation. This was indeed the case with a hi-tech developer that won a major contract with a first-tier telecom service provider, but lost over \$5 million due to its inability to reliably deploy its equipment in the field. Thus, while technological product development was designated a company strength, project integration and delivery were a weakness.

Similarly, a lost contract reveals weaknesses but may nevertheless show strengths in some areas. Consider, for example, a telecom contractor that successfully passed a proof-of-concept milestone but ultimately lost the contract due to the inability to offer competitive credit terms.

This analysis generates strengths and weaknesses that enable diagnosis of the company's core competences and core problems.

Consider the following examples:

- *Pilgrim's Pride*, in the poultry business, identifies success in its acquisition integration track record. The company quantifies this success at \$125 million of annualised synergies realised in the financial year 2005, attributing it to its strong strategic synergy teams. These teams of senior executives focus on production, sales and marketing, and supply chain/purchasing. Function-specific sub-teams manage human resources, finance and information technology.
- *Havas*, an advertising agency, identifies success in being creative, as evidenced by its multiple wins at the Cannes Lions International Advertising Festival. The strengths that can account for these wins include the following: the ability to retain all the talent that the agency wants to retain around the world, and the ability to lure top talent away from its competitors.
- British Telecom can lay claim to several key international successes, such as its biggest commercial win ever outside the UK, worth up to €200 million over seven years, with the Bavarian state government. BT identifies six strengths that can account for these successes: brand and financial strength, delivering next generation IP products to customers, being the leading provider of solutions and systems integration, its existing strength in the target segment, global accounts and service management, and its broad network.
- *Gillette* recognised its '15 quarters of continuous negative revisions' as a failure. The company acknowledges, moreover, that this failure was self-inflicted and identifies three drivers of poor performance, that is, weaknesses: organisational disruption, trade loading, and segmentation and pricing decisions.

4. Discovering the company's core competences and core problems

The event-factor analysis generates 8–12 strengths and 8–12 weaknesses. The strengths are usually the result of a small number of core competences that are discovered by core-competence analysis. The weaknesses are caused by a small number of core problems that can be discovered by focused current-reality tree analysis.

We apply the focused current-reality tree (fCRT) (Ronen *et al.* 2006) derived from Goldratt's (1994) technique. The original current-reality tree aims to map all undesired effects and discover the core problems of a company. The fCRT created by Ronen and Pass (2007) is a simpler and time effective tool based on Goldratt's model. We use the fCRT technique to discover the company's core competences and its core problems, as generated by the event-factor analysis.

The technique consists of three steps. When applied to company strengths it consists of:

(1) Pruning the strengths list to eliminate redundancy, vagueness, and irrelevant symptoms.

- (2) Linking the strengths using cause-effect logic.
- (3) Discovering 2–3 core competences.

When applied to company weaknesses the technique consists of:

- (1) Pruning the weaknesses lists to eliminate redundancy, vagueness, and irrelevant symptoms.
- (2) Linking the weaknesses using cause-effect logic.
- (3) Discovering 2–3 core-problems.

Consider the three steps in detail:

```
(i) Pruning
```

Eliminate all weaknesses that do not satisfy the following criteria.

- The weakness must *exist* over a period of time (and not be a one-time phenomenon).
- The weakness must be expressed in *undesirable* terms.
- The weakness must be under our control or influence.

We start by eliminating weaknesses that are sporadic in order to focus on chronic weaknesses that cause significant damage to the company. For example, a one-time five-month delay in project delivery should not be included in the list of weaknesses, even though it may receive excessive management attention, while a chronic two- to three-month delay that has come to be considered acceptable should be included.

We express every weakness in negative terms in order to eliminate ambiguity. A weakness listed as 'culture' will be redefined as 'lack of individual initiative' or eliminated if no concrete definition is appropriate.

We strive to focus our attention on weaknesses that are actionable and therefore eliminate weaknesses that are not under our control. For example, a slowdown in the Japanese economy is not a legitimate weakness if there is nothing we can do about it.

We narrow down the list by aggregating similar weaknesses under a single category and by deleting less important ones.

(ii) Linking the strengths and weaknesses using cause-effect logic

Evidence shows that weaknesses are often linked in cause–effect relationships. We discover these relationships and depict them with arrows pointing from causes to their effects, as in Figure 1, which shows the situation of the CEO of the major European automobile manufacturer of the case study in Section 2, who identified three weaknesses: lack of innovation; lack of growth; insufficient profits. These weaknesses are *not* independent.

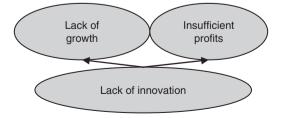


Figure 1. Cause-effect relations between weaknesses.

Lack of innovation is the cause of the company's lack of growth and insufficient profits. We indicate this in the following manner in the tree.

