# The effects of evolving technology on business industries

Business, Industries

The only thing in this world that is constant is change. This is a pretty well known saying which existed as long as I can remember. Looking back 50 years and more from today, I can recall how we used to tackle in class about how people have lived centuries ago.

Globalizationis the result of humans' endless search for improvements and technological innovations. It is an integration of economy, labor andtechnologyall over the world, even across international borders.

This movement has increased the flow of capital, goods, competition and labor across borders which, in turn, had deeply changed the true meaning of citizenship.

Today, the upsurge of developments in technology has an undeniable effect on how organizations function within and with other institutions. For an organization, its success andfailuregreatly depends on how the organization was structured to work.

The drive to improve peoples living pattern is still the same drive or factor which triggers international firms to globalize their operations and with that, today's latest technology makes the company's and consumers life easier It enable companies to reduce cost by using powerful equipment and machineries while consumers can have easier access to the newest products in the market.

The evolution of a new technology poses both threats and opportunities within the industry dynamics and alters the competitive forces. Industry leaders face the possibility of losing their number one spot and being

replaced by new entrants and underdogs (because barriers to entry may be lowered). Therefore, technology transformations may provide major shifts in industry dynamics.

Depending on its organizational capabilities, it may be good or bad to make drastic adjustments to the existing organization when a disruptive innovation occurs. Disruptive change occurs so intermittently that there is no routine response to them. How to adjust its new product development process depends on the organizations capabilities.

Capabilities are its resources, processes (how they transform resources to products), and corporate values. While resources are adaptable to change, processes are not as flexible, and values are even less flexible. Therefore, when a disruptive technological change takes place, a company must look to its capabilities. If the change requires a tremendous amount of financial resources that the company does not have, then they obviously cannot invest in the change, on the flipside, if a large capital firm faces the same change, the investment in the disruptive technology may be so small that it is not worth their more valuable time.

The same scenario goes for processes and values. Large firms may be so large, that altering their processes to suit a change may be too burdensome whereas smaller firms may have a much easier time making adjustments in their processes. In addition, it is more likely that a smaller firm’s values may be more flexible for disruptive change than large companies whose longstanding values are not easily adaptable.

To overcome the natural inertial found in most large organizations, managers may create new structures within the organization where new processes can be developed. This involves taking out employees with the required capabilities and drawing a new boundary around them. When the organization’s values may not be compatible with the new processes, firms may create a whole new business venture which is wholly owned by the firm but located in a new location with the people and other resources necessary to create anenvironmentconducive to the new process. And last, when a firm doesn’t have the supporting values, resources or processes for sustaining a new process, it may acquire another firm which does.

Several factors may impact particular stages in the evolution of a new technology. For example, technological advances, changes in what consumers want or need, and changes in regulations may trigger a technology evolution. In addition, industry transformations often feed of environmental changes. However this necessary transformation, once triggered, does not actually begin until managers notice this need and act upon it. Once acting, managers seek to experiment, and this experimentation deeply impacts the industry as it helps shape what the new industry structure will be. Consequently, as experiments fail, the number of firms in the industry generally is cut in half, but occasionally may increase.

An industry’s response to a new technology determines when and how the technological transformation will occur. Without managerial insight and decision making related to the technology, the current industry structure will persist. Managers are essentially the ones investing in these new

technologies and they choose how and when to market them to the public, and therefore have ultimately the initial control over the transformation. If the industry as a whole does not respond favorably to the technology, they may not choose to invest and market it, therefore stunting its evolution.

On the contrary, if they respond favorably, it helps accelerate the evolution of the transformation. If the industry as a whole is indecisive meaning some favor some do not and some are onthe fence, the transformation may only see moderate growth, and depending on which direction opinions are swayed (for or against the technology), the transformation may be completed or the evolution may never meet its peak.

One of the first innovations of technology was the mainframe system and it was during the 1960’s that computers and such started to impart in organizations and firms. The classic ways of hierarchal management systems started to disintegrate during these times. Through technological change, globalizing the operations of an international company could put up a plantation where they can reduce their labor cost.

Not denying the fact that different people from different countries have different tastes, international companies could also personalize their products according to the consumers or markets preferences without eliminating their standards and trademark. Before, information control was basically handled by those in managerial positions in a linear manner according to rank. With these systems of technology, information was

handled as such that company transparency is relatively existent for those who can get hold of certain information.

The onslaught of developments in technology has triggered organizational structure alterations. These changes can be illustrated by considering two key variables: the location of information and the location of decision rights in the organization (Brynjolfsson E. and H. Mendelsson).

With the innovative technological systems today, important information can now possibly be available to all employees or workers in an organization at all level. Before, information handling and privilege was limited to the persons that directly handle them. Now, theresponsibilityof handling information is left to information technologists or technicians.

