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# **TECHNOLOGY USED AS A TOOL TO MANAGE PEOPLE**

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**MASTER BUSINESS ADMINISTRATION**

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## Abstract

This dissertation shows that nowadays it is impossible to manage people without making use of technologies, therefore the title “*Technology used as a tool to manage people*”, is perfectly suited to what will be presented in this project, which is a connection between what is already known about contemporary theories of human resource management (HRM) and what is being developed in terms of the e-HR platform to manage people. In addition, a new theory of HRM is outlined which is based on the e-HR technology and suggests the alignment between the human resource sector and the business strategy of the organisation.

Firstly, the research starts with the presentation of the evolution of HR, which was initially called ‘industrial welfare’, and then follows on with main activities and goals of HR today.

Secondly, the dissertation gives a different perspective of HR and its future challenges in regards to the relationship between technology and traditional HR, resulting in an e-HRM platform. It gives a new approach for the alignment of human resources with technology to show that HR is now part of the business and organisational strategy. HR cannot be restricted to administrative tasks any longer.

Finally, it will apply management theories to the real world or, in other words, it will show that it is unavoidable to manage people and HR without making use of IT.

## Declaration

This work is original and has not been submitted previously for any academic purpose. All secondary sources are acknowledged.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

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## 1 Introduction

### 1.1 Background to the research

I have worked for the last 20 years in the telecommunications segment designing technological solutions for customers. For the last 4 years, in addition to my technical role, I was responsible for technical co-ordination and team leadership which included people management. This background was the motivation to join the two worlds - the technical and the management – in this project, in order to visualise how technology based on an e-HR platform helps human resources to align its main activities and goals with the strategy and business of the organisation.

The study will be based on a literature research, such as books, e-books, specialised journals and magazines, databases and web sites, such as CMI Chartered Management Institute which gives support and information to people who are in management positions. Moreover, it will use The University of Chester website to login to databases and library e-facilities.

The research will start by outlining ‘people management’ from the contemporary theories of HRM (Pinnington, 2000), (Evans & Lorange, 1989), (Bratton, 2000) up to the ‘new’ Model based on technology (Ulrich, D., 1997). Then, it will present the relationship between human resource management and technology, its barriers, benefits, trends (Hussain, Z., Wallace, J., Cornelius, N. E., 2007), (The Cranfield School of Management) and Critical Success Factors (CSF) for adopting e-HRM, (Gupta, 2000).

Additionally, the research will include what technology changes brought about through the use of web-based systems which enabled the deployment of HR processes and information to line managers and employees (Tannenbaum, 1990).

Finally, the literature review chapter will finish by giving a business perspective of the e-HR platform and its importance for the organisation with regards to

aligning human resources with the strategy of the company (Boxall, 1992), (Panayotopoulou, L. Vakola, M. Galanaki,. 2005), (Kovach et al., 2002).

## 1.2 Research question

The research aims are as follows:

- I. To present contemporary people management models;
- II. To present the 'new' Model of HRM;
- III. To explore how this 'new' Model is related with technology;
- IV. Based on items (I.), (II.) and (III.) above, show the advantages that this technology has brought to the Human Resource sector and how it has helped HR to become part of the company business and the organisational strategy;

Moreover, the research will apply the above aims to the real world or, in other words, it will show that it is unavoidable to manage people and HR without making use of IT, and it will help to answer several questions, including:

- What are the barriers for using technology?
- Which HR activities are usually integrated into an e-HR platform?

## 1.3 Justification for the research

When an organisation decides to implement an e-HR platform, the first justification is focused on reducing costs, and then a project team tries to identify administrative costs that the new technology can eliminate. However, there is an important element that cannot be ignored, which is that HR functions become more strategic (Reddington et at, 2008).

The justification of the research is based on the advantages that technology can bring to the HR sector when it is applied to transform HR functions into something more strategic to the organization. In other words, HR will be seen as a strategic business partnership.

The strategic drivers of the e-HR platform that flow from HR are transactional and transformational. The former focus on reducing the costs of HR services or improving its productivity, and improving service delivery to managers and employees; the latter focus on freeing up time for HR staff to address more strategic tasks rather than basic administration, and by transforming the contributions that HR can provide to the organization (Reddington et al, 2008).

#### 1.4 Methodology

The philosophy of the research will be based on **Interpretivism** and the research strategy will be a combination of **Case Study** and **Action Research**. These approaches were chosen because, according to Fisher (2010), both are based on knowledge of the processes by which people in groups and societies make sense of their own world. In other words, it is recognised that human subjectivity and reality is socially constructed, and therefore influenced by values and ways of seeing the world.

Interpretivism is carried out with the practitioners and there is an attempt to link practitioner and experiential knowledge with academic knowledge (Fisher, 2010).

Action research tends to focus on small-scale sampling. Therefore, according to Elliot (1991) action research is about improving practice and observation and according to Fisher (2010) it becomes a practitioner in everyday life and reflects the results for both the researcher and the organisation.

Case study involves a particular investigation of a phenomenon in a real life situation. It uses different sources of evidence (Saunders et al, 2009).

Finally, to support this work, open-ended questionnaires will be used to collect data which will be interpreted and organised in order to generate information to validate the research. The questionnaires will be distributed in two organisations; a) The University of Chester and b) Royal Dutch Shell plc.

## 1.5 Outline of the chapters

Chapter 1 – Introduction - provides the background of the research, an overview of the research aims and a brief description of the methodology adopted;

Chapter 2 – Literature Review - reviews the literature which the research is based on, to set out the theoretical foundation that underpins the research;

Chapter 3 – Methodology – describes and justifies the methodology which was used to collect and analyse data;

Chapter 4 – Findings – presents the findings of the research and analyses them in terms of relevance to the research issue;

Chapter 5 – Conclusions – sets out the conclusion of the research, reviews the research issues, evaluates the methodology of the study and highlights opportunities for further studies;

Chapter 6 – Recommendations – provides recommendations of how to use technology to manage people and get the best of technology can offer to align HR area with organisational business and strategy.

## 1.6 Definitions

Human Resource (HR) – it is the area in a company which deals with people. Although it focuses on recruitment and management, it also provides direction for the people who work in the organisation;

Human Resource Management (HRM) – is the organisational function that deals with issues related to people such as compensation, hiring, performance management, organization development, safety, wellness, benefits, employee motivation, communication, administration and training;

E-HR (electronic Human Resource) – it is the application of conventional web-based technology. It helps to improve HR administration, transactions and process performance making it more strategic and business focused;

Critical Success Factors (CSF) – characteristics, conditions or variables that have a direct impact on the effectiveness, efficiency and viability of an organisation program or project;

Human Resource Information System (HRIS) – a system which seeks to merge the activities associated with human resource management (HRM) and information technology (IT) into a one common database;

Shared Services Centre (SSC) – it is similar to collaboration. The service is shared and enables different departments to share the same information. The key idea is to share information within an organization or a group;

Employee Self-Service (ESS) – it is a web-based application that provides employees with access to their personal records;

## 1.7 Summary

This chapter provides a foundation for a more detailed description of the research. The research question and main aims are presented, together with a justification for the research. The following chapters will describe fully the research subject and its findings.

**Key Words:** Electronic Human Resource Management (e-HRM), Human Resource Management, Information Technology, HR strategies.

## 2 Literature Review

### 2.1 Introduction

Although the way of managing people is changing due to improvements in technology, the traditional theories of people management are still the framework on which companies base HR policies to keep their employees satisfied and motivated.

There is little or no room for argument with the notion that 'people' are one of the key assets determining the success or failure of an organization, hence the importance of the knowledge, skills, attitudes and behaviours of those people for that organization to thrive. 'People' are the key asset that is capable of growth and development. Although a company does not have absolute power over this asset, they can make use of certain tools and techniques to exert some vital influence over the way they perform in order to achieve the mission of the organization. The concept of Electronic Human Resource Management (e-HRM) means *'the adoption of technology in delivering Human Resource practices due to the digital revolution in the world is such a tool that organizations can employ to persuade the performance and behaviour of the people on whom they rely on to achieve business success'* (Kovach, K. 2002).

The implementation of an effective interface between people and technology is one of the most critical topics which HR faces today. In light of this challenge, this chapter will present contemporary theories of people management with emphasis on the use of technology to manage people. In other words, how the use of the e-HRM platform and its features can encourage the alignment of the business with the human resource department, in order for it to become more strategic to the company.

## 2.2 People Management and Human Resource Management

Human Resource Management (HRM) is the part of the management process that specialises in the management of people. In order to better understand the development of HRM, this research will start by presenting its history, models, main activities, goals and finally the e-HR platform, which is not a specific stage of HRM but an approach for HRM (Ruet et al, 2004).

### 2.2.1 History

Human Resource Management is a way of thinking about how people should be managed as employees in the workplace (Pinnington & Edwards, 2000). According to Bratton and Gold (2000), the foundation of modern HRM emerged from several interrelated sources, as follows:

- Conflict management, which is associated with employment relationship;
- Employees' specialization of labour, which is related to the growth in the scale of work organisations;
- The approach of management to managing people;
- Employment-related law of the last three decades.

The chronological sequence below shows the first stages of HRM practices.

**1800:** some paternalist employers such as the Rowntree and Leverhulme families alleviated concerns about the welfare of the workforce by appointing "industrial welfare" departments and building model factory villages. These paternalist policies were more evident in the USA and Germany. In the USA, Henry Ford's auto plants established a Sociological Department to administer personnel policies and in Germany companies like Krupp and Siemens were highly paternalist and over time the industrial welfare worker developed into today's personnel / human resource management specialist.

**1900 – 38:** the formation and consolidation of the personnel management as a professional body.

**1939 - 45:** the national government interfered by regulating employment and schemes for sustaining and improving morale in the workplace.

**1946 – 59:** the Post-Second World War reconstruction encouraged collective bargaining.

**1960 – 78:** Personnel management became industrial relations negotiators. At this time, trade union relations were strained. Government legislation on employment matters and growing unemployment increased.

**1979 - 89:** introduction and development of human resource management as an ideology and a prescription for managing the employment relationship.

**1990 – 99:** Human resource management became well established. However, very few companies apply HRM policies coherently and consistently. The Institute of Personnel Management (IPM) and Institute of Training and Development (ITD) merged, forming the Institute of Personnel and Development (IPD).

