Barclays’ application of information system in manufacturing process

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Abstract. This paper is aimed to explore the adoption of Open Text’s technology coupled to the ORS scanning capabilities by Barclays. This aim achieved by conducting a strategic analysis both macro and micro environment factors. Then, the company’s initiative in comparison to the company’s aims is discussed. Finally, the paper concludes that adoption of Open Text’s technology coupled to the ORS scanning capabilities enabled Barclays to achieve significant improvements in workforce efficiency and productivity in line with cost reduction.

1. Introduction

Technology is one of the main factors that drives humans’ fast development in the 21st century. People use technology in most of the aspects of their daily life such as communication, business and entertainment. An example of using technology in a business environment is the use of information systems by different companies. An information system is an integrated set of components for collecting, storing and processing data and for delivering information and knowledge [15, 17]. Information systems widely used by businesses in order to interact with their customers and suppliers, compete in the marketplace and manage their human resources. This case is not an exception to Barclays PLC, the world’s largest financial service provider.

Barclays Bank was established in 1690 in London by John Freame and Thomas Gould as a goldsmith shop [1]. In 1896 due to inability to compete in the market as a small family bank Barclays joined with 19 other small banks to form a new bank-Barclays and Company Limited. Then, in 1982 Barclays Bank Limited became Barclays Bank PLC. Finally, in 1985 the UK and international operations were brought together to form Barclays PLC [1]. Today, it is the seventh-largest bank in Europe by capital assets. Barclays offers banking, investment banking and investment management services to its customers. It operates in around 60 countries and employs more than 140,000 people around the world. Likewise, just in the UK, it has 2,100 branches [3]. In 2001, in order to improve workforce efficiency and productivity Barclays adopted Open Text Livelink Archive Server and Livelink ECM, alongside the document scanning service of digital mailroom specialists Optical Record Systems (ORS) [12].

This work is aimed to explore the adoption of Open Text’s technology coupled to the ORS scanning capabilities. In order to fulfil its aim, this paper is structured as follows. First, a strategic analysis will be carried out, considering both macro and micro environment factors. Then, the
company’s initiative in comparison to the company’s aims will be discussed. Finally, the results will be evaluated and concluded.

2. Strategic Analysis

Laudon argues that before a company decides to adopt an information system it is vital to analyze the business environment in which it operates [8]. This analysis consists of understanding the business environment from external and internal perspectives. Such understanding enables the company to choose the most efficient and suitable information system. With that goal in mind, Barclays’ macro and microenvironment will be examined in this section. To achieve this goal PESTEL analysis and five competitive forces will be applied (Figure 1) [13, 16].

![Figure 1. PESTEL Analysis](image)

Porter states that PESTEL analysis is focused on the company’s external environment [13]. Considering the area in which Barclays operates the most relevant external factors are economic, political, legal and technological. The world’s economy has a huge impact over the Barclays since it operates in around 60 countries over the world. It should be noted that economic situation in the world has not been very stable over the last decades. UK unemployment fell 88,000 in the three months to 2.43 million, the biggest drop since the summer of 2000 [14]. Likewise, inflation in the Eurozone is 2.7 % while euro falls to 1.44880 dollars against the US dollar in the first quarter of 2001. Similarly, high inflation in China and India in 2001 while Japan is in recession. All this economic instability affects banks. There is also some influence from political and legal factors. The UK has an unstable regulatory environment, which forces banks to adapt to new regulations over and over again. Likewise, political stability in the countries where Barclays operates influences its growth. In addition, Barclays must give political donations as part of their democracy support to the major South African parties [14]. The other factor which influences Barclays’ operations is technology. The emergence of the internet and fiber optic telecommunications enabled users to use online banking and mobile banking. Likewise, the global launch of the next generation financial kiosks such as NCR SelfServ 4 which is a cashless kiosk enabled to make non-cash transactions such as appointment check-in etc. Similarly, SelfServ 8 equipped with touchscreen technology enabled bill payments [14].

From above discussed it is obvious that there are some economic declines which followed by the technological advancement. Laudon states that situation when economic conditions decline and
technology improves leads to enhancement of consumers’ bargaining power. In the period of economic decline, customers are very likely to avoid using bank services [14]. Similarly, consumers are more likely to use banks with high technological development because services which provided with such banks are more qualitative and convenient. Consequently, it increases the competition between Barclays and its main competitors, such as HSBC Bank, Lloyds Banking Group Plc and RBS [14]. In order to get a competitive advantage over its competitors, Barclays needs to improve workforce efficiency, productivity and reduce costs. Improving the way in which bank manages its human resources is one of them.

Barclays is managed by 13 professional directors and has 147,500 employees and senior executives. Almost all of the bank employees are young and ambitious, moreover, they are re-trained and familiar with the latest technology. The company has the remuneration Committee which motivates its employees towards excellence in business and personal performance. This achieved by offering incentives, attract and retain employees of ability and experience. Likewise, bank encourages its staff to part take in share option and share purchase schemes and have considerable sum invested in Barclays shares. Bank is keeping its staff aware of matters of concern to them in several ways, such as business unit news, magazines, intranets, briefings and SMS messaging. This is aimed to achieve a common awareness among employees [14].

3. Company Initiative

Although Barclays was well-developed bank until 2001 it did not have centralized data storing system. All employee related files were processed on a regional basis. Bank did not have information system for all these processes and they were revolved around paper documents. Every branch generated a large volume of paper forms and other offices were unable to access the data due to the absence of centralized storing system [12].

