Kenichi Ohmae

In his landmark book, *The Mind of the Strategist*, Ohmae concentrated on the thought processes behind Japan’s successful strategic thinking, described what strategic thinking is and offered both a conceptual framework and practical advice on its application. The key, he proposes, is integrating the three C’s—Customer, Competitor, and Company—in a strategic triangle that can sustain competitive advantage.

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Reverse Engineering

The most traditional method of the development of a technology is referred to as "forward engineering." In the construction of a technology, manufacturers develop a product by implementing engineering concepts and abstractions. By contrast, reverse engineering begins with final product, and works backward to recreate the engineering concepts by analyzing the design of the system and the interrelationships of its components entirely, further improving customer satisfaction. In addition to helping the bank retain valued customers, the improvements could save the company nearly $1 million annually. And perhaps a more important (albeit less quantifiable) result is that the bank has improved its reputation in its customers’ eyes.

Read full story on 2
Kenichi Ohmae born February 21, 1943 in Kitakyūshū, Fukuoka Prefecture, is a business and corporate strategist who is well known for his 3C's Model. Besides authoring over 100 books, including the seminal work, The Mind of the Strategist, Kenichi Ohmae has an unsurpassed reputation as an advisor on global strategy to foreign governments and scores of multinational corporations. The Economist selected him as one of five management gurus in the world.

3 C’s model:

The 3C's Model is a business model, which offers a strategic look at the factors needed for success. 3 C’s model revolves around the concept of shared value to the firm, the environment, and the community. In the construction of a business strategy, three main players must be taken into account:

1. The Corporation
2. The Customer
3. The Competitors

Books authored by him:

The Next Global Stage: The Challenges and Opportunities in Our Borderless World (2005)
The Invisible Continent: Four Strategic Imperatives of the New Economy (2001)
The End of the Nation State: The Rise of Regional Economies (1995)

The contents of his books mainly focuses on

- What are the forces that are dissolving national borders and building new regional economies?
- How do you leverage technology and the other new platforms for growth that are replacing the old ones based on national economies?
- How do you lead a global corporation?
- What roles should governments play when nation-states no longer matter?
Since Six Sigma was first developed at Motorola, refined at AlliedSignal and transformed into legend at GE under Jack Welch, it has found legions of new converts in myriad business sectors. Now this successful quality initiative is revolutionizing not just manufacturing but also service industries, including outsourcing, financial services and telecommunications organizations.

Six Sigma--originally designed to perfect manufacturing processes that were already highly engineered--might seem ill-suited to service organizations, wherein processes aren’t engineered at all. But this is precisely why the methodology has something valuable to offer service organizations. Because many service businesses (which often suffer from inflated costs and poor customer service) have never analyzed their processes, they are ripe with potential for process improvement.

From task to process

Six Sigma’s wider applicability was first glimpsed at GE. The company understood that Six Sigma techniques could be applied to any process that resulted in defects, whether they be faulty products, financial transactions or business processes. With this knowledge, GE soon expanded Six Sigma to its service businesses, GE Financial.

The heart of every service-based business depends on the opinions, behaviors and decisions of people acting through work processes. Analyzing and modifying human performance in these environments is complex. Nevertheless, task-oriented service organizations including mortgage lenders, wireless phone providers and call centers have discovered that Six Sigma brings a process focus to their operations (e.g., streamlined mortgage approval procedures, improved customer service processes and improved customer-problem resolution).

Financial services

Six Sigma has been particularly successful in the financial services sector, in which performance management is critical. Customers expect faster and easier service at every point of contact--and if they don’t get it, they go elsewhere.

By using Six Sigma’s define-measure-analyze-improve-control process, leading financial services organizations have worked to reach the methodology’s aim of near error-free performance. Moreover, this goal is relevant to all processes, from handling customers’ money, to processing payments, to sending out bills, to closing a loan, to answering the phone.

The international private banking division of one of the world’s largest banking and financial services companies provides an example. The group faced increasing customer dissatisfaction as a result of inefficiencies in its international wire-transfer operations. The inefficiencies greatly increased the bank’s annual wire-processing costs, some of which the bank passed along to customers through transaction fees--despite the fact that the bank’s own surveys identify fees as a key customer concern.

