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UNITED NATIONS INDUSTRIAL. DEVELOPMENT ORGANIZATION

Financial Improvement Toolkit (FIT)

User Manual

Content:

1. Introduction

The Financial Improvement Toolkit (FIT) supports strategic management and controlling.

Whereas qualitative analysis and strategic planning are well served by e.g. the approach of M. Porter, there is only one large quantitative empirical base available, namely the findings of the PIMS (Profit Impact of Market Strategy) project. Therefore, the potential user of FIT will have the largest benefit if he is familiar with state-of-the-art knowledge in strategic management in general and specifically with the PIMS results.

This manual provides in a very concentrated form the knowledge needed to start applying FIT and through its references to relevant publications allows a broadening of the skills. It is neither intended to be a substitute for attending a corresponding course nor for support by a skilled consultant.

A seminar which covers these topics in detail is available from UNIDO and SIGA.

2. The Competitive Environment and the Role of FIT

2.1 Competitive Strategy

The pressure to open up markets rapidly increases worldwide, as e.g. indicated by the Uruguay round of GATT talks which in 1994 lead to the formation of the World Trade Organisation (WTO). This implies increasing global competition which eventually exposes structural weaknesses. But it also gives new opportunities to enter foreign markets and to expand ones activities.

Competition is at the core of the success or failure of firms. The search for a favorable competitive position in an industry is called competitive strategy. It aims to establish and maintain a profitable position against the forces that determine competition.

Two central questions underlie the choice of competitive strategy. The first is the attractiveness of industries for long-term profitability and the factors that determine it. Not all industries offer equal opportunities. The second question is about the determinants of relative competitive position within an industry. In many industries, some companies are much more profitable than others, regardless of what the average profitability in the industry may be. The answers to both questions change over time.

The intensity of competition is neither a matter of coincidence nor bad luck. It is rooted in an industry's underlying economic structure and goes beyond the behavior of current competitors. It should be the subject of a thorough analysis.

The first fundamental determinant of profitability is **industry attractiveness**. We define industry as the group of firms with offerings that are close substitutes for each other. A successful competitive strategy must be based on a precise understanding of the rules of competition that determine an industry's attractiveness.

M. Porter [1] shows that the rules of competition are embodied in the following 5 competitive forces:

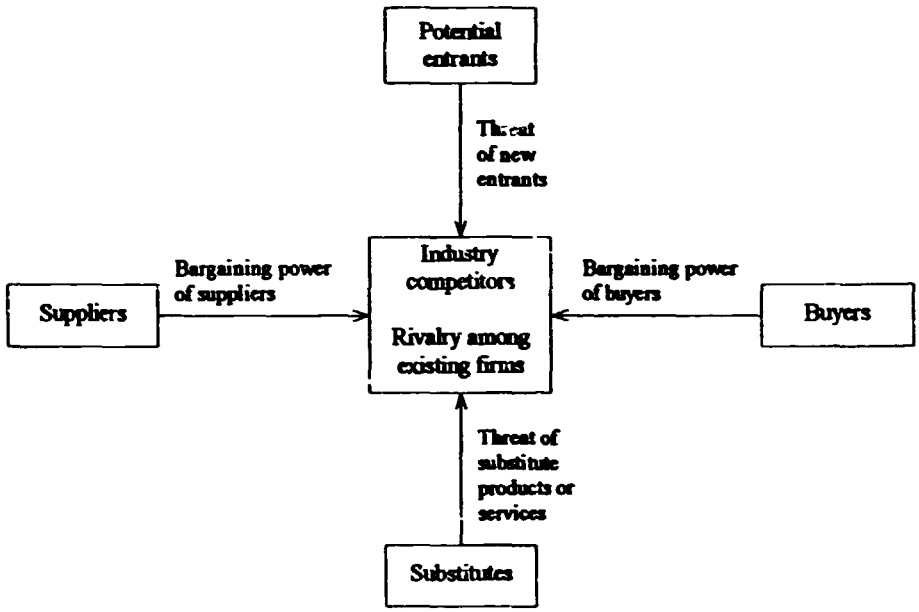


Fig. 1: The five competitive forces

The five forces determine industry profitability because they influence the prices, costs and required investments of firms in an industry, which are the elements of return on investment.

Buyer power as well as threat of substitution, for example, influence the prices that firms can charge. Products made out of steel may e.g. get substituted by aluminium or some composite materials. These could have significant cost advantages or better serve the customers' needs. Therefore, substitutes in general need constant attention.