**2000 – To present:** the Human Resource sector became an important strategic partner in the organizational business. Through a mixed model of centralized and decentralized functions, the corporate HR functions are viewed as “Centres of Excellence”.

### **2.2.2 Human Resource Management Models**

There is not just one model in HRM, but an evolving set of models which compete with each other. A number of HRM scholars have developed /specific HRM models and theories, which demonstrate the differences between conventional personnel management and HRM. The work of these scholars is divided into Hard and Soft Models of HRM.

The first model is the **Fombrum Tichy and Devanna Model**. This model is also known as the Michigan Model, because one of its main proponents was an academic from The University of Michigan’s Graduate School of Business. This

model is classified as 'hard' because it focuses on using people as resources and as a means towards the competitive success of the organisation. Moreover, it is based on strategic control, organisational structure, and systems for managing people. It acknowledges the importance of motivating and rewarding people, but concentrates on managing human assets to achieve strategic goals (Pinnington, 2000).

According to Bratton (2000), it emphasises the interrelatedness and coherence of human resource management activities. Therefore, it consists of four components: **selection**, **appraisal**, **development** and **rewards**, all of which aim to increase the organisational performance. The Figure 1 below shows the relationship among these components.



Source: Strategic Human Resource Management by C.J. Fombrun, N.M. Tichy, and M.A. Devanna (fig 3.2, p.41)

Figure 1 – *The Human Resource Cycle*

Finally, this model ignores the stakeholder's influences, situational factors and there is lack of notion of management strategic choice. These factors can be pointed out as weaknesses. On the other hand, its strengths such as the ability to express the coherence of internal HRM policies and match these policies and

practices to the organisation's external business strategy makes this model good practice and a simple framework for other models and theories.

The next models which will be presented are classified as 'soft' models, because they recommend that general managers must hold greater responsibility for HRM.

**The Harvard Model** is classified as a soft model, because it concentrates attention on outcomes for people and their well-being. It does not rank business performance or any stakeholders' interest such as shareholders. It proposes that personnel and labour-relation activities can be divided into four HR categories as follows:

Employee influence – this relates to how much responsibility, authority and power are delegated by management to their employees.

Human resource flow – this is concerned with the flow of people into, through and out of the organisation. In other words, it relates to the decision-making process for recruitment, selection, promotion, termination of employment, job security, career development, advancement and fair treatment.

Reward systems – this relates to employees' wages and incentives. This category has two concepts, extrinsic and intrinsic. The former is tangible, related with payment and benefits; the latter is intangible and is related with employee motivation, job satisfaction and organisational commitment.

Work systems – This relates to the way in which people, information, activities and technology are arranged at all levels of the organisation, in order to maintain high performance.

These four policies must satisfy the major stakeholder, the employee. It is the responsibility of the management level to establish a system that promotes employee influence.

A further recommendation for this model is that, when making HRM policies, managers should consider the four "Cs", which means: *the enhancement of the **commitment** of people at work, leads to attract, retain and develop employees*

with the need of **competence** which leads to **congruence** between management level and employees which leads finally to **cost-effectiveness**.

Source: Managing Human Assets by Michael Beer, Bert Spector, Paul R. Lawrence, D. Quinn, Richard E. Walton

Figure 2 - Human Resource System.

In addition, there is also an analytical framework offered by Beer *et al.*, which is classified as the “map of the HRM territory”. It consists of six basic components as follows:

Situational factors – this relates to workforce characteristics, management philosophy, labour market regulations, societal values and patterns of unionisation (Evans & Lorange, 1989). Practitioners are more comfortable with this model because it reflects the reality of blending business and societal expectations (Boxall, 1992, p.72);

Stakeholder interests – this recognises the importance of a “trade-off” between the interests of owners and employees;

Human resource management policy choices – this focuses on management decisions and actions in HR management. In other words, it recognises the result of an interaction between company strategy and HR.

HR outcomes – this relates to high employee commitment to organisational goals so leading to high performance. It shows that employees want career

development. Thus, this model should be designed on the basis of the assumptions in McGregor's Theory Y. (Guest, 1990);

Long-term consequences – this is divided in three levels: individual, organisational and societal. The first: the employees want to be rewarded for their individual effort; the second: the organisation emphasises the need for survival; and the third: the employee wants to be recognised by society, by demonstrating their growth and employment.

Feedback loop – this reflects a two-way relationship as illustrated in figure 3 below.



Source: Managing Human Assets by Michael Beer, Bert Spector, Paul R. Lawrence, D. Quinn, Richard E. Walton

Figure 3 – A map of the HRM territory

This “map” shows that stakeholder interests and situational factors are interconnected with HRM policy choices, which leads to HR outcomes. Thus, these outcomes have long-term consequences with a feedback effect on stakeholder interests and situational factors, and so on.

The second soft model is known as the **Guest Model**, because it comes from David Guest in 1987. Guest says that it is a mistake to leave HRM policies and practices with business strategy unconnected.

According to Bratton (2000), the central hypothesis of this model is that if an integrated set of HRM practices is applied in a coherent way, with a view to achieving the goals of high commitment, high quality and task flexibility then superior individual and organisational performance will result. This will lead to four outcomes: **strategic integration, high employee commitment** with the organisation, **high work-force flexibility and adaptability** and a **high-quality workforce** with less employee turnover, absences and grievances.

HRM Practices	HRM Outcomes	Behaviour Outcomes	Performance Outcomes	FinanciaOutcomes
Selection	Commitment	Effort / motivation	High:	Profits
Training			Cooperation	
Appraisal	Quality	Low:		
Rewards			Flexibility	
Job design	Organisational citizenship			
Involvement				
Status and Security				ROI

Figure 4 - The Guest model of HRM

Guest's model is similar to the Harvard one, but with seven HR policy categories instead of Harvard's four. The categories which have the same concept differ only in the ways that they are named but the main meaning is the same, as shown below:

Human resource flow is now divided in two categories: **manpower force** and **recruitment, selection** and **socialisation**; **reward system** remains the same; and work system is called **organisational** and **job design**.

Complementing the seven categories are:

**Policy formulation** and **management of change** – this is related to the establishment of HR policies to identify the nature of the change required in a business and to manage the process of change.

**Employee appraisal, training and development** – this involves informal and formal employee performance appraisal and the need for training and development.

**Communication systems** – this is the process and media that organisations use to encourage a two-way flow of information between management and employees.

According to Bratton (2000), there is number of conceptual issues associated with Guest's model. The first issue is that the values underpinning this HRM model are predominantly employee-oriented and unitarist. The model emphasises long-term individual and corporate growth and pay related to individual performance. The second issue involves concerns with the status of some of the concepts such as commitment which is intangible.

The central frame in this model is the link between HRM and performance. However, it is not clear what kind of performance is being considered - individual, group or organisational?

Finally, the strength of this model is that it clearly maps out the field of HRM and classifies inputs and outcomes. It is useful for examining the key goals of HRM: strategic integration, commitment, flexibility and quality.

The **Warwick Model** draws from the Harvard framework to extend the analysis of HRM. It has five elements, **outer context, inner context, business strategy content, HRM content** and **HRM context**.

Figure 5 below shows the correlation between these elements and its composition.



Figure 5 - *The Warwick model of HRM*

This model leads to internal and external alignment of the structure and strategy of an organisation. The weakness of this model is that the process whereby internal HRM practices are linked to business output or performance is not developed (Bratton, 2000).

### **2.2.3 Human Resource Management Main Activities**

In order to better understand the activities of HRM, it is important to recognise that the HRM functions in an organisation are on two levels (Watson, 1986). Primarily, HRM activities are concerned with recruiting, motivating and developing people. Secondly, selection procedures are designed to supply the organisation with employees with knowledge, abilities and skills to work effectively in what they were contracted to do, whilst having fair payment, benefits and work conditions.

Therefore, for the reasons presented above, HRM is a set of practices that defines the nature of work and regulates the employment relationship. HRM covers five main activities as follows:

Staffing – this is how HRM obtains people with appropriate skills, knowledge and abilities to fill positions in the organisation. It also includes human resource planning, job analysis, recruitment and selection;

Reward – this is the administration of the reward system, including job evaluation, performance appraisals and benefits;

Employee development – this is the analysis of the training requirement in order to ensure that employees will carry on acquiring the knowledge and skills to perform in their position and consequently advance in the organisation;

Employee maintenance – this is the administration of workforce safety, health and welfare policies to retain a workforce in compliance with statutory standards and regulations;

Employee relations – this is concerned with a range of employees' involvement / participation schemes in union or non-union workplaces. This includes regulation between management and union representatives over decisions which may affect the employment contract.

#### **2.2.4 Goals**

Effective HRM enables employees to contribute effectively and productively to the overall company direction and to the accomplishment of the organization's goals and objectives.

Human Resource Management is moving away from traditional personnel, administration, and transactional roles, which are increasingly outsourced. HRM is now expected to add value to the strategic utilization of employees and to ensure that employee programs impact the business in measurable ways. The

new role of HRM involves strategic direction and HRM metrics and measurements to demonstrate value.

The goals of HRM are inevitably affected by the sectorial and societal context within which firms operate. The goals are implicit and only large firms tend to have a formal or explicit statement of goals for their overall HR strategy.

Theories of HRM argue that the goal of human resource management is to help an organization to meet strategic goals by attracting, and maintaining employees and also to manage them effectively. The key word here perhaps is **"fit"**, i.e. a HRM approach seeks to ensure a fit between the management of an organisation's employees, and the overall strategic direction of the company (Miller, 1989).

According to Guest (1997) and Purcell (1999) HRM goals depend on many variables. To fit HRM to key features of the organisation's external and internal environment has become a key theme in HRM literature.

There are many sources of literature which define and adjust HRM goals. Baird and Meshoulam (1988) argue that HRM goals should fit the organisation's stage of development, implying informal, more flexible styles of HRM. However, most models say that the HRM key goal is to achieve a fit with competitive strategy. This was affirmed by Schuler and Jackson (1987) who use Porter's competitive strategy theory to create a normative model which argues that HRM goals ought to be designed to mutually reinforce the firm's choice of competitive strategy which will lead to improved performance. In addition, they suggest that current competitive strategy is indeed playing some role in shaping goals in HRM, but that goals are complex and various factors exert influences over time.