The bank used Six Sigma to redesign its international wire-transfer process, greatly reducing the errors, customer callbacks, transfer delays and transfer fees that inconvenienced customers and contributed to high rates of customer churn.

Transfer cycle time was slashed 46 percent, which, coupled with an extended cutoff time for making transfers, has all but eliminated delayed wires. Slashing the cost-per-payment order by more than 50 percent has also enabled the division to waive its
transaction fees entirely, further improving customer satisfaction. In addition to helping the bank retain valued customers, the improvements could save the company nearly $1 million annually. And perhaps a more important (albeit less quantifiable) result is that the bank has improved its reputation in its customers’ eyes.

A leading mortgage banking firm offers another example of how Six Sigma can drive customer satisfaction and ultimately increase market share and growth. The bank, whose clientele includes borrowers disqualified from traditional loan sources, wanted to improve customer satisfaction and increase investor confidence. In addition to establishing a customer-relationship management initiative, the firm introduced Six Sigma into key business processes by training in-house Six Sigma experts to lead critical process redesign projects. Once the initiative was launched, the bank not only addressed customer and investor issues but also produced significant and unanticipated increases in revenue and reductions in costs. The lender improved customer satisfaction and response time by 350 percent, cutting “abandoned customer call” rates from 12 to 4 percent and reducing process redundancies by 66 percent. At the same time, an increase in loan retention of 20 percent and the elimination of $21 million in risk exposure boosted investor confidence. Together, these improvements save the company $5.5 million annually and have generated additional revenues of $1 million.

Telecommunications
Following that solid record of success in financial services, the next Six Sigma revolution is likely to take place in the telecommunications industry.

Both the telecommunications equipment and services sectors have been badly battered in recent years. Total spending on equipment fell by about 15 percent in 2001 and another 20 percent in 2002. Long-haul optical networks now operate at less than half their capacity. Until sales of core wire-line equipment pick up, manufacturers in the United States and Europe also face the challenge of developing products to deliver data and voice traffic from long-distance networks to broadband customers in urban areas. The mobile communications segment is also changing as exhaustively hyped mobile data services and third-generation wireless technology arrive. During the late 1990s, the telecommunications services sector held fast to the motto, “Build it and they will come.” After the Telecommunications Act of 1996 passed, the telecom sector rode the high-tech current of an economic expansion that, in retrospect, appears to have been built on blind faith. During the five years following the 1996 legislation, the telecom industry received $1.3 trillion from investors and has since lost more than $1 trillion in market value.

For telecommunications equipment and services, short- and long-term success depends on excelling in operational focus, financial discipline and opportunistic growth. Six Sigma can help with all three. What follow are examples illustrating highly focused projects that suggest the enormous potential of applying Six Sigma to the telecommunications industry:

- Increasing sales force availability for customers in emerging markets. Relentless competition in telecommunications requires an account team that can assess customer needs and submit quotes quickly. Nevertheless, Six Sigma analysis suggests that salespeople in the emerging market for a telecommunications provider spend an average of 52 percent of their time in non value-added activities such as travel, meetings and customer service issues—despite the fact that the company depends on increased sales force productivity to weather the economic downturn and industry turmoil.
Six Sigma analysis uncovers statistically and economically significant relationships between the time spent on non value-added activities, the extent of a salesperson’s territory (whether the salesperson sets his or her own customer appointments or these are preset), and the amount of time and territory-management skills required to provide outstanding service.

A company can address all these factors by setting up a special call center team to set appointments for salespeople and develop a process for route management that enables the team to prioritize appointments in the most geographically efficient way. As a result, salespeople can spend more time in front of prospective customers, save money on travel and spend less time on non value-added activities.

