

Chapter 21

Corporate Sickness

Chapter Objectives

On completion of this chapter, you will be able to understand:

- Corporate sickness
- Causes of sickness: internal vs. external
- Symptom of sickness: sickness index
- Business failure prediction models
- Organizational processes leading competitive edge
- Turnaround management
- Turnaround strategy
- Western–Eastern Medical Treatments
- PA Consulting Group
- CRS turnaround strategy
- Stakeholders support in turnaround strategy

Bear Stearns is gone, Lehman Brothers is gone and Merrill Lynch is almost gone. Three out of the five great walls of the Wall Street have collapsed. Thanks to JPMorgan Chase and Bank of America, at least two out of these three unfortunate investment banks did not meet the same fate as the Lehman Brothers Inc. The recession had engulfed three of the top Investment banks of the world. However, these three were not alone; plenty of big and small companies around the world have tasted the bitter taste of recession. Nevertheless, the question still remains; is your company insulated from this financial tsunami?

Recession is a part of the macroeconomic cycle. Therefore, it occurs after a certain period; but this time it is not a usual recession. The ongoing recession is equivalent to the great depression of 1930. Governments all over the world are taking stringent measures to counter recession at the macroeconomic level. However, would that be any relief for individual companies, which are already suffering the consequences of this massive recession? The answer is a clear cut 'NO'. The reason is simple. Macroeconomic patchwork would not be enough to save individual companies. Therefore, companies around the world would have to take instant measures to counter this frightening recession.

'Survival of the fittest' is the law of nature. If an organization is not fit to compete with others, then eventually it would perish. 'Strategy' is the key word to save a perishing business. Therefore,

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if a company is almost at the verge of a deep trouble, then the best strategy is 'to strategize'. But the most difficult question is how to strategize? The best way to strategize is as follows:

1. Improve your liquidity position by enhancing the inflow of cash and restructure your organization. Take all the possible measures to sustain the cash balance of the company and cut short your expenses. Strong liquidity base will give a new life to your company.
2. Search for new sources of income. A regular inflow of cash is very essential to sustain any business. Search for new corporate clients and sustain the existing clients.
3. Last but not the least; bring immunity to your business for a long-term survival and growth.

You might have been aware of all these steps of survival, but just to have the required knowledge about these steps would not help you. In order to survive, you would have to efficiently implement these steps in your corporate entity. The current recession is not an ordinary recession; it is a financial torpedo, which will destroy many small and big companies around the world. The only way to survive from this monster recession is by strategizing your business in the best possible manner.

Source: <http://EzineArticles.com/>

21.1 Introduction

Corporate sickness is of considerable significance today. In the United Kingdom, the United States and other developed countries, there are a large number of companies suffering from this. The current wave of financial crisis insulates the germ of sickness giving it an epidemic form. This does not happen overnight rather it is the outburst of the development of long-term mismanagement. General Motors carried the testimony of ultimate fate coming out of wrong policies taken for granted leaving others in the market. This is a type of management tyranny leading the giant into big trouble. In India, there are more than 1,000 large and medium sized units and more than 100,000 small units, which are sick with millions of rupees provided by the financial institution, are locked up in these units. The problem of sickness especially in large units is getting worse. The number of new businesses falling sick seems to be growing exponentially especially because of competition and the new technologies which have entered into the market. Several of these units which had become sick, have been safely nurtured back and are today doing extremely well while a few of these units have deteriorated severely. Several of these sick organizations have risen back from their sickness and today are flourishing, while some of these organizations have not been able to achieve their past glory. Strategic management practices should lead the organization in the ultimate analysis to a path of growth—to be recognized as one of the top companies in India and finally in the globe. A recent study conducted by the Centre for Industrial and Economic Research (CIER) titled 'Strategies for action on sick Central public enterprises' has identified four phases of sickness: symptomatic, incipient (or potential), organic (or cognizant) and terminal. Each one of these types and phases is expected to attract a unique form of intervention by the authorities.

Corporate failure is as much a fact of life as death or taxes, but a failing company does not have to be written off with a requiem; it can be nursed back to life by a good turnaround strategy. Companies have been known to transform themselves into strong, profitable enterprises after a turnaround, but the strategy adopted varies from case to case. However, there are a few elements common to all such efforts. Peng S. Chan has, in an article in *Management Decision* (1993), dwelt at length on the strategies adopted by some American

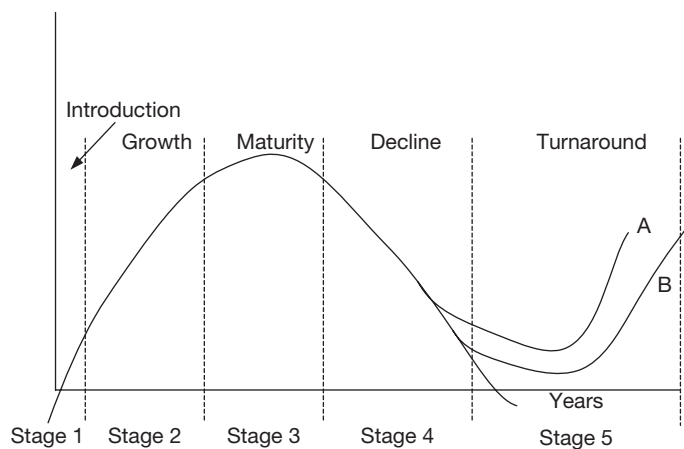
companies on the verge of collapse but which bounced back to good days. The following cases in the United States are good examples of companies going under but turning around:

1. Clark Equipment lost \$163 millions from 1985 to 1987.
2. Intermedics lost \$51 millions from 1993 to 1996.
3. L.E. Myers lost \$16 millions on revenues of \$114 millions in 1985.
4. Sales for Quantum peaked at \$120 millions in 1987 and losses started to accrue.
5. Wang Laboratories lost \$424 millions in 1989 and both domestic and international sales dropped by 5%.
6. Montgomery Ward suffered a loss of \$415 millions between 1980 and 1982.

In India, there have been classic examples of good, profitable companies failing, a representative list being: Metal Box, Binny Limited, Standard Motor Company, Best and Crompton Engineering, Mangalore Chemicals and Fertilizers, Madras Fertilizers, Bata India and Philips India. While the first four companies mentioned have irretrievably gone under, Bata India and Philips India have both turned around and aided, of course, by their international parent companies. Seshasayee Paper Boards is a stunning case of a wholly Indian company in great decline for a few years not only coming back to life but also achieving a considerable market share in the paper industry, which is itself in the doldrums. The issue is whether the message of falling in sickness comes in time, whether the sickness is rightly diagnosed and whether the right turnaround strategy is selected and applied. In every step, the success comes from the strategic insight that management possesses to foresee long future. In business, the sickness is not a sudden effect and so it is not difficult to keep it strong. Identification of parameters on which sickness will be tested is a sensitive issue and at the same time there should be a continuous system of giving signal if the business comes across a weak performance in any of the sickness parameter. It will help to take corrective actions long before sickness attacking the backbone. This chapter deals with the issue of corporate sickness that is considered to be a strategic management issue.

Figure 21.1 depicts different stages of a corporate life cycle. Corporate wants to pass over the introduction phase as soon as possible. It wants to stay at growth stage throughout its life.

Figure 21.1 Corporate Life Cycle



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Matured stage is the difficult stage where the ultimate fate of the company is awaiting. Decline phase starts with every possible symptom of distress. The early diagnosis of the symptoms and corrective actions make the company an early recovery (turnaround A). It may be to some extent difficult to turnaround (B) if symptoms are identified at a late. However, if the symptoms are not identified at all, it becomes history.

21.2 Causes of Sickness

Sick industries refer to those units which perform poorly against expected results, incur cash losses for consecutive years, gradually erode the entire net worth and obviously fail to service the debt obligations. The major criteria to identify a sick unit may generally be listed as follows:

1. A unit incurring financial loss/not being capable to produce at/above break-even point.
2. A unit incurring continuous cash losses.
3. A unit having negative equity.
4. A unit having excess of current liabilities over current assets.
5. A unit making defaults in payment of principal sums with interest.
6. A unit having low-capacity utilization.
7. A unit having worsening debt-equity ratio.

The success in handling sickness with positive outcomes depends on the capacity of right diagnosis. Sometimes experts are hired to supplement the process exactly what we do during physical sickness (see a doctor). Causes of sickness are customized and cannot be generalized. However, various studies prescribe a handful of causes leading sickness some of which are very common in every sickness situation. In a study on ailing enterprises, the Reserve Bank of India had identified a number of causes of sickness. These are chronic default, loss of confidence in management, failure to meet promoters' contribution, delays in commercial production and fraud/conviction by courts or regulatory agencies. The CIER assessment, undertaken in association with the Standing Conference of Public Enterprises (SCOPE), has identified some causes of sickness. Table 21.1 lists different types of sickness and pertinent causes according to the study:

Table 21.1 Causes of Sickness

<i>Types of Sickness</i>	<i>Causes of Sickness</i>
Genetic Sickness	Inadequate strategy, faulty investment decision and wrong technology selection
Structural Sickness	Mismatch of some factors such as location, product mix and cost overrun
Operational Sickness	Leadership failure, HR aberrations, weak R&D and financial pressures
Strategic Sickness	Comes from policy-related issues including administered prices, procurement policy, tariff reduction and liberalized imports
Exogenous Sickness	Results from exogenous factors such as technological changes, product obsolescence and aggressive competition

Another study revealed the following reasons of failure resulting from the detailed discussions with the senior officials:

1. Poor management quality: In most of the cases, it was found that the top management did not have a general management overview. They tended to be more functional oriented. In quite a large number of cases, it was found that attaining market share was of paramount importance even at the cost of profitability sometimes (20%).
2. High investments based on too optimistic planning (5%).
3. Weak financial management policies: In most of the companies, it was found that the debt level was very high. In fact, it was observed that some of the companies would borrow only to repay the earlier debt. In some cases, it was also observed that companies kept on increasing their debt indiscriminately. Surprisingly, money was borrowed from the unofficial money market channels. The logic was not to repay the loans to the official channels like the banks and so on. In the case of the unofficial channels, repaying the loan was paramount as it was a question of prestige and/or facing dire questions (25%).
4. Indiscriminate manpower addition instead of manpower productivity (15%).
5. Total breakdown of systems and procedures (25%).
6. Family squabbles (40%).
7. Others (15%).

Experts' viewpoint on corporate sickness is that a thorough diagnostic review should be undertaken immediately to uncover the depth of sickness, the state of deviation in performance parameters from the break-even situation. Frequently encountered causes include:

1. Revenue downturn caused by a weak economy
2. Overly optimistic sales projections
3. Poor strategic choices
4. Poor execution of a good strategy
5. High operating costs
6. High fixed costs that decrease flexibility
7. Insufficient resources
8. Unsuccessful R&D projects
9. Highly successful competitor
10. Excessive debt burden
11. Inadequate financial controls

In some situation, a set of financial parameters are identified to explain sickness which are termed as financial distress measures. Such parameters include reduced sales, failing market share, posting of losses quarter after quarter or decreasing share prices. Managements must be able to discern these trends as warning signals, quite different from normal business fluctuations. Loss in income must be considered the single most visible sign that a company is on the decline.