### **2.3 Human Resource Management and Technology**

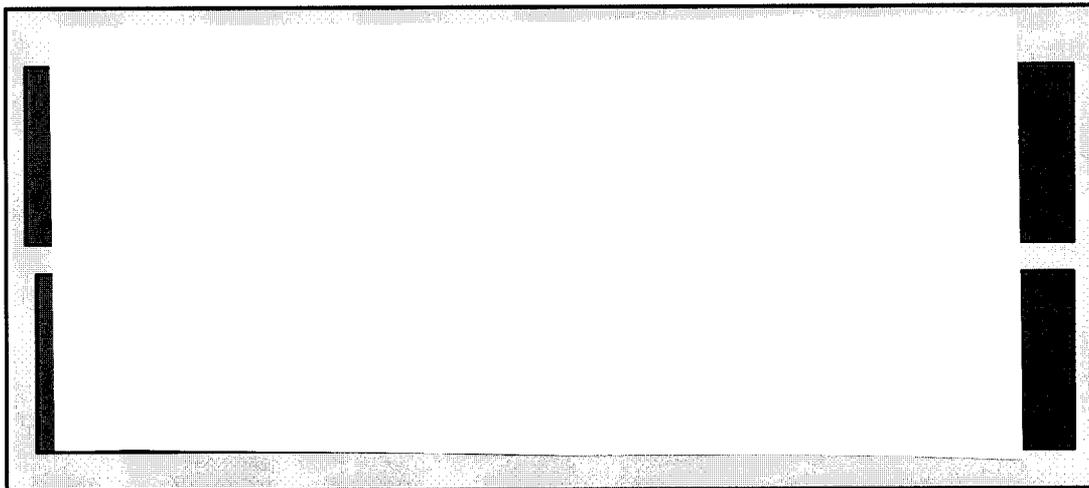
The use of technology in human resource management has grown considerably in recent years. Human resource information systems (HRIS) have developed from being largely used for administrative and data recording purposes to being used in processes such as recruitment and selection, flexible benefits,

development and e-learning (CIPD, HR and Technology – Beyond Delivery, 2006).

According to Tannenbaum (1990) HRIS is any system that helps an organisation to acquire, store, manipulate, analyse, retrieve and distribute information about an organisation's human resources.

Due to the new way of managing people using HRIS, a new HR model has been developed by David Ulrich. It is based on three organisational elements: the first is economy of scale and process efficiency via the Shared Service Centre (SSC), which is an organisational concept that ensures economy of scale through grouping transactional process (for instance, finance, HR and IT); the second is focused on business-centred value-added HR activities via business partners; and finally the third with the Centre of Expertise (CoE) providing overall policy support and advice to the organisation.

Ulrich's Model emphasises the need of HR to be a strategic partner of the business and to become much more business- and customer-focused, cost efficient, innovative and structured in a way that it could respond quickly to changes in priorities. See Figure 6 below.



Source: Using technology to create value: designing the tool for new HR functions by Allan Boroughs and Cat Rickard (2009)

Figure 6 - The "new" HR Model

*"Companies now are finding that the HR issues are, in fact, centre stages for business competitiveness. The intellectual capital, core competences and organisational capabilities are all the pieces that are central to*

*success*". (Ulrich - Human Resource Champions – Harvard Press, 1997).

Thus, as technology improves, organisations use information systems to manage an increasing number of HR processes effectively in order to build organisational capability and to deliver the following business outcomes:

- **Knowledge** - links HR to the business by using partners with specialist knowledge to advise and develop HR-related policies and practices and to influence organisational and individual performance and behaviour at work.
- **Alignment** - connects HR with the business by understanding the business and by integrating HR initiatives with, and helping to shape, corporate strategy by scanning and reading the business strategy.
- **Relationship** - makes HR a partner of the business by understanding the workforce as well as the needs of the organisation.

## 2.4 E-HRM Platform

E-HRM platform is a process change in companies' structures that combines areas through technological and economical dimensions to meet new consumers' needs, which leads to a new way of managing people (Pagani, 2003).

The term e-HR first came into use in the 1990s when e-commerce started dominating the business world (Kovach, K., Hughes, A., Fagan, R., Maggitti, P., 2002). Recent technological developments have made 'business at the speed of a thought' and a 'paperless office' a reality and has created a real time, information-based, interactive work environment. E-HR refers to conducting human resource transactions using internet technology (Martinsosns, M., 1996). At the inception of e-HR, the HR professionals use technology to make accurate, detailed information available to managers and employees. However, it has evolved so that today it is possible to deliver almost any HR service

through the use of technology (Kovach, K., Hughes, A., Fagan, R., Maggitti, P., 2002).

E-HRM is about using technology within the HR functions. This technology can range from simple spread sheets, to comprehensive HRIS solutions and e-learning (CIPD, HR and Technology – Impact and Advantages, 2007).

As mentioned in item 2.2.3 (Human Resource Management Main Activities), HRM is a set of practices that defines the nature of work and regulates the employment relationship. The box below shows the potential use of technology to support HR activities. Thus, technology can be used to support HR main activities across the entire employment cycle from acquiring to rewarding, developing, protecting and retaining staff.

<b>Activities of HRM</b>	<b>Potential use of technology</b>
People development and performance management	E-learning
	Online appraisal systems such as 360-degree feedback
	Training needs analysis
	Career management
Resourcing	Online recruitment and selection
	Induction packages
	HR planning and forecasting
Employee relations and communications	Intranet
	Staff survey
	Shared services centres
	OD approaches
	Team development
HR information and accounting	Intranet
	Employee and management self-service
	Metrics and human capital measurement
Retention and reward	Payroll
	Total rewards statements
	Employee self-service in creation of flexible rewards packages
	Reward modelling / pay reviews
	Pension and benefits administration

Figure 7 – Potential use of technology in HRM

In addition, e-HRM has allowed HR departments to extend services directly to managers and employees through the built-in features in the provisioning systems in the e-HR platform. One of these features is called '**employee self-service**' (ESS) which is a fast-developing trend in the delivery of HR information. It allows employees to access and maintain HR information about themselves via the web. Likewise, managers have manager self-service, which provides a variety of tools and information for managers; for example, they can access information about their staff which means they are able to analyse this information and improve managerial effectiveness (CIPD, HR and Technology – Impact and Advantages, 2007).

Finally, a survey by CIPD has shown (CIPD - People Management and Technology: Progress and Potential, 2005) that the use of technology varied considerably with absence management being the most common function (85%), followed by training and development (75%), rewards (75%), managing diversity (57%), and recruitment and selection (51%). One of the fastest growing trends in the delivery of HR information is Employee Self Service (ESS) with 80 % of large US companies delivering some information to employees via an ESS system.

#### **2.4.1 Barriers**

A study made by Sue Weekes to Personnel Today Journal (2006), has pointed out the top six barriers which users have with HR software systems.

Increased workload, lack of support from HR and inconsistency in implementation are just some of the concerns that organisations have about moving HR functions on to the web or automating them with software. Such concerns have the potential to severely hamper the success of any e-HR implementation.

Unclear roles and increased workload - The flatter structure of many organisations today causes line managers to feel overloaded. Many view the devolution of HR via e-HR systems as further adding to their workload, as well

as confusing their role. While on the one hand it will be an extension of their managerial duties, it is also important to ensure that they are aware of the benefits.

Inconsistencies in implementation - It is important for HR to take a staged approach to the implementation, advises Christopher Berry, managing director of software company Computers in Personnel. "e-HR can seem too big and too scary for many managers," he says. "Ensure they are able to secure some quick wins with the system early on, and put a phased route map in place detailing the objectives of the system."

Alienation of HR - Inevitably, as staff access more functions through e-HR, the workforce will have less regular contact with the HR department. This can cause alienation and, in turn, lead to mistrust. "This can stem from the perception that HR is putting e-HR in place to suit themselves, rather than to benefit the employees or line manager," warns Peter Reilly, director of corporate consultancy at the Institute for Employment Studies.

Consulting with all parties when designing the system, and communicating the benefits to everyone, is vital, but so too is staying in control of the project to ensure the system delivers, he adds. Moreover, "Don't withdraw the traditional service until you know the new one isn't going to place a burden on employees or managers," he says. "It sounds simple, but HR must be mindful of this, and remember that technology doesn't always do what it is supposed to."

Lack of objectives for line managers - Reddington's research from Martin Reddington Associates showed that line managers are frustrated that they are not able to devote enough time to HR activities, such as appraisals, because of operational pressures. Unless they receive explicit support from senior managers and recognition for the HR duties they take on, Reddington believes this is unlikely to change just because e-HR has been introduced. "Individual line managers' performance objectives should formally state their HR activities, and they should be evaluated to assess whether they are carrying out their new personnel roles correctly," he says.

Lack of adequate preparation - Under-valuing the importance of training in a new system has become something of a hoary old “cliché” when it comes to e-HR, but sadly, many consultants working in the field report that it is still very much a reality.

Lack of support from HR - In e-HR implementations, HR must embrace a new role, more like that of an adviser or consultant and business partner. If they don't, they will be unable to give line managers and employees the necessary support when HR is devolved. "It's critical to ensure that sufficient attention is given to up-weighting the capabilities of the HR function, so they can perform their new roles effectively," says Reddington.

#### **2.4.2 Reasons, Benefits, Trends and Critical Success Factors for adopting e-HRM**

The reasons behind an organization's decision to adopt technology within its HR function may vary. They include cost cutting and increased operational efficiency; the desire of the HR function to change the nature of its relationship with employees and line managers; the transformation of HR into a customer-focussed and responsive function; the ability to produce comprehensive and consistent management information.

According to the Kettley and Reilly report (Hussain, Z., Wallace, J., Cornelius, N. E., 2007), the potential benefits of e-HR are divided into three areas as follows:

- **Operational efficiency** - Reducing overhead costs, enhancing the accuracy of data, eliminating the costs of printing and disseminating information, minimizing IT infrastructure costs by moving towards a common HR service platform and enhancing the ability to distribute HR information and services globally.
- **Relational impact** - Changing the nature of the relationship between HR, line managers and employees

- **Transformational impact** - Transforming HR's role into that of a strategic business partner, adding greater value to the business by increasing HR's influence as customer-focused consultants, enabling new, flexible and responsive methods for delivering HR services, expanding HR's scope as the experts of an organization's 'people-processes' and developers of value propositions for different employee groups.