Reducing the sales-to-cash interval. As a private branch exchange dealer/distributor’s selling model shifts to resale, the company must forecast and accelerate customers’ payments after installation more accurately in order to reduce exposure to creditors. The sales-to-cash interval averages four months, whereas reducing it by only one month would save $550,000. However, the company’s sales-to-cash process is complex, with numerous interdependencies that can cause excessive delay. A Six Sigma team finds that the longest interval under direct control is the time from installation to posting the invoice. The average time stands at 18.3 days, costing the company $420,000 annually in delayed revenue.
In this article we talk about two tools which can come in handy in our daily lives. The first one tool would not need two people and a straight run with no obstructions to stretch the tape to measure a large area like a room. With a laser measuring tape, the job can be completed by one operator with just a line of sight. A laser tape is a device which uses a laser beam to determine the distance. The most common form of laser tape operates on the time of flight principle by sending a laser pulse in a narrow beam towards the object measuring the time taken by the pulse to be reflected off the target and returned to the sender. Laser measures are extremely accurate and the precision of the instrument is determined by the rise or fall time of the laser pulse and the speed of the receiver. This tool typically includes the ability to produce some simple calculations, such as the area or volume of a room, as well as switch between imperial and metric units. They are ideal for indoor or outdoor use; however outdoor use may require the user to use laser goggles to enhance spotting of the laser in bright sunlight or for distances over around 40 meters. They are ideal for estate agents, building, construction industry and any other application that requires fast accurate measurements.

Laser technology provides also quick and easy method of temperature measurement without instruments coming in contact with the measuring surface. The way that any given laser thermometer is actually meant to work is through infra red technology. The thermometer actually measures the amount of heat radiation found on the infrared spectrum, so that you can get a completely accurate reading of how much heat can be found on the surface of literally any object. Through noticing just how much infrared energy level provided for this element as well as its emissive ability, the object’s temperature could be recognized. They also generally have wide temperature measurement ranges up to 1000° Celsius. This non-touch ability of the thermometer poses a great benefit for clinical thermometers i.e. for taking the body temperature without bringing in direct contact with the patients, also useful in industrial applications, for example measuring heaters, ovens and engine temperatures.
Reverse Engineering is the Process of Discovering the Technological Principles of a Device, Object, or System through Analysis of its Structure, Function, and Operation

For rebuilding a car engine, people can learn about many things simply by taking them apart and putting them back together again. That, in a nutshell, is the concept behind reverse-engineering, breaking something down in order to understand it, build a copy or improve it. It often involves taking something (e.g., a mechanical device, electronic component, software program, or biological, chemical, or organic matter) apart and analyzing its workings in detail to be used in maintenance, or to try to make a new device or program that does the same thing without using or simply duplicating the original.

The most traditional method of the development of a technology is referred to as "forward engineering." In the construction of a technology, manufacturers develop a product by implementing engineering concepts and abstractions. By contrast, reverse engineering begins with final product, and works backward to recreate the engineering concepts by analyzing the design of the system and the interrelationships of its components.

A process that was originally applied only to hardware, reverse-engineering is now applied to software, databases and even human DNA. Reverse-engineering is especially important with computer hardware and software. Programs are written in a language, say C++ or Java, that's understandable by other programmers. But to run on a computer, they have to be translated by another program, called a compiler, into the ones and zeros of machine language. Compiled code is incomprehensible to most programmers, but there are ways to convert machine code back to a more human-friendly format, including a software tool called a decompiler.

Considering the automobile industry, the reverse engineer takes an existing product and disassembles it in an almost forensic manner to look at the component parts and the technology used in its production. RE creates the knowledge of what a device is made from and how it is made. RE can cover objects from as large as aircraft down to the smallest microchip.

A famous example of reverse-engineering involves San Jose-based Phoenix Technologies Ltd., which in the mid-1980s wanted to produce a BIOS for PCs that would be compatible with the IBM PC's proprietary BIOS. (A BIOS is a program stored in firmware that's run when a PC starts up). To protect against charges of having simply (and illegally) copied IBM's BIOS, Phoenix reverse-engineered it using what's called a "clean room," or "Chinese wall," approach. First, a team of engineers studied the IBM BIOS—about 8KB of code—and described everything it did as completely as possible without using or referencing any actual code.
Then Phoenix brought in a second team of programmers who had no prior knowledge of the IBM BIOS and had never seen its code. Working only from the first team's functional specifications, the second team wrote a new BIOS that operated as specified.

The resulting Phoenix BIOS was different from the IBM code, but for all intents and purposes, it operated identically. Using the clean-room approach, even if some sections of code did happen to be identical, there was no copyright infringement. Phoenix began selling its BIOS to companies that then used it to create the first IBM-compatible PCs.

**Ethical Angle**

Reverse-engineering can also expose security flaws and questionable privacy practices. For instance, reverse-engineering of Dallas based Digital Convergence Corp.'s CueCat scanning device revealed that each reader has a unique serial number that allows the device's maker to marry scanned codes with user registration data and thus track each user's habits in great detail.