The power of buyers can also influence cost and investment, because buyers may demand costly services. The bargaining power of suppliers sets the costs of inputs. The power of both suppliers and buyers may be influenced in ones own favour by a careful supply chain management (see e.g. [4]).

Intensity of rivalry influences prices as well as costs of competing in areas such as equipment, R & D, sales force and advertising. The threat of entry places limits on prices and shapes the investment required to deter entrants. High profit margins may attract new entrants, specially if combined with low investments needed to serve the market. High investments on the other hand tend to deter companies from entering a new market. There are other barriers to entry, as customer loyalties to their existing suppliers, access to distribution channels or any cost disadvantages of new entrants. High investments needed to compete may also significantly intensify competition within an industry, as they constitute high exit barriers. They often are the reason for price wars which at the end leave the whole industry worse off.

The strength of each of the 5 competitive forces depends on industry structure, the characteristics of an industry. In any particular industry, not all of the 5 forces will be equally important. The 5 forces framework allows an in-depth analysis of the structural factors that are important, as described in detail by Porter [1].

It is often said that satisfying customer needs is at the core of success. It certainly is a prerequisite for industry profitability, but in itself is not sufficient. The crucial question in determining profitability is whether businesses can capture the value they create for buyers or whether this value is competed away to others. Industry structure determines who captures the value.

The second fundamental determinant of profitability is a firm's relative position within its industry, **its competitive strength.** Positioning determines whether a firm's profitability is above or below the industry average. Though a firm can have many strengths and weaknesses compared to its competitors, there are only two basic types of competitive advantages a firm may possess: **low cost** or **differentiation**, according to Porter [1].

The importance of any strength or weakness a business possesses depends on its impact on relative cost or differentiation. Cost advantage and differentiation in turn depend on industry structure. They come from a firm's ability to cope with the 5 forces better than its rivals.

These two basic types of advantages are combined with the scope of activities, which can be broad or narrow. Broad or narrow scope is equal to a broad or narrow definition of the market. A narrow target will be a specific product/market segment whereas the broad target will be an overall market (which ultimately must be properly defined as well). A narrow target will result in a focus strategy, either on cost or differentiation.

The following matrix shows the position of the three generic strategies:

Competitive scope	Competitive advantage: Lower cost	Competitive advantage: Differentiation
Broad target	1. Cost leadership	2. Differentiation
Narrow target	3A. Cost Focus	3B: Differentiation Focus

Fig. 2: Three Generic Strategies

In that context it is important to note that the definition of an industry as it is used in this chapter is not the same as defining where a firm wants to compete. Just because an industry is defined broadly does not mean that a company should compete in the whole industry. A clear view of where a business competes (its served market) is also the basis for chapter 2.2 and the definition of a Strategic Business Unit (SBU).

Market attractiveness and own competitive strength are also the measures in portfolio techniques to characterise a firm's different businesses. In its original form associated with the Boston Consulting Group market growth and market share were used to classify businesses in four quadrants:

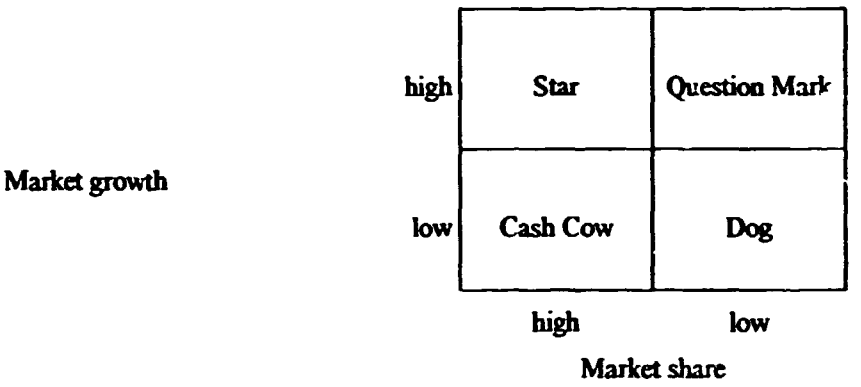


Fig. 3: The growth/share-portfolio matrix

Besides some other limitations as described in [1], the qualitative aspect of such classification schemes leads to differing views and interpretation by different people (e.g. finance managers, marketing or production managers). This issue is addressed by quantitative approaches like the PIMS program.

