

E-commerce essay



Is Electric Commerce which Is a wide range of business satellites through Internet or other computer networks. It Involves trading or selling of products and services from one entity to another. It follows the same basic principles as traditional commerce that is, buyers and sellers come together to swap commodities for money. This principle is used over networked computers rather than shopping stores, catalogs or telephone in conducting business. E-commerce allows people to exchange goods and services electronically without any barriers of time and distance.

It was first introduced in the sass via electronic data interchange (EDI) through value-added networks (VANS). In the mid-sass, e-commerce was transformed with the introduction of Amazon and eBay. Amazon started as a book shipping business, out of Jeff Bozos' garage, in 1995. EBay, which enabled consumers to sell things online, Introduced online auctions In 1995 and exploded with the 1997 Beanie Babies frenzy. The online business focuses on business process. Buyers can visit the web sites of multiple vendors 24 hours a day and able to compare prices and make purchases, without having to leave their homes or offices from around the lobe.

In some cases, consumers can immediately obtain a product or service, such as an electronic book, a music file, or computer software, by downloading it over the Internet. There are five different types of e-commerce. Firstly is business-to-business (BIB) e-commerce. It describes transactions occur between businesses. For example, transaction between manufacturer and wholesaler or wholesaler and retailer. The transaction used in the context of communication and collaboration. They use internet as a tools to connect

with each other to trade products and services without having face to face conversation.

Next is e-commerce. It involves the transaction between businesses to the end users. Buyers search through the Internet the desired products or services from the business and the company will serve them by deliver it. For example, a person buying clothes from retailer. Person will search the various types of clothes from the websites and compared the prices. Once he or she had made a purchase and the company delivers the items purchased, it will consider as business-to-consumer e-commerce. Third is the consumer-to-consumer e-commerce. It involves transaction between consumers through third party.

It is usually a promotional strategy for consumers to share products or services with others based on the value of the products or services. The third party will be charged a flat fee or commission from the consumer. For example, a person who wants to sell his or her house and hired a property agency to handle the sales of the house to others. The agency will take some percent of commission when the house successfully being sold. There is also peer-to-peer e-commerce. Peers (members) communicate directly with one another to exchange information, distribute tasks, or execute transactions.

Peers make a portion of their resources other network participants, without the need for central coordination by servers or stable house. Peers are both suppliers and consumers of resources. For example, Youth website is popular sources for file sharing of music, videos and etc. Lastly is the mobile commerce (M-commerce). It is a transaction through wireless technology by

using handheld devices such as cellular phone. Example of m-commerce is internet banking system. Both businesses and customers are able to gain advantages of using e-commerce. In businesses scope, they are able to cut cost in expanding their markets.

They do not have to pay or build infrastructure such as business store, land and etc. Besides that, e-commerce does not require a business to hire staffs in handling the business or distribute catalogs for marketing strategy which will cut the distribution cost. Businesses also are able to enter global market because the demands of the products or services are not restricted by geographical boundaries. Small and medium enterprise are also able to do so as setting up e-commerce do not require large amount of money because anyone can set up online business as long as there are skills and experience.

Internet technologies also permit sellers to track the preferences and interest of current customers is looking for. These information can be used to design and selling products or services that meet the customers' needs. On the other hand, in customers' place, e-commerce gives opportunity for them to look and make research for cheaper and quality which meet their criteria and preferences. Through the research, they are able to make quick comparison between different sellers. Shopping online is more convenient and time saving for customer since they do not have to go to the stores to buy the products or services they want.

However, e-commerce could lead to several disadvantages. One of them is security. When making online purchase, we have to provide our general information and also credit card or bank account information for payment.

This could lead to fraud and identity theft. Besides that, delays of goods also happened. This situation because when you purchased products online, the earliest time for the products to arrive is tomorrow instead of immediately. The seller will deal with shipping company whereby if the shipping company has any problem, the shipping of products will be delayed. This causes us to wait for longer of time.