Finally, the main reasons for company failures may be listed as follows:

1. Inability to cope with dumping from foreign manufacturers, consequent upon the removal of tariff barriers.
2. Income-generating capacity being constrained by a system of administered selling prices.

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3. Changes in government regulations.
4. Loss of market share through poor product quality and faulty pricing policies.
5. Unrelated diversification affecting core competencies.
6. Product obsolescence.

Often, company failure can be traced to poor management, and to a lesser extent, environmental factors but if the managements identify these problems early, companies have a better chance of a successful turnaround.

However, it is very difficult to recognize a sick unit on some definite criteria as a wide variety of interlinked symptoms characterizes the sickness of a unit. Likewise, a number of causes are responsible for turning an industrial unit as sick. These causes prevailing simultaneously in a unit may be closely interrelated or even independent of each other. Some of the causes originate outside the unit (e.g., changes in the structural and environmental factors like infrastructural problem, government policies and so on) and some crop up within the unit itself which relate to the functional areas such as management, production, finance and so on. Thus, the causes are classified into two categories: external causes (exogenous factors) and internal causes (endogenous factors). The external causes, which are beyond the control of the industrial unit, usually affect the industry group as a whole, while internal causes occur due to some intra-firm weaknesses in various functional areas of the unit and are, therefore, management related.

In 1988, under the sponsorship of Ministry of Industries (MOI), Government of Bangladesh (GOB), the House of Consultants Ltd undertook a study to develop criteria and identify the causes of sickness of manufacturing establishments in Bangladesh and find solutions to remove or at least reduce the impact of the causes. According to the study, an industrial unit has been defined to be sick if it fails to cover all the costs of production (including finance cost) and earn normal profit in the long run (i.e., a three-year period). A set of criteria was developed for the study in order to identify an industrial unit as sick which are as follows:

1. If it incurs net loss in consecutive years
2. If its debt–equity ratio deteriorates over time (net loss wiping out the equity base)
3. If it fails to meet debt-servicing liabilities on time
4. If it defaulted in payment of past taxes
5. If its share price is going down (in case of public limited companies listed in the stock exchange)
6. If it is facing working capital problem and its cash ratio is declining over time (creating liquidity problem)

By applying the above-mentioned criteria to a sample of 300 industrial units, it was found that 67.3% were sick in terms of one or more criteria. The extent of sickness is the highest, that is, 75.8% among the small scale industries. The major causes contributing to the state of sickness are listed as follows:

1. Poor entrepreneurship
2. Lack of proper studies
3. Lack of management and technical know-how
4. Low equity base and dishonesty of purpose
5. Poor market planning
6. Idle capacity/low capacity
7. Infrastructure (power and so on)
8. Shortage of funds (working capital and balancing, modernization, rehabilitation, and expansion (BMRE))

The study suggested a number of measures to alleviate the cause of industrial sickness. The immediate measures included easing debt burden, reappraisal of sick units, debt–equity swap, rescheduling, funds for BMRE and working capital, manpower training, uninterrupted power supply and so on. On the other hand, the suggested long-run measures were conducting sector reviews, developing project preparation capability, creating an Institute of technology, creating management capability and so on. However, this study suffers from methodological problem.

Bangladesh Institute of Development Strategies (BIDS) sick industries' study based on MOI data reveals that the highest incidence of sickness (19.6%) is in the manufacturing of textiles, followed by the sub-sectors—food manufacturing (14.3%), textile manufacturing (8.8%), non-electrical machinery (5.7%) and leather and its products (5.4%). It appears from the study that 'small scale' industries is at the top (72.5%) in terms of incidence of sickness, followed by 'medium' and 'large' scale industries, 19.7% and 4.1%, respectively.

From the enterprise level survey of the study it is found that among the internal factors causing industrial sickness, the entrepreneurs have singled out use of obsolete technology as the most important one (23%) followed by faulty employee appointment (15%), lack of working capital (13%), marketing problem (11%), poor management (9%) and wrong feasibility (5%). Among the external factors, lack of working capital has been mentioned as the single most important cause (35%) followed by natural calamities (13%), trade liberalization (9%), problems in disbursement of project loan (7.5%), poor infrastructure (7%), political unrest (5%) and smuggling (3%). The survey further reveals that sick units were concentrated (64.3%) during the 1980s and the mean rate of capacity utilization for the sick projects was 39%.

Saha (1997) carried out a research work on industrial sickness of the Development Finance Institution (DFI)-financed projects in Bangladesh. The sample was taken from the identified sick list approved by the Sick Industry Cell in 1992. The principal causes attributed to the sickness of DFI-financed projects are as follows:

Internal:

1. Marketing problem (31%)
2. Management inefficiency and lack of entrepreneurial skills (22%)
3. Faulty project planning and appraisal (14%)
4. Imbalance of machinery and inappropriate technology (12%)
5. Implementation delay in (mobilization of equity and so on; 12%)
6. Others (diversion of funds, labour problem and so on; 9%)

External:

1. Delays in loan sanction and disbursement (22%)
2. Non-availability/shortage of working capital (21%)
3. Power problem (15%)
4. Changes in government policy (import liberalization; 13%)
5. Non-availability/irregular supply of raw material and other critical inputs (11%)
6. Natural calamities (57%)
7. Smuggling, political unrest (5%)
8. Others (8%)

The important findings of the study included, inter alia, the following:

1. Most of the sick projects (64%) were established during the 1980s
2. Average capacity utilization of the sick projects was 41%

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3. Working capital finance gap (difference between the required working capital and available working capital) prevailed within the range of 21–80% for 76.48% of the sample sick projects
4. Average time overrun (difference between average time planned and average time actual taken at different stages of project implementation) stood at 51 months in case of sick projects

Another study was conducted in 1990 to examine the causes of sickness in the new Survey Sampling International (SSI) units. It was found that marketing problems, as a whole (resulting from highly competitive markets, unfavourable linkage with ancillary and medium units and so on), were the most important factor (29.6%) for sickness in the group followed by mismanagement (21.9%), inadequacy of working capital (16.6%), time overrun (13.4%) and government policy (11%). The total weight of all external causal factors for the group is 59.2 and that of internal causal factor 40.8. It appears that external causal factors are dominant in causing sickness in the new SSIs than internal causal factors.

Another study conducted by the Reserve Bank of India on 378 medium and large sized sick industrial enterprises enjoying credit limits of ₹1.00 crore and more revealed that 52% of the units fell sick due to management problem, 23% of the units went sick because of market recession, 14% for initial faulty planning, 9% for power cuts, shortage of raw-materials and so on and the rest 2% became sick due to labour trouble. A list of internal and external causes of sickness is presented further as an example which is not an exhaustive one:

<i>Category</i>	<i>Causes</i>	<i>Sub-causes</i>
Internal	Management	<ul style="list-style-type: none"> ✓ Lack of proper education, training, experience and business outlook of the sponsors/entrepreneurs ✓ Poor entrepreneurial skills ✓ Poor management ✓ Poor equity base ✓ Lack of integrity/division of funds ✓ Faulty project planning and appraisal
	Production/ Technical	<ul style="list-style-type: none"> ✓ Wrong choice of technology ✓ Improper utilization of production capacity ✓ Imbalanced and defective machinery ✓ Poor raw material planning ✓ Inadequate quality control ✓ Poor labour relations ✓ Location problem
	Marketing	<ul style="list-style-type: none"> ✓ Lack of market planning ✓ Inadequate market survey ✓ Poor collections ✓ Defective pricing

	Finance	<ul style="list-style-type: none"> ✓ Poor management of financial resources ✓ Delay in mobilization of equity funds ✓ Faulty costing ✓ Adverse debt–equity combination ✓ Lack of proper accounting system
	Personnel	<ul style="list-style-type: none"> ✓ Lack of competence ✓ Lack of loyalty ✓ Lack of professionalism
External	Government Policy and Implementation	<ul style="list-style-type: none"> ✓ Frequent policy changes ✓ Lack of proper implementation of industrial policies ✓ Liberal import policies ✓ Poor infrastructure/frequent power disruption ✓ Smuggling ✓ Fiscal anomalies ✓ Exchange rate fluctuation ✓ Lack of co-ordination between various ministries and government departments and so on ✓ Over saturation of particular industry type/sector due to wrong policy ✓ Non-availability of raw-material and so on
	Bank and Financial Institutions	<ul style="list-style-type: none"> ✓ Non-availability/inadequacy of working capital ✓ Lack of required financial assistance for BMRE ✓ High rate of interest on bank loan ✓ Lack of timely decision and support by the banks and financial institutions
	Environment	<ul style="list-style-type: none"> ✓ Political unrest ✓ Labour unrest ✓ Market recession ✓ Delay in project implementation

21.3 Symptoms of Sickness

The big question before every company is: when do we know that we are really sick? The answer is not straightforward and rather needs strategic definition that should come from the strategic level. Understanding sickness should be a formal process installed in every company that comes from important parameters selected for the purpose. Such parameters may come from different efficiency and effectiveness measures. Sometimes, sickness also comes when company fails to follow market regulators. For example, the government decided to disband the Board of Industrial and Financial Reconstruction (BIFR), whose functions were taken over

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by a company law tribunal. Under the new set-up, a sick company will be one that has seen a 50% erosion of its net worth over the last two years.¹

Sickness is often considered on a total corporate basis and restructuring needs to be effected when certain symptoms appear. Some of these are as follows:

1. When production or capacity utilization declines by, say, 5% or more for four consecutive quarters
2. When losses are incurred for more than a year at a rate higher than 5% of the risk capital
3. When quality of input supply declines, raising rejection factors by more than significant levels
4. When net worth is depleted by over 10% during two consecutive years
5. When customer satisfaction—systematically measured—declines for two quarters

Most of the above-mentioned parameters are very much objective, which is a requirement to define the symptom of sickness. There should not be any room for misinterpretation or multi-interpretation. Most of the symptoms come from the erosion of top line. Still, companies enjoy sufficient impedance to set its own ideal value against each measure through the development of a sickness index with an example shown as follows:

Sickness Index					
Factors	Sub-factors	Ideal Value	Actual Value	Sub-index Value	Total Index Value
1. Liquidity	1.1	Set by management against each sub-factors	Results from the diagnosis made by the management from internal database	It is the ratio of actual value over ideal value signifying something negative or positive	Sub-index values are accumulated across different factors to identify the strengths and weaknesses across factors
	1.2				
2. Profitability	2.1				
	2.2				
3. Solvency	3.1				
	3.2				
4. Efficiency	4.1				
	4.2				
5. Productivity	5.1				
	5.2				
6. Quality	6.1				
	6.2				
7. Effectiveness	7.1				
	7.2				
8. Others	8.1				
	8.2				

The selection of factors and sub-factors should be thoughtful that obviously comes from careful analysis of causes and symptoms of sickness. These are totally customized for the company though some factors may be common across the industries. Ideal value represents

¹ Sick Industrial Companies (Special Provisions) Act (1985), Government of India.

the expected value and also reflects different scale of measurement. Then, actual performance is calculated on same scale so that the calculated sub-index value carries meaning. These sub-index values represent the success and failure of the company in different sub-factors that are accumulated further to know the factor-wise and consolidated status of sickness. A consistent poor performance in sickness index provides a scary signal of unfavourable outcome soon if not addressed immediately.