There are two basic legalities associated with reverse engineering. Copyright Protection, which protects only the look and shape of a product. Patent Protection protects the idea behind the functioning of a new product.

Although reverse engineering is legal as long as another person or group does not explicitly copy another product, the ethical debate is sure to endure.
Skoda has reached a vehicle production milestone after its 14-millionth car rolled off the assembly line. The special edition 'Laurin & Klement' Superb model was produced at the company's Kvasiny facility in the Czech Republic and will be delivered to a German customer.

They are expanding at a high speed. Almost two thirds of the 14 million cars built by the company were produced and sold in the past 20 years, four million of which were produced in the past five years alone. Last year, Skoda sold 879,000 units, a record in the history of the company and the automaker wants to increase its global sales to at least 1.5 million units per year by 2018. Skoda's affiliation with the Volkswagen Group in 1991 is seen as a landmark development in the company's history. The company is increasing capacity at both its Czech facilities as well as abroad, and is focusing attention on emerging markets such as China, Russia and India.

The report is based on interviews from more than three dozen current and former Apple employees and contractors, including Foxconn. Work force is cheaper than those in the US, other factors including flexibility, assembly speed and the surrounding local supply chain are extremely advantageous.

One excerpt details how Steve Jobs was frustrated with the amount of scratches on his prototype iPhone. To a handful of fellow employees Jobs said "I want a glass screen, and I want it perfect in six weeks," a demand which could be met in China, but not in the US. With a redesigned component, a foreman at a Chinese factory woke up 8,000 workers, gave them a biscuit and a cup of tea and within half an hour, a 12-hour shift to fit new glass screens had begun. Within 96 hours, the facility was producing more than 10,000 iPhones. "The speed and flexibility is breath-taking," a former executive said. "There's no American plant that can match that."
Honda to Launch its First Diesel Car in India – Brio Diesel

India is a country with huge demand for diesel cars owing to the ever increasing petrol prices. Keeping this in mind, Japanese car major Honda Motor is testing its newly developed diesel technology, common rail i-DTEC version of the 2.2 litre diesel engine. Honda is planning to launch its first diesel car, the diesel version of Brio in a 1.2-litre version in India. Brio earlier was launched on September 2011 at a starting price of Rs.3.95 lakhs.

The Diesel version of Brio is expected to launch at a price of Rs.5.05 lakhs. Honda Motors is expecting that this change into diesel will boost up their sales. Honda had developed a 2.2 litre i-CTDi four cylinder diesel engine for Honda Accord in European and US markets in 2003. And then in 2008, the i-DTEC version of the 2.2 litre diesel engine was introduced to meet Euro-V emissions norms.

Sony Pioneer Improved Manufacturing Process

The Japanese technology giant has been focused of late on developing a superior assembly technique for their image sensor production. CMOS image sensors are used in portable devices ranging from smartphones to medical endoscopes, powering the camera and managing the subsequent data. Traditionally the sensors have been manufactured by placing them alongside the necessary processing logic on the same chip, backed by a supporting substrate. The new method layers the image sensor on top of the processing logic using separate chips, therefore eliminating the need for the substrate. By reducing the overall surface of the area, more space can be available for the processing, as well as allowing the two chips to be manufactured separately.

The improved logic processing allows superior picture clarity due to an increased pixel rate, better images from low-light conditions, higher image speeds, improved dynamic range of video recordings, as well as lower power consumption overall. Sony can take advantage of the reduced manufacturing costs and production capacity can also be raised with more chips able to be made from the same volume of raw materials.
Intel Enters Smartphone Market with Motorola and Lenovo

The world’s largest chip manufacturer Intel will enter the smartphone market after it announced strategic relationships with Motorola Mobility and Lenovo. Intel believes its new Atom processor Z2460 platform, with optimised performance and competitive energy efficiency designed specifically for mobile devices, will feature in several smartphones during 2012.

The first handset to launch will be the Lenovo K800, showcased at the Consumer Electronics Show (CES) 2012 in Las Vegas. The smartphone will be released in China in the second quarter of this year. Motorola’s first Intel offering is expected to launch after summer in Europe and America once it has gained regulatory approval.