2.2 Empirical Support for Strategic Management

Only a careful consideration of the subjects outlined in the preceeding chapter will lead to a sound competitive strategy. Besides this mainly qualitative analysis, important findings from the large empirical PIMS (Profit Impact of Market Strategy) study are available to support strategy formulation and control. We will only mention a few items; a detailed description is to be found in [3].

The study dealt with the question which factors are measurably related to sustained profitability of businesses across industries and how their impact may be quantified. The answers that were obtained are based on more than 25 years of intense empirical research throughout industrialized nations.

The object of the investigation in the PIMS program is a Strategic Business Unit (SBU), defined as a unit that produces and markets a well-defined set of products or services to a clearly defined set of customers and competes with a known set of competitors. It is a subdivision of a company for which it would be sensible to develop a distinct, separate strategy and from which we know financial data.

The study identified a number of factors which have a systematic relationship with the profitability of a business. Together they account for about 70% - 80% of the observed variance in profitability, described by the Return on Investment (ROI), of all business units analysed.

ROI is defined as pre-tax and pre-interest income divided by (total assets minus short term liabilities).

Following are some of the most important factors which have a strong influence on profitability and, therefore, on competitiveness:

- Investment intensity (investment divided by value added)

  Technology as well as the way a business is managed largely determine the investment needed to create a certain amount of value added. High investment intensity is always negative for ROI and cash flow. To be successful, an investment must clearly show positive effects on other factors (e.g. value added, relative quality, costs etc.).

  The following graph illustrates the relationship:

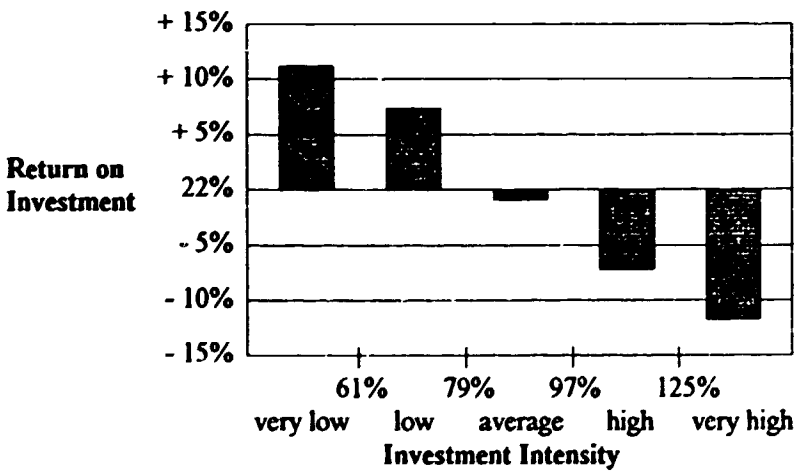


Fig. 3: Deviation from average ROI, depending on Investment Intensity

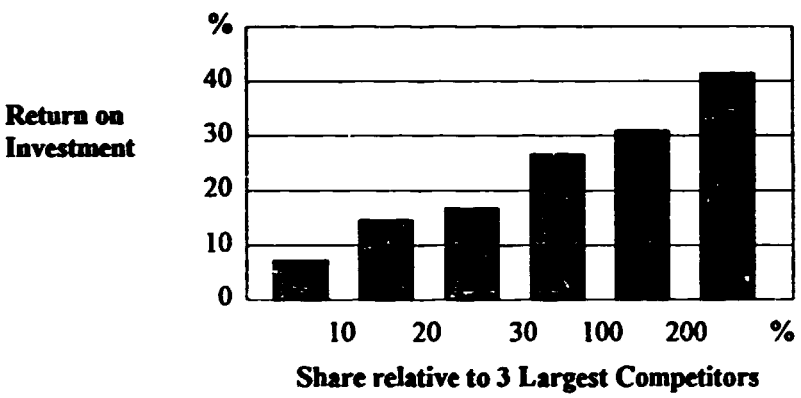
- Productivity (value added per employee)

  High productivity is always positive. It is necessary in businesses with high investment intensity.

- Relative market share

Definition: The firm's market share compared to the sum of market shares of its three most important competitors.
It is always advantageous to have a high relative market share. It is especially important in businesses with high marketing expenses, high R&D expenses, low relative quality or in times of recession.