We add a 'leading weakness' at the top of the tree as a focus for the analysis (see Figure 2). All weaknesses must eventually lead to the leading weakness, and they must be underpinned by the core problems, as we show in the construction of the focused current-reality tree described in Section 5. We usually define the leading weakness as follows: the company's value is insufficient. Other leading weaknesses can be used in the case of not-for-profit organisations.

(iii) Discovering 2-3 core problems

The underlying assumption is that the company has a few core problems, and most weaknesses are symptoms of these core problems. Correct identification of the core problems is essential.

When a patient goes to his doctor for a check-up and complains about various symptoms (headaches, perspiration, nausea and high fever), a good doctor will try to find and treat the patient's core problems. Myopic treatment of the symptoms requires greater effort, hides the real causes, and usually results in an aggravation of the patient's complaint, whereas treating the root cause, insofar as this is possible, will cure or at least alleviate it. Similarly, executives who tackle a short list of their company's core problems achieve high rates of success with less effort.

After linking the weaknesses through cause-effect relations, we discover two to three core problems at the bottom of the current-reality tree to obtain a focused current-reality tree.

A schematic fCRT is given in Figure 2.

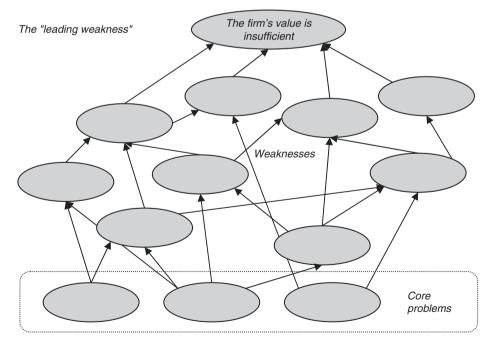


Figure 2. A schematic fCRT.

5. Constructing the fCRT and the CCT

Construction of the tree begins with the leading weakness, under which we position all the weaknesses identified as causes linked directly to them, making links with cause-effect arrows. We add, layer by layer, the weaknesses that are causes of the previously included weaknesses. As needed, we add inferences that explain non-trivial relations among weaknesses and insights gained during the construction of the tree. At the end of the process of constructing the fCRT, we have at its base a small number of weaknesses with no weaknesses to explain them. These are the core problems, usually one to three in number. They could be weaknesses or inferences (conclusions of the team constructing the fCRT) that we identify as core problems.

Among the examples of core problems in organisations are the following.

- An excessively centralistic manager.
- Lack of a clear strategy.
- Unstructured processes.
- Inappropriate performance measures.
- Lack of focus.
- The company is driven by technological thinking rather than by business thinking.
- A gap between professional and managerial abilities.

An identical process is applied to the core-competence tree (CCT), which ends with two to three core competences being identified at the bottom of the tree. The 'leading-competence' is usually 'value was created for the shareholders'.

6. A case study

The case study described in this section demonstrates the application of the focused SWOT analysis methodology in a real-life international hi-tech company. The presentation has been modified to disguise the company and its market.

Company profile:

- \$40 million sales/year.
- 200 employees.
- Operates in the hi-tech electronics defence arena.
- Two product lines:
 - (i) Components for the electronics defence industry.
 - (ii) Subsystems for first-tier customers in the electronics defence industry.
- Strong marketing and sales department, active mainly in the USA.
- Rapid time-to-market R&D expertise.
- Strong influence on major standardisation committees.
- Excellent human resources management and atmosphere.
- Subcontracting of production activities.
- Sales to original equipment manufacturers (OEMs).
- In common with the electronics defence industry as a whole, the firm has been facing a severe decline in demand, which poses a threat to its cash flow.

We now apply the focused SWOT analysis to the company, starting with an event-factor review.

Event-factor Review					
Event		Factor			
Outcome	Description	Strengths	Weaknesses		
Successes	Winning a first-tier customer contract	 Rapid multidisciplinary product development. Good engineering and production. Good interdisciplinary communications. 	 Product not differentiated enough. New markets require 'education'. 		
	Leading an important technical standard committee.	 Sales to market leaders. Technological innovation and professionalism. Top people working in a creative atmosphere. High employee motivation. 			
	Exceeding sales targets	Strong sales department.High sales growth rate.	The company is losing money.		
Failures	Failure to sell to the leading company in the market	Technological leadership.	 Small player in a giants' playground. 		
	Losing money over a period of 3 years		 Product over- specification and over-design. No access to the end-user. Insufficient R&D strategic gating. High burn rate. 		
	Failure in M&A negotiations with a leading player in the industry		 Excessive technological orientation. No awareness of M&A potential. 		

Figure 3. Event-factor review.