Economic Crisis Still Controls Automotive Companies

Numerous companies within the automotive industry have scaled down operations since 2008, resulting in fewer resources and an inability to meet unexpected upswings in demand. This was the case in 2010 when orders within the market suddenly picked up. A significant number of businesses lacked the appropriate planning tools and were again caught by surprise. This incurred costs for companies which had to rely on costly air freight to meet demand. The automotive industry must look to improve its reaction time to unforeseen events, and develop more accurate requirement plans which conform to lean principles, as well as buffering the supply chain against risks and potential emergency situations. Inventory planning should also be optimised and volatility risk in supply, as well as demand, variation must be considered as important factors when determining lean levels.

VW Aims to Make Production 25% More Eco-friendly

VW’s New Year’s resolution is to become more environmentally friendly, aiming to make car production 25% more green and sustainable by 2018. VW has already made a commitment to low-emission, fuel efficient vehicles with its Think Blue range of high performance TDI clean diesel fuelled cars. However the company intends to extend this way of thinking to automobile production. Volkswagen wants to significantly reduce carbon dioxide emissions, waste volumes, energy consumption in megawatt-hours per vehicle and overall water use based on 2010 annual values. "With its "Think Blue. Factory." Initiative, the Volkswagen brand is pursuing a clear strategy which pools all environmental activities at our plants throughout the world. Our ambitious targets for sustainable vehicle production have now been defined in a way which is clear and comprehensible for our customers." Recently VW’s Chattanooga plant in Tennessee became the first car factory in the world to receive platinum LEED (Leadership in Energy and Environmental Design) certification based on strict sustainable and environmentally compatible production standards.
GM Unveils Interactive Touchscreen Car Window

General Motors and students at Israel's Bezalel Academy of Art and Design have unveiled 'Windows of Opportunity', a new form of interactive in-car entertainment. The resulting concept makes use of a typical car window, however instead of just acting as a viewing point to the outside world, the glass is actually an interactive touchscreen featuring various apps.

"Traditionally, the use of interactive displays in cars has been limited to the driver and front passenger, but we see an opportunity to provide a technology interface designed specifically for rear seat passengers. "Advanced windows that are capable of responding to vehicle speed and location could augment real-world views with interactive enhancements to provide entertainment and educational value."
A seminar was delivered by Dr. Antony giving insights about Green Army, an environment and wildlife concern running in our University on Friday, 24th February, 2012. The various activities and measures undertaken by the community to provide the public with awareness and keep the eco system balanced and provide a clean and green nature were explained. Some of the important initiatives taken by Green Army include Awareness about the various animals and birds in our country, rain water harvesting techniques, water shed management, trekking camps and biological surveys, purification of water, reducing pollution, proper waste disposal, recycling of paper and many more.

Under this initiative students are taken to biological and national parks and information about the various plants and wildlife is gathered. Forest surveys are also done wherein the team has to stay in the national park for three days and conduct surveys with the help of the forest department. Measures for rainwater harvesting through the collection of water from rooftops, judicious use of water etc. are also performed. The houses of S.G Palya, Adugodi, Koramangala were visited to give awareness for such programs. Watershed management aimed at the sustainable distribution of its resources and the process of creating and implementing plans, programs, and projects to sustain and enhance watershed functions that affect the plant, animal, and human communities were also done. Features like water supply, water quality, drainage are a part of the watershed management. Students also went for trekking on hills like Shivaganga and used to camp for two days. This enhanced team building, communication, physical exercise. Measures for purification of water and removal of lead content from soft drinks, drinking water, fast foods, etc. were done with the help of Bangalore Development Authority (BDA) and Bruhat Bangalore Mahanagar Palike(BBMP). Activities for reducing air, water pollution were conducted through promotions, campaigns, etc. Proper waste disposal, cleaning of streets, usage of renewable sources of energy are some of the other programmes of Green Army. The biological names given to plants in our campus and the maintenance of gardens, bird’s park is all done by Green Army.

Green Army is an emerging conservative community aimed at making the public aware of their responsibilities and the beauty of nature. Thus, it aims to make every individual care for the environment and make the society a better place to live in.

If we take care of nature, nature will take care of us!!!!!!
Mr. S Murugan is an industry veteran with over 35 years of experience. He has worked in organizations like TVS, Bharat Forge and Saint Gobain. He has also been jury member in REFI and EIIE. He has worked as 5S assessor for different companies. He currently runs a consultancy for business practice supplmentaries in companies. He is also an esteemed guest lecturer in many colleges.