The PIMS data base shows a close relation between **relative market share and return on investment**, as can be seen in the following graph:



Not quite as strong is the relation with the simpler variable market share rank:

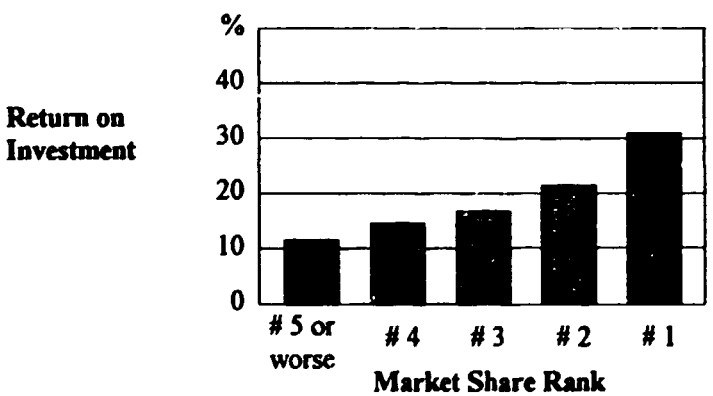


Fig. 4: Market share influence on return on investment (ROI)

Reasons for such higher profitability include, for instance, market power, the economies of scale and the lower "personal risk" of a buyer. A common underlying factor could also be the quality of the management which is responsible for the result of that high market share.

- Relative quality

Definition: Share of sales of products of superior quality minus share of sales of products of inferior quality, compared to the three major competitors.

Quality - defined as a combination of product, service and image quality, as assessed by customers - is favourable for all measures of profitability. High relative quality is necessary for success of low market share businesses. In the long run this factor has the strongest influence on profitability and makes possible a high flexibility of action (see[3] for further details).

A strong relation exists between quality and profitability. The higher the relative quality - the quality against competitors in a defined product/market segment - the higher the profitability.

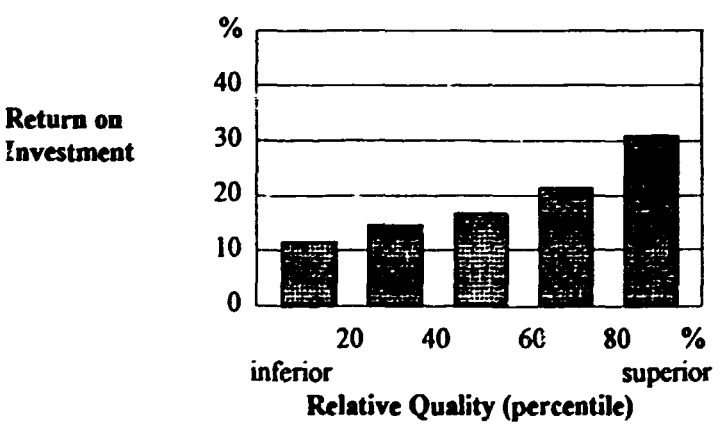


Fig. 5: Relative Quality Boosts Rates of Return

Further analysis lead to the conclusion that differentiation strategies or focus differentiation will, for most industries and specially for small and medium sized enterprises, pay out more than cost leadership.

Some of these factors like e.g. quality and relative market share relate to competitive position, others to market attractiveness (e.g. market growth) while still others like investment intensity may reflect market attractiveness as well as own competitive position.

Businesses that operate with good values of the important factors turn out to be in a very stable, favourable position which can compensate for other, weak aspects.

2.3 The Role of FIT

The Financial Improvement Toolkit (FIT) calculates relevant indicators based on an income statement and a balance sheet of the SBU that is to be analysed.

Through applying it to several (preferably 5) years, it shows the position as well as the trend over time, be it based on actual results or planned data.

Specifically, FIT helps to

- follow the pattern of investment intensity, one of the factors that PIMS showed to be closely linked to profitability.

  If an improvement is needed, the decomposition of investment intensity as shown in Fig. 6 in combination with data from FIT provide an adequate support.