In addition, through an analysis of the literature and interviews with HR professionals, research from The Cranfield School of Management noted the following five trends or impacts regarding to e-HR:

- Substantial reduction in cost and time for many HR activities;
- Transition of administrative activities from the HR department to the employees themselves;
- Increase in the information readily available to employees;
- Need for integrating HR with other organizational systems, especially information systems;
- Increased emphasis on HR as a strategic business partner.

Finally, according to Gupta (2000) the critical success factors (CSF) for a successful e-HRM platform implementation are:

- Top management commitment;
- Formation of a cross-functions task force to link the HR practices with the business;
- Phased deployment;
- Early planning for user training and support;
- Patience because any change takes time.

## 2.5 A Business perspective to e-HR

The e-HRM business solution is designed for HR professionals and executive managers who need support to manage the workforce, monitor changes and gather the information needed in decision-making. At the same time it enables all employees to participate in the process and keep track of relevant information (Parry, E., Tyson, S., 2007).

A number of authors have commented that the use of technology within HR not only makes HR activities more efficient, but may also facilitates a change in emphasis for HRM to become more strategic within the organization. (Kettley,R., Reilly, P., 2003). Recent literature has argued for the idea of HR as a strategic business partner, rather than its administrative or transactional role that it has held historically (Shani, A., Tesone, D.V., 2009).

With the growth of information technology, a large part of the administration can be accomplished using self-service or automated systems. Therefore the HR function can, and increasingly does, make significant contributions to building an organization that is staffed by the right human capital to carry out the work of the firm, and to enable the accomplishment of the business strategy (Kettley,R., Reilly, P.,2003).

E-HR meets the challenge of simultaneously becoming strategic, flexible and customer-oriented. It allows companies to have lower administrative costs, increased productivity, fast response times, improved decision making and enhanced customer service all at the same time (Guetal, H. 2003).

According to Steve Foster (2007), perhaps the most powerful applications for E-HR are the tools that give managers better control of their business. For example, online performance management systems can speed up the process and improve the quality of appraisals, enabling managers to focus on what's important. Absence management systems give managers an insight into patterns and trends and support programmes to improve attendance. Likewise, online timesheets reduce administration and errors.

Moreover, Steve also says that good data represent an essential planning tool. Organisations often have lack of basic information to plan for the medium and long term. As well as basic employee statistics (how many people, where they are, grades, pay), strategy formulation requires rich data about employee skills, competencies and performance, all of which can be captured in an e-HR system. The business intelligence component of e-HR technology is therefore critical and the system design should ensure that underlying processes generate the data needed to support strategic planning.

### **2.5.1 The importance of e-HRM in the business strategy**

The revolution of web-based technology has gradually but inevitably affected the HRM function. The influences of this technology run throughout the entire function.

As technology improves, organizations can use information systems to manage a larger number of HR processes in an increasingly effective manner to contribute to the availability of strategically significant information and knowledge, thereby potentially improving competitive advantage (Panayotopoulou, L. Vakola, M. Galanaki, . 2005).

One of the most significant outcomes of the use of modern technology within HR appears to be the availability of accurate and detailed information (CIPD, HR and Technology – Impact and Advantages, 2007). Kovach et al. (2002) noted that as early as the mid-1900s HRIS began to be seen as an information resource and the data collected from HRIS can now provide the management level a decision analysis tool as well as a robust database which provides detailed information for a variety of areas. Therefore, through the management of HR data, firms are now able to perform calculations that have effects on the business as a whole and can drive business decisions and strategies. Broderick and Boudreau (Boateng, A. A. 2007), also argued that a common payoff for using technology in HR is a more efficient management of information. Bussler and Davis (Broderick, R., Budeeau, J.W., 1992) noted that information systems

can transform HR data and add value by turning it into usable information. HR can then take this information and use it strategically to drive organisational decisions (Ulrich, D., 1997). This implies that, HRIS can produce data-driven to HR strategies and encourage the shift from HR being tactical and reactionary to play a more strategic role (Panayotopoulou, L. Vakola, M. Galanaki,. 2005).

The biggest challenge HR will have in adding value to a business is to play a vital role in the development and implementation of strategy. Ulrich (Ulrich, D., 1997) has argued that HR should move to the role of strategic business partner in addition to performing an administrative and transactional role, by being a 'change agent' and 'employee champion'.

The use of technology in HR is believed to be an opportunity for HR professionals to become strategic partners of the business. The assumption is that “e” would allow HR to become more efficient and provide accurate information for decision-making when and where it is needed. The association between e-HR and strategic partnering of the human resource function is that the e-HR system has the potential to give HR departments time to focus on more strategic initiatives. If HR services can be delivered through the use of technology, HR has access to data of strategic importance which means that HR can contribute towards developing and implementing strategies.

It is believed that the adoption of this new technology has gradually evolved over the years and as a result will shape the typical HR job, shifting the focus from administration to strategy development.

There was evidence that by automating as many processes as possible, HR was able to significantly reduce the time spent on routine administrative tasks, allowing HR staff time to concentrate on more strategic aspects of the HR role and to be seen as partners a in a business (Panayotopoulou, L. Vakola, M. Galanaki,. 2005).

Finally, Figure 8 below shows that the use of technology may allow HR practitioners to move up through the pyramid and undertake more strategic work as a business partner by freeing up time for strategic-level work and by providing the managers with quantifiable data to drive this strategy.

Source: CIPD – HR and Technology: Impact and Advantages (2007)

Figure 8 – HR value pyramid

## 2.6 Conceptual Model

In order to enable managers to focus on what is important and employees to participate in the process of becoming more strategic within the organization, the new model created by David Ulrich seeks to focus on a framework that encourages specialist knowledge and position it to deliver the challenges presented (Ulrich, D., 1997).

The conceptual model of this dissertation takes the Ulrich model as a basis and moves it further to combine the new HR concepts with the electronic environment. The model focuses on specialist knowledge and positions it to deliver the challenges presented to HR when introducing an electronic platform (e-HR). The new roles are mapped out for e-HR and each role combines to focus on delivering improvement within the function and within the business. Thus, the Strategic Partner must focus on strategic issues, the Administrative

Expert supports the financial goals of the company by focusing on having an efficient and high quality service, the Employee Champion establishes the relationship and improvement of employee matters and finally the Change Agent role allows the functions to meet the challenges of the changing business environment and positions the business to execute its strategy (Boroughs, A & Rickard, C. 2009).

Having established the new organisational model to meet the challenges, the HR Business Partner (HR BP) role must be defined. The HR BP will need to operate in a number of areas which require a distinct skill-set to deliver the abovementioned business strategy. The HR BP role is closely aligned with the business. Even though the need to deploy extensive HR technical knowledge still exists, the key outcome is the effective application of the new technology (e-HRM platform) to deliver the business strategy (Boroughs, A & Rickard, C. 2009).

Finally, the Shared Service Centre integrates the HR main activities acting as middleware which contains the key policies and processes. Moreover, it incorporates a holistic approach in which no part can stand alone (Reilly, P. 2000).

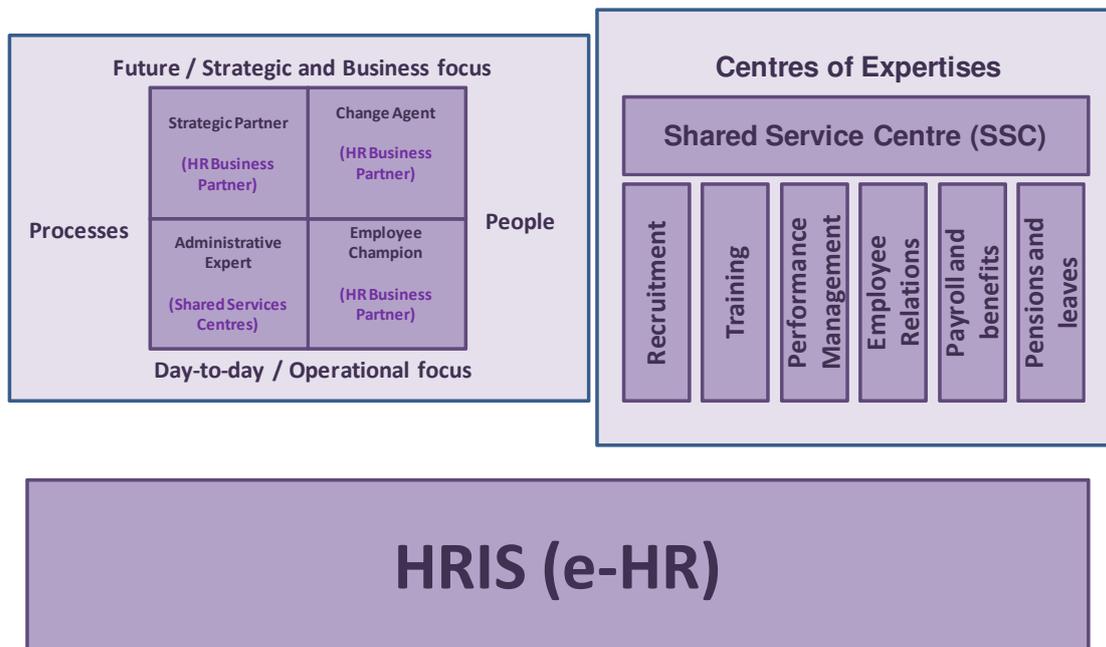


Figure 9 – Conceptual Model

## 2.7 Summary

The aim of this literature review is to initially present a definition of HRM as a way of thinking about how people should be managed as employees in the workplace (Pinnington & Edwards, 2000). Then, study contemporary models to show that there is not just one model in HRM, but an evolving set of models which compete and complement each other. After that, the aim is to also present the new Ulrich model which focuses on the importance of employees' participation in the process of becoming more strategic within the organization.

