Long waiting lists and postponed surgical operations are unfortunately a feature of many a country’s health systems.

The difficulty that many hospitals encounter is that whilst an operation might be predicted to last 40 minutes, there is no way of knowing beforehand that it will in fact last that long. As a consequence if too much time is set aside the operating theatre can lie empty, but if too little time is allotted subsequent surgeries can become backed up. Both scenarios cost the hospital money.

However, management scientist Mehmet Begen is using a mathematical model to come up with a solution.

Prof Begen of the Richard Ivey School of Business at the University of Western Ontario has designed a model which takes into account the cost of patients’ waiting time, overtime and downtime for hospital staff and equipment. These costs vary both in relation to each other and in different situations. Prof Begen’s next step is to use a computer to implement his mathematical model and then apply it to the health care sector.

Whilst Prof Begen has designed his model to be applied to hospital waiting times, it can also be applied to airport gate planning and project management.

Meanwhile, a marketing professor from Melbourne Business School in Australia has been analysing how consumers respond to a company when a problem arises, such as the recent issues surrounding Toyota the car manufacturer and the problems it has experienced with accelerator pedals in some of its models.

Jill Klein has discovered that how consumers apportion blame depends considerably on their perceptions of the company prior to its difficulties.

If a company is perceived as a good corporate citizen and has an environmentally responsible record, consumers are less likely to view the company in a negative light she says.

"There are often multiple contributors to a crisis and who consumers view as responsible, is in part determined by whether the firm is seen as a “good guy” or a “bad guy” prior to the crisis,” she says.

Prof Klein advises companies to invest in corporate social responsibility initiatives. These she suggests can be used as insurance policies, which while not paying off immediately can be of benefit to a company should a crisis occur.