It is also hard to determine the genuine of the online websites. It is because anyone with skills and knowledge can set up e-commerce website. The risk of the web is not genuine is higher. Dissatisfaction may occur because customers cannot experience the products before purchased them.

Therefore, the quality of the products only can be check only when already be purchased and arrived. Lastly, e-commerce may restrict certain items to be purchased online. For example, furniture cannot be purchased online because it incurred high cost to transport them and could make huge loss if it is damaged unless sellers are willing to bear them.

Some of the companies in Malaysia also apply e-commerce in their business. For example, website of Long. My and Madam. My whereby they are applying business- to-business, business-to-consumer and consumer-to-consumer by providing range of products including electronic devices, houses and etc. Azalea. My also apply business- to-consumer whereby it provides different types of clothes, shoes, and accessories for MATERIAL REQUIREMENT PLANNING Material Requirements Planning (MR.) is a computer-based that concerned both production planning and inventory control system.

It focuses on production of finished goods based on forecast requirements. It is a material control system that attempts to keep adequate inventory levels to assure that required materials are available when needed and production scheduling of equipment and manpower based on forecast orders. It incorporates changes to orders into its scheduling process to produce a dynamic production schedule. MR. embraces the concept of dependent demand: for example, if production of finished product A requires three units of product B, and production of product B in turn requires four units of product

C and six of product D, then a production level of a specific number of units of product A requires all the corresponding units of products B, C, and D to reach completion. The end product is called independent demand. A MR. system consists of the following inputs: the master production schedule, the product structure records (offset the supplier lead times) and the inventory status records. Master production schedule use to plans every aspect of the company, from staffing to production to inventory and more.

It gives production, planning, purchasing and top management the information they need to plan and control all aspects of the manufacturing process. It ties together all forecasting and business planning with detailed operations to give management an accurate view of the current orders and processes. Product structure records (Bill of material) contain the necessary information on every item in the warehouse and the assembly required to produce each end item. Part numbers, descriptions, quantity per assembly, lead times and quantity per end item must be included in each record.

Inventory status records contain the active status of all items in a company's inventory, including inventory currently in the warehouse and scheduled receipts. It is critical that these records be kept up to date and accurate with each inventory receipt and withdrawal. There are two outputs which are the "Recommended Production Schedule" which lays out a detailed schedule of the required minimum start and completion dates, with quantities, for each step of the routing and bill of material required to satisfy the demand from the Master Production Schedule. Output 2 is the "Recommended Purchasing Schedule".

This lays out both the dates that the purchased items should be received into the facility and the dates that the purchase orders (an order to a supplier to provide materials) occur to match the production schedules. MR.

OBJECTIVES The main objective of MR. is getting the right materials to the right place at the right time. Specific organizational objectives often associated with MR. design and implementation may be identified among three main dimensions namely inventory right due date and keep the due date valid) and capacity (plan for complete load, accurate load and adequate time to view future load).

ADVANTAGES OF MR. The advantages of MR. are helping production managers to minimize inventory levels and the associated carrying costs, track material requirements, determine the cost economical lot sizes for orders, compute quantities needed as safety stock, allocate production time among various products, plan for future capacity needs, better customer service, and better response to market demands. **DISADVANTAGES OF MR.** MR. relies upon accurate input information.

If a small business has not maintained good inventory records or has not updated its bills of materials with all relevant changes, it may encounter serious problems with the outputs of its MR. system. The problems could range from missing parts and excessive order quantities to schedule delays and missed delivery dates. Second, MR. is difficult system, time consuming, and costly to implement. Many businesses encounter resistance from employees when they try to implement MR..

The key to making MR. implementation work is to provide training and education for all affected employees. Third is lack of top management's commitment. MR. should be accepted by top management as a planning tool with specific reference to profit results. MANUFACTURING RESOURCE PLANNING (MR. II) IMPAIR is an evolution of MR. I. It is a computer based planning and scheduling system designed to improve management's control of manufacturing and its support unction's.