The Ulrich model gives a business perspective and links HR to the business strategy, showing how it is important to develop an organisational model structure which connects the new HR concepts with the electronic environment. In other words, how the e-HRM platform can help, improve and be aligned to the business strategy through sharing services using the Shared Services Centre (SSC) concept.

### 3 Methodology

#### 3.1 Introduction

This chapter will present the methodology chosen to explore and answer the research question. The research onion below, points out systematically the process of researching. It illustrates the need of a strategic method to ensure that the original aims are met and the research question is properly answered.



Source Mark Saunders, Phillip Lewis and Adrian Thornhill (2009)

Figure 10 – *The research 'onion'*

In this chapter, there will be a brief description of the research philosophy in order to link it with the literature review. Then, the research strategy is described, including methods deemed appropriate to the philosophy chosen and its limitations. Subsequently, there is a description of the research design

and procedures adopted. Finally, it concludes by considering the ethical issues that were considered by the researcher.

### 3.2 Research Philosophy

The research philosophy is represented by the first two layers of the research 'onion'. The philosophy contains assumptions about the way in which the world is seen. Moreover, the philosophy adopted will be influenced by practical considerations, the main influence of which is the researcher's particular view of the relationship between knowledge and the process by which it has developed (Saunders et al, 2009).

The research will be based on a combination of **Interpretivism** and **Induction Approach**. This combination was chosen because according to Fisher (2010) both approaches are based on knowledge of the processes by which people in groups and societies make sense of their own world. In other words, there is recognition that human subjectivity and reality is socially constructed, therefore influenced by values and ways of seeing the world.

Interpretivism research (Fisher, 2010) is carried out with the practitioners and there is an attempt to link practitioner and experiential knowledge with academic knowledge. Moreover, according to Saunders et al (2009), interpretivism advocates that it is necessary for the researchers to understand differences between humans in our role as social actors - in other words, we play a part on the stage of human life. We interpret our everyday social roles in accordance with the meaning that we and others give to these sets of roles.

In addition, Interpretivism always holds a view that the world is subjective and is generally associated with qualitative research. The interpretative approach allows researchers to get closer to participants to interpret their subjective understanding of reality. This usually relates to capturing data on expectations and experiences of performance appraisal which is usually a subjective matter.

Finally, the Induction approach will be a part of this research when there is a close understanding of the research context and a flexible structure which permits changes to the research emphasis as it progresses.

### 3.3 Research Strategy

The research strategy will enable the researcher to answer properly the research question. It corresponds to the next two layers of the research 'onion': strategy and the methods.

The strategy was developed on the basis of the research aims, which is related to the use of technology as a tool to manage people. I have worked for the last 20 years in the telecommunications sector designing technology solutions for customers. For the last 4 years, in addition to my technical role, I was responsible for technical co-ordination and team leadership which included people management. Because of the technical and management experience and the researcher's business orientation, this project motivated her to join two worlds, the technical and the management in order to visualise how technology based on an e-HR platform can help the human resource area to align its main activities and goals with the organisation's strategy and business.

Two strategies of research will be used: Case study and Action research. Action research and case study approaches will be used because they focus on small-scale sampling.

According to Robson (2002), case study involves an empirical investigation of a particular contemporary phenomenon of the real life. This method will allow the researcher to gain a richer understanding of the research context and also the processes (Morris and Wood, 1991), because case study has considerable ability to answer questions such as what, how and why.

According to Elliot (1991) action research is about improving practice and observation and according to Fisher (2010) it becomes a practitioner in

everyday life and reflects upon the consequences for both the researcher and the organisation.

For academic purposes, according to Eden and Huxham (1996) action research is concerned with the development of the theory. They emphasise that it is more likely to focus on the subsequent transfer of knowledge gained in one specific context to another.

In order to support this work, questionnaires will be used to collect data which will be analysed, understood and organised to generate valid information for the research and future findings which will be part of the next chapter of this research. The questionnaires will be distributed to the Human Resource sector in two organisations: a) The University of Chester and b) The Royal Dutch Shell plc.

### 3.3.1 Adopted Methods

The Figure 11 below shows research choices and its divisions. The subject of the research and the small number of questionnaires answered meant that the most suitable method adopted to collect and analyse data was **mixed-model research**. It uses quantitative and qualitative data collection, simultaneously combining these techniques. The questionnaire responses will be analysed in order to generate predominantly non-numeric data.

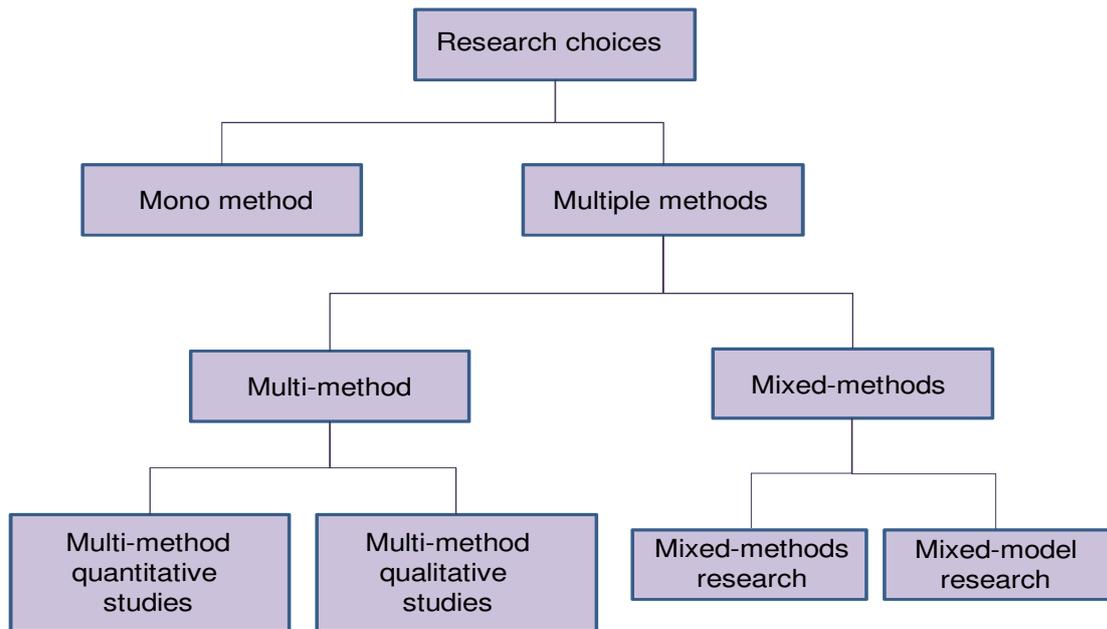


Figure 11 – *Research Choice*

The quantitative data will be qualited to generate a report, which will present a comparison between the two organisations. The comparison will be made to understand if two companies with different types of business and strategies both use the e-HR platform to manage its workforce in order to encourage them to have engagement with the business and strategy of the organisation.

### 3.3.2 Rejected Methods

One research method is no better than the other; it is worth emphasising that no research strategy is superior or inferior to any other (Saunders et al 2009).

**Experiment** and **surveys** were rejected because they are more suitable for scientific projects. Additionally, these methods need a larger amount of questionnaires, which is not the case in this research. Although questionnaires are being used, the quantity is not big enough to justify these methods.

**Grounded Theory** was rejected because it tends to drive people to be too subjective. **Ethnography** and **Archival research** were too inductive and time consuming. Neither is suitable to the nature of the research.

Interviews with individuals and groups were rejected because of the nature of the subject which may inhibit some employees to give opinions in front of line managers. Moreover, according to Saunders, Lewis and Thornhill (2009), although interactions may lead to highly productive discussions, they also cause inhibition because someone may dominate the interview. This may create unreliability of the data because a reported consensus of the group may not be the view of the entire group.

### **3.4 Research Design**

The researcher has chosen to base her work on two organisations with different business and strategies. This choice allows the researcher to apply action research and case study methods in order to have an explanatory study based on a more qualitative and quantitative study. This material will be used to contextualise the findings and identify any correlation in trends.

The open-ended questions in the questionnaire (Appendix B) and the ranking tables (Appendix C) are based on the research aims, the findings from the chapter 2 – Literature Review and are aligned with the conceptual model presented in Figure 9 – Conceptual Model.

In order to make the study more reliable, a comparison between the two companies will be made. This comparison uses the same triangulation technique but with two sources instead of three. It is valid to undertake this kind of research because the findings will enable the researcher to discover if, despite being different businesses, the two companies have the same reason for implementing an e-HR platform, which is the alignment of the business and strategy with the human resource area.

### **3.5 Research Procedures**

The researcher has contacted key persons in both organisations in order to obtain permission to carry out the research. Initially, this contact was made by e-mail and then meetings with the relevant people were arranged. The aim of the meetings was to explain the research and how it would be conducted; this process was explained in a participant information sheet (Appendix A), which was given to each participant at the beginning of the meeting. The researcher also asked each participant if the due date requested was suitable for them, in order to disrupt their work priorities as little as possible. A two week period was agreed to respond to the questions.

The questionnaire contains a selection of open questions relating to the literature review and conceptual model.

Although there were problems with the return of the questionnaires due to the work load of the participants, the majority were received. This delay is detailed in the next chapter item 4.2 – Application of Methodology. Then, this data was analysed to originate the research findings, which is the basis for the next chapter.

### **3.6 Ethical Considerations**

We should always think carefully about ethical issues. According to Saunders et al (2009), this has important implications for the negotiation of access to people and organisation and collection of data.

An introductory e-mail was sent to the target person in HR in both companies. Firstly, it asked for authorisation then it explained what the research was about and why it was being done. All participants were offered access to the findings and ethical considerations were applied to ensure confidentiality.

### 3.7 Summary

This chapter has described the processes and procedures that were followed in order to access the information needed to answer the research question and fulfil the objective of the dissertation in the most effective way possible.

The theoretical basis for the research design was chosen to maximise the opportunity for a comprehensive understanding of what is being researched and to write objective and clear conclusions about the subject matter.

The balance between qualitative and quantitative approaches gives the researcher a better insight from differing perspectives which enables a contextualisation of the information gained.

## 4 Findings

### 4.1 Introduction

This chapter presents the key findings of the study. These are based on the analysis of the open-ended questionnaire. It also presents an overview of the data that was collected, an explanation and justification of the data analysis methods that were used and finally a discussion of the findings.

