

Chapter 21

Event and Timeline Analysis



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Short Description

- Event and timeline (E&T) analysis is a group of related techniques that display events sequentially in a visual manner.
- Event analysis isolates external events and highlights trends in competitor behavior.
- E&T analysis can serve as an early-warning function by highlighting when a competitor or another market player is straying from its normal course of behavior.



Background

- The study of events and time in organizations and in economics provides an explanation of the past, present, and future of industries and companies, and how organizations respond to environmental factors.
- E&T analysis as is a technique that most analysts probably already employ, though not ordinarily with necessary discipline.
- The analysis can take the form of a graph, chart, table, or line.
- E&T analysis is a way to chart the order of how companies perform certain activities, label the information, and place that information into an analytical framework.



Strategic Rationale and Implications

- When the amount of data and information regarding a rival's activities is overwhelming, a clear chronology can be used.
- E&T assists in establishing a pattern.
- Timelines suggest turning points, linear trends, and also progressions.
- Excellent E&T analysis applications.
 - Chronologies of competitive activity within an industry.
 - Isolated look at patterns evident from recent acquisitions.
 - Geographical representation of competitor activity.



Strengths and Advantages

- Should not require as much training time to master as some of the more sophisticated tools it often complements.
- Variety of simple and inexpensive software applications to support E&T.
- Best used when dealing with a large number of events which are spread over a long period of time.
- E&T analysis is complementary to other techniques.



Strengths and Advantages cont'd

- Used in combination with other techniques E&T analysis can help the following objectives (Buys & Clark, 1995; Heuer, 1999):
 - Spot relationships among multiple organizational actors;
 - Identify trends and patterns over time;
 - Spot discontinuities;
 - Differentiate between the analysis of the facts and the resultant conclusions;
 - Evaluate the factual basis of possible recommendation;
 - Identify matters requiring further analysis and examination;
 - Understand the relationships among forces;
 - Weigh discrete events; and
 - Anticipate likely future events.



Weaknesses and Limitations

- Not always easy to determine which events should be included and which should not.
- Determining the event constituting the starting point of a timeline can be difficult.
- E&T analysis needs to be done well in advance of key decisions or events.
- It can be difficult to project what will occur in the future.
- Must fight the temptation to extrapolate events along a similar path when conditions or drivers are changing.



- Plot the target firm's history of key events on a line
 - 1. Decide what the timeline will show.
 - 2. Make a comprehensive list of events that you wish to put on the timeline.
 - 3. Consider how you will choose events to include and exclude from the final timeline.
 - 4. Research and note the specific dates when the events that you wish to include occurred.
 - 5. List the chosen events in a chronology.
 - 6. Decide what units of time you will use.



Process for Applying the Technique

7. Draw a line and divide it into the number of equal segments that you figure you will need.



8. Put the dates on the appropriate segments, from left to right.

1997	2000		2003		2006	
+	+ -	+	+	+	+	

- 9. Using the chronology that you made of events and dates, figure out where they would fall on your timeline.
- 10. If there is no room on your timeline to include all of your chronology, cull some of the dates or make a timeline with larger segments



- Develop a chronological table of events
 - A popular way of performing E&T analysis is in tabular format

Date	Event	Source
April 19, 2005	Acquires Jellico Corporation	Firm press release (see Jellico files)
May 12, 2006	Closing of Warsaw factory and layoff of 420 line workers.	Warsaw media
May 15, 2006	Bankruptcy documents filed for Wafer Fabrication (WFI) business in US federal court	Court docket (#06.02.000067)
June 3, 2007	Sale of three patents (numbers in attached files) to FabCorp for USD\$500,000.	USPTO records (full details contained in patent files on intranet)
June 28, 2007	Rumor of acquisition of WFI by Zenited is circulated at advanced technologies engineering conference	Mark Owens, Chief Engineer, London office (see e-mailed entry in digital file)



- Develop an events matrix.
 - An events matrix is useful for looking at multiple rivals.