All these factors used to make efficient management of high volume of the employee documents very complicated process. In accordance to that problem Simon Wheeler, Service Performance Manager Team Leader, Barclays Plc says “The decentralized HR system was creating operational difficulties and it became clear to us that we needed to move information into a safe, central repository, so that employee information was secure, accurate and quickly accessible to those who needed it” [12]. Furthermore, considering that Barclays is a large company it needed a solution to manage closely, avoiding any chance of human error. Similarly, Barclays Human Resource call center were receiving 1.800–2.000 calls a day [12]. A bank needed a solution which will enable operator all employees related information as quickly as possible.

The situation has changed when Barclays adopted Open Text Livelink Archive Server and Livelink ECM, alongside the document scanning services of digital mailroom specialists Optical Record Systems (ORS) [7]. This change enabled the bank to develop an infrastructure for workforce efficiency and productivity improvement. Furthermore, with a new system bank could educate and train its staff to have required skills. In order to avoid any mistakes in the process of the solution implementation, Open Text provided Barclays with full training on its ECM technology. Only after a full training, it was rolled out to Barclays HR employees. At the information system usage starting point, ORS scanned all the back archive of nearly10 million documents. ORS still scanning all HR documents at the point of entry every day. When scanning is finished ORS automatically upload documents into the Livelink ECM database [11].

Barclays gives high priority to having accurate data. It was the unachievable goal when the company was working with hundreds of thousands of copies. However, adoption of Open text’s technology coupled to the ORS scanning capabilities helped to the bank to achieve that goal. With the new information system staff can simply archive, amend and access required documents (Wheeler cited on OnWindows, 2009). Likewise, the adoption of the new system enabled the bank to reduce costs and time required to record, warehouse, retrieve and re-file employee records. In addition, with such changes made Barclays is able to meet DPA’s document management and data retention regulations. This is a vital factor for a company needs [12].
4. Evaluation

The benefits obtained from the adoption of Open Text Livelink Archive Server suggest that it was right decision by Barclays. It enabled a company to become more flexible and react to changes more quickly [12]. Similarly, the new solution helped to reduce Barclays’ error rate down to 0.1 per cent. Undoubtedly, it helps to HR staff work more efficiently with a large volume of documents. Considering the fact that HR works with very important documents, such as sick pay and payroll items, the new information system empowered Barclays to ensure that all employees and accounts are kept up-to-date [12]. Wheeler states that a company was delighted with the level of improvements to HR’s operations made by the implementation of the new information system. He further argued that with a new centralized enterprise content management system, Barclays is capable of meeting the needs of both its employees and public, and providing the most efficient service possible [12].

It has been more than 10 years that ORS have been providing live file capture and ongoing mailroom services to the HR, pensions, retail and payment processing departments at Barclays. Over that period, ORS have scanned a huge volume of documents. For instance, 75,000 employee files (over 10 million documents) were scanned. Likewise, 1,500,000 pension files and 50,000 employee files, while the latter was the capture of Goldfish HR files. Additionally, 10,000 monthly mail item monthly and ongoing mail handling for 120,000 UK employees [11].

Overall, centralized HR system brings many benefits to any company. One of them is lower operating costs. Thus, a company with a centralized HR department saves money on organization costs and transaction costs for HR department organization, recruiting and payroll [4]. Likewise, a centralized HR department allows to concentrate on HR skills. Staff in such organization is more accessible to line managers and senior manager, which leads to faster service provision. In addition, the other benefit that centralized HR department brings is optimizing processes. Thus, essential business processes in the organizations with centralized HR department are optimized rapidly and efficiently. The staff in such organizations can more easily develop and coordinate consistent processes for payroll, benefits, recruiting etc. [4]. According to Wheeler, all of the above-mentioned benefits were missing in Barclays in the period of having decentralized HR system. However, successful implementation of Open Text’s technology coupled to the ORS scanning capabilities enabled a bank to obtain all of them [12, 17-20].

Although adopting IS is a factor which increases the effectiveness and efficiency in an organization, it is a major change for organizations’ processes; for instance, it requires employees to change [5, 6]. Kroenke states that implementation of such changes is the most difficult part of IS implementation. Similarly, the introduction of new IS can affect individuals, groups and a whole organization. The negative effect of IS occurs when the system fails [6]. However, this was not a case with Open Text Livelink Archive Server adoption. In order to avoid any mistake and failures in the process of the solution implementation, Open Text provided Barclays with full training on its ECM technology.

In order to obtain a competitive advantage over its main competitors, Barclays needs to explore change initiatives internally. For instance, devise a corporate culture to enable its staff to be competent and cooperative in order to be able to provide the best banking services to all its customers [2]. Implementation of Open Text’s technology coupled to the ORS scanning capabilities was vital step in that direction. However, this is not enough since its competitors can easily negotiate with Open Text and implement the same IS. Barclays should keep going forward. It should offer the best products with the lowest interest rates available for its customers. Likewise, it should be able to provide quick and efficient services to customers by using the latest internet banking and technologies available. It worth to be mentioned that Barclays already making an effort in that direction. Thus, it launches finger scanner for internet banking. People could be able to access their bank accounts just by putting their fingers into a portable scanner in future [2]. In addition, over the last four years, Barclays invested £1 billion in retail technology and branch refurbishment. Similarly, over 2,400 back office jobs have been offshored to Barclays locations and outsourcing firms in abroad. Barclays closed 71 per cent operational sites in that four-year period. This enabled smoother, faster processing [9].
5. Conclusion
To conclude, it can be said that adoption of Open Text’s technology coupled to the ORS scanning capabilities enabled Barclays to achieve significant improvements in workforce efficiency and productivity in line with cost reduction. Although in some cases of the new IS implementation companies face problems, since staff forced to change the way they usually work, it was not the case with Barclays. To achieve this Open Text provided Barclays with full training on its ECM technology. The IS have been in use for more than 15 years already and it still very efficient. However, Barclays should keep evolving and adopting new technologies to be able to successfully compete with its competitors.

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