The technicians then put data or information into databases which are accessible to all components of the organization For example, an organization can have a website, regularly maintained and updated by professional information technologists. Here, employees, managers and customers alike, can log on to the website and access whatever information they needed. Furthermore, having websites is also a great advantage since helpful feedbacks are easier to get from both customers and employees.

The growing need for technology innovations paves way to strengthening certain industries in a corporate world; like data management services, computer engineers, information technologists, software designers or engineers and so on and so forth. Although there are still organizations or companies that are hesitant to use information technology, a growing

number of organizations are opening to the possibility of restructuring their organizations to accommodate the privileges of using the modern information systems of today. Seeing as technology innovation not only saves time andmoney; it is also efficient and very flexible withrespectto the organization that opts to infuse it in their existing structure.

Not only does it revolutionize an organization from within. Through the substantially used World Wide Web, organizations can communicate and cooperate with other organizations in a faster, more efficient and cheaper way. Today, with the use of virtual offices, it is possible to close deals and agreements from participating people around the world without physically meeting each other.

Nowadays, as more organizations focus on the importance of information flow, organizational structures continue to change into more complex systems.  As a result, there is also a continuous drive to make more improvements and advancement in the field of technological innovation.

Nowadays, laptop and desktop have been swamped by new connectivity options. There are various of USB devices like Digital cameras, iPods, PDAs, FireWire, thumb drives and MP3 players; with current technologies such as Wi-Fi, Bluetooth and infrared (IrDA). With all these growing popularity of mobile gadgetry facilitating flexible working, evidently employees could work on the move. Endpoint systems today are easily available. They are user friendly and normally come with more than one feature.

With all these conveniences, it also means that employees could be carrying around large amounts of sensitive information unaware of the potential risks. Not only can confidential data be lost, employees could also unwittingly introduce malware onto the network while uploading work from portable devices. However, together with this mobility in work, come various viruses which will bust your files as well as your gadgets.

The influence of technology made a very big impact in the lives of people of today’s generation as well as totally changes the definitions of some of the world’s necessity, comfort and luxury. Whether it is a thing or a hobby, the identification of these classes has been change as time goes by. A car which was once called a luxury has been changed overtime and has now become a necessity. Televisions which was once only owned by royal families and other prominent people has now become a household item of which it already has become a necessity for it is where people get ideas of what is happening around them.

Even though cars and televisions made living mush more accessible than before, the public is increasingly concerned aboutglobal warmingand the negative environmental impacts of vehicles. (Clean Cars Alliance)

Simple living as it is, our grandfather’s grandfather would ride on horses, plant trees and vegetables, raise cows, pigs and chicken, living under one roof with afamily, sitting warm in front of the fireplace. These are the few comforts that men used to acquire. Back then, when a person owns a car, another home, have jewelries, it has been said that the person had lived

luxuriously. But today, when technologies have changed, some of the past decades luxuries had become today’s necessities such as cars, cellular phones, different gadgets. Not only material things are affected but also of a man’s way of living.

In, conclusion technology impacts should be seen as they truly are and not covered up by the media or industry, and even if they are individuals should be educated enough to realize the positives and negatives. If a company wishes to pursue becoming the industry technological standard, they must first be aware of the competitive strategies they can adopt to increase the probability of success. First, it is important to understand the need for a strong installed base.

The installed base is the amount of customers/users of a particular piece of equipment or product that is necessary for the technology. Increasing the installed base for the technology is key, because a large installed base means there will most likely be a greater availability and widespread use of compatible products/software/applications. If the installed base for your technology is large and there is a large availability of applications or widespread use of compatible products, then your technology is another step closer to becoming the standard.

With that, your technology is more valuable to consumers since they can use it in more places. A greater installed base, more available compatible products and providing greater value to the consumers leads to greater demand for the technology. As this continuous cycle keeps increasing the

demand for your technology, it is well on its way to becoming the industry standard.

A manager should ask several questions. First, it is important to know if a technology standard is needed or even desired in the industry. Second, it is important to perform market research to learn what customers want or need, this will help make the technology the standard if it satisfies the customer. Third, it is important to understand the market as a whole paying particular to competitors.

Pursuing a technology standard makes sense for a firm when there is no current standard and one is desired by the industry. In addition, for some companies, becoming the industry standard may be essential in maintaining theirleadershipposition and ensuring their existence in the long run.  There are different avenues that one can receive formal and informaleducationdealing with technological literacy, but there is always room for improvement, much like with technology itself.

Going back to the saying that the only thing in this world that is constant is change, we understand that change is inevitable. And just like the billiard balls, it is change which moves people to experiment and innovate, making the world more comfortable and luxurious, yet complicated. Change, constant as it is, has the power to move, improve and change lives. Where men once lives only with necessities, change have been able to make men of today experience luxuries and comforts by making it today’s necessities. With this, the luxuries of the past has been a need of today, making the

luxurious living from the past a more simple and yet more challenging living of today

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