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Software and Information Systems Engineering (ISIL)

OUTSOURCING INFORMATION TECHNOLOGY

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Outline of presentation

- Introduction
- Definition
- History
- Reasons and factors
- Different types
- Advantages & Disadvantages
- Bad examples
- Final thoughts

- Outsourcing is the subcontracting of some or all of the IT functions by one firm to another firm. Outsourcing has become a competitive alternative to in-house procurement of the IT function because it is a means of increasing efficiency and cutting costs. Outsourcing is no longer just an afterthought for companies that want to cut costs and avoid the overhead of managing technology. Instead, IT has become an integral part of business strategy and increasingly defines how well companies compete in the global marketplace.

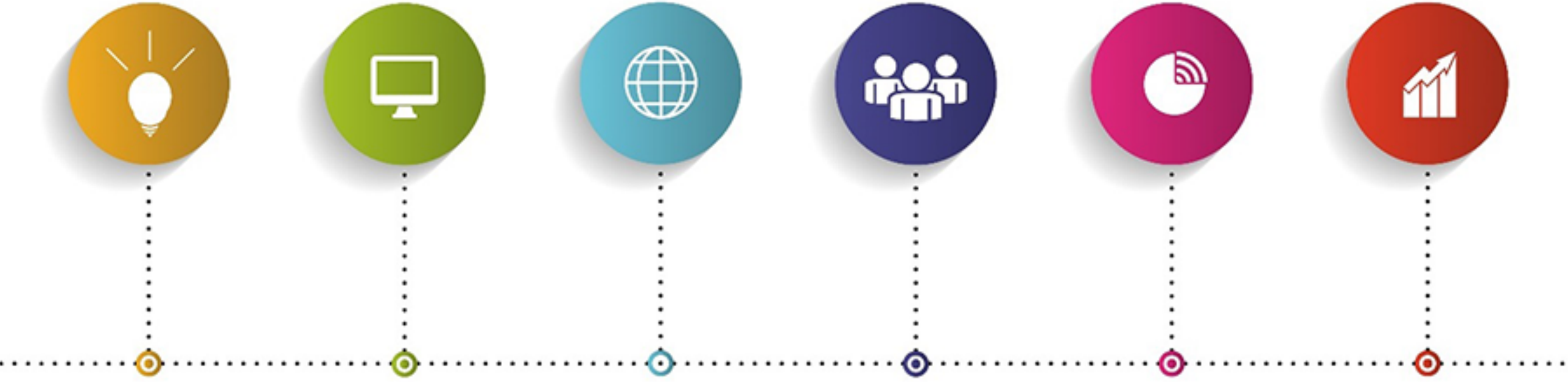
WHAT IS OUTSOURCING ?

AND WHAT IS OUTSOURCING INFORMATION TECHNOLOGY ?

Definition of Outsourcing IT

- Information Technology (IT) Outsourcing means that the physical and/or human resources related to one organisation's Information Technologies (ITs) are supplied and/or administered by an external specialised provider. This situation can be temporary or for an indefinite period and can affect all the IT of the client-firm or only a part of it. It can include data centers, wide area networks, applications development and maintenance functions, end user computing and business processing (Cardinali, 1998).

HISTORY OF I.S. OUTSOURCING.



1970's

This era saw the beginning of computer technologies, which presented a likely tool for outsourcing. The United States began to take advantage of this as computer companies outsourced business functions offshore for processing.

1980's

Widespread development of workstations, PCs and LANs occurred. Outsourcing began to enter the business world. Word processing, accounting services, payroll and billing started being outsourced all over the world.

1990's

The World Wide Web accelerated outsourcing. Companies began handling core business matters, while outsourcing all other operations. Advancing technologies saw the creation of self-service dashboards, which eliminated the occurrence of errors and discrepancies.

2000

The start of the 21st century saw a boom in technological developments which brought the history of outsourcing to new heights. The highest jobs in demand were for IT specialists, but only a few American candidates were considered highly qualified.