### 4.2 Application of Methodology

The researcher contacted a focal HR person at each organisation studied in order to introduce herself and to explain what would be researched and why.

Then, on 16<sup>th</sup> of May 2011, the researcher sent one questionnaire to each person who was contacted and they forwarded the questionnaires to specific employees in the HR department. They ensured that the questionnaires were sent only to people who were used to dealing with the e-HR platform. Twenty questionnaires were sent in total, 10 to each organisation.

Initially, the number of responses was low, due to the fact that many of the respondents were very busy at that time. However, on second contact with each focal person the researcher asked if would be possible to have the employees' contacts in order to e-mail them directly, explaining that it was really important to have the replies as soon as possible as the dissertation and consequently the MBA could not be completed without this input. As a result, more responses were collected which allowed the researcher to have enough data to complete this project.

### 4.3 Findings in relation to the main theme

The analysis of the data was made in two stages. First, the two companies' answers to the open-ended questions were compared to generate primary statements. Then, the second stage classified some HR issues by importance, use, integration and improved processes. This stage also uses some Chartered Institute of Personnel and Development (CIPD) research results as an extra comparison in order to make the research more reliable and business-oriented.

The CIPD result tables were also used as a guide and benchmark for the analysis of the results of this research. The following tables were taken: CIPD (2007). *HR and Technology: Impact and Advantages* - Research into practice (page 8, table 5 and page 23, table 8) and CIPD (2004). *People and Technology: Is HR getting the Best out of IT?* - Survey Report (page 9, tables 3 and 5).

The first stage is presented in Table 1 below. It is a compilation of the responses received from Shell and The University of Chester. The statements are placed side by side in order to visualise it easier.

SHELL's STATEMENTS	UNIVERSITY OF CHESTER's STATEMENTS
<i>Q1) How long have e-HR platform been in place?</i>	
E-HR platform has been used since 2002.	E-HR platform has been used since 2005.
<i>Q2) How many employees' records do the system held?</i>	
System number of records between 50,000 and 100,000.	System number of records maximum of 2,310, but currently holds 1,966 records.
<i>Q3) Who sponsored the implementation of the project?</i>	
<ul style="list-style-type: none"> <li>• CEO;</li> <li>• HR Director;</li> </ul>	<ul style="list-style-type: none"> <li>• CEO;</li> <li>• HR Director;</li> </ul>

<ul style="list-style-type: none"> <li>• Line Managers;</li> <li>• IT Managers.</li> </ul>	<ul style="list-style-type: none"> <li>• IT Managers.</li> </ul>
<p><i>Q4) Is the platform user-friendly and reliable?</i></p>	
<p>The platform is <b>friendly and reliable</b> because it is based on SAP.</p>	<p>There are divergent opinions about the system being <b>user friendly</b>, because it was built on legacy technology. However subsequent versions have become user friendly. On the other hand, all responses indicate that it is extremely <b>reliable</b>.</p>
<p><i>Q5) What has been the impact of the use of technology on the role of the HR function?</i></p>	
<p>The <b>main impacts</b> that have been observed since technology has been <b>on the role of the HR function</b> were:</p> <ul style="list-style-type: none"> <li>• Less margin of error;</li> <li>• Line managers have been sharing more responsibility with HR department;</li> <li>• Improvement in data quality because there is a common system.</li> </ul>	<p>The <b>main impacts</b> that have been observed since technology has been <b>on the role of the HR function</b> were:</p> <ul style="list-style-type: none"> <li>• Better information provision;</li> <li>• Accuracy of data;</li> <li>• More data collected;</li> <li>• Management information reports;</li> <li>• Shared data throughout department;</li> <li>• Single point of data entry;</li> </ul> <p>HR system has streamlined processes and they are in the process of changing policies based on the technological uses of the system.</p>
<p><i>Q6) Has the HR function gained a more strategic role in the organisation? What do you point out?</i></p>	

<p>In terms of <b>strategic role in the organisation</b>, all respondents affirmed that HR function has gained a more strategic role since the system has been implemented.</p> <p>E-HR platform has helped to improve:</p> <ul style="list-style-type: none"> <li>• Data collection in order to make the area more informed and prepared for strategic decisions;</li> <li>• Efficiency</li> <li>• Reduction of costs;</li> <li>• Ease of reporting methodology;</li> <li>• Standardisation.</li> </ul>	<p>In terms of <b>strategic role in the organisation</b>, E-HR platform has helped to promote better information provision.</p> <p>E-HR platform has helped to improve:</p> <ul style="list-style-type: none"> <li>• Assessment of what is happening in a department;</li> <li>• Accuracy of data for workforce planning;</li> <li>• The overview of how to inform and assist employees.</li> </ul>
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*Q7) Technology is generally associated with increased efficiency, speed and reduced cost. What impact does it have in terms of business strategy?*

<p>The main <b>impacts</b> that the system has promoted in terms of <b>business strategy</b> resulted from moving to a three tiered system:</p> <ul style="list-style-type: none"> <li>• First tier is self-service via HR online;</li> <li>• Second tier is shared service;</li> <li>• Third tier is specialist advice.</li> </ul> <p>In addition to shared service tiered model, easy reporting methodology, standardisation and a single data source were also listed as issues which helped HR to align their roles with the organisation business strategy.</p>	<p>The main <b>impacts</b> that the system has promoted in terms of <b>business strategy</b> were:</p> <ul style="list-style-type: none"> <li>• Workforce planning, which allowed talent to be managed more efficiently;</li> <li>• Less duplication of work, because of it had become a single data source system;</li> <li>• Streamlined processes, the single data source system is used for improving services to clients and reducing costs;</li> <li>• Integration across the entire University which allowed for better management information, thereby better informed</li> </ul>
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	decision-making and business-planning.
<i>Q8) Does the organisation have a Shared Services Centre (SSC)? If yes, How have managers and employees been encouraged to use the Shared Services Centre (SSC)?</i>	
Shell has three <b>Shared Services Centre (SSC)</b> hubs across the globe. There are specific campaigns of encouragement to Line Managers and employees to use the SSC three tiered model with the distribution of information leaflets and posters.	The University of Chester does not have <b>Shared Services Centre (SSC)</b> .
<i>Q9) What was the impact on communication in the organisation? Has it facilitated two-way communication, leading to more engaged and committed workforce?</i>	
The SSC has facilitated the two-way communication. It has enabled the HR organisation to ask employees for their input via an annual Shell people survey (employee survey) this is all organised online and has allowed the organisation to initiate an annual shell people questionnaire with a quick turnaround. The HR Online page also allows for mass communication regarding changes to policy or regarding specific tasks that affect all employees.	The two-way communication has been facilitated and it will do so even more as the system is rolled out. Employee self-service allows individuals to update their own personal details. This will increase to include bank details, and later on holidays and absence.
<i>Q10) What were broad objectives and drivers to have an e-HR platform?</i>	
<b>Broad objectives and drivers</b> which were identified to have an e-HR	<b>Broad objectives and drivers</b> which were identified to have an

<p>platform were:</p> <ul style="list-style-type: none"> <li>• A need to improve the quality of HR activities to the business and, at the same time, to reduce the overall costs;</li> <li>• The provision of a system which supports the identification, selection, deployment, development and retention of people to support the needs of business;</li> <li>• The provision of a foundation to promote personal development, growth, career satisfaction, and appropriate reward for employees;</li> <li>• The elimination of fragmented, redundant and labor-intensive processes traditionally identified with HR functions.</li> </ul>	<p>e-HR platform were:</p> <ul style="list-style-type: none"> <li>• A need to improve the quality of HR activities to the business and, at the same time, to reduce the overall costs;</li> <li>• The provision of a system which supports the identification, selection, deployment, development and retention of people to support the needs of business;</li> <li>• The provision of a foundation to promote personal development, growth, career satisfaction, and appropriate reward for employees;</li> <li>• The elimination of fragmented, redundant and labor-intensive processes traditionally identified with HR functions;</li> <li>• An overview of career progression, talent management, skill and speciality resourcing.</li> </ul>
<p><i>Q11) Did the e-HR platform assume any direct impact on HR area? e.g.: a headcount reduction and/or utilisation of the resources in more strategic services. If so, was this achieved or is it a target to be achieved?</i></p>	
<p>Most of the responses affirmed that <b>e-HR had a significant impact on the HR sector</b> with regards to headcount</p>	<p>The main impact of e-HR was to re-focus roles to ensure that management data is being used</p>

<p>reduction and centralisation of roles. They said that their target has been achieved. Only a few responses were not sure if the target has been achieved.</p>	<p>more effectively across the University.</p> <p>However, the system is still being implemented and, at this stage of implementation, the HR system has not lead to headcount reduction through improved efficiencies.</p>
<p><i>Q12) For functionality in operation, is the data efficiently maintained up-to-dated by the users?</i></p>	
<p>All respondents affirmed that the <b>data in the system are maintained efficiently up-to-date</b> by the users.</p>	<p>The <b>data in the system</b> are maintained efficiently <b>up-to-date</b> by the users and data quality checks are run often and reported back to Line Managers. This process has increased significantly with the introduction of the payroll system.</p>
<p><i>Q13) To what extend has Management information improved?</i></p>	
<p>The <b>Management information</b> has improved dramatically. Because the single data source system has helped to execute reports with reliable data.</p>	<p>The <b>Management information has improved</b> extensively throughout the University but outcomes such as:</p> <ul style="list-style-type: none"> <li>• Accuracy of data;</li> <li>• Streamlined processes and procedures;</li> <li>• Identification of management information reports.</li> </ul> <p>Have helped to execute reports</p>