21.4 Business Failure Prediction Models

Many researches till date address the issue of business failure prediction (BFP) explicitly. The basic purpose of such researches was twofold. Quite a good number of factors have been identified to predict business failure. And at the same time, some models have been proposed to predict the probability of failure within a certain time based on the factors. This section presents a brief overview of different factors explaining business failure and different models explaining failure for the readers. It will be helpful for developing sickness index and critical reasoning thereof.

21.4.1 Financial Distress Models

The application of different techniques in BFP dates back to the 1960s. The field arguably started earlier, but the first statistical and mathematical models for BFP were published in the 1960s. Beaver (1966) presented a univariate model, and then Altman (1968) pioneered the use of multiple discriminant analysis (MDA) that was further developed by Deakin (1972), Edminster (1972) and others. Beaver compared the mean values among 30 financial ratios and decided an optimal cut-point distinguishing healthy and distressed companies, for each financial ratio. He introduced the Naïve Bayes approach using a single variable, though it is easily generalized to multivariate case. Altman (1968) was the first researcher to apply the linear discriminant analysis (LDA) approach to the financial distress prediction domain. He developed a Z-score bankruptcy prediction model and determined a cut-point of Z-score (2.675) to classify healthy and distressed firms. A number of authors followed his work, and applied the Z-score model into different markets, different time periods and different industries, such as Taffler (1984) and Grice and Ingram (2001). However, LDA assumes that the covariance matrices of two populations are identical and both populations need to be described by multivariate normal distribution. Clearly, these assumptions do not always reflect the real world. Deakin (1976) argued that even if after performing the normality transforming process, financial ratio data do not follow normal distribution. Moreover, Hamer (1983) evaluated the sensitivity of financial distress prediction models in terms of four different variable sets from previous research (Altman 1968; Blum 1974; Deakin 1972; Ohlson 1980). She pointed out that the covariance matrices in each variable set were statistically different.

Ohlson (1980), in his pioneer study, to avoid some significant problems associated with MDA, employed conditional logit analysis (LA) for predicting the survival of businesses. LA does not require normality or equal covariances, which are pre-requisites for MDA. After Ohlson's (1980) work, the conditional probability model became a popular modelling technique in the bankruptcy prediction domain (also see Casey and Bartczak 1985; Gentry, Newbold and Whitfold 1985; Mensah 1983; Zavgren 1983). Subsequently, both logit and probit models have been used with a focus of providing a measure of probability of business failure. Kumar and Ganesalingam (2001) have since focused on predicting the financial distress of a selection of

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major Australian companies. This research used principal component analysis, factor analysis, discriminant analysis and cluster analysis. In another study, Theodossiou (1993) introduced a sequential procedure to predict a business' tendency towards failure, based on Healy's (1987) multivariate cumulative sum (CUSUM) method. This procedure is based on the hypothesis that signals of a business' deteriorating condition are produced sequentially for many years prior to failure. As the business' economic condition deteriorates, its financial characteristics shift towards those of failed businesses and this procedure detects that shift. Theodossiou's CUSUM procedures for BFP had excellent empirical results.

More recently, researchers have used new approaches to the problem of predicting failure: neural networks (Baesens et al. 2003; Etheridge and Sriram 1996; Piramuthu, Ragavan and Shaw 1998), genetic algorithms (Sexton, Sriram and Etheridge 2003; Varetto 1998), decision trees (Curram 1994), Bayesian analysis (Sarkar and Sriram 2001), multidimensional scaling (Neophytou and Molinero 2004), hazard models (Lee and Urrutia 1996; Shumway 2001) or more sophisticated logit models such as logistic functions approximated by the Taylor's expansion (Laitinen and Laitinen 2000) and mixed logit analysis (Jones and Hensher 2004).

From the late 1980s, the machine learning techniques in the artificial intelligence (AI) area, such as artificial neural networks (ANN), were applied to financial distress prediction studies (Coats and Fant 1993; Zhang et al. 1999). The most popular ANN algorithm in the financial distress prediction domain is the multilayer perceptron with three main components: input layer, hidden layer and output layer. Unlike traditional statistical techniques, ANNs do not require any restrictive assumptions such as linearity, normality and independence among input variables. These soft computing models are important as they offer qualitative methods that traditional quantitative tools in statistics and economics cannot quantify due to the complexity of translating the systems into precise functions. ANNs have been shown to be good at classifying businesses into various groups based on financial distress. There are many research papers that apply ANNs to BFP such as Odom and Sharda (1990) and Fletcher and Goss (1993) who respectively compared the performance of an ANN with a discriminant analysis and logit analysis model. More information about the various ANN methods applied in BFP is summarized in a book by Tan (2001). There are also numerous other techniques that have been applied to BFP. For example, Wilcox (1971) applied the gambler's ruin model taken from probability theory to predict business risk and Casey (1980) used the human information processing (HIP) model to show that operating cash flow data can lead to more accurate predictions of business failure.

Recursive Partitioning (RP) was introduced in the bankruptcy prediction research in the mid-1980s (Frydman, Altman and Kao 1985; Marais, Patell and Wolfson 1984). RP is a non-parametric technique and does not suffer the limitations from traditional statistical models. Based on the lowest expected misclassification cost, RP first selects an independent variable as the best discriminator and decides a cut-point. The next step is to classify both healthy and distressed firm into two sub-nodes in terms of the cut-point. The third step is to select another (or the same) discriminator and further partition the healthy and distressed firms into another two sub-nodes. The same process can be continued, if further splitting is necessary. It is obvious that the over fitting may be a potential problem of RP, since the continuous partitioning process is likely to encourage one misclassified case in the terminal node. Therefore, Thomas, Edelman and Crook (2002) pointed out that if the sample size in a node is too small, then further partition is not appropriate. Moreover, if the classification difference between the old node and new nodes is not significant, the partitioning process is not necessary to continue.

Laitinen and Kankaanpaa (1999) studying different techniques (linear discriminant analysis, logit analysis, recursive partitioning, survival analysis and neural networks) found

that no single method was clearly superior. Contrary, Tam and Kiang (1992) comparing linear discriminant analysis, logistic regression, K-nearest neighbor, ID3 and neural networks, on a sample of Texas banks, find that neural networks, discriminant analysis and logistic regression outperform other methods using both out-sample data and the jackknife. Baesens et al. (2003) study the performance of various classification algorithms applied to real-life credit scoring data sets (logistic regression, discriminant analysis, k-nearest neighbor, neural networks, decision trees, support vector machines) finding that neural networks, support vector machines, logistic regression and discriminant analysis perform well for the credit scoring problem.

21.4.2 Financial Distress Factors

Basic objective of most of the models as presented earlier is to construct a single, summary number out of several different ratios. Existing bankruptcy prediction models typically use statistical analysis (such as logit, probit or discriminant analysis) to estimate the relation between incidence of bankruptcy and firm-specific characteristics for a particular time period. These estimated coefficients are then combined with sample firms' characteristics in order to construct an index reflecting the estimated probability of bankruptcy. A cut-off point for the index between stressed and non-stressed is chosen so as to maximize the number of correct predictions. The excellence of modelling comes from the identification of right explanatory variables. The most famous (though not necessarily the most accurate) bankruptcy prediction model is the Altman z-score (zeta). Several versions exist, but a common one is:

$$Z = 0.717X_1 + 0.847X_2 + 3.11X_3 + 0.420X_4 + 0.998X_5$$

where,

X_1 = net working capital/total assets (liquidity measure).

X_2 = retained earnings/total assets (measure of reinvested earnings).

X_3 = EBIT/total assets (profitability measure).

X_4 = Shareholders' equity/total liabilities (measure of firm's financial structure or leverage).

X_5 = sales/total assets (measure for the sales-generating ability of the firm's assets).

A score below 1.80 indicates potential bankruptcy. A score above 2.90 suggests that a company will remain viable. Scores in between are a grey area. Conducting an Altman z-score analysis was a standard practice when taking on a new client at Coopers & Lybrand (at least in Dallas). Altman (1968) develops the later widely used z-score for bankruptcy prediction purpose. His study concludes that all firms having a z-score of greater than 2.99 clearly fall into the healthy sector; while firms having a z-score of smaller than 2.99 are considered as unhealthy, some of which will eventually go bankrupt. Furthermore, some unhealthy firms fall into the so-called 'gray area', for which Altman z-score does not predict well. Each BFP model results such factors (variables) with some reasoning thereof. A search of literature reveals a good number of ratios used for predicting financial distress that is listed in Table 21.2.

However, the ratios should be wisely selected for ultimate use. All of the ratios may not be suitable for each kind of business. It depends on the internal and external analysis of the firm under consideration. As firms enter into financial distress, the statistical correlation between

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Table 21.2 List of Ratios

Ratios Per Employee	
Profit per employee	Earnings before taxes/number of employees
Income per employee	Operating incomes/number of employees
Personnel costs per employee	Personnel expenses/number of employees
Equity per employee	Equity/number of employees
Working capital per employee	Working capital/number of employees
Total assets per employee	Total assets/number of employees
Liquidity Ratios	
Immediate liquidity	(ST Financial investments + cash)/accounts payable
Current liquidity	(Cash + ST financial investments + accounts receivable + inventory)/ST liabilities
Liquidity	(Cash + ST financial investments + accounts receivable)/ST liabilities
Interest coverage ratio	Operating profit/financial expenses
Solvency Ratios	
Debt ratio	Total liabilities/total liabilities and owners' equity
Solvency ratio	Equity/total assets
Equity over permanent funds	Equity/(equity + LT creditors + provisions)
Financial Leverage	Long-term liability/total assets
Repayment capabilities	LT and ST creditors/(sales + depreciations + provisions + equity)
Kinetic Equilibrium Ratios	
Working capital (days)	(working capital/sales) × 360
Need for working capital (days)	(need for working capital/sales) × 360
Cash (days)	(cash/sales) × 360
Clients' credits (days)	(accounts receivable/operating incomes) × 360
Clients' credits due to sales (days)	(accounts receivable/sales) × 360
Equilibrium Ratios	
Working capital (\$)	(Equity + provisions + LT creditors) – Fixed assets
Need for working capital (\$)	{EHNDP + accrued expenses + (inventory + accounts receivable)} – (accrued incomes + accounts payable)
Cash (\$)	ST financial investments + cash – ST debt
Equilibrium	(equity + provisions + LT debt)/fixed assets
Profitability Ratios	
Return on capital employed (ROCE)	(Earnings before taxes + financial expenses/permanent funds) × 100%
Return on assets (ROA)	(Earnings/total assets) × 100%
ROA before taxes	(Earnings before taxes/total assets) × 100%

Return on equity (ROE)	$(\text{Earnings/equity}) \times 100\%$
ROE before taxes	$(\text{Earnings before taxes/equity}) \times 100\%$
Financing costs (%)	$(\text{Financing costs/sales}) \times 100\%$
Activity Ratios	
Sales growth (%)	$\{(\text{Sales at } t - \text{sales at } t-1)/\text{sales at } t-1\} \times 100\%$
Asset turnover	Sales/total assets
Productivity	$(\text{Operating revenues} - \text{consumption and operating expenditures})/\text{personnel expenditure}$
Personnel expenditures (%)	$(\text{Personnel expenditures/operating revenues}) \times 100\%$
Value added growth (%)	$\{(\text{Value added at } t - \text{value added at } t-1)/\text{value added at } t-1\} \times 100\%$
Operating margin (%)	$(\text{Earnings before taxes/operating revenues}) \times 100\%$
Net asset turnover	Operating revenues/permanent funds
HIH	
C/T Ratio	True current liabilities/true total liabilities
Under reserving	Required reserve – actual reserve
Under pricing	Expected price – actual price
Others	
Management efficiency	Operating income/fixed assets
Liquidity	Current assets/total assets
Business size	Ln(SLS)
	Ln(EMPL)
Profitability	Retained earnings/total assets
Market structure	Market value of equity/total liabilities

stock prices and earnings becomes weaker while the statistical relation between stock prices and net book value becomes stronger. The price reaction in response to an earnings announcement is a function of both the earnings news itself and the market's prior assessment of the probability of bankruptcy. Management earnings forecasts become increasingly biased upwards as financial distress intensifies. Analysts and investors behave as if they view forecasts made by firms in distress with scepticism. Thus, external analysis is also important at the time of distress. Company can incorporate some market-based ratios in sickness index as discussed in the last section.