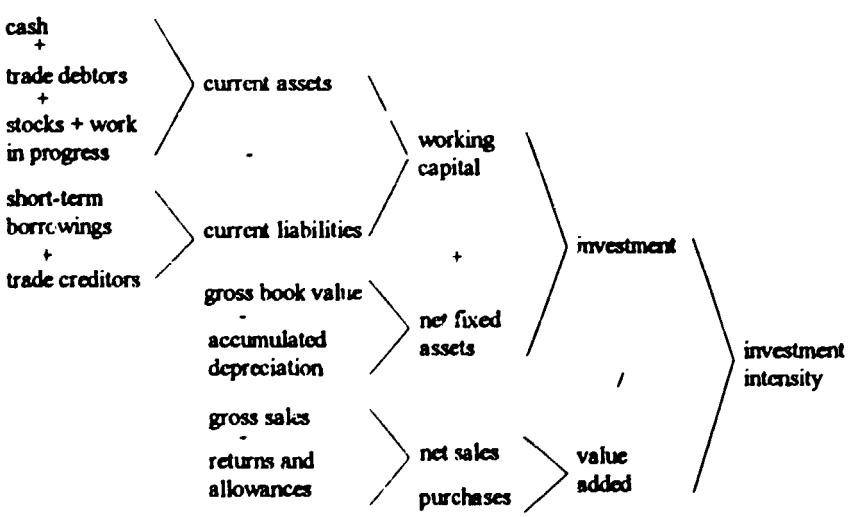


Fig. 6: Components determining the Investment Intensity

Pay attention to the fact that to decrease investment intensity it is not necessary that the investment be reduced, as long as value added increases. You may even add to the investment as long as value added increases faster. Going further back in the decomposition shows that value added may be increased by increasing net sales and/or decreasing purchases (both may of course have an impact on investment!). Increasing net sales in turn may e.g. come from a reduction of returns and allowances, at constant gross sales. This is just meant to illustrate the large number of possible combinations that could lead to an improved investment intensity. Careful analysis and evaluation of the impact of any planned change is necessary in each individual case.

- quickly compare different scenarios, with respect to profitability and important factors. It then allows the simulation of future events or strategic alternatives and their evaluation.

- uncover problems in different cost components. Once a generic strategy has been chosen, the value chain approach (M. Porter, [2]) helps to relate the FIT indicators to the specific situation in the business being analysed.

- compare the own business to competitors (if industry data is available) with respect to the relevant indicators. This may lead to a better understanding of how much of a specific factor (as e.g. investment intensity or marketing/sales) is industry specific and what part is subject to own management scope. It is a step in distinguishing between market attractiveness and own competitive strength.

Of course, non-financial aspects like relative quality have to be discussed in parallel and the impact of their evolution on financial data assessed.

2.4 How to Define Strategic Business Units (SBU)

The definition of SBU deserves special attention. It may be useful at this point to first remember what SBU definitions actually are for. The aim is to have a sound base for making strategic decisions. So if two business segments show different strategic issues to be important for them, requiring distinct strategies, then they must be separated. Otherwise they should be merged.

Criteria to use for segmenting a business may e.g. be

- product lines
- customised vs standard products
- customer groups
- geographic area served
- distribution channels

To assess if the resulting segments should be kept separate or may be merged, ask yourself if

1. they have different critical success factors;
2. the segments operate in markets with different characteristics of the 5 competitive forces as described in chapter 2.1;
3. your segments have significantly different competitive positions in their served markets;
4. sensible accounting allocations are possible.

Besides that, if roughly more than 50% of sales go into another business unit, the units should be combined.

In case of doubt it is preferable to define the SBU at the more aggregated level first with the option to go into more details later.

To complete the definition of an SBU you must specify the served market, that is which customers you are actively competing for and against which competitors. The choice must be such that any significant move (e.g. price changes, marketing initiatives) makes some impact.

The following simple form may help for an initial evaluation:

A. What are your most important products/product lines?

1. .....
2. .....
3. .....
4. .....
5. .....

B. Who are your most important buyers?

1. .....
2. .....
3. .....
4. .....
5. .....

C. What are the most important strategic business units?

1.	SBU 1
2.	SBU 2
3.	SBU 3

D. What are the most important success factors for selling your product to the specific market of

SBU 1	SBU 2	SBU 3
1.	1.	1. .....
2.	2.	2. .....
3.	3.	3. .....

2.5 Determining Appropriate Minimum Profitability Levels

For any business, management has to decide what level of ROI they want to attain at least. It should certainly be above the cost of invested capital. How much above? This depends on judgement of the individual business risk of each SBU and by this the profit premium one would like to get to compensate for these risks.

The task of risk assessment deserves careful studies which should take into account a broad spectrum of subjects like the expected evolution of the strengths of the 5 competitive forces, but also environmental changes like government interventions, exchange rate risks etc.