2010

IT outsorcing and custom software development services reached 5 billion dollars in the CEE region. Eastern European Countries now make up nearly half of "Gartner's Top 30 List"— best locations for offshore services.

2015

Outsourcing continues to grow leaps and bounds. Currently 43% of organizations in the United States outsource IT services to other countries. Approximately .48 cents of every budgeted dollar is now allocated to software development.

REASONS AND FACTORS.

1.Reducing Costs and/or Infusing Cash

- The most direct and immediate benefits associated with outsourcing are those associated with reducing expenses by obtaining external services at a cost less than a firm's internal costs to provide those services, and with obtaining cash through either the sale of assets or transfer of IT staff to an external vendor.

2.Improving service quality and Productivity

- Often, the quality and productivity of information technology or services improve after they have been outsourced. For example, the vendor may

  1. have access to more current technological environments
  2. have more qualified or more motivated personnel
  3. provide a greater breadth of services
  4. have better management systems with which to co-ordinate or control the provision of services

3.Gaining access to Leading-edge Technologies

- Developing close relationships with external vendors enables a firm not only to utilize the vendor's technologies but also to tap into the vendor's links it to other technology providers and users. Thus, the firm may be able to gain access to leading-edge technologies faster and less expensively than otherwise. "Numerous companies consider outsourcing partly for the access to greater IT expertise it would bring."

