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Critical Thinking in Management

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### Technology in Management and its Potential

The modern world continues to grow exponentially with each passing day. If you so much as blink once, technology has already changed something about the world you live in. Technology seems to change just about everything, so it is no surprise that technology also influences change in business, particularly, the roles and styles of the management in these businesses. The natural, non-technological shifts in management that we experience with each passing year amplify the changes technology brings about (Ramey). Management information systems, information management technology, robotics, contact management systems, transaction processing systems, customer integration systems and the internet are what I feel will be the influence of technology on management throughout the worldwide business environment over the next fifty years.

To understand what technology means to management and what technological advancements will determine the direction of how we manage, we must first consider what the basic functions of management are and how technology affects each function individually. Each function, although simple and ambiguous, presents unique challenges and opportunities for technology to improve or subsidize the way we manage. Managers carry out these four functions: plan, organize, actuate, and control, that is, control of the company or organizational activities (Ramey).

Planning is the process of setting goals, long-term or short-term, for either the company or portions of the company. The ideal result for planning in management is to establish a course of action, or an action plan. One important aspect of the planning stage is the acquisition and facilitation of information, which technology can play a vital role in. Information that is pertinent to managers must be stored seamlessly and readily accessible. For this, managers turn to management information systems (Ramey).

A management information system is a system that provides reporting capabilities that managers will find to be importantly periodic and prearranged. With these management information systems, managers will be in the best position to create action plans that will be vital in the growth and development of the company. MIS systems can generate reports that summarize the contingent results of certain tasks, reports that can be periodic, summarized by exceptions in execution, or comparative. The MIS systems create these reports with the help of transaction processing systems and customer integration systems (Ramey). MIS, TPS and CIS information systems are generally new forms of technology that have strengthened the management of businesses in recent years and will continue to grow and improve the way we manage in the next fifty years.

The second function of management is to organize, that is, structuring and scheduling (Ramey). It is easy to see how technology would fit in here, and how it would improve the organization process. One thing a manager needs to stay on top of is the organization of business contacts. With the use of Contact Management Systems, technology eases the process of organizing business contacts, such as customers, suppliers, and distributors. The Contact Management System keeps records of any and all contact with individual clients for multiple purposes. The purposes include evaluating the clients and the compensation that should be set,

ensuring the client is contacted with the appropriate frequency, that is, the client is not contact too often or too infrequently, and tracking the results of the contacts, and whether correspondence between this client contact and the company has met satisfactory results (Karehka).

The third function of management is to actuate. Actuating is the process of initiating the work that will roll out the action plan and bring it to life. The actuating stage causes the action plan to take shape. If the company in question is a producer, the actuating stage involves the production of goods. If the company in question is a service provider, the actuating stage is the manifestation of said services (Ramey). The actuating stage of management can be positively affected by technology in the worldwide business environment with the help of robotics and information management technology.

Robotics is a rapidly growing technology that can be implemented into day to day management, including resource, operation and logistics management. Interact Analysis, an analyst firm, predicts that the demand for autonomous and robotic management techniques will increase ten-fold in the next three years. Robotics in management encompasses autonomous mobile robots, automatic guided vehicles, and other robotic forms of omni-channel managerial fulfillment. Companies are starting to rapidly expand their use of robotics, especially in all forms of management, which is why it will be a driving force in the managerial changes over the next fifty years (Michel).

Information management technology, or IMT, is the umbrella of the processes, systems, hardware and software a company utilizes to streamline its daily managerial operations (Frankenfield). IMT is extremely useful to lower-level managers because they can use these systems to keep track of many different aspects of their responsibilities, like tracking the

progress of an employee, reporting daily information that can be readily retrieved and analyzed, and easing the process of running each day-to-day task smoothly. Upper-level managers have an easier time making big picture decisions with the help of the information management technology systems they have in place.

The fourth and final function of management is the controlling stage. The controlling stage refers to the comparing of results against the action plan. Comparing the results can encompass evaluating purchasing activities, product quality, work performance, inventory aggregates, employee satisfaction and employee performance, and tracking earnings and prospects. Technology specifically affects the fourth function of management, controlling, with human resource management. After the process of developing the action plan, the business owner will have to execute their short-term and long-term goals, with the cooperation of every level of management. During this process, human resource will help in accomplishing certain tasks (Ramey).

Human Resource refers to the people that staff and help operate an organization, which greatly contrast the financial and material resources of running an organization. Human resources refers to every person who is employed within an organization. Human resources is also the function in an organization that deals with the employees and the issues related to them, like compensation, benefits, satisfaction and performance (Heathfield). Since Human Resource is such a vital piece of the puzzle in running and managing a business, it is not difficult to see why technology could also come in and positively change the way human resource management is conducted in the global business world.

The specific tasks that must be fulfilled in the fourth stage of management will need to be done by both skilled and semi-skilled labor, fulfilled by the human resource of the company. The

manager can use technological tools like the internet to connect with job portals and recruit the needed human resource to accomplish the labor. After the process, technological tools can be used to illustrate tasks for each employee and to monitor the performance and improvement of each employee (Ramey). Management information systems and the internet will become more and more relied upon in management for decades to come.

Management information systems, information management technology, robotics, contact management systems, transaction processing systems, customer integration systems and the internet are what I feel will be the influence of technology on management throughout the worldwide business environment over the next fifty years. Stripped down, every function of management can be positively influenced and affected by technology and would continue to for years on end. Management is about to undergo a lot of rapid change in the global business environment.

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