21.5 Organizational Processes Leading Competitive Edge

The earlier discussion presents a dilemma before the management regarding the nature of sickness. Some issues work as trigger points or viruses to spread sickness. Companies should carefully select them and control them through designing strong processes. Most of the sickness starts with the top line of income statement, that is, sales or turnover. If turnover decreases in consecutive years, it will affect all other processes in the organization.

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A study conducted in this regard concludes that 95% of the CEOs believe that the success of an organization is always measured in terms of the ROI. Most of the CEOs felt that it is important that companies should not only be profitable but also be able to sustain this profitability in the long run. For the CEOs, ROI can be improved by two methods:

1. Margin improvement, that is, how much can the firm extract from the market and
2. Quick delivery of its product to its customer, that is, how it can reduce its turnaround time (i.e., customer to customer cycle time).

This is explained further through the equation of ROI:

$$\begin{aligned} \text{ROI} &= \frac{\text{Return}}{\text{Investment}} = \frac{\text{Return}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Investment}} \\ &= \text{Margin Ratio} \times \text{Capital Turnover Ratio} \\ &= \text{External Efficiency} \times \text{Internal Efficiency} \end{aligned}$$

Thus, both internal and external efficiency aggregately generates a strong performance in ROI. Here, external efficiency refers to 'how much can we extract from the market place?' and internal efficiency refers to 'by how much can we reduce our customer to customer cycle time?' The internal efficiency of the company can be improved by decreasing the customer to customer cycle time. This customer to customer cycle time comprises of several processes, for example, back office activities, factory working, transportation, debtors and so on as presented in the following table.

<i>Activity</i>	<i>Nature of Activities</i>	<i>Time in Days</i>	<i>Strategies for Reducing the Time</i>
A	Pre-sales activity	10	Automation
B	Back office activity	4	Link distributors/important customers to office computer
C	Factory working	60	Outsourcing, supply chain, work flow design and so on
D	Factory inspection and reworking	6	More inspection points, tightening quality processes, use TQM and other tools and so on
E	Arrangement for payment of taxes and duties	2	Automation
F	Transport	7	Strategic alliance with shipping and other carrier services
G	Installation and commissioning	6	Pre-installation work and training
H	Accounts receivables	90	Tight credit terms and online collection
I	Check in house	2	Avoid interdepartmental mix-ups and so on
J	Retention	7	
	Total number of days	194	

As per the table, the completion of one customer to customer cycle time requires 194 days. If the cycle time can be reduced further, the process will be more expedite and effective. Thus, management is required to identify all processes crucial for success where there is a possibility of improvement. BPR is a commonly used technique to identify and rectify process ineffectiveness. A tentative example of some business processes may be cited as follows:

<i>Processes</i>	<i>Meanings</i>
Total operating cycle	It refers to the time duration required for converting resources or inventories into cash via sales.
Inventory conversion period	This is the total time required to convert raw material into finished goods. It depends on procurement time, process time and release time.
Raw material conversion period	This is the time required for placing raw material into production from purchasing. Raw material conversion period depends on raw material consumption rate and raw material inventory.
Work-in-process conversion period	This is the time required to complete the production process once production starts.
Finished goods conversion period	This is the time required to sale the finished goods to customers.
Debtors' conversion period	This is the time required to collect the outstanding amount from the customers.
Gross operating cycle	Gross operating cycle refers to the total time required from raw materials acquisition to collection of due from customers.
Payment deferral period	This is the benefit received from the supplier to settle the payment for raw materials at a later date.
Net operating cycle	When gross operating cycle is reduced by payment deferral period, it results net operating cycle.
Cash conversion cycle	This is the length of time that it takes for a company to convert resource inputs into cash flows.
Cash cycle	Cash cycle refers to the time between cash disbursement and cash collection. In net working capital management, it can be thought of as the operating cycle less the accounts payable payment period.
Product cycle	The time it takes to bring new and/or improved products to market.
Replacement cycle	Refers to the frequency with which an asset is replaced by an equivalent asset.
Budget cycle	The annual period over which budgets are prepared. For example, in case of rolling budget, one month is added with the completion of one month keeping the budget period as one year intact always.
Cycle time	This refers to the time between the placement of an order to the time the goods arrive for usage or are produced by the company; it is equal to value-added time plus non-value added time.
Manufacturing cycle efficiency	It is a ratio resulting from dividing the actual production time by total lead time reflecting the proportion of lead time that is value-added.

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Product life cycle	This cycle refers to a model depicting the stages through which a product class (not necessarily each product) passes.
Payroll cycle	The period of service for which a company compensates its employees.
Cycle counting	The frequent, scheduled counting of a subset of all inventories, with the intent of spotting inventory record inaccuracies, investigating root causes and correcting those problems.
Continuous non-continuous improvement cycle	This cycle has seven consecutive phases such as recognition, implementation, co-ordination, integration, demotion, elimination and stagnation. Each of the phases varies in length and the total time for the cycle to complete could take several years.

A good number of processes have been identified above. Management should be careful to expedite the processes through reducing the cycle time. Reduction of cycle time may not be possible in every case, but a concern is important to reduce unusual delay in completing the cycle. Most of the cycles as identified above directly affect the profitability either reducing turnover or increasing costs.

21.6 Turnaround Management

Turnarounds and transformations demand the best elements in leadership. It is in such crises that the intrinsic personality of a corporate captain is displayed in bold relief. When nothing is left in an organization except leadership and long-term vision in terms of resources and inputs it is an acid test for the leader, whose calibre and character manifest crystal clear in the context of the 'comeback' which is a popular American synonym for turnaround. There is no hard and fast definition of what constitutes a turnaround situation. Companies, whose financial performance indicates immediate and radical remedial action for survival, are those nearing and needing a turnaround.

Turnaround is recovery to profitability from a loss situation. Turnaround management is not far from everybody management. Although the approach and the techniques are specifically addressed to typical revival situations, they can always have a broader application and relevance. Turnaround management involves application of conventional management techniques in a rather unusual environment.

Times of corporate distress present special strategic management challenges. In such situations, a firm may be in bankruptcy or nearing bankruptcy. Often turnaround consultants are brought into the company to devise and execute a plan of corporate renewal, assuming that the firm has enough potential to make it worth saving.

While each case is unique, the turnaround process frequently involves the following stages:

1. Management change: consultants may be called in to manage the turnaround of the firm.
2. Situation analysis: a situation analysis is performed to evaluate the prospects of survival. Assuming the firm is worth turning around, depending on the root causes of the distress one or more of the following turnaround strategies may be selected and presented to the board:
 - i. Change of top management
 - ii. Divestment of certain assets
 - iii. Reformulation of strategy

- iv. Revenue increase
 - v. Cost reduction
 - vi. Strategic acquisitions
7. Emergency action plan: achieve positive cash flow as soon as possible by eliminating departments, reducing staff and so on.
 8. Business restructuring: once positive cash flow is achieved, the strategic plan is implemented, improving continuing operations, adjusting the product mix and repositioning products if necessary. The management team begins to focus on achieving sustained profitability.
 9. Return to normalcy: the company becomes profitable and the changes are internalized. Employees regain confidence in the firm and emphasis is placed on growing the restructured business while maintaining a strong balance sheet.
 10. Abandonment strategy: in some cases, the prospects of the firm may be too bleak to continue as an ongoing operation and an exit strategy may be appropriate. Different strategies may be pursued that vary in their immediacy. An immediate abandonment strategy exits the market by immediately liquidating or selling to another firm. In other situations, a harvest strategy is appropriate by which the firm plays the end game, maximizing near-term cash flows at the expense of market position.

21.7 Turnaround Strategy

Turnaround is a strategic management issue and the turnaround strategy thus plays a significant role during the critical time of a corporate life. There are three important stages of a turnaround strategy where management should be very much careful regarding the typical and specific achievements:

Stage 1: Pre-turnaround period

Stage 2: Crisis period

Stage 3: Recovery period

The first stage is the period just before the profitability begins to decline. The company is still considered profitable at this point, but losing ground. The second period is known as the period of crisis. At this point the company needs to turnaround. This stage is marked by a decline in profits (even negatives), a fall in market share and the company's poor cash situation. The third stage is the period of recovery or the turning point. This is the stage where serious action is taken to turnaround the company. Important decisions such as scaling back production or returning to an aggressive growth stage are taken. At this point, the company's strategy is clear. The company can choose to rely on a centralized and low cost system and continue profitably. Alternatively, it might decide to combine these benefits with a growth strategy. This is the longest period and may last for years.

21.8 Steps in Turnaround Strategy

Turnaround strategy requires some steps to be completed before finalization. Here, the steps are presented to comprehend the process. It may be adjusted for the situation and perspective under consideration.

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Change in leadership: a change in leadership ensures that those techniques, which resulted in the company's failure, are not used. The new leader has to motivate employees, listen to their views and delegate powers.

Redefining strategic focus: this involves re-evaluating the company's business and deciding which ones to change and which to retain. Diversified companies need to review their portfolio on the basis of long-term profitability and growth prospects.

Selling or divesting unnecessary assets: Sometimes, although the assets are profitable, they must be liquidated to contribute to the strategic focus. The cash received from the sale of such assets should be used to repay debts. Self-sustaining businesses are ideal candidates to do so.

Improving profitability: to do this the company has to take drastic steps such as the following:

1. Assigning profit responsibility to individual divisions
2. Tightening finance controls and reducing unnecessary overheads
3. Laying off workers wherever necessary
4. Investing in labour-saving equipment
5. Building a new inventory management system and manage debt efficiently through negotiating long-term loans.

Making careful acquisitions: a company must be careful while making acquisitions. It should be in an area related to its core business enabling the company to quickly rebuild or replace its weak divisions.