For **illustration purposes only** let us define the target ROI as a base rate of 10% plus one of the following premiums:

- low risk: 5%
- medium risk: 10%
- high risk: 20%

where we determine the risk level through the following mechanism:

low risk: A stable business with respect to revenue and costs (both fluctuating by less than 10% per year in terms of US-$) and stable local currency exchange rate to the US-$ (fluctuation below 15% per year).

medium risk:
- Revenue and costs allowed to fluctuate up to 30%, with stable currency.
- Unstable currency, up to 25% fluctuation with stable revenue and costs.

high risk: All other cases.

This has been implemented in FIT.

3. An Example of Applying FIT

Before discussing the case it may be worth to recall some fundamental questions that have to be answered in the context of strategic planning:

- What are our strategic business units (SBU)?
- What are their critical success factors?
- How attractive are the markets we serve?
- How strong are the SBU in their respective markets?
- What deserves our special attention (strengths/weaknesses profile, opportunities and threats)?
- What are our goals?
- How do we achieve these goals; how do we measure and control it?

FIT helps in positioning, planning and controlling financial aspects of the above subjects.

The case study in this appendix shall only illustrate the use of FIT and is by far not an exhaustive analysis of the situation of the underlying SBU.

The input of balance sheet (appendix 1) and income statement (appendix 2) are followed by the strategic business indicators (appendix 3) as found in FIT. For legibility, the numbers shown are rounded to the nearest integer. This accuracy is sufficient for our analysis.

Interpretation of Strategic Business Indicators:

This synthetic SBU of a capital goods manufacturer has experienced a decline in net sales of 10% from 1990 to 1994. Assume that 1993 is the actual year and data for 1994 reflect the latest plan. A first important question in that context is whether the company lost market share. The company could have gained share if the total market volume fell by more than 10%. These different cases would lead to completely different interpretations of the SBU's competitive position and measures to be taken.

Profitability declines after 1991, according to both RC' and ROE. At first sight it could be an operational problem of cost control when net sales decrease. It could also be a more serious problem. A strong indication in that direction is the increasing investment intensity.

The constantly highly depreciated plant and equipment could mean that production facilities are outdated.

Although sales per employee fluctuate a bit, they remain more or less at the same level. But value added in % of sales and value added per employee systematically decrease, pointing to a possible production productivity problem (as the % of marketing and administration costs are constant and investment per employee increases). By this we mean that not enough value is added for the number of employees engaged and at the present level of investment. This could come from three sources: Pressure on prices, costlier purchases and suboptimal degree of vertical integration.

A price issue would lead to different interpretations regarding relative quality of the SBU's offerings compared to competition, depending on gain or loss of market share.

All of these aspects would need some further in-depth analysis, complementing the use of FIT. Quality profiling (see [3]) as well as value chain analysis (see [2]) are appropriate methodologies to perform such analysis.

To proceed with our case, we have to construct a scenario and make some assumptions. Suppose that the total market volume was flat during the time period under consideration. This means that our SBU lost market share. To gain more insight, management would have ordered a market survey by an external consultant. It showed that our SBU's service quality was much appreciated by customers and rated as superior to the major competitors' service. Unfortunately, newly imported products got a better acceptance than our SBU's offerings and also the image of the foreign manufacturers was better. So without changes in the own products the relative perceived quality declined, due to new competitors. As these competing products were sold at roughly the same price, the customers saw better value in them.

Analysis of the own production process revealed that the purchases, which account for an increasing fraction of the cost of sales, come from an increasing number of small suppliers which in part did not provide adequate quality.

To rectify it, a close cooperation with a single prefered supplier was sought, in accordance with the concept of partnership sourcing (see [4]). Although it requires some investments on the supplier's side, it provides a constantly high business volume to the supplier, and to our SBU it promises to lower purchase prices from 1'190 to 1'070 in 1994. This is consistent with experiences of other companies with partnership sourcing. It will provide a substantially better ROI of 9% instead of 2% in 1994 already. At the same time a high quality level and faster adaption of the products to future customer needs are achieved. A further reduction in stocks to under 300 in 1995 is also expected.

The manager of the SBU is confident to regain the image of supplier of high value products within a few years and to reverse the trend of market share loss.