	<p>with reliable data.</p> <p>Moreover, prior to the system, such levels of information were simply not available. Also, the introduction of more sophisticated report writing software means that more extensive reporting is possible. This negates the need for specialised consultants to write reports and allows for greater productivity in-house.</p>
<p><i>Q14) How successfully has the HR function itself adapted to use the system? Are there any issues? e.g.: lack of knowledge, resistance to change still using old processes.</i></p>	
<p>Generally speaking, most of the responses said that the system had a very <b>successful adaptation</b>. However, issues such as;</p> <ul style="list-style-type: none"> <li>• Resistance to change;</li> <li>• Inadequate training;</li> <li>• Lack of knowledge.</li> </ul> <p>These were <b>problems identified when the e-HR platform</b> was first used.</p>	<p>The <b>HR team took a couple of years to really integrate and adapt</b> themselves with the system, because it is complex and needs to be updated regularly. However, since the payroll system has been installed, they are using the platform more regularly and processes are being developed and are being <b>integrated successfully</b>.</p> <p>But, <b>when the payroll system</b> was first used <b>problems were identified, as follows:</b></p> <ul style="list-style-type: none"> <li>• Lack of training;</li> <li>• Support;</li> </ul>

	<ul style="list-style-type: none"> <li>• Software usability</li> <li>• Full engagement of operations team with data entry.</li> </ul>
<p><i>Q15) Have there been any unexpected benefits or disadvantages not identified at the outset?</i></p>	
<p>This question was not answered by Shell.</p>	<p>There are some <b>disadvantages</b> with the system such as:</p> <ul style="list-style-type: none"> <li>• It is not fully operational;</li> <li>• It is old with many limitations (it was built twenty years ago);</li> <li>• It is very complex which leads to slow in-house implementation.</li> </ul> <p>The main <b>advantage</b> of the system is the personalisation of accounts, which allowed users to input data and create an account using only one screen.</p>
<p><i>Q16) Do you consider there to be any issues particular to the organisation, which may impact on the use of technology in the HR area?</i></p>	
<p>When asked if there were any issues which may <b>impact on the use of technology at the HR area</b>, Shell's responses were very specific:</p> <ul style="list-style-type: none"> <li>• Lack of knowledge;</li> </ul>	<p>The particular outcomes which could be considered were:</p> <ul style="list-style-type: none"> <li>• The University has to provide a considerable amount of information to the Government and</li> </ul>

<ul style="list-style-type: none"> <li>• Inadequate training.</li> </ul>	<p>regulatory bodies such as HESA and the ONS, one of the reasons the University chose the current system is that it contains a HESA module within it to <b>reduce the volume of work</b> needed to prepare this information;</p> <ul style="list-style-type: none"> <li>• Knowledge of business objects;</li> <li>• Reporting tool is a very reliant feature especially now that the payroll is integrated</li> </ul>
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Table 1 – Questionnaire observation

### 4.3.1 Case Study Description

According to Yin (1994: 103-105) (Fisher, 2010: 205), there are two general strategies which can be adopted for analysing case studies; theoretical propositions and case description.

Following the adopted methodology, the researcher has chosen to use the case study description strategy because it better suits the kind of work which has been developed. It includes mixed-model research that simultaneously uses quantitative and qualitative data-collection combination techniques together with an interpretative approach which allows researchers to get closer to the participants to interpret their subjective understanding of reality.

Moreover, when writing a descriptive case study the writer has to develop a series of themes and then use them as headings and sub-headings (Fisher,

2010). However, in the case of this project the headings will follow the questionnaire sequence in order to generate a rational guide.

The description uses Table 1 – Questionnaire observation, as a framework.

Both companies **recognise the importance of having an e-HR platform**. Therefore the implementation of the system was sponsored by the CEO, HR Director and IT Manager at both companies, which reinforces once more that the use of technology helps the alignment of the business strategy of the company with main activities of HR.

Shell has had its system since 2002 and The University of Chester since 2005. Even though Shell has significantly more records than The University of Chester - the former holds between 50,000 and 100,000 whilst the latter holds a maximum of 2,310 records, which reflects the difference of business and sizes of the companies - both companies affirmed that the platform is **friendly** and **reliable** and all data are maintained efficiently **up-to-date** by the users.

The need to **align business corporate strategy with HR functions** has created some **broad objectives** and **drivers** which were identified at both companies as follows:

- A need to improve the quality of HR activities within the business and, at the same time, to reduce the overall costs;
- Provide a system which supports the identification, selection, deployment, development and retention of people to support the needs of business;
- Provide a foundation to promote personal development, growth, career satisfaction, and appropriate reward for employees;
- Enable the elimination of fragmented, redundant and labor-intensive processes traditionally identified with HR functions.

Based on the objectives and drivers presented above, **technology has had a huge impact on the role of HR**. Both companies highlighted in different ways that the **improvement in data quality** was the most important impact that technology has brought to HR because it enabled a **single point of data entry**.

However, streamlined processes, data-sharing and a better disposition on the part of line managers to share responsibilities with the HR department were also mentioned as important outcomes which have transformed the way that HR functions are being seen by the organisation.

Therefore, the **HR function has gained a more strategic role in the organisation**. Shell affirmed that **efficiency has increased** through the establishment of a **reporting methodology** and consequently a **standardisation of processes** which has led to a **reduction of costs**. The statements of the University of Chester about this subject were not very different. They stated that **a better view of the processes** allowed them to keep employees **better informed and assisted for strategic decisions**.

It is also worth mentioning the correlation between the **alignment of technology and business strategy**. Shell moved on to a **three-tiered system**, which includes **Shared Services Centre (SSC)**. The first tier is composed of employee **self-service HR online**, the second is the **shared-services** and the last is **specialist advice**. The University of Chester does not have Shared Service Centre (SSC), however this was not a barrier to aligning technology and business strategy. The alignment was made through **streamlined processes** which allowed the University to have **better management information** which led to **better informed decision-making** and **business-planning**.

Shell's SSC also facilitated **two-way communication**, which led to a more **engaged and committed workforce**. Although The University of Chester does not have a specific SSC, the **employee self-service system** allows individuals to **update their own personal details**. This currently allows employees to input bank details and will eventually allow for the input of information regarding holidays and absence.

Both companies noted that the **e-HR platform had had a direct impact on HR**, mainly with regards to **headcount reduction** and the reformulation of roles to ensure that **management information** is being used more effectively.

The e-HR platform has improved dramatically the **level of management information** for Shell and for The University. This improvement has occurred

because the **streamlined processes** and **procedures** and **single data source** system allows reports to be executed with **reliable data**.

A new system takes time to be adapted and used properly and, on this point, the situation at both Shell and The University of Chester was clearly very similar. Both pointed out **resistance to change, inadequate training** and **lack of knowledge** as problems faced when the e-HR platform was first introduced. In addition, when asked about **disadvantages**, only The University of Chester responded by mentioning that the system is **slightly old** and **not fully operational**. On the other hand, **account personalisation is a great advantage**.

Finally, issues such as **lack of knowledge, inadequate training** and **knowledge of the business** have been identified at both organisations which **may impact on the use of technology by the HR**.

#### 4.3.2 Interpretation of the tables

The aim of this part of the research is to rank responses in the following categories:

- The reasons for using e-HR;
- The use of HR activities in an e-HR platform;
- The integration with the organisation-wide IT system;
- The processes which can be improved by using technology in HR area.

As stated previously, these tables are also compared with CIPD research, in order to have more structured results.

The tables have been colour-coded using **green**, **yellow** and **red**, in order to highlight the difference of opinions between the two case studies and the CIPD research.

- Green - exactly the same ranking, e.g.: 1 - 1
- Yellow – maximum of two points of difference, e.g.: 1 – 3
- Red – three or more, e.g.: 1 - 4

The table 2 below lists fourteen (14) reasons for using e-HR. It was completed by ranking from 1 to 14, with 1 being the strongest and 14 being the weakest.

Reasons for using e-HR platform.	Shell	The University of Chester	CIPD
Facilitating the achievement of business goals	1	1	11
Managing peoples' working time more effectively	2	2	10
Reducing operational costs	3	6	9
Improving speed at which information is available to managers and employees	4	9	3
Improving flexibility of information to support business planning	5	3	4
Improving services to employees	6	10	5
Reducing administrative burden on the HR department	7	5	2
Improving quality of information available	8	4	1
Producing HR metrics/measures for performance improvement	9	8	6
Improving productivity	10	11	8
Enabling employees to access HR information through Shared Services Centre (SSC)	11	14	11
Improving profitability	12	7	12
Aiding human capital reporting	13	12	7
Reducing headcount	14	13	13

Table 2 – *Reasons for using e-HR platform* – (This table were based on CIPD (2007). *HR and Technology: Impact and Advantages* - Research into practice (page 8, table 5) and adapted for the main theme of this research).

Surprisingly, the reasons for using e-HR varied widely for the three situations examined. Shell and The University of Chester classified **facilitating the achievement of business goals** and **managing peoples' working time more effectively** as the 1<sup>st</sup> and 2<sup>nd</sup> strongest reasons respectively, whilst for CIPD these reasons did not even appear in the top five, and were in fact ranked as the bottom two by CIPD (2007).

Furthermore, according to CIPD (2007) the five most popular reasons for using e-HR (**improving quality of information available; reducing administrative burden on the HR department; improving speed at which information is available to managers and employees; improving flexibility of information to support business planning; and improving services to employees**) have not changed since the CIPD 2004 survey.

This discrepancy could be due to the fact that the organisations contacted by CIPD were considering the immediate benefits which the above reasons could bring to the business and to the corporate strategy. Whereas, the responses from Shell and The University of Chester were based on the long-term benefits of using the e-HR platform. CIPD is also aware that reasons for using e-HR vary according to the type of organisation and the nature of the business over a period of time.

Table 3 below illustrates twelve (12) HR activities which were evaluated in terms of use by the HR sector in an e-HR platform. It was completed by ranking them from 1 to 12, with 1 being the most used and 12 the least used.

The results show that there is no pattern to how e-HR is used with the most common activities within HR.

<b>Use of HR activities in an e-HR platform</b>	Shell	The University of Chester	CIPD
Appraisal / performance management	1	8	7
HR planning	2	6	8
Absence management	3	1	1
Recruitment and selection	4	3	5
Expenses	5	9	10
Payroll, pensions, accidents and medical history	6	2	6
Communication	7	12	12
Rewards	8	7	3
Training and development	9	4	2
Managing diversity	10	5	4
Knowledge management	11	10	9
HR strategy	12	11	11

Table 3 – HR activities in an e-HR platform – (This table were based on CIPD (2004). *People and Technology: Is HR getting the Best out of IT?* - Survey Report (page 9, table 3) and adapted for the main theme of this research).

