EDITORIAL PREFACE

New Information Technology Adoption: Are You Ready for It?

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In today’s organizations, technology plays a vital role in the dissemination of information. From governments to local volunteer chapters, information transference is no longer hampered by loss of time, but rather is instantaneous and economic. Organizations today are investing heavily in streamlining their information system capabilities in order to survive and remain competitive. Nevertheless, not all organizations are fully embracing newer technologies as they become available. Problems remain with the development of technological solutions into usable and effective information systems that solve the business needs of organizations. All organizations want the best use of their investments. However, many variables can affect the success of the technology adoption and therefore offset the end results of organizational streamlining. Technology can have a relatively short shelf life if it has not been adopted properly and this can lead to investment loss. Two major factors that usually play a major role in the success of technology adoption are compatibility and personnel. Before adopting new information technologies, organizations should ask themselves whether their visualizations and projections can be met by the practical reality of technological compatibility and personnel capabilities.

TECHNOLOGICAL COMPATIBILITY

The technological advancements of the Internet and the many technical tools, such as wireless connections, personal and mobile computers, and cellular telephones, are immediate and obvious technologies that are available for organizations to use in streamlining their information systems. However, before integrating a new technology, organizations must address whether the ability of their existing systems and networks to other organizations can handle the influx of new information. Without these considerations, benefits will not be as expected.

As technology continually advances, there are several projects currently in implementation toward better information systems in organizations. Regardless of the types of technologies, the compatibility issue usually
plays a vital role. Two technologies: Radio Frequency IDentification (RFID) and Electronic Health Record (EHR) systems will be discussed as examples. These two systems are of note as they seem to have survived inception and are now in a precarious stage of implementation.

The RFID system is a radio tagging initiative for shipping that is currently implemented by several companies, such as Wal-Mart and United Parcel Service, with improvements already in the works (Songini, 2006a). In order to reduce the risk of failure, organizations consider integrating RFID into their labeling systems have been warned to ensure that the technology and systems that they adopt are compatible with current technology as well as have the ability to interact with older versions and be upgradeable, all with an eye to the overall investment cost in mind (Hoffman, 2006; Songini, 2006b).

The EHR System is claimed to provide more efficient and complete records in an effort to achieve better healthcare. The system enables healthcare providers with a more efficient and effective means of accessing health information. The ease of information access is important, especially in impoverished regions where personal digital assistants (PDAs) can be used where electricity is not reliable (McGee, 2006). This efficiency can help persons with more means to obtain healthcare that is of higher quality and efficiency. However, one of the major concerns involving the integration of this technology is standards (Blobel, 2006). Organizations considering the adoption of this technology should be conscientious of compatibility issues in terms of standards and protocols to help ensure that the information can be accessed and transferred properly.

**PERSONNEL CAPABILITIES**

One of the main elements to reaping technology benefits is to ensure that there are persons who are able to utilize such technology, otherwise the technology will become void of its offerings. This basic understanding of newer technologies in view of information systems makes it necessary for organizations to consider personnel issues before acquiring advanced technologies. In order to ensure that advancements provide their intended benefits, an organization should invest not only in acquisition but also in training and transition periods for implementation and integration.

As systems and technologies become available, a transition period is necessary between implementation and full integration. It is inevitable that training and transition periods do not always go smoothly. People need time to become familiar with newer techniques and be able to utilize them effectively. Typically, organizations would prefer the transition period to cost as little as possible, both in terms of time and money. Unfortunately, practical application takes time.

In most cases, if persons are resistant to the change to new information technologies, the investment is a waste of time and money, no matter what benefits are supposed to be derived. Ford Motor Company learned this lesson after it had invested over $200 million dollars and four years to implement a new information system that would help it exchange information with suppliers. However, due to the negative and resistant response to the change, the company was forced to revert back to the previous system. On the opposite spectrum, Toyota’s similar efforts at a new information system were successful in saving the company time and money, pushing their industry ranking above Ford’s and into the number two spot (Alvarez & Nuthall, 2006).

Another example involves the case of RFID implementation. United Parcel Service planned to implement an RFID system in the United States to bolster efficiency of small package deliveries, which constitute about 90% of its deliveries, by 2005. However, due to issues with personnel training and
implementation of the new technology, its projected completion date has been delayed several years (Saran, 2005).

The periods of transition and training employees can be costly in terms of time and money. The need to perpetually learn new information is not always well received by organization personnel. Although several reports demonstrate that the incorporation of more technology into organization life is a high improvement need, organizations must also consider the burden that a re-education can have on employees. Adoption of technology and new techniques of handling information should be managed in a manner best suited to the organization’s culture and work life. While the individual needs of every employee may not need to be considered, it is important that trends in knowledge and ability to adapt be taken into consideration.

In cases where there is little to no familiarity, making employees as capable as possible to fully utilize new technology and systems can be best served with hands-on simulated practice. However, the use of such teaching elements takes time to create and time for employees to learn (Pallesen, 2006). In addition, organizations usually have to hire technological training specialists associated with the program’s developers (Butalla, 2005). In the worse case scenario, if it was determined that an organization’s personnel cannot utilize the newer technologies and systems, continued investment might not be in the organization’s best interest (Flood, 2006).

CONCLUSION

As organizations and the demands placed on them progress, technology, its systems, and its users must coincide with that progression. However, there are boundaries that cannot be easily overcome. Two questions should be addressed before adopting new information technologies: (1) Is the new technology programmed for an organization compatible with its existing technologies and network to other organizations? and (2) Are the persons who will be utilizing the new technology willing and able to integrate it into their organization life? Taking proper consideration of affecting factors can help organizations handle the new technology adoption efficiently with the lowest cost possible. Organizations are better off investing in training and equipping employees with the proper tools than following trends and giving short shrift to their goals.

REFERENCES


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