References:

[1] Competitive Strategy, by Michael E. Porter, Free Press 1980

[2] Competitive Advantage, by Michael E. Porter, Free Press 1985

[3] The PIMS Principles, by R.D. Buzzel, B.T. Gale, Free Press 1987

[4] Partnership Sourcing, by. D. Macbeth, N. Ferguson, Financial Times, 1994

Balance Sheet for SBU

(in thousand US-$)

					1990	1991	1992	1993	1994
ASSETS	Current Assets	Cash and marketable securities		a	100	100	100	100	100
		Trade debtors		b	500	550	500	450	400
		Stocks	Raw materials	c	150	160	140	140	130
			Work in progress	d	250	300	300	250	230
			Finished goods	e	150	150	140	130	120
			Total Stock	f (c+d+e)	**550**	**610**	**580**	**520**	**480**
		Other current assets		g	50	30	20	20	20
		Total Current Assets		h (a+b+f+g)	**1'200**	**1'290**	**1'200**	**1'090**	**1'000**
	Fixed Assets		Gross book value	i	4'000	4'000	4'000	4'000	4'000
			Accumulated depreciation	j	3'200	3'190	3'200	3'200	3'200
		Net Book Value		k	800	810	800	800	800
	Other Assets			l	100	100	100	110	100
	TOTAL ASSETS			m (h+k+l)	**2'100**	**2'200**	**2'100**	**2'000**	**1'900**

LIABILITIES & EQUITY	Current Liabilities	Short-term borrowings		n					
		Current portion of long-term debt		o					
		Trade creditors, other current liabilities		p	500	600	500	400	300
		Total Current Liabilities		q (n+o+p)	**500**	**600**	**500**	**400**	**300**
	Long-term Debt			r	1'100	1'100	1'100	1'100	1'100
	Other Liabilities			s					
	Shareholders' Equity			t	500	500	500	500	500
	TOTAL LIABILITIES & EQUITY			u (q+r+s+t)	**2'100**	**2'200**	**2'100**	**2'000**	**1'900**

Income Statement for SBU

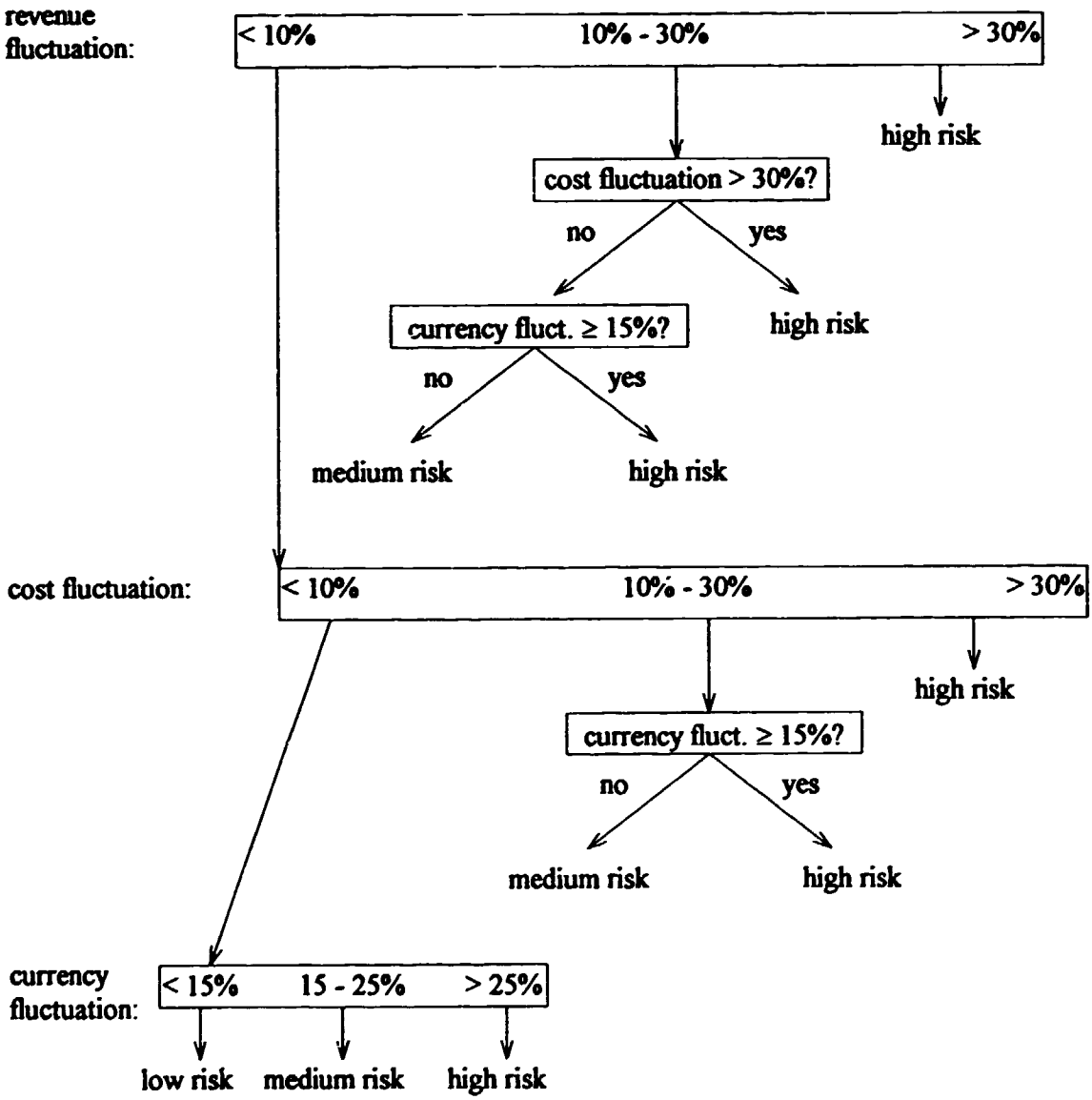
(in thousand US-$)