The 5S quality improvement program is a Japanese technique to upgrade the work environment. Initially perceived as a simple house-cleaning activity, the essence of 5S is to improve the work ethics of the employee. It is hoped that improved work ethics will translate into a general improvement at the work place.

By the adaptation of this technique we can not only save the space availability and reduce retrieval time of the inventory but also improve the quality and enhance the productivity their by providing a safe and healthy environment for the employees to work in the organization.

A model company called Sri Kannapiran Mills Limited, A flagship group Company of KG Group (Trigger) Coimbatore was the place where 5s technique was implemented successfully thus helping the organization to scale new horizons in terms of productivity & profits.

It was a good learning experience and gave us an overview of what is to be expected in the actual implementation of 5S in an organization.
A s part of Corporate Interface / Club activities (LOS) we had a ses-

sion on "Trends in e-Business" by Mr. Murali Kanaparthy,

Global Delivery Head, CGI, Bangalore on March 2, 2012.

The interface started with the introduction to e-business. It is the
cconduct of business on the Internet, not only buying and selling but also ser-
vicing customers and collaborating with business partners.

The various components of e-business are:

- Internet
- Environment
- Performance

Business model is a set of planned activities designed to result in a profit in a market place.

E-Commerce business model is a business model that aims to use and leverage the unique qualities of the internet
and World Wide Web.

The E-Commerce revenue model includes:

- Advertising model
- Subscription model
- Transaction fee model
- Sales model
- Affiliation model

Another important topic discussed was the E-Tailing in Indian market. These are E-Commerce sites including auc-
tion sites that sell groceries, apparels, CDs, books, electronic items, gifting items, etc. but exclude travel; digital
downloads and online classified sites. Examples are indiatimes.com, fabmart.com, redifffishing.com, etc.

The importance of E-commerce in E-business is:

- E-commerce helps in better organization of finances
- Improves the efficiency of transactions
- Improves the efficiency of customer based trade transactions
- Simplifies the functions of e-stores

He gave us an example of redbus.in which was started as a zero cost infrastructure and went on to be included in
the list of top 50 companies in less than 5 years.

Next, we discussed a case study on Maruti Udyog Ltd.

The challenge of the case was to track the business movement of sales and finance at the distribution and airlines
levels and ensure that business critical data were readily available across the network.

The solution provided was an application, Maruti Automobile Finance System, which interacts with dealers at one
end and Maruti Alliance Partner (Citicorp Maruti, Maruti Countrywide, ICICI bank, HDFC bank, Kotak Mahin-
dra, Sundaram Finance, Bank of Punjab and IndusInd bank Ltd.) at the other end.

Overall, it was a knowledge gaining session. E-business will become a critical competitive strategy that will revo-
lutionize the global economy.
About the Company

On 26th May 2010, one of India’s most trusted names Mahindra & Mahindra Ltd. strengthened its position in the Electric Vehicles domain with the acquisition of a majority stake in REVA Electric Car Co Ltd. Bangalore. REVA Electric Car Co Ltd. has been renamed Mahindra REVA Electric Vehicle Co Ltd.

Under the new agreement, M&M owns 55.2% equity in Mahindra REVA by a combination of equity purchase from the promoters and a fresh equity infusion of over Rs 45 crores (approx US $10 million) into the company. The buyout makes the Mahindra group a strong global player in the electric vehicle space.

About the Car

Reva, India’s first electric car is a pioneer of technological innovation by Bangalore based Reva Electric Car Company Private Ltd (RECC). This eco-friendly car launched in 2001, has been successively rated high on its fuel economy and low ownership costs.

Reva’s unique small size and fully automatic – no gear, no clutch technology makes it easy to drive in cities branded for its heavy traffic. The biggest advantage of Reva lies in its fuel economy at Rs 0.40 paisa per km. Reva can...
be easily charged with its onboard portable charger at home or at work. Rest assured, you can drive to work in case of a fuel strike too. Reva claims to give 80km/hr plus speed per electrical charge. The car is 80% charged in 2.5 hours and 100% charged in 7 hours. A fully charged Reva could approximately drive a range of 48 miles. Its fuel gauge along with a low battery warning light makes it easy for the driver to estimate the potential driving range. Reva ensures passenger safety with high impact resistance exteriors and a specially designed large front crush zone.