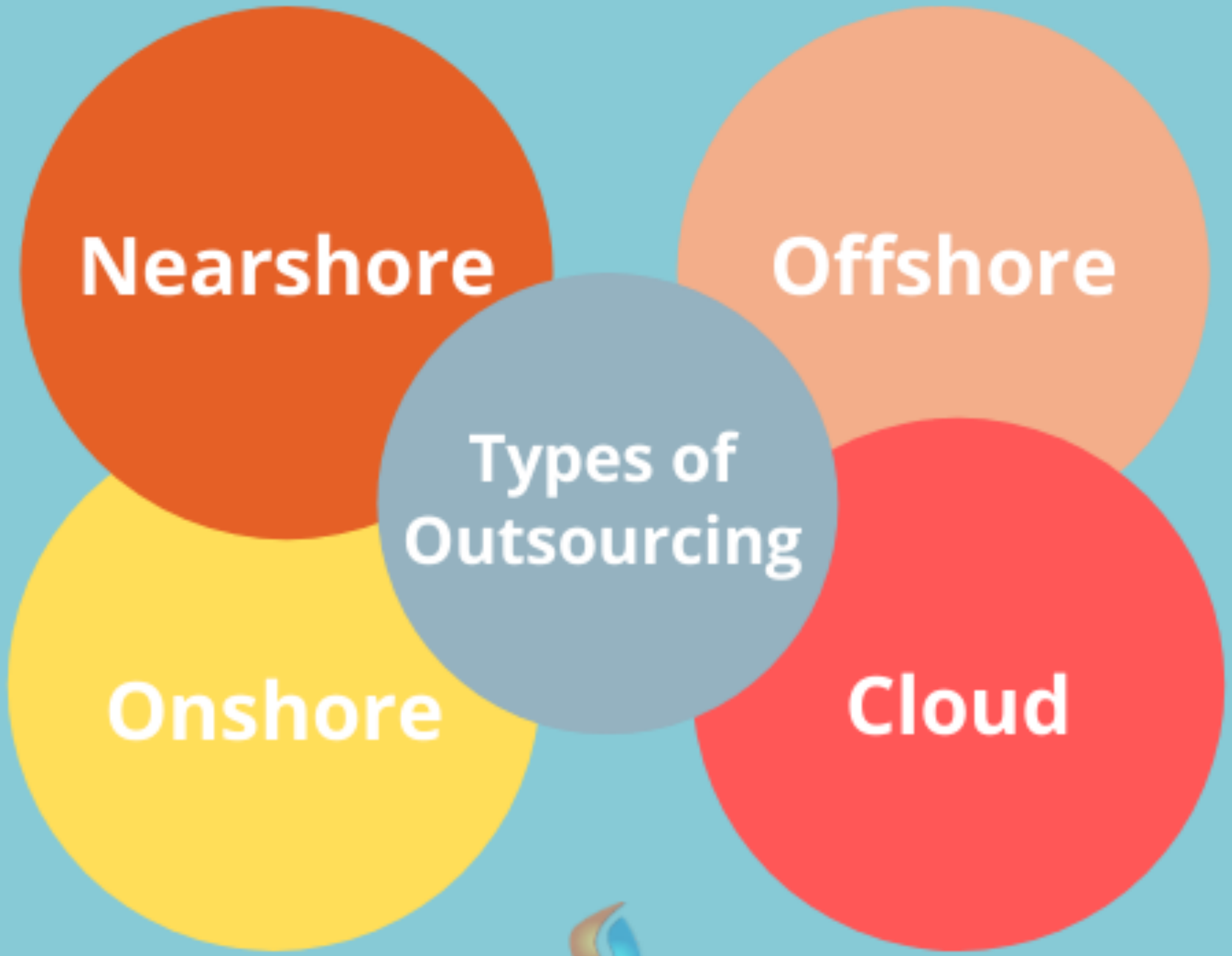
4.Implementing Change More Rapidly

- Quite often, it is more effective or much easier for an information services vendor to implement a radical (managerial, technical or organizational) change than it would be for an internal IT group. There are two reasons for this. First, the vendor might simply have more expertise and experience with a particular initiative and with managing change initiatives. Second, the vendor is under far less pressure to bend to the bureaucracy or politics of an organization.

5.Easing the Information Services Management Tasks of Senior Management

- By its nature, IT outsourcing makes the associated costs much more visible and provides the potential to manage theses services in a fashion similar to many other corporate functions. Such benefits are especially attractive to the senior executive who has become disenchanted with a CIO's inability to demonstrate the business value being obtained from the firm's investment in information technology.

TYPES OF I.S. OUTSOURCING.


Nearshore
Offshore
Types of Outsourcing
Onshore
Cloud

Geological Outsourcing

Cloud Outsourcing

Examples of Cloud I.T. outsourcing

- SOFTWARE-AS-A-SERVICE (SAAS).
  - Slack ,Microsoft Office 360, Zoom
- INFRASTRUCTURE-AS-A-SERVICE (IAAS).
  - DIGITALOCEAN, IBM
- PLATFORM-AS-A-SERVICE (PAAS).
  - AMAZON WEB SERVICES (AWS), Microsoft Azure

ADVANTAGES.

lower costs (due to economies of scale or lower labor rates)

Outsourcing vendors are specialists in the information systems services and technologies they provide. Through specialization and economies of scale, they can deliver the same service and value for less money than the cost of an internal organization.

Service Quality

Because outsourcing vendors will lose their clients if the service is unsatisfactory, companies often have more leverage over external vendors than over their own employees. The firm that out-sources may be able to obtain a higher level of service from vendors for the same or lower costs.

Increased focus on strategy/core competencies

An outsourcing contract with a fixed price for a specified level of service reduces uncertainty of costs.

Access to innovation, intellectual property

Sometimes acquiring certain technologies requires the company to outsource in order to meet expected results and keep providing its products and services.

Accelerated time to market

Because it is possible to outsource most of the work to external partners the company can spend less time to focus on its core products and markets.

Lower ongoing investment in internal infrastructure

There is no need to pay massive amount of important capital on creating new infrastructure, as renting it from outsourcing partners lowers the initial cost.

DISADVANTAGES.

Loss of Control

When a firm farms out the responsibility for developing and operating its information systems to another organization, it can lose control over its information systems function. Outsourcing places the vendor in an advantageous position where the client has to accept whatever the vendor does and whatever fees the vendor charges. If a vendor becomes the firm’s only alternative for running and developing its information systems, the client must accept whatever technologies the vendor provides. This dependency could eventually result in higher costs or loss of control over technological direction.

Vulnerability of Strategic Information

Trade secrets or proprietary information may leak out to competitors because a firm's information systems are being run or developed by outsiders. This could be especially harmful if a firm allows an outsourcer to develop or to operate applications that give it some type of competitive advantage.