		1990	1991	1992	1993	1994
REVENUE	**Gross Sales**	3'050	3'100	2'950	2'800	2'700
	Returns and allowances	50	20	0	0	0
	Net Sales	**3'000**	**3'080**	**2'950**	**2'800**	**2'700**
	Net intracompany sales					
COST OF SALES	Purchases (raw material)	900	940	910	980	1'190
	Direct Labour	800	820	810	710	560
	Depreciation	100	100	100	90	50
	Manufacturing	200	200	150	120	80
	Total Cost of Sales	**2'000**	**2'060**	**1'970**	**1'900**	**1'880**
MARKETING COSTS	Sales Force	250	260	260	240	230
	Media Advertising					
	Other Marketing	40	40	40	30	30
	Total Marketing Cost	**290**	**300**	**300**	**270**	**260**
RESEARCH AND DEVELOPMENT (R&D)	Product R&D	170	160	160	160	160
	Process R&D					
	Total R&D Cost	**170**	**160**	**160**	**160**	**160**
OTHER EXPENSES	Administration, Transport	430	430	420	400	370
INCOME	**Income before Tax and Interest**	**110**	**130**	**100**	**70**	**30**
	Interest Expense	80	80	80	80	80
	Income before Tax	**30**	**50**	**20**	**-10**	**-50**
TOTAL SALARIES		1'420	1'440	1'420	1'300	1'120
NUMBER OF EMPLOYEES		231	248	240	222	198

Strategic Business Indicators

	1990	1991	1992	1993	1994
Sales index (%)	100	103	98	93	90
Sales per employee (1'000 $)	13	12	12	13	14
Value added (1'000$)	2'100	2'140	2'040	1'820	1'510
Value added in % of sales	70	69	69	65	56
Value added per employee (1'000 $)	9	9	9	8	8
Cost of goods in % of sales	67	67	67	68	70
Investment (1'000 $)	1'600	1'600	1'600	1'600	1'600
Fixed capital in % of sales	27	26	27	29	30
Working capital (1'000 $)	700	690	700	690	700
Working capital in % of sales	23	22	24	25	26
Investment intensity (%)	76	75	78	88	106
Investment per employee (1'000 $)	7	6	7	7	8
Stocks in % of sales	18	20	20	19	18
Raw material in % of sales	5	5	5	5	5
Work in progress in % of sales	8	10	10	9	9
Finished goods in % of sales	5	5	5	5	4
Marketing in % of sales	10	10	10	10	10
Administration in % of sales	14	14	14	14	14
Trade debtors in % of sales	17	18	17	16	15
Average salary per employee (1'000 $)	6	6	6	6	6
Number of employees	231	248	240	222	198
ROI (%)	6.9	8.1	6.3	4.4	1.9
ROE (%)	6	10	4	-2	-10

Decision Process Example for FIT Risk Module



Decision Table for FIT Risk Module

yearly fluctuations in %			risk category
currency	revenue	cost	
< 15%	< 10%	< 10%	low
	≤ 30%	≤ 30%	medium
≤ 25%	< 10%	< 10%	medium
all other cases			high