Study reveals that companies may undertake any of the following strategies of a combination to turnaround and become successful:

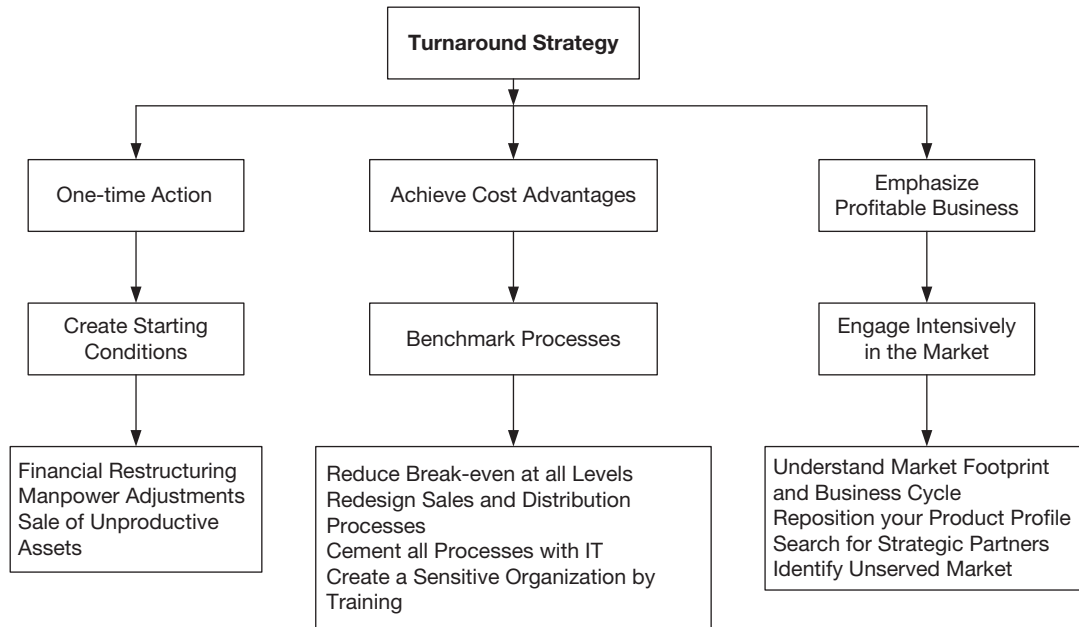
1. One-time action
2. Achieve cost advantages
3. Emphasize profitable business

1. One-time action: one-time action involves those activities, which cannot be repeated again and again, for example, restructuring the balance sheet, voluntary retirement schemes, selling off businesses or assets and so on. When turnaround needs to be emergency and instant, one-time action works better.

2. Achieve cost advantages: achieving cost advantages through reduction or controlling cost is one of the most important tools the strategist has to look at when trying to revive a sick organization. It involves in the first place identifying the various processes both at the factory as well as the factory forward process and then benchmarking the various activities so as to achieve cost efficiencies. Most of the companies use management consultants to achieve a reduction in cost. Improving cost structure may be a reference point to avail cost advantage. Cost structure reflects that ratio of fixed cost and variable cost in total cost.

Achieving cost efficiencies was considered the most difficult process in turnaround implementation. It involves studying the both the factory process as well as the factory forward process, that is, process involved beyond or outside the factory premises. Such processes could be, for example, business development process, channel management, customer account management and so on. The detailed analysis indicated that any improvement in the factory forward process invariably leads to an improvement in cost efficiency. The factory

Figure 21.2 Turnaround Strategy



forward process in itself has many sub-processes. It is the most complicated and most difficult process. The factory forward comprises of four main sub-processes:

- i. Business competency management process
- ii. Channel management process
- iii. Customer account management
- iv. Order execution and logistics management process

Each of these sub-processes has further several-sub processes, which needs to be optimized and streamlined. For example, in order to optimize or maximize the results of the channel management process, one would have to optimize the following sub-processes:

- i. Channel economics and selection
- ii. Sales reporting and deployment
- iii. Supply planning and controlling
- iv. Credit and cash management
- v. Channel education and communication

3. Emphasize profitable business: Emphasizing profitable business has a lot of meaning. At the time of distress, it may be very difficult to manage each business. Thus, for the time being, it is advisory to be busy with the most profitable business that you have. A careful study of the information database will help you to identify the most profitable and

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successful business. Being busy with a narrow (niche) business at the time of difficulty will have a lot of advantages in terms of cost cutting, strategic focus, satisfying targeted customers and so on. If this becomes successful then the company may extend its operation to other areas analysis the situation.

21.9 Western–Eastern Medical Treatments

Western–Eastern Medical Treatments identify three stages of a turnaround plan. The 3-step turnaround strategy guarantees the following:

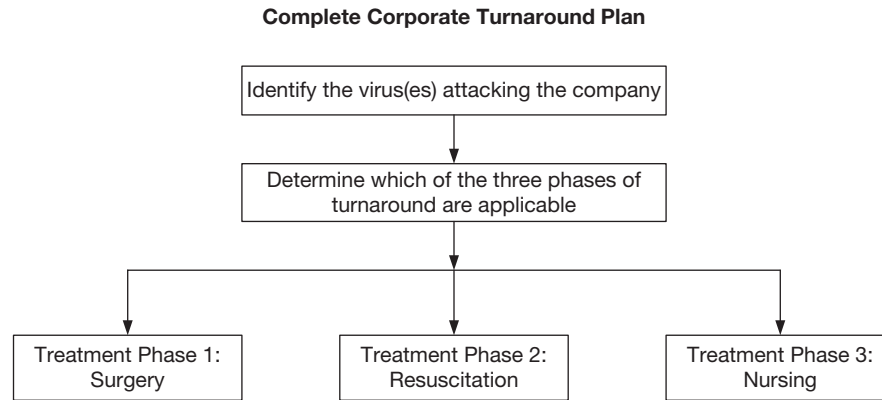
1. Increase your sales revenue by 10% or more over the next 247 days.
2. Sustain your profit growth by 15% compounded annually over the next 10 years by simply applying the proven strategies.
3. If your business is ‘underwater’, turn it around in 263 days and leave your competitors dazed.
4. Reduce your overheads and expenses by 60% or more without any dip on your business.

There is actually a close linkage between the human physical health and the corporate fiscal health. Imagine this for a moment. When you fall sick, like a bad infection, you seek consultation from a medical doctor. The doctor will prescribe the right kind of medicine and treatment. Perhaps add some antibiotics if the infection is bad to get you on your feet in five or seven days. Similarly, if your company has a ‘disease’, you will seek advice from a turnaround doctor preferably someone who has real-life corporate turnaround experience as well as the academic credentials to give you the best advice at the most critical time of your business. Any small mistake at this point may just cost your business to file for chapter.

The starting process of identifying the various viruses namely, competitive forces, incompetent management, change in consumer behaviour, economic recession and son on that can attack a company. Then the proper treatment is administered through the execution of the above-mentioned three phases to eliminate the various viruses. Western style medical treatment is especially effective for cases of acute illness and trauma. Surgery and resuscitation of the corporate turnaround fall into these categories as they often involve life and death cases. Decisive, right dosages and timely administration of life-saving drugs and therapies can often minimize damage and expedite the recovery process. (See Figure 21.3). The emphasis is on a step-by-step and systematic methodology, especially for critical surgical process as there is timing constraint. When companies are really in trouble, the right factors are identified causing trouble. These factors give indication regarding the state of sickness in any of the three stages and depending on such identification turnaround strategies are selected under Western–Eastern Medical Treatments.

Similar to the use of drugs which are chemical in nature and can create negative side effects, there are negative side effects in the use of some Phase 1 (surgery) processes such as in the case of a downsizing exercise (is like amputation) which can create staff morale problems. On the other hand, the strength of the oriental medicine lies in the treatment of chronic diseases, manifested largely as attacks on the corporate culture and immune system. The best way to fight diseases is to have a strong immune system. To improve and strengthen the system, spontaneous cure and internal long-term balance are considered more important than fast and short-term measures. The efficacious effect of Phase 3 (nursing) is the powerful driving force towards reinstatement of good health and optimal total body condition.

Figure 21.3 Turnaround Plan



Source: Author's own, based on Eastern–Western medical treatments.

Both the hard and ‘brain’ issues (cash flow improvement, revenue growth and so on) addressed in Phases 1 (surgery) and 2 (resuscitation) as well as the soft and ‘heart’ issues (staff morale, corporate culture and so on) in Phase 3 (nursing) are required for holistic corporate turnaround and transformation. The turnaround plan should be holistic and based on addressing both strategic and operational issues in the short and long term. However, the three phases are identified further though already introduced.

Step 1: Surgery—improve your cash flow by restructuring the organization and putting a stop to the unnecessary expenses. The weapon of surgery varies from situation to situation. But, in each case, surgery is not welcomed at all and thus management should be more careful and need to deal the process delicately.

Step 2: Resuscitation—inject new business income streams and boost existing sales to increase your profits. The ‘way out’ may be difficult but not impossible. The situation of the company is not as bad as it was in case of surgery. A careful study of the business, market and other critical success factors will provide necessary indication where the business may concentrate for maximizing top and bottom lines.

Step 3: Nursing—strengthen your corporate culture and team to build a strong and healthy corporate immune system to sustain long-term growth. A philosophical drive within the organization and a type of management by objectives strategy may be a good nursing strategy. Management may initiate in-built training process where employees will be trained and cared for the cause of them.

21.10 PA Consulting Group

PA Consulting Group is a leading management and IT consulting and technology firm headquartered in the United Kingdom. They have developed their own turnaround strategy that is presented here for the better understanding of the readers regarding corporate

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turnaround strategies from a world class consultant's point of view. Businesses that come under acute pressure from shareholders are frequently forced to develop and implement turnaround strategies within short timescales and under intense pressure. Shareholders are always in a hurry to see a successful turnaround as early as possible. Sometimes, even the agency problems are at the peak during distress. One obvious reason is that management is held responsible for the distress and another reason is that they are intentionally lagging behind to turning the situation causing a serious damage to the shareholders' wealth. In response to such challenges, PA's experience suggests that CEOs should implement a structured, focused turnaround approach. The turnaround approach as suggested by PA follows three steps as mentioned further:

Step 1: Develop the Turnaround Strategy Objectives, Define Success and Identify the Key Problems to Fix

CEOs must quickly develop a strategy based on a sound analytical understanding of which parts of the business can create value now, or can create value in the future. This has to be based on a good understanding of value creation potential which is a function of both inherent market attractiveness and of competitive strength.

Step 2: Focus On Execution Activities That Eradicate Value Destruction

It is often said that there is no such thing as a bad strategy; it is just the execution that is flawed. This statement may be debatable but it is observed in many instances that implementation is poorly managed resulting value destruction. The success of this step relies on the ruthless execution of a portfolio of projects, all aimed at the eradication of value destroying activities. The nature of the projects could include divesting underperforming businesses, implementing a new pricing strategy, selling underutilized assets, pruning unprofitable product lines and overhead cost reduction.

Step 3: Stabilize and Nurture the Value Creating Businesses

This phase usually requires a style of management that is different to the earlier phases, involving nurturing of management talent to guide value creating businesses to the next stages of their development. In parallel, turnaround must be embedded by consistent, visible management against value driving key performance indicators.