	2002	2003	2004	2005	2006
Rival 1	•Purchases VRS Corp. for \$3.4 million	•Introduces new fiber optic network to Europe	•Replaces 15 year CEO with new hire from Zeptis	•Sells VRS to Xeon for \$5.5 million	•Highest profits ever in 1st quarter.
Rival 2	 Pulls repeater service from market; Reduces prices on standard service by 15% across the board. 	 Introduces bundled pricing packages; Enters Chinese market; Announces strategic partnership with Xeon. 	Files lawsuit in EU to prevent our use of Teldex name Wins license for upper band spectrum	Market share at 30% in USA New alliance with IMB	
Rival 3	•Enters North American market; •Introduces new slim handset	Wins approval for new transmission standard	Rolls out new ad campaignChanges subscription terms	•New CEO named	



- Event and causal factors analysis (ECF).
- ECF charting is a technique that displays the events sequentially in a visual manner using squares, ovals, and arrows to show the relationship between events important to the problem and potential causes of the problem.
- It displays the reason why each event occurred.
- Should be started as close to the market event as possible.



- ECF helps to:
 - Organize the event data.
 - Guide the subsequent assessment process.
 - Identify and validate factual findings, probable causes, and contributing factors.
 - Simplify organization of the resultant report.
 - Validate and confirm the actual event sequence.
 - Illustrate the event sequence in the report provided to decisions makers.
- Most effective when used with other E&T analysis tools.



Process for Applying the Technique

Process for Performing ECF analysis
 Events should be indicated as rectangles, conditions as ovals.



Events should be connected by solid arrows.



Conditions should be connected to each other and to events by dashed arrows.





Process for Applying the Technique

- ECF Cont'd
- Less definitive events in dashed lines:



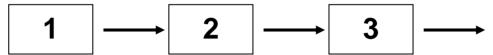
•The primary sequence of events should be depicted in a straight horizontal line (or lines in confluent or branching primary chains) with events joined by bold printed connecting arrows.



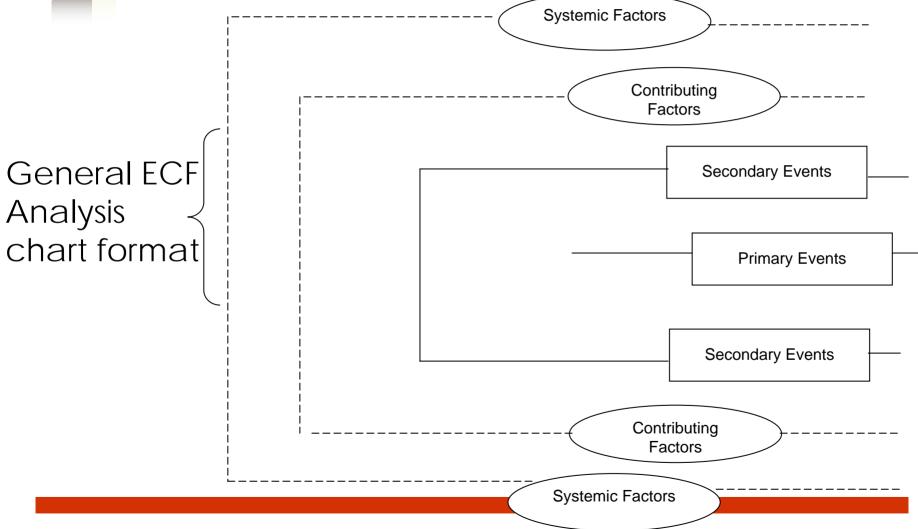


Process for Applying the Technique

- ECF Cont'd
 - Events should be arranged chronologically from left to right.



 Secondary event sequences, contributing factors, and systemic factors should be depicted on horizontal lines at different levels above or below the primary sequence.





- Suggested criteria for event descriptions:
 - Each event should:
 - Describe an occurrence and not a circumstance.
 - Be a single occurrence.
 - Be described by a short sentence with one subject and one active verb.
 - Be described as precisely as possible.
 - Include appropriate quantification if possible.
 - Be derived directly from the event.
 - Conditions differ from events insofar as they: (a) describe states or circumstances rather than happenings or occurrences; and (b) are passive rather than active.



Case Study

- A Fuld & Company pharmaceutical client had learned that a competitor received US Federal Drug Administration (FDA) approval for the potential marketing of an over-the-counter (OTC) drug that directly competes with one of its own OTC consumer products.
- The focal firm wanted to know exactly the date of the launch time as well as the quantity of product to be launched.
- Analysts needed to find a way to link the element of time with the release of information about the competitor. The method they chose to generate a solution was to timeline the situation.



