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IMS  
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# **1. Identify and anticipate the first, second and third order effects that have occurred and may occur by introducing e-gov portal in our university of Hyderabad.**

## **First order effect**

It is initial target of IT implementation in the modern IT organization to enhance the performance, efficiency and accuracy in work of an organization. As a result, first order effect speed of the work increases, volume of the work increases, accuracy of the work increases.

## **Key points**

- Increased Speed/efficiency/Volume/accuracy
- Initial targets of IT implementation.

## **Second Order effect**

As a result of first order effect work is done very quickly we need to reorder certain internal function of the organization, we need to drop certain department which no longer needed and use the worker of that department to some other department and retrained the worker

according to new environment. We need to reengineer the old processes of the organization.

## **Key points**

- Reorder and restaff internal functions, reengineer old processes
- Restructuring of Org + Retraining of Workers
- Drop the department which no longer needed.

## **Third order effect**

As a result of restructuring the organization in second order effect may be entire industries have to be restructured. It doesn't happen in overnight, over day it take many years to see the changes. An organization to continuous improvement requires third-order change, which is a process, not merely a state change.

## **Key Points**

- Restructuring of Industry
- Govt. departments, Schools, colleges...

## **Case Study**

***University of Hyderabad e-governance***

### **First order effect**

- The introducing of e-gov portal in our university is simplifies the students and lectures working process. Every information of the person related to a department is shows in one portal.
- Process like Semester Registration, Exam Registration, Attendance, Hostel, Complaint section, Results, etc. are shows in one portal.
- It saves the time of the people. It is very easier to search the records.
- It increases the efficiency and accuracy of the organization and reduce the manual paper work.
- It also done volume of work within hour which can take several days.

### **Second Order effect**

- We need to retrain the employee to use and maintain the portal.
- Reconstruct the organization i.e issue the electronic id card, e-passbook etc.

### **Third order effect**

- By the analysis of all department's activity administration can take decisions about to fulfil, the requirement of a department to improve the department activity. By this university can hold or improve the rank.

**2. Elective registration is a popular event that happens in School of CIS every semester. What type of data is collected during the process and what information can be retrieved from the data. What changes do you suggest for our school based on the data?**

**Solution:** following are the types of data which is collected during the semester registration.

- Electives name.
- Electives credit.
- Students pointer up to current semester.
- Total number of seats in the elective.
- Others option.

**Information can be retrieved from the data**

- Most likely elective by the students.
- Based on the data department can take decision to increase the number off seats in particular electives.
- Best on the data department can remove least likely electives.
- The electives which got student in previous semester should not get in the current semester.

## **Suggestion for School**

- Increase the number of electives.
- Introduce more elective which is provide by the companies. For example infor is providing electives in our college.

### **3. Assume Telangana Government is planning to promote electric vehicles. What strategies can it apply to compete in the market and to be in the competitive position with the existing petrol and diesel vehicles?**

Breaking away the old norms and establishing a new consumer behavior is always a challenge. It is common to find users anxious about the speed and range of electric vehicles. Thus, a lot of sensitization and education is needed, in order to bust several myths and promote Electric vehicle within the market.

strategies can be applying to compete in the market and to be in the competitive position with the existing petrol and diesel vehicles. These include:

- Advertisement
- Making the law

- Charging infrastructure
- Battery performance
- Supply-demand gap
- Creating the closed-loop

### ***Advertisement***

Government need advertise the electric vehicle to reach out to the people. Government can use social media, Newspaper, Television to advertise the product (electrical vehicle). Make the public to understand of the benefit of the electric vehicle as compared to diesel/petrol vehicle.

### ***Making the Rule/Law***

- ***Subsidy:*** Government should give the subsidy to those people who want to by electric car.
- ***Provide loan:*** Government should provide the loan easily to those who want to buy electric vehicle.
- ***Take tax:*** For promoting the electric vehicle government should take tax from the diesel and petrol vehicle.

### ***Building charging infrastructure***

The big challenge is charging infrastructure which will need to be combined with existing refueling stations and at alternative locations closer to homes. improving battery swapping stations will eliminate wait time for charging, make better use of land, reduce the size of batteries in vehicles and will give an increased available range.

### ***Increasing battery performance***

Given the fact that electric charging infrastructure will take considerable time to be replicated and the ubiquity of fueling infrastructure in India, it is essential that batteries become far more durable to better compete with the internal combustion engine vehicles. At present, the Hyundai Kona electric has the highest range of 452 km on a single charge among electric cars available in India, which could change in the years to come.

### ***Bridging the supply-demand gap***

Another major challenge preventing larger-scale adoption of EVs today is the fact that the range is quite limited, thereby constraining the use-cases for electric vehicles. Again, this is largely solved through scale since it becomes a game of more supply that accommodates for larger, more cost-effective batteries that provide a better overall range. Once this performance reality sets in, there will be no turning back from electric vehicles.

### ***Creating the closed-loop mobility ecosystem***

Along with charging infrastructure, the establishment of a robust supply chain will also be needed for automakers to make the shift feasible at their end. Further, recycling stations for batteries will need to recover the metals from batteries used in electrification to create the closed-loop required for the shift to electric cars to be an environmentally-sound decision, even after electric vehicles have aged.