21.11 CRS Turnaround Strategy

Corporate Renewal Solutions (CRS) is another consulting firm working in corporate turnaround management. The turnaround strategy as followed by CRS is a complete guide in case of corporate turnaround and thus presented here for the better understanding of the process by the readers.

21.11.1 Objectives of Turnaround Strategy

The overall goal of a turnaround strategy is to return an underperforming or distressed company to normal in terms of acceptable levels of profitability, solvency, liquidity and cash flow. CRS described turnaround strategy in terms of how the turnaround strategy components of managing, stabilizing, funding and fixing an underperforming or distressed company are applied over the natural stages of a turnaround.

To achieve its objectives, a turnaround strategy must reverse the causes of distress, resolve the financial crisis, achieve a rapid improvement in financial performance, regain stakeholder support and overcome internal constraints and unfavourable industry characteristics.

21.11.2 Turnaround Strategy Components

CRS identified four important components of successful turnaround strategy with some sub-components also to limit the scope of discussion (refer to Table 21.3). Manage and stabilize are first two components for which they prescribed some sub-components. But for the other two components, they have identified sub-components along with the identification of process. The four components are presented further:

1. Managing the turnaround in terms of turnaround leadership, stakeholder management and turnaround project management. This component carries strong bearing on success of turnaround. Leadership is set to lead the turnaround process; stakeholders are kept updated with the success of the turnaround project.
2. Stabilizing the distressed company by ensuring the short-term future of the business through cash management, demonstrating control, re-introducing predictability and ensuring legal and fiduciary compliance. To improve the situation, reaching to a stable position is a must and should not be overlooked.
3. Funding and recapitalizing the distressed business is the most difficult job for the distress leader because a distressed firm has no flow of regular cash flows to meet up the regular expenses.
4. A distressed firm likes to be fixed in strategic, organizational and operational terms. This is the final stage when a firm is coming out of the distressed situation. CRS prescribes some important steps that firms can undertake in last two cases, fund and fix. Firms should initiate detailed analysis and planning to choose future courses of actions, need these actions implemented, and also need it embedded with the implemented actions to ensure timely monitoring.

Table 21.3 Components of Turnaround Strategy

<i>SL</i>	<i>Components</i>	<i>Sub-components</i>	<i>Remarks</i>
1	Manage	Turnaround leadership	
		stakeholder management	
		Turnaround project management	
2	Stabilize	Crisis stabilization	
3	Fund	Refinancing	Detailed analysis and planning
4	Fix	strategy	Implementation
		organization	Embedding and monitoring
		operation	

Source: Author's own, based on CRS.

21.11.3 Turnaround Stages

Turnaround is a structured process. If the process is not defined and identified clearly, implementation process will totally be a mess with no satisfactory results. CRS turnaround stages comprise the following:

1. Recognizing the need for a turnaround
2. Turnaround situation assessment

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3. Emergency management
4. Turnaround plan refinement
5. Turnaround restructuring
6. Turnaround recovery

21.11.4 Phasing of Turnaround Strategy

CRS turnaround's turnaround management philosophy revolves around short-term survivability (getting the business 'out of the hole') while endeavouring not to compromise long-term turnaround viability (how to 'climb the mountain') thereafter. In doing so, CRS looks for the answer of following questions:

1. How did it fall into the hole? (causes of distress)
2. How deep is the hole? (severity of the financial crisis, and number and nature of internal and external constraints faced)
3. How will it get out of the hole? (short-term turnaround strategy)
4. What does it mean to be out of the hole? (short-term financial turnaround objectives and stakeholder support)
5. How will it climb the mountain? (long-term turnaround strategy inclusive of asset reduction and strategic repositioning)
6. How high is the mountain? (vision)

Turnaround strategies often fail since they focus on achieving a long-term vision without getting out of the hole in the first place and thereby dying in the process. It may also fail due to its wrong focus of getting out of hole without a strategy for sustainable recovery. Such turnarounds which focuses on short-time survivability or a financial turnaround alone tend to be short-lived. To get out of the hole successfully, certain long-term sacrifices often need to be made if the financial crisis is severe. Seamlessly dovetailing the actions of getting out of the hole and climbing the mountain, requires careful stakeholder management.

21.12 Generic Turnaround Strategies

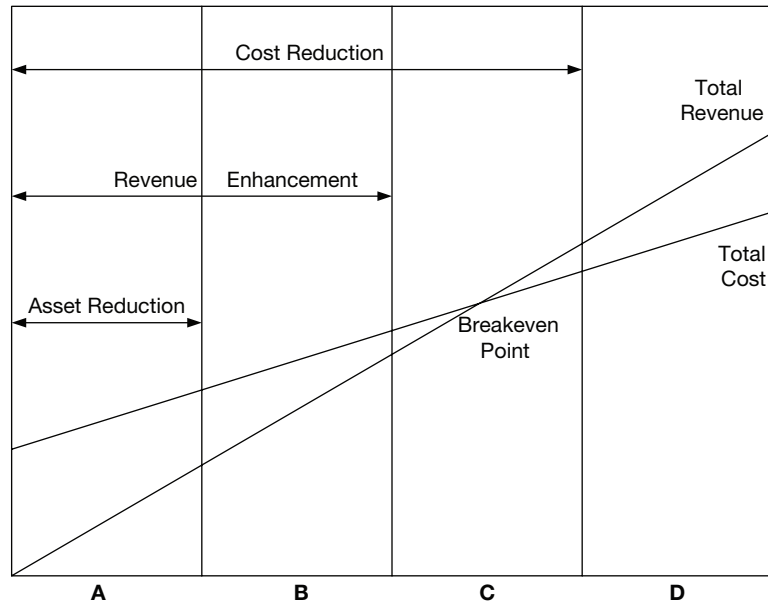
The financial objective of a turnaround is to achieve improved cash flow, profitability, solvency and financial returns. The generic operational turnaround strategies associated with the value chain are revenue enhancement and cutback actions, for example, cutting cost and asset. However, generic turnaround strategies can be defined from four different perspectives. They are as follows:

1. Operational turnaround strategy
2. Financial turnaround strategies
3. Reorganization turnaround strategies
4. Strategic positioning turnaround strategy

21.12.1 Operational Turnaround Strategy

The business case, for different turnaround strategy-structure-value chain combinations, dictates the degrees of freedom open to the turnaround practitioner. The Hofer model for selecting turnaround strategy indicates which operational turnaround strategies to employ with reference to how far the turnaround situation is from break-even.

Figure 21.4 Hofer Model



Source: Hofer (1980).

What is the ROI for each turnaround strategy or combination of strategies? Can the turnaround strategy be funded given the degree of financial distress the business finds itself in? How much time are stakeholders willing to give before wanting to see tangible results? What are the risks?

If the distressed company is operating in any of corridors A, B or C it needs a turnaround strategy to reach corridor D where returns are at least equal the opportunity cost of capital. This could be achieved through cost reduction. However, if the distressed company is operating in corridor A or B, it needs revenue-enhancing strategies in addition to cost reduction. This means beefing up its demand generation capability (segment, target, position, sell and after-sales service) and its demand fulfilment capability (inbound logistics, operations, outbound logistics, general service delivery capability). Finally, if the distressed company is operating in corridor A, it needs asset reduction strategies in addition to revenue-enhancing and cost reduction strategies. Thus, an operational turnaround strategy may be, and usually is underpinned by a further set of generic organizational and strategic turnaround strategies.

Revenue Enhancement

Revenue enhancement focuses on increasing sales through improvement of systems, processes and technology in the primary value chain activities. Such activities may be:

1. Customer satisfaction: customers should be kept happy to increase turnover. Maximum importance is needed in customer management processes such as sales and marketing, and after-sales service to increase turnover through more effective sales force performance,

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new products, improved functionality and range of products, new markets, better promotion and so on.

2. Operations management processes: customer satisfaction is not possible if internal and external operations are not managed accordingly. For example, the functionality among inbound logistics, operations and outbound logistics should be strong enough to increase performance on quality and lead time, thereby raising customer satisfaction through increased service delivery capability.
3. Innovation processes: firms should deploy more money and manpower for ongoing research and development to increase the ability to offer the market new products. It will keep current customers happy and attract new customers.

The lead time for revenue enhancement is normally longer than that of cost reduction. If the business is in financial crisis and revenue enhancement cannot be funded, revenue enhancement often follows cost reduction and/or asset reduction initiatives. Increasing sales are required if the distressed company operate below break-even. Revenue enhancement takes longer to have effect than cost reduction though. Still, if revenue enhancement becomes successful, turnaround process becomes smoother and less risky.

Cost Reduction

Cost reduction is the turnaround strategy having the fastest impact on the bottom line. Overhead and direct costs in the primary value chain and support functions are normally reduced to a level that can be borne by the level of sales that will remain after cost cutting. Overhead cost reduction takes place in chunks. Removing more and more chunks eventually means that some business units or product lines cannot be supported anymore, and the sales associated with those fall away too.

Cost reduction often involves retrenchment of employees, especially in turnaround situations where salaries and wages represent a large portion of the cost structure. Such strategy is always costly and thus management should be more concerned regarding the effect of possible cost reduction. Following steps may be followed as guideline for cost reduction:

1. Conduct a detailed study of costs.
2. Identify the costs that are possible candidates for cutting.
3. Conduct a cause and effect study to understand the effect of cost cutting on sales and profit.
4. Cut costs which must not affect sales and profit adversely.

Do not cut costs to the bone thereby inhibiting the organization's ability to create, fulfil and administer demand.

Asset Reduction

Working capital reduction is common to any turnaround. However, if the distressed company is too far below break-even, working capital reduction, revenue enhancement and cost reduction strategies alone will not suffice. In this situation, the turnaround strategy is normally to shrink the business into profitability. In such cases, cutback action takes the form of shrinking into profitability by means of portfolio disinvestment. This involves closure or sale of business units, divisions, operations and assets and outsourcing of value chain activities in order to focus on the remaining profitable or potentially profitable business units or sections of the value chain. Such downsizing represents a kind of strategic repositioning by

itself. As with cost reduction, closure and outsourcing of business units involves retrenchment of employees. Portfolio disinvestment through selling off assets is often used as mechanism to raise cash for the turnaround.