Case Study

1. Identify each process taking place

Process step	Description
Mixing chemicals	A granulator mixes the raw chemical with additives. There are different sizes of granulators. A moderate-sized granulator can produce 400-600 kilograms (k) in just a few hours.
Pressing pills	The mixture outputted by the granulator is put into a pill press. These can produce anywhere from 1k to 3k pills/ minute. The client suggested the type of press to be used by the rival would generate about 2k pills/minute.
Coating machine	The pills likely proceed to a machine with a drum that applies the outer coating.
Packaging	This phase consists of several machine-driven steps, including printing the identification codes, filling the bottle, inserting cotton, sealing, capping, labeling, and printing the expiration date.



Case Study

2. Collect the data

- An estimate of the level of inventory a manufacturer must have in order to prepare for this kind of product roll-out;
- The number of pills expected to be packaged per bottle;
- Three different sizes bottles of 24 pills, 50 pills, and 100 pills would be used as well as the estimated dosage;
- The first shift for the plant was already being recruited;
- A firm estimate of the expected production yield over the course of the start-up period before roll out;
- Equipment manufacturers and, through interviews, an identification of likely key equipment to be used;
- The granulator's capacity; and
- The rival's chosen brand name for the product.



Case Study

3. Organizing the data; develop the timeline.

Step	Event	Reasoning
One	Refitting manufacturing plant	The manufacturer needed enough time to produce and accumulate half a year's volume of pills, the amount needed in order to meet their roll-out plans. The client's own marketing department had determined, based on other similar roll outs, how many pills the competitor needed to distribute in order to successfully penetrate the market.
Two	FDA approval	The FDA has to approve the equipment directly involved in the drug's manufacture. Various equipment suppliers had suggested that the FDA had already come in and provided the necessary certifications.
Three	Plant visit by packaging supplier	One of the client's purchasing employees had visited a packaging supplier's plant and recalled seeing labels with the drug's name and dosage. This was important data that helped the analyst estimate the amount of raw chemical that had to be processed; consequently, it was easy to calculate the time needed to generate the necessary inventory.
Four	Hiring	The client estimated that it would take 10 weeks for the first shift to produce up to 80 per cent yield from each batch — the level required to achieve production efficiency. It would take seven more weeks to train a second and third shift. These additional shifts were needed for the rival to achieve the quantity needed to launch the product.



Case Study

4. Draw conclusions

- The analyst was able to project how long it would take for the competitor to stockpile enough pills to launch the product by combining knowledge of the plant's actual FDA certification date and hiring information with the time it would take for the new employees to produce products at a certain yield rate.
- The intelligence produced by the analyst was an estimated six to seven week product launch window, which helped the client to successfully plan a preemptive strategy by flooding the market with discount coupons, special institutional promotions, and related sales activity.

SOURCE: Adapted from Fuld, 1995, Chapter 12, Case 2.



FAROUT Summary

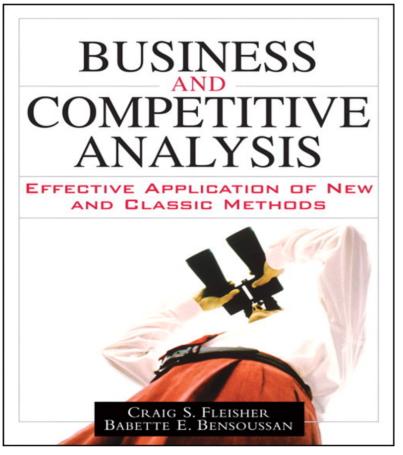
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Related Tools and Techniques

- Activity Flow Charting
- Competitor Profiling
- Driving Forces Analysis
- Event Flow Analysis
- Event Matrix Analysis
- Forecasting
- Historiographical Analysis
- Indications and Warming Analysis
- Issue Analysis
- Strategic Relationships Analysis





For More About Event and Timeline and 23 Other Useful Analysis Methods, see:

Fleisher, Craig S. and Babette E. Bensoussan

Business and Competitive
Analysis: Effective Application of
New and Classic Methods



Upper Saddle River, NJ 2007