IMPAIR is an extension to MR. I that goes far beyond planning and acquiring the materials needed for production, but every other resource related to the successful operation of a manufacturing plant, including people and machinery. It is an Integration that links together all the high level planning of the company (Marketing Plan, Financial Plan, and Production Plan) with the lower level systems required to meet these plans (MR., AMPS, Shop Floor Control, Purchasing, Inventory, etc. This assures that all system elements are working toward the same goal of meeting customer demand. The decision rules are ways in which the MR. II system trades off planned production of one item for production of other items. The MR. II system must assure that the production facility is capable of accomplishing the AMPS or all these

plans can result in an inability to meet promised delivery dates. Ford Motors and Caterpillar depend on MR. II to run their manufacturing operations as well as coca cola company.

MR. II PROCESS The company's strategic plans for the future are translated into a AMPS. MR. schedules are constructed to support this AMPS. The next step is to perform Capacity Requirements Planning (CRAP). This tells us what equipment, personnel, and materials we need to meet the MR. schedules. If we do not have this capacity, then the AMPS and possibly the strategic plans must be revised. This process continues until our MR. schedules are consistent with the plant capacity.

These schedules are then released to the departments that are responsible for performing the production and/ accomplishment information to the MR./AMPS elements that allow the plans to be updated. This creates a truly closed loop manufacturing planning and execution system. **ADVANTAGES** MR. II helps to standardize business processes by offering automated methods for many areas of the business. Standardization leads to easily repeated processes and a platform for improving those processes.

A company that implements MR. II for the first time is usually having trouble controlling the increase in transactions in selling, manufacturing and purchasing associated with growth. MR. II enables employees in those business areas to do more and have increased visibility of information for their jobs. The improvement in the way work gets done allows the company to be more competitive. **DISADVANTAGES** MR. II implementation requires information to be accurate. If poor quantity information is used in either the

inventory area or the bill of material module, errors in automated planning processes will result.

The planning modules use averages for length of time to purchase or manufacture (lead times) and for quantities usually purchased on a purchase order or manufactured on a work order (lot sizes). If there is variability in the actual lot sizes purchased or produced and the lead times then planning software will not produce plans that match what actually happens. Poor information and lack of understanding of the impact of average lot sizes and lead times can cause implementation failure and costly re-implementation.

DIFFERENCES OF MR. AND MR. II Material requirements planning (MR.) and manufacturing resource planning (IMPAIR) are both incremental information integration business process strategies that are implemented using hardware and modular software applications linked to a central database that stores and delivers business data and information. MR. is concerned primarily with manufacturing materials while IMPAIR is concerned with the ordination of the entire manufacturing production, including materials, finance, and human relations.

The goal of IMPAIR is to provide consistent data to all players in the manufacturing process as the product moves through the production line. Paper-based information systems and non-integrated computer systems that provide paper or disk outputs result in many information errors, including missing data, redundant data, numerical errors that result from being incorrectly keyed into the system, incorrect calculations based on numerical errors, and bad decisions based on incorrect or old data.

In addition, some data is unreliable in non-integrated systems because the same data is categorized differently in the individual databases used by different functional areas. IMPAIR systems begin with MR., material requirements planning. MR. allows for the input of sales forecasts from sales and systems draw on a master production schedule, the breakdown of specific plans for each product on a line.

While MR. allows for the coordination of raw materials purchasing, IMPAIR facilitates the development of a detailed production schedule that accounts for machine and labor capacity, scheduling the production runs according to the arrival of materials. An IMPAIR output is a final labor and machine schedule. Data about the cost of production, including machine time, labor time and materials used, as well as final production numbers, is provided from the IMPAIR system to accounting and finance.