21.12.2 Financial Turnaround Strategy

This turnaround strategy refers to financial restructuring with a view to strengthening the balance sheet and/or providing fund. Financial restructuring deals with capital structure, debt and equity ratio. In distress situation, the burden of debt in capital structure should be kept as minimum as possible. Asset reduction may make free cash flows available to retire debt in capital structure. Debt may be converted into equity if option is available. Basic target is to strengthen the capital structure. Sometimes, a line of credit may be ensured with local banks to make working capital for a short period of time. Revenue enhancement should be carefully undergone to make the sick industry financially independent. If it cannot be done successfully, no financial turnaround strategy exists for long. Thus, financial turnaround strategy focuses on the following:

1. Improving capital structure
2. Ensuring regular flow of working capital
3. Revenue enhancement through turnover management
4. Cutting cost without hampering turnover

21.12.3 Reorganization Turnaround Strategy

Operational turnaround implies changes to the value chain, which in turn requires changes in the organizational structure of the underperforming or distressed business. Thus, reorganization process may entail changes to the leadership team. Reorganization deals with all the people issues in the business starting from the CEOs. It covers restructuring, re-staffing, re-skill and turnaround leadership revitalization to yield improved leadership, management, organizational structure, organizational alignment and culture. Reorganization is invariably required to ensure success of the other turnaround strategies namely, strategic repositioning, revenue enhancement, cost reduction or asset reduction. Depending on the turnaround situation, reorganization can be limited to leadership alignment, and better management systems for planning and control of the company. Often, however, the extent of reorganization required goes as far as changes in top management and in the organizational structure. Some form of reorganization strategy may be:

1. Restructure
2. Redesigning hierarchy
3. Expansion
4. Shutdown/divestment
5. Liquidation

21.12.4 Strategic Repositioning Turnaround Strategy

Strategic repositioning holds the most potential but is the most neglected turnaround strategy according to academic research. When properly employed, strategic repositioning yields the most spectacular and sustainable turnaround results. Strategic repositioning changes the

mission and customer value proposition of the distressed company by changing what products are offered to what markets and in which fashion. In doing so it changes the revenue-cost-asset structure of the business, yielding improved profitability and return on capital employed. It may do so by growing, shrinking or refocusing the business. For the single business unit, strategic repositioning entails a complete rethink of why it is in business and how it is to achieve a sustainable competitive advantage. For the multi-business unit or multi-product line situation, strategic repositioning may additionally entail portfolio disinvestment, as in asset reduction, to focus on the core business. Conversely, it may entail growing the portfolio to enhance sales and profitability. Growth, however, normally requires investment inter alia in new technology and people, and switching costs exist. If the business is in severe distress, lack of turnaround funding often prohibits this line of action. Strategic repositioning is therefore in practice more often employed after cost reduction has been successful, if at all.

21.13 Stakeholders Support in Turnaround Strategy

The success of a turnaround strategy largely depends on the active support of stakeholders. How long do the stakeholders wait for the management effort in this regard set the choice of turnaround strategy? Stakeholders are seldom interested in a turnaround plan that may look good on paper, but which would not show results in the foreseeable future. Stakeholders often require short-term results first before finally approving a long-term plan. In turnaround management it is therefore imperative to resolve the financial crisis, and rapidly show an impact on cash flow and the bottom line to prove survivability. Selection of turnaround strategies therefore has to heed turnaround phasing requirements, typically: stabilize the business, and execute first-stage restructuring such as reorganization, cost reduction and working capital reduction using short-term or internally generated finance. Having gained the support and confidence of stakeholders, embark on the major restructuring programme involving revenue enhancement and strategic repositioning using finance of a long-term nature. Stakeholders' oriented turnaround may follow the following logical sequence:

1. Revenue enhancement to show immediate improvement in cash flows
2. Cutting (asset and cost) actions to attain profitability (bottom line)
3. Divestment of ill section to smoother cash flow crisis
4. Contingency plan for merger or strategic alliance
5. Liquidation if all turnaround plans goes wrong

21.14 Conclusion

Corporate sickness is not a rare happening rather most of the companies pass over such a situation at least once in life time. And coming out of such situation is also customary though failure is not uncommon. Strategic handling is a must that basically becomes decisive regarding the ultimate fate of the company. One of the first steps to be initiated in the turnaround task is the replacement of the CEO, preferably with one who has had experience in retrieving a company from a troubled situation. Even when companies scout around CEOs to replace one on the verge of retirement, the choice is always a person with a proven track record. Some examples of recent appointments of CEOs are: Louis V. Gerstner Jr. at IBM, John F. Welch Jr.

at General Electric, George M.C. Fisher at Eastman Kodak and late Roberto Goizueta at Coca-Cola, all of whom have been performing superlatively with the companies they have joined. In fact, the incomes at Coca-Cola have increased multi-fold during Goizueta's tenure. To attract the right CEO, the compensation package will have to be commensurate with the problems he will be inheriting in the new company. As soon as a new CEO has taken over, one of his first actions will be to find ways and means of cutting costs and reducing losses and this could be achieved by selling unproductive real estate, thereby raising cash for deployment, selling off businesses or activities not running profitably, cutting back on workforce and abandoning projects needing large fund investment.

The reduction in labour force has an immediate effect on the bottom line as the recurring cost is checked, cash is released and the profitability starts improving. Cost-cutting efforts to get the company back on the rails should be more on consideration of long-term benefits than as a knee-jerk reaction. One way to cut costs for operations is to become centralized as it helps attract good calibre professionals, eliminates duplication of staff and enables economies of scale. But cost cutting should be followed by value analysis. For most of the sick industries, it is found that such industries are burdened with lot of overheads producing no value added initiatives within. If such activities are checked, lot of costs will be automatically controlled.

Refocusing attention to the company's core competence of primary business should be the next step, as often companies find themselves in areas not intended originally but which came about due to a variety of factors. Examples of companies hiving off unproductive activities are those of ITC hiving off the hotels division to a separate company; Coates of India transferring its packaging-coating business to a separate company—CIBA Specialty Chemicals India Limited and the latest restructuring by the Aditya Birla group, which is bringing all cement production under Grasim.

Company failures have become increasingly identifiable with such unrelated business affecting their core competence. Many companies discover that businesses in which they had a stranglehold for several years are threatened by global competition, which is striking at the root of their existence. Caustic soda, PVC, steel and paper are some of the areas where the existing Indian companies are finding it increasingly difficult to stay afloat with their costs of production *vis-à-vis* the international prices. While during the cost-cutting stage, CEOs need to focus their attention on a strategy of centralization, during the refocus-and-reinvest stage, they have to adopt one of decentralization. The advantages of such decentralization include the ability to provide faster response and better customer service. The steps are the common remedial measures to effect a successful turnaround in companies and in most of the US companies mentioned, these measures produced remarkable results, as is seen from the following observations in each case.

1. At Clark Equipment, sales in 1988 increased by \$250 millions over 1987 sales to \$1.28 billions. Losses of \$60 millions in 1986 and \$16.6 millions in 1987 transformed into positive net income of \$46 millions. There were increases in both the earnings per share and the book value.
2. At Intermedics, sales in 1987 at \$193 millions were at an all-time high and it also had a turnaround in pre-tax earnings of \$50 millions with the earnings per share also showing an increase.
3. L.E. Myers did not show any dramatic increase in sales volume post-turnaround but there were other improvements such as a reduction in its long-term debt from \$6 millions in 1987 to below \$1 million in 1990.
4. Quantum increased sales in 1989 to \$208 millions and net income to \$12.9 millions.

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Analyzing some of the more common causes for the gradual decline in company fortunes, the following points emerge and emphasize the need for management to focus attention on information systems within the company.

1. Availability of information on each core activity or process and the cost of providing such service.
2. Cost of providing information on activities not used by management for any meaningful decision-making.

Traditional costing systems do not recognize the needs of the various levels of management which require information for decision-making and, more important, do not highlight the cost of not doing a thing, that is, the cost of excess capacity. Activity-based costing is a new basis that has been found to fill this need adequately as it seeks to cost products on the basis of the resources consumed by them and not by a blanket recovery rate for overheads, irrespective of whether the products attract them or not. Quite often, the problems with managing turnarounds are the difficulty of timing and implementing the necessary changes and the inability to convince the management that something drastic needs to be done to remedy the situation.

Companies should look into the need for preparing a contingency plan that will take into account uncommitted liquid cash resources, a programme for controlling cash outflows and investments and formulating a strategic plan for the manner in which liquidation of plant, equipment or the hiving-off of un-remunerative business units should be handled in the event of early warning signals showing up. Such contingency plans should be an integral part of the budgeting process and the overall long-term corporate plan.

Multiple Choice Questions

1. Which one of the following criteria can be used to identify a sick unit?
 - a. A unit incurring continuous cash losses
 - b. A unit having excess of current liabilities over current assets
 - c. A unit having low capacity utilization
 - d. A unit having worsening debt-equity ratio
 - e. All
2. Due to mismatch of some factors like location, product mix, cost over-run, which type of following sickness may arise?
 - a. Genetic sickness
 - b. Structural sickness
 - c. Operational sickness
 - d. Strategic sickness
 - e. Exogenous sickness
3. Which one of the following causes of sickness can be considered as external?
 - a. Marketing problem
 - b. Implementation delay in
 - c. Imbalance of machinery and inappropriate technology
 - d. Faulty project planning and appraisal
 - e. Natural calamities
4. As per Altman z-score formula of financial distress model, which one of the following factors is not considered as a financial distress factor?
 - a. Net working capital/total assets
 - b. EBIT/total assets
 - c. Shareholders' equity/total liabilities
 - d. Retained earnings/total assets
 - e. EBIT/total equity

5. As per financial distress model, which one of the following is used as a measure of firm's financial structure or leverage.
 - a. Net working capital/total assets
 - b. EBIT/total assets
 - c. Shareholders' equity/total liabilities
 - d. Retained earnings/total assets
 - e. Sales/total assets
6. Which one of the following is not an example of liquidity ratio?
 - a. Immediate liquidity
 - b. Liquidity
 - c. Financial leverage
 - d. Current liquidity
 - e. Interest coverage ratio
7. Which one of the following is not an example of liquidity ratio?
 - a. Return on capital employed (ROCE)
 - b. Return on equity (ROE)
 - c. Interest coverage ratio
 - d. Return on assets (ROA)
 - e. Financing costs (%)
8. As a turnaround strategy, which one of the following should not be considered as one-time action?
 - a. Financial restructuring
 - b. Sale of unproductive assets
 - c. Reposition your product profile
 - d. Manpower adjustments
 - e. None
9. As per Hofer model, corridor C refers to
 - a. Asset reduction
 - b. Revenue enhancement
 - c. Cost reduction
 - d. Break-even point
 - e. None
10. Financial turnaround strategy focuses on
 - a. Improving capital structure
 - b. Ensuring regular flow of working capital
 - c. Revenue enhancement through turnover management
 - d. Cutting cost without hampering turnover
 - e. All of the above

Discussion Questions

1. Define corporate sickness. What are the causes of sickness? Explain critically.
2. How do you identify a sick industrial unit? What are the possible symptoms of being ailed? Can you propose a sickness index in this regard to guide a company to keep record of its sickness status?
3. Write a critical note on business failure prediction models. What were the basic motives of researchers behind such models?
4. What are the organizational processes needed to be handled carefully to ensure competitive edge regularly?
5. Define turnaround management. What are the possible scopes of turnaround management?
6. What is turnaround strategy? What are the possible steps in turnaround strategy?
7. Discuss the following turnaround strategy in short:
 - a. Western–Eastern Medical Treatment
 - b. PA Consulting Group
 - c. CRS Turnaround Strategy
8. Make a critical presentation on the Hofer model of operational turnaround strategy.
9. Why do you need stakeholders' continuous support for making your turnaround plan successful?

