Data Power (Part I)

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One of the most powerful ladies of yesteryears, who are respected across countries, ages & time, was Florence Nightingale (1820-1910).

Though she is remembered for her service to humanity for introduction of modern nursing, her interest & contribution to statistics is not as well known.

Florence Nightingale's career in nursing began in 1851 when she received four months' training in Germany. She undertook the training despite her family's objections concerning the risks involved and social implications of the vocation.

On October 21, 1854, she and a staff of 38 women volunteer nurses left for Turkey in the Crimea, where the main British camp was housed.

Since her schooldays, Florence Nightingale had been an enthusiastic mathematician. When she began working as a nurse in the Crimean War, she was quick to realise that the death rate among soldiers was high enough to wipe out the entire army in no time. To her surprise it was not the war that was killing soldiers. The death rate due to unhygienic living conditions for soldiers was far higher at 40% per month.

Nightingale invented a diagram she called the coxcomb or polar area chart, equivalent to a modern circular histogram. She made extensive use of the coxcomb to present reports on the nature and magnitude of the conditions of medical care in the Crimean War to Members of Parliament and civil servants who otherwise would have been unlikely to read or understand traditional statistical reports.

After one & a half years of consistent efforts, the death rate had been reduced to 2% per month.

From her passion for organising information, Florence Nightingale became a leading figure pressing the government of the day to improve conditions for their armed forces. She developed statistical techniques working with the leading medical statistician of the day, Dr William Farr, to refine various charts and diagrams for presenting information.

Florence Nightingale made a comprehensive statistical study of sanitation in Indian rural life and was the leading figure in the introduction of improved medical care and public health service in India.

In 1858 Nightingale was elected the first female member of the Royal Statistical Society and she later became an honorary member of the American Statistical Association.

Though, her most loved title is "The lady with the lamp".

We, in India, are fortunate to have received valuable contribution from Florence Nightingale.

We are even more fortunate that we are a data country. Every office, factory, hospital, dispensary, school, service provider has got loads & loads of data lying in files, cabinets, computers ……………

We can be even more fortunate, if this data could be analysed and inference/ recommendations out of the analysis are put to use for improvement.

Manufacturing, specifically the automobile sector, has taken the lead in utilising data based statistical techniques for routine business decision making. A set of seven simple tools started with quality improvement focus, is now increasingly being used for business improvements as well.

Popularly known as 7 QC tools, these simple yet powerful statistical techniques when used with diligence can convert the fortune of any organisation.

References:
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