Enterprise Resource Planning (ERP) Enterprise resource planning (ERP) is business management software which usually a suite of integrated applications that a company can use to store and manage data from every stage of business. The objective of an ERP is to integrate feeds of information or data from all the functional units within a business such that there is single repository and output for management information. ERP systems experienced rapid growth in the sass, because the year 2000 problem and introduction of the Euro disrupted legacy systems.

Many companies took the opportunity to replace their old systems with ERP. Characteristics It is a comprehensive and integrated set of IS applications covering the key business transactions of an enterprise. Information and

data are held in a common integrated database. Data is updated in 'real-time', that is, as events trigger transactions. This is particularly important where a transaction in one application such as a sales order & as to update details belonging to another application such as the stock levels held by an inventory system.

Overnight batch updates of data in associated systems are eliminated. The core ERP software is supplied by an external party, a specialist supplier of ERP applications. It is possible for part or all of an ERP application to be developed in-house by a user organization, but this does rather undermine the business case for the business change and carries with it a number of risks. Because the ERP software is almost invariably provided by an external supplier, the tauter of the functionality is largely predetermined.

It can only be altered to fit local based on a reference model which the suppliers claim, represents identified best practice in respect to a particular application. Functional areas Financial accounting, Management accounting Human resources Manufacturing Order Entry Supply chain management Project management Customer relationship management Advantages Integrating various businesses processes saves time and expense.

Management can make decisions faster and with fewer errors. ERP can greatly improve quality and efficiency of the business.

ERP supports upper level management, providing critical decision making information. This decision support lets upper management make managerial choices that enhance the business. ERP creates more company with better adapts to change ERP can improve data security ERP provides increased

opportunities for collaboration. Data takes many forms in the modern enterprise. Disadvantages Expensive to implement Impact on business processes Lack of flexibility and adaptability Issues of ongoing support Effectiveness can be eroded by the business COMPUTER AIDED DESIGN (CAD) & COMPUTER AIDED MANUFACTURING (CAM)

ROBOTICS Refer to the Porter and Millard in 1985, by implementing traditional approaches in business operation, it does not ensure the particular company is going to achieve and maintain the competitive advantage in their market place. However, the global pressure and the advance information regarding to the organizations to make an investment in the systems. Early implementation of computer aided system, it was highlighted the important role of the system in automating the complex design and for the next generation manufacturing process. Computer Aided Design (CAD) Computer Aided Design is an electronically oriented program.

It is a combination of hardware and software which enables the users to design and create 2D or 3D virtual models of their products or goods. Computer programs (high quality graphics monitor, mouse, light pen and digitizing) and Computer printouts (special printer or plotter) are used instead of traditional pencils and T-squares to produce drawings, diagrams, and design. Business Application for Computer Aided Design 1. Idea generation This system allows the process of idea generation to become much more flexible as it does not require prototype to test the product.

The organizations can effort to have more new ideas and suggestion as the suggestion for new products can be quickly tested at much lower cost. 2.

Augmentation CAD instantly can increase the possibility to make slight improvement on the new product designs. It is also can be used to investigate any possible improvement to existing products. 3. Market testing Application of CAD in designing new products make the company possible to begin the process of market testing much earlier than in the past.

The target groups can be presented with virtual mock-ups of new products more quickly than with physical retypes, and any alteration for improvement can be made instantly based on their feedback. Since the alteration can be made simply just by entering the new data into the CAD software, updates virtual mock-ups can be presented for further feedback during the same session. Advantages of Computer Aided Design (CAD) Designs can be altered without erasing and redrawing. CAD systems also offer “ zoom” features analogous to a camera lens, whereby a designer can magnify certain elements of a model to facilitate inspection.

Computer models are typically three dimensional and can be rotated on any axis, much as one could rotate an actual three dimensional model in one's hand, enabling the designer to gain a fuller sense of the object, as a result it can reduce risk as the improvement of the new product designs can instantly be done successfully. By using the virtual test it can reduce cost of the product development and also time required to run tests. High cost incurs in order to purchase and implement the system. That particular organization needs an expertise to operate or handle the software used.