Case in Action



Maverick Healthcare Consulting Case Study

Perioperative Services Turnaround



A major North-eastern academic medical centre requested Maverick Healthcare Consulting to analyze the strategies, operations and technologies supporting its perioperative services unit. Additionally, the client requested assistance in developing and implementing a complete operational turn-

around of the unit. As a regional tertiary referral centre with a designated Level I trauma centre, the client operated 13 operating rooms within the Main OR area and 5 operating rooms in the ambulatory surgical building. Annual operating volumes were approximately 8,000 cases for the Main OR and 4,000 cases for the ambulatory unit. The volume was growing consistently at approximately 12% to 15% annually and the systemic operational problems were causing significant capacity, customer service, physician satisfaction and employee morale problems for the health system. Also, because the client was located in a densely populated urban setting, the health system was the largest provider in the state of services to the Medicaid and Charity Care population. Major objectives of this engagement were to:

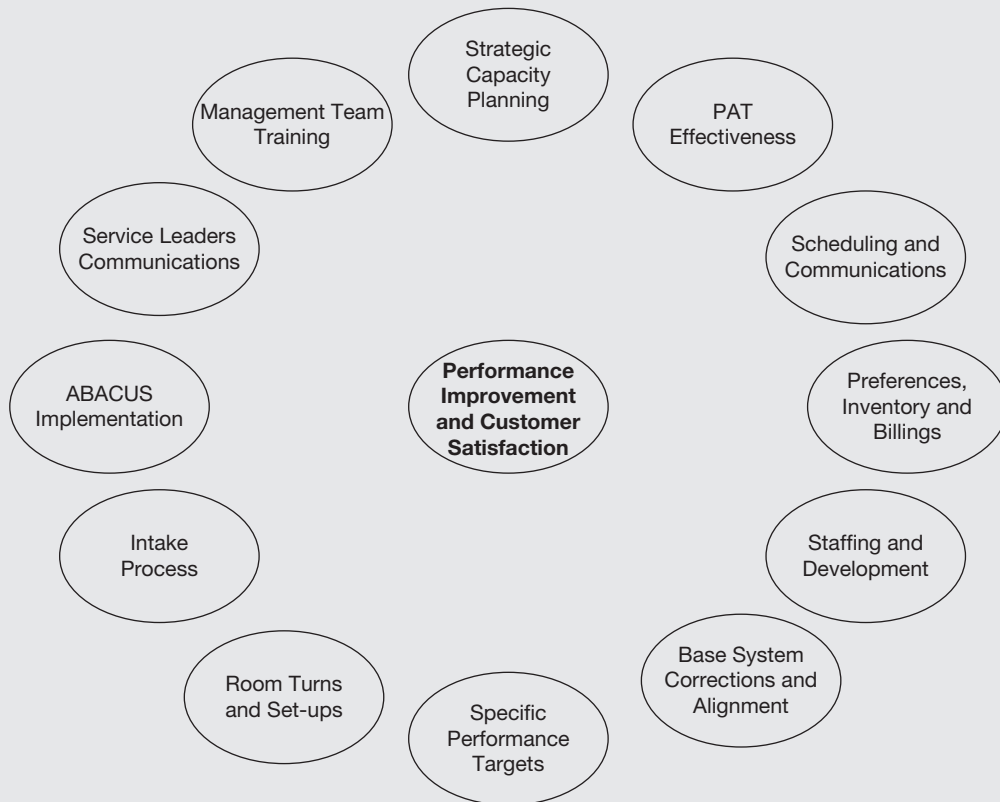
1. Reduce systemic delays through improving the core operating processes to relieve pressure on capacity simultaneously to a planning process to address long-term capacity issues
2. Overhaul existing technologies to more effectively align with actual operations and more accurately capture data which reflects true operations and costs
3. Target and achieve 'breakthrough' performance improvements on key performance indicators of the operations
4. Begin a 'cultural shift' to a high accountability, results driven management team model
5. Engage and enlist the physician leadership in all strategic and operational components of the designed and targeted solutions.

The 'Symptoms'

An integrated team of personnel representing management, surgical services leadership from key constituencies and technical resources were assigned to complete a very quick diagnostic of core operations and identify key issues which appeared to be systemic to the operations. After initiation of the project and completion of the 'high level' operational, financial and technical analyses; in conjunction with key input from both surgical services and medical centre leadership, the following were identified as core problems facing any turnaround efforts for perioperative services.

1. Consistent problems in scheduling, planning and managing daily operations
2. Consistent problems in set-ups for cases both in terms of first cases and ongoing daily operations
3. Inconsistency between base support technology set-up and the actual operating model for perioperative services
4. Poor management and controls of both equipment, instrumentation and inventory supply controls
5. Very slow room turns on an ongoing basis

6. Inconsistent and irrelevance of performance reporting for management and surgical services leaders
7. Staffing patterns which did not align with the actual operating model
8. No defined or consistently monitored and reported performance targets for operations
9. Very little and inconsistent surgical services planning efforts
10. Poor communications with both staff and surgical services leadership
11. Poor employee morale
12. Economic opportunity identified as being \$5 to \$10 million annually.



Results of the diagnostic phase were shared with both management and physician leadership; and a strong commitment was made by executive leadership to pursue an aggressive approach which would provide demonstrable results within a very short period of time.

As highlighted above, 12 initiatives were identified for immediate action to provide a strong platform to sustain the necessary growth in the future. Cross-functional teams were developed for each of the initiatives highlighted, with the perioperative services management team and surgical services chairs providing project oversight responsibilities. Specific targeted objectives and improvements were identified for each work group. Maverick Healthcare Consulting professionals were assigned to work

with the teams in deriving a 'cross-functional' map of the core processes and to identify the 'root cause' breakdowns within the core processes. If identified as being external, yet a process breakdown, then key personnel from the external unit were asked to participate in the process to identify potential options for solutions. The core mantra of the effort was: 'understand, measure, redesign, test, implement, measure and continuously report'.

Identifying the 'True Problem Drivers'

Given the magnitude of the problems, both financial and quality of service, the medical centre executive leadership demonstrated a very strong desire and commitment to identify and correct the underlying forces that were causing the negative symptoms to occur. Working within the structure outlined, the teams were quickly able to derive the 'root causes' of issues for each of the initiatives outlines. Those items which were identified as being 'quick hits' in terms of both impact and value were quickly acted upon, while others requiring more effort in terms of cross-functional process or technical design, test and implementation were prioritized with the leadership and acted upon accordingly. Maverick's consultants worked with the teams and leadership to develop the 'breakthrough' goals and approaches to meet the design challenges. Some of the 'root cause' issues identified were:

1.	Strategic Capacity Planning
a.	Planning process global and financial in nature
b.	No specific service line planning for volume, needs and investments
c.	Surgical chiefs had little input to planning process
d.	Poor support for the overall plans and/or process
2.	Pre-admission Testing Effectiveness
a.	Non-existent compliance with existing policies from clinics
b.	No effective tracking/monitoring system to report results and outliers
c.	Poor organization of work flow and efforts
d.	Shared model for staffing and inconsistent staffing
3.	Scheduling and Communications
a.	Arbitrary and inconsistent scheduling processes and policies
b.	Case times arbitrarily selected not utilizing system capabilities to assist
c.	Ineffective communication with Surgeons for needs
4.	Preferences, Inventory and Billings
a.	Massive numbers of preference list in the existing system with no controls in place
b.	Significant delays in updating inventory management process
c.	Billings consistently inaccurate with large numbers of 'unaccounted for' items
5.	Staffing and Development
a.	Staffing model inconsistent with 'actual' operating model
b.	Daily overruns of case times driving increased premium labour utilization

6.	Base System Corrections and Alignment
a.	System defaults not aligned with actual operating model
b.	Reporting components providing inaccurate view of operations
7.	Specific Performance Targets
a.	No defined targets and/or tight monitoring process to post results
b.	Poor communication tools and process to work with surgical services leads
8.	Room Turns and Set-ups
a.	Main OR averages in excess of 69 minutes due to preference list, master schedule inaccuracies and housekeeping staffing model
b.	Set-up inaccuracies due to preferences list issues, a lot of wasted supplies
9.	Intake Process
a.	No scheduling information during intake
b.	Unusually lengthy process to complete non value added job
10.	ABACUS Implementation
a.	Significant loss of instrumentation annually
b.	No system to maintain control and maintenance of instrumentation
11.	Service Leader Communications
a.	No process and/or tools to report operations, economic and quality results consistently with the surgical chiefs
b.	No surgical chief input to design the aforementioned reporting capabilities
c.	No surgical chief confidence in data reported
12.	Management Team Training and/or Performance Review Process
a.	Perioperative services management team historically not focused on defined and measured reporting metrics
b.	Team did not regularly meet to review outliers and initiate process to correct
c.	Culture change to set an example for other parts of the organization

Investing in the Solution

Having the root causes properly identified, the teams then focused on designing and implementing solutions focused on creating 'sustainable' change and value creation for perioperative services. All design solutions were reviewed and approved by both surgical services physician and medical centre leadership. Approximately, 50% of the initiatives targeted required an investment in either additional technologies or human resources. However, the solution did not require a wholesale system implementation. The focus continued to be on successfully integrating operations and existing technologies to develop a true operational solution set. A key factor contributing to the solution was continuous input and processing with the surgical services leadership. This support proved to be critical in executing solutions which required investment, reductions and/or different ways of thinking. Another critical component was to create a shift in the culture from 'business as usual' to one focused on the continuous

measurement and reporting coupled with a view towards ongoing opportunities for improvement. Critical success factors for this initiative included:

1. Aggressive targeting of performance improvement
2. Complete management team focus and ownership for the project
3. Comprehensive, data focused development, reporting and tracking
4. 'Process View' of everything, coupled with deep process mapping tools to assist with developing depth of understanding
5. Continuous feedback with staff and leadership coupled with posted performance results
6. Engaged surgical services physician leadership from beginning to end
7. Celebrate successes, but continue to focus on the issues at hand
8. Executive leadership commitment in terms of economic and human resources.

Significant improvements were noticeable within 90 days following implementation activities. Physician feedback indicated noticeable improvements not only in daily operations, but also in staff commitment to customer and physician service levels.

Results

At this point, our client views improvement as a continuous process; where opportunities for improvement are constantly sought and new initiatives instituted as prior initiatives achieving success. Results approximately nine months after initiation of improvement solutions include:

1. Pre-admission testing effectiveness has improved over 100%
2. First case on-time starts (defined as +/- 10 minutes of scheduled case time) has improved from 55% to over 75% on a consistent basis
3. Scheduling accuracy has improved from 60% to over 95%
4. Premium labour utilization reduced by 15%
5. Room turns and set-ups improved from a prior average of over 60 minutes to just 30 minutes per room in the Main OR and 12 minutes for ambulatory
6. Avoidable cancellations improved by 71%
7. Delay code capture rates improved from 28% to over 90%
8. Administrative delays reduced by 59%
9. Preference listings completely overhauled and simplified resulting in ease of set-ups and more accuracy for inventory management
10. Inventory management tightened which resulted in a 20% increase in capture accuracy
11. Designed and implemented complete new reporting system and tools for senior management and surgical services chiefs
12. Instituted bi-weekly tracking, reporting and posting of operational results
13. Newly energized and trained surgical services management team.

Source: Shil, N. C. 2011. *Capital Management — A Story of Success and Failure*, Germany: LAP LAMBERT Academic Publishing, pp. 462–470.

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Answer Key to Multiple Choice Questions

1. e	2. b	3. e	4. e	5. c	6. c	7. c	8. c	9. d	10. e
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