#### 4. Explain any four logics used for ranking of web pages. Which among them do you think is efficient?

**Content of the Page:** Content is one of the most important Google ranking factors. Content means a web page should not only contain the keywords but its content should also be relevant like it should contain enough words to describe a particular thing and plus if it contains some images also then it would be more beneficial. In fact, the Search Metrics study cited above found that just 53% of the top 20 queries have keywords in their title tag, and less than 40% of landing pages have keywords in their H1.

The page content should be optimized or comprehensive and to optimize our content we can use content auditing software:

- Find and fix thin content.

- Explore fewer topics in greater detail on each page.

- Improve your Topical Authority in your niche.

**Title Tags:** It is an HTML tag which is used to define the text or the title of the search listings which is on the top of Web browser. The title should be accurate and should give a brief of the page's content. The tag is very essential to each and every

website and its web pages, and each webpage should have a different Title tag

**Meta Description Tag:** The Meta description tag is intended to be a brief description of your site or page's content which can be used by the search engines. The Meta description tag is like: `<meta name="description" content="Brief description of the contents of your page."/>`

**Backlinks:** The key to a strong link building campaign is to create content people crave, and then to promote that content relentlessly. When other industry authorities read and link to your content, Google will read your backlink's matching anchor text and consider your content more relevant.

Among all these algorithms I think the most efficient logic for page ranking is the Content of page and how it has organized. As we know Google's search algorithm relies on keywords. These are the words and phrases searchers use when they're looking for information. They're also the words and phrases that describe the topics your site is about. Ideally, those will match up. That's why it's so important to use keywords in your content. If the content of the page consists of proper keyword and meta tags. It will be very helpful for page ranking as the key word is used for search indexing and the Google crawler uses meta tag, heading tag and strong tags to make indexing.

**5. Differentiate between E-commerce and Mobile Commerce. Which among them do you think will work better in rural areas?**

**E-commerce** : eCommerce, or Electronic Commerce, refers to the activities of buying and selling products and services with the use of electronic systems such as the internet.

**M-Commerce** : mCommerce, or Mobile Commerce, refers to the process of buying and selling products and services with the use of internet/cellular data via wireless handheld devices.

***Difference***

<b>E-Commerce</b>	<b>M-Commerce</b>
<ul style="list-style-type: none"><li>• Computers, laptops</li><li>• High: Users can make transactions everywhere as long as they are connected to the Internet.</li><li>• Rely on the web security combined with built-in mobile security features</li></ul>	<ul style="list-style-type: none"><li>• Handheld devices such as smartphones and tablets</li><li>• Low: Users can make transactions on their computers and laptops with limited mobility</li><li>• Rely mainly on the web security</li></ul>

<ul style="list-style-type: none"> <li>• Reachability With push notifications in place, mobile commerce can reach a wider range of users even when they're on the go.</li> </ul>	<ul style="list-style-type: none"> <li>• Reachability Limited</li> </ul>
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## Conclusion

M-Commerce will work better in rural area because there are many people who are not familiar with electronic system there are also problem of internet connectivity with electronic system also have problem with availability of electronic system because every people can easily buy it. Using M-commerce people can easily access services if they have internet/cellular issue then he can easily portability from one place to another place and can access service easily.

6. **What type of IT management (Centralized Vs Decentralized) is implemented in e-gov portal of university of Hyderabad. Would it have been good had it been implemented otherwise? Share your views.**

E-gov portal is a centralized IT management because all the students and staff(clients) are connected to a central server which is kept in University of Hyderabad, which will process all the request of a client.

### Problems in current e-gov portal

- Sometimes we can not open directly, we have to use VPN because of public and private IP address.
- There is lag between the department and e-gov portal, example result are announced and send it to the e gov department but they are not updating immediately as they have to manage all university data.
- The interface is sometimes not user friendly, when specifically talking about semester registration and fees submission because we are not getting any receipt after submission of fees.
- In the result section the minor marks are shown, when we click to the previous semester tab.
- It must be very easy to use which I found is not in case of e-gov portal, for us a CS student can understand, but university as a whole in which there are lot of other student also are facing problem.
- Teachers should give the flexibility to upload the major marks by it self so that the process should be fast, as it first goes to e gov department then they upload, I may be wrong if it corrected now.

### Conclusion

Both the centralized and decentralized system have its own advantages and disadvantages.

#### Problem with Decentralized System:

- Not availability of IOS app or Android App for E-governance Portal.
- Public and Private IP address Problem.

In this case centralized system will perform better as compared decentralized.

#### Problem with Centralized System:

There are also some of the problem which I think Decentralized System can perform better.

- One such problem is Single Point of Failure.

As we had seen during 14th Oct 2020 to 20th Oct 2020 the cyclonic circulation caused flooding in Hyderabad which results the breakdown of our University Server. In this kind of situation, a Decentralized System can work better.

Since this kind of situation is very rare and also number of users for University is not very big. So, it is good to have a centralized e-gov portal for our university.

- 7. Assume you are the research scholar of our University. And University has installed CCTV cameras in research labs to ensure students do not waste time and increase their productivity. This is in addition to the log record data that was already being maintained. What are your views on this idea? Do you agree or disagree? (Note: Please remember that University is more interested in Regularity, Discipline and Productive work of the student).**

### **Solution**

I am not agreed with the university decision to installed CCTV cameras in research lab.

As I am a research scholar, I don't want to be prefer work in the pressor of the CCTV camera. We should have freedom to work, and do the best.

Instead of installing the CCTV asked students send daily work details which they have done whole day. University can also appoint a person who supervised the work of the students.