Computer Aided Manufacturing (CAM) Computer Aided Manufacturing is the use of computer software and hardware in the orientation of computer-aided

design models into manufacturing instruction or numerical controlled machine tools. It is one of the industry newest productivity sciences, which involves the use of specially programmed computers for increased speed & efficiency to operate machines. Application of Computer Aided manufacturing (CAM) The field of computer-aided design has steadily advanced over the past four decades to the stage at which conceptual designs for new products can be made entirely within the framework of CAD software.

From the development of the basic design to the Bill of materials necessary to manufacture the product there is no acquirement at any stage of the process to build physical prototypes. Computer Aided Manufacturing takes this one step further by bridging the gap between the conceptual design and the manufacturing of the finished product. In the past it would be necessary for design developed using CAD software to be manually converted into a drafted paper drawing detailing instruction for its manufacture. Computer Aided Manufacturing software allows data from CAD software to be converted directly into a set of manufacturing instructions.

CAM software converts AD models generated in CAD into a set of basic operating instructions written in G-Code. G-Code is a programming language that can be understood by numerical controlled machine tools - essentially industrial robots - and the G-code can instruct the machine tool to manufacture a large number of items with perfect precision and faith to the CAD design. Modern numerical controlled machine tools can be linked into a " cell", a collection of tools that each performs a specified task in the manufacture of a product.

The product is passed along the cell in the manner of a production line, with each machine tool such as welding and milling machines, drills, lathes and etc performing a single step of the process. For the sake of convenience, a single computer 'controller' can drive all of the tools in a single cell, G-code instructions can be fed to this controller and then left to run the cell with minimum input from human supervisors. Advantages of Computer Aided Manufacturing (CAM) I. Computer Aided Manufacturing enable manufacturer to reduce the costs of producing goods by minimizing the involvement of human operators II.

Manufacturer can make quick alterations to the product design, feeding updated instructions to the machine tools and seeing instant result by using this CAM. As a result it may lower running cost III. This software able to manage simple task like re-ordering of parts and have the ability to sense error where it will automatically shut down if there were an error IV. CAM removes the need for skilled and unskilled factory workers. As a result it can lower costs of production, lower price of per unit product and also get the profit increase.

Disadvantages of Computer Aided Manufacturing (CAM) Aided Manufacturing requires not only the numerical controlled machine tools themselves but also an extensive suite of CAD/CAM software and hardware to develop the design models and convert them into manufacturing instructions as well s trained operatives to run them. II. Staff needs to be trained on how to operate the machine and use the software which will add costs. III. Technology failure. Computers used in CAM may break down, as can the related equipment, such as robots.

Any time this happens, there is a risk for slowing or cessation of production. This is not desirable when a company is on a strict production schedule. The risk is highest in companies that rely on an assembly-line structure, as failure in these types of companies affects all points of production past the failure instead of just an isolated production area. Parent Analysis Imagine that you've just stepped into a new role as head of department. Unsurprisingly, you've inherited a whole host of problems that need your attention.

Ideally, you want to focus your attention on fixing the most important problems. But how do you decide which problems you need to deal with first? And are some problems caused by the same underlying issue? Parent Analysis uses the Parent Principle - also known as the "80/20 Rule" - which was developed by Joseph M. Curran in 1937. It is the idea that 20 percent of causes generate 80 percent of results. With his tool, we're trying to find the 20 percent of work that will generate 80 percent of the results that doing all of the work would deliver.

How to Use the Tool Step 1: Identify and List Problems Firstly, write a list of all of the problems that you need to resolve. Where possible, talk to clients and team members to get their input, and draw on surveys, helpdesk logs and suchlike, where these are available. Step 2: Identify the Root Cause of Each Problem For each problem, identify its fundamental cause. (Techniques such as Brainstorming, the 5 Whys, Cause and Effect Analysis, and Root Cause Analysis will help with this. Step 3: Score Problems Now you need to score each problem.