Has the UK become a digital nation?

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1. Introduction

A considerable proportion of literatures have been published in the field of information revolution, information superhighway, the comprehensive information infrastructure as well as other buzzwords of the modern digital age. The vast amount of researches has made it easier for people to become cynical about technology itself and its insinuations for the way people lead their lives. However without doubt, there has been a major technological revolution over the last decade or so; a revolution that may be perceived to be as important as the industrial and agricultural revolution (Nalven and Jarvis, 2005; Deininger and Goyal, 2012).

1.1. Going Digital

On the surface, going digital seems a very impressive as well as retrospective development. Televisions, telephones and radios initially were built with the application of analogue technology over which pictures and voices could be transmitted in waves through the electromagnetic spectrum (Dreyer, et al, 2006). However, the digital world is seemingly opposite which is by and large a discontinuous world in which any form of information can be transformed into strings of ones and zeroes.

It is this drastic form of simplification of all forms of information that has rough about a substantial amount of development in the field of technology today. Going digital has made it possible for each and every entity to transmit, receive and store enormous amount of data almost instantly from anywhere in the world (Hickox, Jackson and Markham, 2006; Dewitt, 2013). Owing to such transformations, companies have increasingly adopted digital technology in their mainframe, which comes to their aid in almost every business operations regardless of its magnitude (Levy and Marshall, 1995). By going digital, companies have been able to enhance the efficiency of their operations and subsequently have become successful in achieving a greater throughput. Such has been the case of UK over the last 10 to 15 years primarily because of the development in the field of internet technology. Companies have transformed by an unprecedented level with a majority of their transactions as well as operations being shifted from paper based work to a digital framework (Litan and Niskanen, 2010). This strategy has not only helped companies in UK to reduce a lot of paperwork as well as the time and energy to do such work but has also enabled them to go green by consuming lesser amount of paper.

The question whether UK has become a digital nation or not has been a centre of discussion among various academic researchers as well as world leaders. Many of them have provided different perspectives regarding the issue however no proper conclusion has been reached. The relevance of this research lies in the fact that the researcher will try and establish facts regarding the transformation that companies in UK went through from paper based work to digital technology enabled operations. By doing so, the researcher will be able to highlight the impacts that such transformation had to the company as well as the country as a whole. Besides that the researcher will also cater to explains various aspects of technology and how successful has the UK been in adopting such technology. Such an extensive research will allow the researcher to draw conclusions regarding whether or not UK has a country has been able to transform into a digital nation.

2. Findings and Analysis

2.1. Ways of turning digital and their corresponding impact on organizations

Barclays, a UK based bank, has taken prompt initiatives in order to transform its operations from paper based to a digital mainframe. One of the most efficient uses of digital technology made by the bank has been to cut down on the use of paper by delivering account statements to customers over electronic media. This saves a lot of time of both the bank as well as customers thereby avoiding any form of physical labour. The statement is generated electronically and is delivered in the same way to the customers. Not only does it save time, but also the use of paper as well as energy that would be consumed by a printer while the statement is printed. This has significantly enhanced the efficiency with business operations are conducted as well has helped the bank to interact with the customer more conveniently. In addition to that, fewer workforces are required to handle electronic transmission of statements which allowed the bank to allocate its human resources into other business operations effectively.

Making a shift from paper based environment to an electronic office was imperative for **Primark**. With determined plans for expansion all over UK, Primark stores recognized the necessity to review the administrative system within their department for store development and facilities management. The underlying reason behind this review was to shift to a paperless office as well as to enhance the overall organizational efficiency. Therefore, the company came

up with a web based system called the Digital Administration Data Management System (DAD). This system enabled the company to avoid a lot of paperwork and assisted the new store development team as well as proved to be beneficial for them in terms of facilitating amplification in store openness and refurbishment projects. This system also brought down the administration cost by nearly 50% and the overall cost of the program. In addition, the system allows each and everyone to have secure access to information regarding a particular project. A dramatic reduction in paper processing was observed after this system was implemented thereby improving version control and reducing email overload. Primary was able to achieve improved efficiency in the project office due to a reduction in file backlog and was also successful in getting better control of communication and information flow (UNIT4 Collaboration Software Limited, n.d.).

Another company that embraced digital technology successfully is **Royal Mail**. The company implemented the Mailmark barcode technology which offers analysts with web based reports from an online analytics database thereby showing detailed batch level reporting about volume, performance and predicted delivery. In addition to that, the barcode technology also enables the company to obtain item level error reports. This also enables the company to avoid lot of paperwork that would be required otherwise to maintain a database of the mails that are being delivered and in that way the company is able to ensure the fact that the mails are delivered accurately (Royal Mail Group Ltd, 2014).

