Identifying Key Organizational Resources

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A datum is a single fact. Data is the plural of datum and is a word used to describe multiple facts or statistics (BYJUS, 2021). Data in and of itself is useless, e.g. 61,000 dollars, or 53,000 euros, or 45,000 pounds, or 395,000 yuan. None of these data points mean anything until they are organized and some context is provided to add value and relevancy (Thakur, 2020). What if I told you that each of the four currency amounts above, was the value of 1 bitcoin at the time of this writing? Now, the data has been transformed into information. Information is a key organizational resource and is defined as data which has been sifted, sorted, categorized, organized, prepared, and presented in a way that is both valuable and meaningful (Tech Target, 2021). Another example of data is: 31, 13, 41, 34. To turn those numbers into useful information, I could begin by telling you that they are the winning scores of the football teams that won the past four NFL superbowls. Information technology in a general sense is the application of technology to solve business or organizational problems (Slyter, 2019). Over the decades, the computational ability, power, and speed of computers has increased exponentially and thus information technology has come to refer to the development, maintenance, and use of computer software, systems, and networks for data processing and communication (Market Business News, 2021).

The Role of Management Information Systems

An information system is an amalgamation of components which work in tandem to provide for the collection, storage, processing, and delivery of information (Zwass, 2021). Corporations create and store large amounts of data. They need assistance working with the data and information systems aid in effectively storing and analyzing the data and then can supply the data at the most appropriate time in response to the users' requests and can display it in a form which is meaningful to the user (Tutorials Point, 2021).

As a case study, law firms are prime candidates for management information systems. They require software that can aid them in managing a variety of types of information pertaining to their clients, casefiles, legal research, payroll, employees, and finances (Zwass, 2021). According to Capterra Law (2021), law firms most often require information management systems which can manage their calendars, customers, documents, legal cases, and time. Management information systems aid law firms by meeting their needs in these areas with software that features integrated calendaring, online payments, cloud-based document and matter management, time tracking, and billing (Clio, 2021). As another case study, management information systems are used by insurance companies to aid them in claims management, commission management, contact management, document management, insurance policy management, insurance rating, and quotes/estimates (Capterra Insurance, 2021). These greatly support company business functions.

Importance of Information Systems

To further the explanation of ways information systems help, let us review the computer software, Microsoft Outlook. Microsoft Outlook began by enabling companies to send and receive email. From there it expanded to enable calendaring, task management, and contact management. In the past decade it has expanded even more to allow notes to be stored, birthdays and anniversaries that automatically appear as recurring calendar entries, and links to contact's websites which are clickable, all of which are things that enhance customer relations. Last, it

permits persistent search across all data collected and contained within the program. A program like this is invaluable to businesses and when they invest in Microsoft Office for the word processing application, they receive this powerful software at no additional cost making it the defacto go-to over and above programs which may offer more tailored experiences.

Another information management system is Microsoft OneNote. A company which performs services for clients may have numerous documents to keep track of which all relate to that client, to wit; photos, PDF documents, a proposal, contract, invoice, work order, change request, receipt, et cetera. All of these documents can be stored or linked within a folder which can be assembled over time and then accessed separately for each client, allowing the firm to easily reference all documents on a given file at once.

Key Resources in an Organization

There are three key organizational resources which are prominent in every successful business venture, to wit; people, information, and information technology (PennState, 2021). Thus far I have reviewed how data is organized to become information; as well as, the ways in which information systems permit the assembly, management, and analysis of the collected information (Slyter, 2019).

However, I have not yet reviewed the most important organizational resource, people. In the above two examples I examined specific information management systems and how each brings value. Clearly, each information management system is powerful and effective, but they all have one common flaw, they are only as useful as the information that is initially put into them. Management information systems need information to begin to have any meaningful value. Likewise, information is only as valuable as the data it started with and the analysis performed upon that data that changed its classification from data to information. As in the example of the NFL superbowl scores above, people were involved in recording the data, its assembly, and its analysis at the time the data was transformed into information.

The Role of Knowledge Workers

In my course of study I came upon a phenomenal model which shows the progression which data takes to become information, then knowledge, and finally, wisdom (Tech Target, 2021). Data is raw and unprocessed. When a knowledge worker becomes involved, that data is processed and then becomes information. When information is collectively analyzed we call it knowledge, and when past knowledge is analyzed and patterns and trends are identified, we call it wisdom.

As aforestated, people, information and information technology make up the three key organization resources. As can be seen plainly, the common factor is people. People, information workers as they may be called, were responsible for selectively including and deleting data as they saw good and proper to do so. They were responsible for the assembly of the data into information, then they were responsible for choosing the appropriate management information system and loading the data into the application and for any calibration that may have been required (PennState, 2021).

Hardware and Software

Computerized management information systems require both hardware and software to function. Hardware consists of many physical components and devices such as operational

components (power supply, chassis, cooling fans), processing components (central processing unit, memory, hard drive), and input/output devices (mouse, keyboard, monitor). On the contrary, software consists of intellectual property, to wit; data, applications, and programs. These are used to input data, as well as perform actions upon the data, such as processing, analyzing, or retrieving information. If a given change to the system requires the addition or removal of physical components, then the system is hardware-based. Contrariwise, if the system can be upgraded with new software or updates to a program operating on a computer, and only intellectual property is downloaded, without the requirement of replacing physical equipment, then we're dealing with software.

Types of Hardware

Computerized management information systems support company operations. Three examples of hardware critical to operations include scanners, printers, and fax machines. Scanners allow knowledge workers to digitize physical documents and further manipulate, analyze, or disseminate them. Printers allow knowledge workers to produce a physical copy of what is displayed digitally, perhaps after information has been organized and processed in a meaningful way. Lastly, fax machines aid knowledge workers in disseminating information in a manner which has been deemed reliable for the past 57 years.

Types of Software

In similar stride, management information systems support company operations through their effective use of software. The list is certainly a long one, software has enhanced operations in some truly remarkable ways. Three such examples include customer relationship management systems, email and communication software, and financial and payroll systems. Customer relationship management systems, or CRM for short, enable staff to log key contact information about customers and clients, as well as attaching notes, records of contact, and applicable computer files that aid workers to maintain fluid interactions with their customers. Email and communication software nearly doesn't need any explanation. Electronic-mail has revolutionized communications and brought companies into an era where physical mailing pales in comparison to an effective e-marketing campaign. Lastly, financial and payroll systems enable an audit trail, increased accountability, more reliable accounting, and better fiscal accountability. The above referenced tools are necessary to maintain competitive advantage and to permit fluid interoperability between the three key organizational resources, to wit; people, information, and information technology.

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