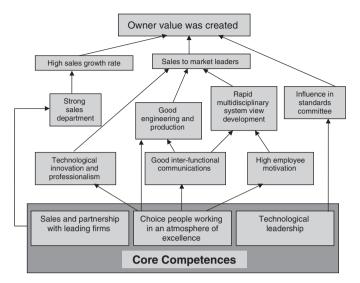


Figure 4. Core competences.

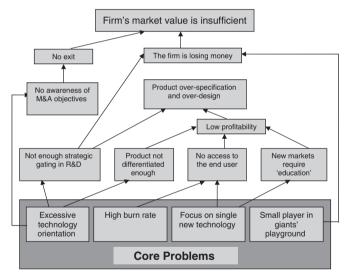


Figure 5. Core problems.

Winning a first-tier customer contract is a major success. It reveals the strengths listed in Figure 3. However, profit margins for this contract are insufficient due to the fact that the product is not sufficiently differentiated, and that new markets require 'education'.

Similarly, exceeding sales targets exposes a weakness, namely that the firm is losing money due to an exorbitantly expensive sales infrastructure of offices worldwide.

Despite its technological leadership, the company has failed to sell to the leading customer in the market. Even though the customer's engineers showed a preference for the company's products over all others for their superior design and price, the customer's

procurement department would not place an order due to its policy of not buying from small companies.

We now construct the core-competence tree from the list of strengths (Figure 4) and the focused current-reality tree from the list of weaknesses (Figure 5).

It should be noted that the core competences and core problems may include factors that were discovered during the cause analysis and were not necessarily part of the strengths and weaknesses lists.

Drawing up a short list of core competences and core problems enabled management to focus its efforts effectively on the actionable items that had given rise to them. The company's 'excessive technology orientation' was resolved by assigning one of the two joint CEOs to handling M&A full time. 'High burn rate' was resolved by introducing a strategic gating (Pass and Ronen 2003) function and improving R&D processes and their management. 'Focus on a single new technology' was resolved by appointing a business development executive. 'Small player in a giants' playground' was resolved by distributing the product through a large third party.

7. Conclusions

We have demonstrated that the major problems in the analysis of strengths and weaknesses can be alleviated by introducing three tools: event-factor analysis as a rigorous generator of strengths and weaknesses; focused current-reality tree (fCRT) analysis for the discovery of core-problems; and core-competence tree (CCT) analysis for the discovery of core competences. For comprehensive value creation, managerial and financial resources need to be allocated to remedy the discovered core problems. At the same time the core competences identified need to be leveraged to all organisational functions and opportunities identified for their exploitation. The FAST model (Coman 2007a) suggests methodologies for broader implementation.

Acknowledgement

The authors wish to thank the anonymous referees for their enlightening comments.

References

Aaker, D.A., 2001. Developing business strategies. 6th ed. New York, NY: John Wiley and Sons.

- Coman, A., 2007a. FAST: Value Creation through Technology Investment Management. Proceedings Portland international conference on management of engineering & technology, 5–9 August 2007, Portland, Oregon, 1680–1693.
- Coman, A., 2007b. Available from: http://www.coman.org/fastgive.doc [Accessed 19 May 2008].
- Coman, A., Koller, G. and Ronen, B., 1992. The application of focused management in the electronics industry: A case study. *Production and Inventory Management*, 2nd quarter, 65–70.
- Davenport, T.H. and Beck, J.C., 2001. The attention economy: understanding the new currency of business. Boston, MA: Harvard Business School Press.
- Goldratt, E.M., 1994. It's not luck. Croton on Hudson, NY: North River Press.
- Hill, T. and Westbrook, R., 1997. SWOT analysis: it's time for a product recall. *Long Range Planning*, 30 (1), 46–52.

- Ittner, C.D. and Larcker, D.F., 2003. Coming up short on nonfinancial performance measurement. *Harvard Business Review*, November/December, 88–95.
- Pass, S. and Ronen, B., 2003. Management by the market constraint in the hi-tech industry. International Journal of Production Research, 41 (4), 713-724.
- Prahalad, C.K. and Hamel, G., 1990. The core competence of the corporation. *Harvard Business Review*, May/June, 79–91.
- Ronen, B. and Pass, S., 2007. Focused operations management: achieving more with existing resources. San Francisco, CA: John Wiley and Sons.
- Ronen, B., Pliskin, J.S. and Pass, S., 2006. Focused operations management for health services organisations. San Francisco, CA: Jossey-Bass, an Imprint of Wiley.
- ThyssenKrupp. 2005. Ekkehard D. Schulz. Available from: www.thyssenkrupp.com/documents/hv-2005-01-21-en/Charts_Hv_2005_Rede_en.pdf [Accessed 19 May 2008].
- Valentin, E.K., 2001. SWOT analysis from a resource-based view. *Journal of Marketing Theory and Practice*, 9 (2), 54–69.

Copyright of International Journal of Production Research is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.