Kantar Operations has also utilized the digital system in an efficient way. Earlier the company used to maintain a paper based register in order to maintain the attendance database of its employees. That required the administrator to prepare the register for every single day and also required employees to sign on it every single day while they arrive and leave. Such an activity consumed a lot of time for the administrator who had to prepare the register every single day. However, after going through a digital revolution the company now does not maintain any form of physical register. The attendance of employees is logged in to a digital register/database automatically when employees login to their system. Such a system enables the administrator to monitor the attendance of the employees electronically without having to any form of paperwork. Thus besides saving the wastage of paper, this system also allows the company to enhance operational efficiency.

Kingston University is another entity which has implemented digital system in order to impart quality and convenient education to their students. The entity has a digital library database that enables students to access online journals, books and other articles in electronic format as and when they want from any location in the world. Provided the fact that the items are in electronic form the student could avoid carrying the load of physical books or journals. Not only did it save time for the students as well as the university, it also allowed the students to access the items from remote location.

2.2. Role and benefits of technology

In this digital age companies based in UK have been increasingly resorting to the use of digital technology in order to gain significant competitive advantage. That is why an unprecedented level of transformations has been witnessed in the way certain operations are conducted by those companies (Abdelgawad and Wheeler, 2009). Transformations have been observed in the way job assignments are allocated to employees. Earlier these assignments were allocated in pen and paper but in the contemporary business environment job assignments are done electronically over email. Another transformation can be seen in the form of ERP which is rigorously implemented by organizations in order to maintain data regarding organizational hierarchy. Companies also resort to the use of various project management software and systems in order to prepare work breakdown structure and timeline for a project (Farman, et al, 2008). This activity enables them to allocate resources efficiently for successful completion of the project. Besides this application of digital technology, it is used while disbursing salaries to the account of employees. Technology enables companies to avoid the paper work that is needed to be done while paying salaries in person to their employees. Moreover, the use of technology also reduces the probability of an error being committed while disbursing salaries (Parasuraman and Grewal, 2000).

2.3. Role and benefits of information system

The revolutions that have been made in the field of information system have enabled companies in the UK to facilitate free flow of information. The use of video streaming software has offered companies in UK with the flexibility to communicate with people based in two different parts of the world. Technology has made it even more convenient for company to monitor their

operations from a remote location thereby giving them full control of everything that is being conducted within the organization (Public Sector Executive, 2014; Riaz, 2013). Another revolution in the field of digital technology that has been increasingly applied in UK based organizations is cloud computing. This technology has enabled company officials to share and get access to any data from anywhere in the world. There is not even a requisite for requesting somebody to mail the data to them. Not only does it enable managers to improve efficiency of an individual or a particular department within the organization, it allows them to enhance the efficiency of the overall organization. By implementing information system, companies are able to integrate each and every departments of their organization through which collaborative work can be done. In that way, mangers are able to structure the organization in an appropriate manner whereby efficiency can be enhanced. This in turn leads to increased profitability (Pilkington, Roach and Perkins, 2011).

3. Conclusion

The facts that have been mentioned in this section provides a considerable amount of evidence that companies in the UK have been largely successful in embracing technology and implement the same in their daily business operations. They are gradually transforming from a paper based environment to a digital environment. The implementation of technology has enabled companies based in the UK to create a learning environment whereby free flow of information can be facilitated. Not only does this implementation of technology play a key role in reducing the use of paper but this learning environment also enables employees to attain an all round development. Besides reducing the use of paper, it also enables companies to increase their throughput. The shift towards a paperless environment allows the companies in UK to allocate resources effectively thereby preventing any form of wastage. One particular area that has come into attention of the researcher is the fact that companies are still resorting to print media for advertisement purposes and this leads to the consumption of paper. However, despite this fact, the transformation that has been made in the country is of tremendous magnitude. Having mentioned all this facts it can be said that UK as a country has been largely successful in adopting technology and subsequently shifting to a digital environment. Therefore these facts provide enough evidences to categorize UK as a digital nation.

4. Recommendation

Even though companies based in the UK have been largely successful in making this shift towards a digital environment still the fact that there is always a scope for improvement cannot be denied. Having done an extensive research of the transformation made by companies in UK, the companies are recommended to increasingly advertise their products or services over social media powered by internet technology instead of resorting to print media. In addition to that they can also advertise their products by displaying them in giant digital screens instead of resorting to print media. In that way they will be able to achieve two fold objectives. Firstly they will be able to target a huge customer base by advertising in highly commercial areas and secondly they can avoid a lot of physical work as well as time required to design ads for print media.

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