**The Assembly Process**

- The assembly Process consists of 15 steps through which the different parts are assembled.
- Each step caters to a different component of the car.
- After every step there is detailed inspection by the technicians to maintain the quality of the process.
- Each vehicle has its own log book from the 1st step to the last which maintains a record of its quality.
- After completion of the assembly, diagnostic test is conducted to check the synchronisation of the entire vehicle.
- After the diagnostic process, it is taken for a test run. It is tested at different speeds and conditions.
- In case of any defect, it is brought back to the assembly line for rectification.
- This concludes the entire process

[Image of Mahindra Reva]

**My Experience**

- It was a good learning experience and gave me an opportunity to find out how the entire process works.
- The effective management of the employees was an eye opener.
- The strict adherence to quality proved their concern for their customers and how vital a role it plays in management.
- Overall it was a great learning experience and hope for more such opportunities in the future
National Conference on “Operational Excellence through Lean and Green”

On 9th March, 2012 Christ University Institute of Management in association with department of Lean Operations and Systems organised a National Conference on “Operational Excellence through Lean and Green”. The occasion was graced by many dignitaries, corporate participants, student participants and our dear Christites.

The conference began with HOD, Prof G. Ramachandran, explaining how Lean is no longer a concept which is applied to the industry, but today it has become a part and parcel of our life. Today, every individual strives towards lean in his day to day activities to get an edge over the rest. Next Prof. Dakshina Murthy briefed the audience about the conference and what is to be expected out of it. He asked the audience to make use of the opportunity to increase the scope of their knowledge and understanding of the subject.

The Chief Guest for the day was Mr. Parasuraman T R, an industry veteran with over 25 years of experience in production and manufacturing. He is currently Senior Vice President at Toyota Kirloskar Auto Parts Pvt Limited. Mr. Parasuraman spoke in detail about the lean concept. According to him, all activities in the world can be divided into two classes - normal and abnormal. In order to apply lean, we need to first differentiate the normal from the abnormal. Once we do that, we will be able to apply lean and get the results. All of us know about the concept of 5S, but Mr. Parasuraman gave a new concept of 4S to be applied in our daily life before we embark on our journey of Lean - Shower every day, Wear a clean Shirt, wear clean Socks & always have a Smile on your face.
Key note addressee was Mr. Shivaramakrishnan, engineering and MBA graduate with over 29 years of experience in manufacturing industry with Ashok Leyland & Brakes India Ltd. Trained by Toyota, he has served in Production, Production Engineering, Projects and Operations Management domain. He spoke that the Green in “Lean and Green” should stand for the colour of money which is our profit, ROI and our cash flows. He said that, for long term sustainability one has to adopt lean techniques and money can only be earned through lean in the future. In today’s Buyer is King Market, to differentiate your product and also offer cheaper prices is a herculean task and will not be possible unless internal costs are cut. This is possible only through Lean. He concluded by saying that anyone can have access to technology but methodology has to be unique in order to compete in the market.

Around Ten Papers on the application of Lean in various industries were presented including IT, Banking, Sugarcane, Realty, etc. The event spread over two sessions- morning and afternoon. Papers were also presented through Skype and Audio Conference truly signifying the need of technology in today’s world.
Students of Lean operations and systems management, Christ University Institute of Management had the privilege of visiting Bhadravati Steel plant which is one of the well-known steel plants in south India. The trip was organised on 11th February by Prof. Diwakar under the guidance of Prof. Ramachandran with an objective of providing an insight on the different process involved in steel making. The students along with the faculty members reached the site at 1PM afternoon after travelling for 8hrs from Bangalore.

A senior person from Bhadravati steel plant has guided the students throughout the plant explaining about different aspects involved in the steel making. This steel plant was established in 1918 which was initially named as Mysore Iron & Steel works (MISW) which got taken over by SAIL in 1989 and got merged with SAIL in 1998. VISL is known for its different quality of Alloy and special steels use for making steel/ball bearings and free cutting steel. The major customers include Defence, NPCL, and Indian Railways etc. The capacity of the Blast furnace is 800 tonnes and output per day is 750 tonnes.