Dependency

The firm becomes dependent on the viability of the vendor. A vendor with financial problems or deteriorating services may create severe problems for its clients.

Language and cultural barriers

Outsourcing to foreign partners can lead to complications of sharing information due to different languages or different cultures.

Time zone differences

Different time zones can lead to a lesser quality service or even to inability to provide reliable line of communication.

BAD EXAMPLES.

IBM Mega Disaster

In December 2007, Queensland awarded a contract to IBM to develop an application to administer payroll for Queensland's health department. IBM proposed to complete the project by mid 2008 for $6 million. Shortly after beginning the project, IBM realised that it faced numerous and unforeseen technical challenges and announced to Queensland that the project would cost $27 million. The project dragged on for several years and the payroll platform never functioned properly. In the interim, thousands of sta! failed to receive paychecks, while others were overpaid.

By the end of the project, costs had escalated to $1.2 billion, 16,000 per cent above projected cost. Queensland banned IBM from working on other government projects and sued IBM to recover its losses. Queensland had learned that a famous-name vendor might yield infamous results.

Both IBM and Queensland ultimately agreed that there was plenty of blame to go around. A report from the Queensland Health Payroll System Commission of Inquiry indicated that IBM employees had used unethical tactics to gain favourable consideration over other contenders, and that Queensland o"cials had neither communicated their full expectations to IBM, nor vetted contractor's properly.

Virgin Airlines Grounded by IT Provider Navitaire

In September 2010, Virgin's Internet booking, reservation, check-in and boarding system, and other mission-critical applications abruptly crashed - for the second time in three months. IT provider Navitaire quickly traced the cause of the latest failure to a failed disk drive. Under its contract with Virgin Air, Navitaire was obligated to resolve mission-critical system failures within a "short period of time." It took nearly 24 hours, during which time the FAA grounded all Virgin flights, leaving more than 50,000 passengers stranded and frustrated.

In hindsight, Navitaire's decision to attempt repairs on the bad unit, rather than switching in backup hardware, was not the wisest use of time and resources.

The Virgin/Navitaire crisis highlights one of the key risk factors when using a Software-as-a-Service (SaaS) vendor: being subject to issues occurring on the vendor's hardware at remote locations. With Cloud-based outsourcing, the reason for your downtime could lay halfway around the world.

Royal Bank of Scotland

In June 2012, a failed software update left millions of bank customers unable to access their bank accounts to withdraw funds or view their balances. The bank, itself, was unable to conduct transactions for either commercial or non- commercial customers. 30,000 social welfare recipients did not receive their payments, even though the funds were moved from government accounts. Also a!ected were customers of British bank NatWest and Ireland's Ulster Bank.

The failure of a computer that processes overnight transfers resulted in paralysis of critical banking systems. Customers' inability to either receive money or make payments had a ripple effect on local business, creating a backlog that took several days to clear up.

While RBC did not disclose details to the public concerning the IT vendor responsible for performing the software update that initiated the shutdown, it is clear that a backup plan for such contingencies was not su"cient, or did not exist.

FINAL THOUGHTS …

Final thoughts and Conclusion

- Outsourcing an IT function involves proceeding through a life cycle of activities, starting with determining whether outsourcing is warranted and culminating with engaging and monitoring outsourced services if appropriate. Information systems outsourcing decisions should start with analyzing the current situation thoroughly, by examining the problems that gave rise to considering outsourcing and evaluating all available internal and external alternatives.
- Outsourcing decisions have long-term impacts and must be based on a long-term IT strategy. This strategy should include analysis of the IT activities to be performed, evaluation of the internal IT services, the possibility for internal improvement and the evaluation of all expected effects of IT outsourcing. While outsourcing yields benefits, there are also costs and risks. Therefore, outsourcing decisions should be the outcome of a careful management decision-making process.

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THE END.

THANK YOU FOR YOUR TIME,

PLEASE ASK YOUR QUESTIONS, WE ARE HAPPY TO ANSWER THEM =)