Students were exposed to different depts. Like Blast furnace (BF), Steel melt Shop (SMS) and rolling mills. The functioning of the Blast furnace is explained clearly by one of the employee. He explained about the raw material feeding, the combustion process and also tapping process of the blast furnace. Students were also explained about the automation part of the blast furnace using the control panel near the blast furnace. Students observed the SMS process and also the stacking of the billets which are processed further for the required final products.

On a whole it was a great experience to the students of LOS stream by visiting Bhadravati steel plant. We sincerely thank Prof. G. Ramachandran and Prof. Diwakar for arranging such a wonderful visit during the final days of college of operations students. We also thank our director Father Thomas TV for providing the transportation facilities to the students.
Adios Seniors

Thank you for guiding us. You have played a mentor, a teacher and moreover a friend. You being our side, the first year of our endeavor was a joyride. We promise to provide same warmth to our subsequent batch and wish you all the best for your future venture. Best of Luck!
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<thead>
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<th>Question</th>
<th>Answer Options</th>
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<tr>
<td>1. Scorpion, Krait, Cortex are all names of which electronic component?</td>
<td>A. Wireless Chipsets  B. GPU Processors  C. Voice Encoders  D. CPU Processors</td>
</tr>
<tr>
<td>2. Which company’s tablet PC is known as the “IPAD Killer”?</td>
<td>A. Acer  B. Dell  C. HP  D. Norton</td>
</tr>
<tr>
<td>3. Which was the first prototype used by Lamborghini for the purpose of Motor Sporting?</td>
<td>A. Miura P-400  B. Gallardo  C. Diablo  D. Aventador</td>
</tr>
<tr>
<td>4. Until 2010 which company owned the manufacturing operations of the Volvo Cars?</td>
<td>A. General Motors  B. Ford  C. Mitsubishi  D. Volkswagen</td>
</tr>
<tr>
<td>5. Which company has Royal Enfield as a fully owned subsidiary?</td>
<td>A. Tata Motors  B. Bajaj Auto  C. Eicher Motors Limited  D. Escort Group</td>
</tr>
<tr>
<td>6. Which company was responsible for the Ishikawa diagram to gain popularity?</td>
<td>A. Motorolla  B. Mazda Motors  C. General Electric  D. Ford Motors</td>
</tr>
<tr>
<td>7. Who is regarded as the creator of commercial cryptographic devices (ENIGMA)?</td>
<td>A. Arthur Scheribus  B. Adolf Hitler  C. Leonardo da Vinci  D. Hugo Alexander Koch</td>
</tr>
<tr>
<td>8. In German, the word BENZ is used to represent which of the following?</td>
<td>A. Measure of velocity (Ms$^{-1}$)  B. A Family surname  C. An Automobile Co.  D. Measure of Gravity</td>
</tr>
<tr>
<td>9. Who is the current CEO &amp; President of IBM Co?</td>
<td>A. Samuel Palmisano  B. Ginni Rometty  C. Steve Balmer  D. Carol Bartz</td>
</tr>
<tr>
<td>10. What is the next version of the following products?</td>
<td>A. Play Station  B. PSP  C. X-Box  D. Game Cube</td>
</tr>
</tbody>
</table>
Across

2. A statistical tool used that is designed to analyze and represent the tasks involved in completing a given project.
4. A term when refers to gradual incremental expansion of a projects' deliverable due to the introduction of additional requirements without an adjustment of the project’s resources, budget and schedule.
5. The process of identifying potential risks, quantifying the probability of occurrence and assessing their likely impact upon the project.
6. Changes made to bring expected future performance of the project in line with the plan.
8. A technique used to predict project duration and, therefore, is useful for both project scheduling and resource planning.
9. To reduce the probability and/or impact of a risk to below an acceptable threshold.
10. The structural design of general process systems and applies to fields such as computers (software, hardware, networks, etc.), business processes (enterprise architecture, policy and procedures, logistics, project management, etc.), and any other process system of varying degrees of complexity.

Down

1. A graphical representation of a chronological sequence of events, also referred to as a chronology.
3. Refers to the relationship between actual output produced and potential output that could be produced with installed equipment, if capacity was fully used.
7. The process of recording, managing and reporting hours worked by an employee on a job or project.
Solution to Cross Word:

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