Considering the first five rankings, it has been observed that activities such as **absence management** and **recruitment and selection** are classified in 1<sup>st</sup> and on average in 4<sup>rd</sup> place by The University of Chester and CIPD. Although, these same activities are also ranked amongst the first five positions by Shell, activities such as **appraisal / performance management**, **HR planning** and **expenses** have been classified as 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> respectively by them.

However, activities such as **knowledge management** and **HR strategy** were ranked as less used by the three parties which proves the lack of pattern and prioritisation in the different HR roles when using the e-HR platform.

Thus, the overall results show that the HR sector is using a powerful tool for ordinary activities, which is not a negative outcome as it results in a strategic approach. Nevertheless, particular attention should be given to the results from Shell as their HR and company strategy appear to be more aligned through their use of the Shared Service Centre (SSC). For instance, according to Steve

Foster (2007) **absence management** gives managers an insight into patterns and trends over and above support programmes to improve attendance while **online performance management** can speed up the process of improving quality, enabling managers to focus on what is important. Both activities are positioned amongst the first three rankings by Shell.

Table 4 below shows twelve (12) HR activities which were evaluated in terms of integration with the organisation’s IT system. It was completed by ranking from 1 to 12, with 1 being the most integrated and 12 the least integrated.

Integration of HR activities into an e-HR platform with organisation IT system	Shell	The University of Chester	CIPD
Absence management	1	1	2
Training and development	2	4	4
Recruitment and selection	3	3	6
Appraisal / performance management	4	8	7
HR planning	5	6	10
Payroll, pensions, accidents and medical history	6	2	12
Expenses	7	9	1
Rewards	8	7	5
Communication	9	12	3
HR strategy	10	11	11
Knowledge management	11	10	8
Managing diversity	12	5	9

Table 4 – HR integration with organisation IT system – (This table were based on CIPD (2004). *People and Technology: Is HR getting the Best out of IT?* - Survey Report (page 9, table 5) and adapted for the main theme of this research).

According to CIPD (2004) research, there is a pattern to the integration of HR functions into the IT system and this pattern is driven by three main issues: **money, power and timing**. Furthermore, CIPD (2004) research has indicated that the larger the organisation, the more likely it is that functions such as **absence management, training and development, recruitment and**

**selection, expenses, HR planning, knowledge management, payroll** and **HR strategy** are integrated into the organisation IT system.

When comparing CIPD research with Shell and The University of Chester responses, the integration of these activities were similar with small variation of ranking. For example, **absence management** was ranked in 1<sup>st</sup> position by Shell and The University of Chester and in 2<sup>nd</sup> by CIPD. However, The University of Chester **payroll** system has appeared in 2<sup>nd</sup> place, because it was integrated into the IT system recently and so they are using it more regularly to establish new processes, whilst this same function for Shell and CIPD has been ranked in 6<sup>th</sup> and 12<sup>th</sup> position respectively.

Another interesting observation which was seen is that although **expenses** and **rewards** have been ranked as one of the more integrated functions by CIPD research, in 1<sup>st</sup> and 5<sup>th</sup> position respectively, these activities have not appeared in the top rankings of integration by Shell and The University of Chester.

Table 5 below shows eleven (11) processes which can be improved by using technology in the HR area. It was evaluated by ranking from 1 to 11, with 1 being the highest and 11 the lowest, in order of improvement and importance to the organisation.

Improved processes by using technology in HR area.	Shell	The University of Chester	CIPD
Enabling HR to service the organisation more strategically	1	1	7
Data accuracy	2	3	1
HR staff acceptance	3	7	2
Enabling employees and managers to make strategic decisions	4	6	11
Meeting administrative cost savings goals	5	5	5
Employee services improvement	6	4	6
Employee acceptance	7	8	3
Accountability	8	10	9
Manager acceptance	9	9	4
Aligning workforce with organisation objectives	10	2	8
Enabling the organisation to recruit key talents	11	11	10

Table 5 – *Improved HR processes* – (This table were based CIPD (2007). *HR and Technology: Impact and Advantages* - Research into practice (page 23, table 8) and adapted for the main theme of this research).

The e-HR platform has enabled HR processes to become faster, more efficient and precise, cost-saving and mainly strategically orientated. This is verified in table 5 above where processes such as **enabling HR to service the organisation more strategically** was ranked as 1<sup>st</sup> by Shell and The University of Chester and **data accuracy** also ranked as 1<sup>st</sup> by CIPD research and in 2<sup>nd</sup> and 3<sup>rd</sup> positions by Shell and The University of Chester respectively.

Furthermore, processes such as **HR staff acceptance, enabling employees and managers to make strategic decisions, meeting administrative cost-saving goals** and **employee services improvement** have fluctuated between the positions ranging from 2<sup>nd</sup> to 7<sup>th</sup>, which reinforces even more that technology has had a major positive impact on HR processes enabling the HR area to become closer to the business strategy by sharing responsibilities with everyone involved in the process.

#### 4.4 Summary

This chapter has presented the findings of a study carried out in two reputable organisations. Qualitative and quantitative approaches have been discussed and applied to all answers received.

Responses to the open-ended questions were organised in parallel in a table in order to give a better view of each company's opinions. Then, a case study description was made according to Yin strategy (1994: 103-105) (Fisher, 2010: 205).

A third institution, CIPD, was added to the interpretation of the tables to have a wider view of the researched subject. The tables covered the reasons for using e-HR, the use of HR activities in an e-HR platform, the integration with the organisation-wide IT system and the processes which can be improved by using technology in the HR sector.

## **5 Analysis and Conclusions**

### **5.1 Introduction**

This chapter will discuss the findings from chapter 4 and conclusions will be made. First, the methodology shown in chapter 3 will be analysed in the context of the research. Then, the research aims outlined in chapter 1 will be linked to the findings in chapter 4 and the literature review in chapter 2 so that conclusions can be drawn. After that, some limitations which were faced during the research will be presented to inform future researchers about possible difficulties. Finally, opportunities for further research will be highlighted.

### **5.2 Critical evaluation of the adopted methodology**

The research strategy chosen was a combination of case study and action research. The reasons for this choice were that case study is directly associated with real life and enables questions like what, how and why to be answered. Thus, confidential questionnaires were distributed to each participant which encouraged them to respond as accurately as possible. Action research focuses on small-scale sampling which justified the small number of responses received.

The Interpretivism research philosophy also matches with action research strategy. In other words, interpretivist according to Saunders et al (2009) allows people to interpret their everyday life, in accordance with the meaning of their roles which drives them to reflect on the consequences of their actions. So, even though the numbers of responses were few, they reflected exactly what the respondents wanted to communicate within the possibility of their roles.

The choice of mixed-model research as a method balances the way of presenting each case study. The qualitative data was obtained and presented side-by-side in Table 1 – Questionnaire observation. This allowed the

researcher to have a better comparative view, and consequently a more consistent analysis, of the detailed description in the case studies in item 4.3.1. Moreover, the quantitative responses were purposefully connected with the open-ended qualitative questions, to give to the researcher a quick view of issues such as reasons for using e-HR, the use of HR activities in an e-HR platform, the integration with the organisation-wide IT systems and the processes which can be improved by using technology in the HR area.

### 5.3 Conclusions about the research aims

The research aims were outlined in chapter 1 and now each one presented below will be analysed in order to verify its relevance in relation to the research question and to the theory presented in chapter 2 – Literature Review.

#### To present contemporary people management models and to present the ‘new’ Model of HRM

These objectives were established by the researcher because she wanted to present a logical timeline of the evolution of people management and its different models. The timeline outlines the paternalists employers at the beginning of the 19<sup>th</sup> century, the contemporary “soft” and “hard” models and the “new” HR model develop by David Ulrich which has technology as a base and emphasises the need of HR to be a strategic partner of the business and to become more business- and customer-focused.

The researcher wanted to have a start point to show that the way that people are managed has changed over the years. Therefore, with the advent of integrating technology into HR’s main activities, an important milestone was achieved by the HR sector. In other words, technology through e-HR platform has improved HR’s activities which were proved by the responses from both case studies- Shell and The University of Chester - when they were asked, *what has been the impact of the use of technology on the role of the HR function?*

Both organisations had similar answers:

*They highlighted in different ways that the **improvement in data quality** was the most important impact that technology has brought to HR functions, because it enabled a **single point of data entry**. However, **streamlined processes, data share** and the **awareness of the line managers to share responsibilities with HR department** were also mentioned as important issues which have transformed the way that HR functions are being seen by the organisation.*

The answer above confirms what was stated in chapter 2 which is that, according to Tannenbaum (1990), technology helps an organisation to acquire, store, manipulate, analyse, retrieve and distribute information throughout the organisation.

#### To explore how this 'new' model is related with technology

This aim is a natural consequence of the two previous ones, because Ulrich's Model has technology as the base to support three organisational elements: Shared Services Centre (SSC), Centre of Expertise (CoE) and HR Business Partner, see Figure 6 in chapter 2. Thus, it has been proved that the interconnection of these three elements with technology has built organisational capability and business outcomes as follows:

- **Knowledge** - by using specialists to advise and develop HR policies and practices to positively influence the behaviour of the organisation and individual employees which may lead to higher performance;
- **Alignment** – by integrating HR initiatives with the business and by helping to shape corporate strategy with all levels of the organisation;
- **Relationship** – by a comprehension of the needs of people and the organisation which makes HR a partner of the business.

Exploring the two case studies, both organisations have answered that:

*The **alignment of technology and business strategy** moved Shell to a **three tiered system**, which includes **Shared Services Centre (SSC)**. The first tier is composed of employee **self-service HR on line**, the second is the **shared-services** and the last is a **specialist advice**.*

*The University of Chester does not have Shared Service Centre (SSC), however this was not a barrier to having alignment between technology and business strategy. It was made through **streamlined processes** which allowed the University to have **better management information** which led to **better inform decision-making** and **business planning**.*

In addition, they affirmed that:

*Shell's SSC facilitated **two-way communication** which led to a more **engaged and committed workforce**. However, although The University of Chester does not have a specific SSC, the **employee self-service system** allows individuals to **update their own personal details**.*

**Based on the aims above, show the advantages that technology brought to the Human Resource area and helped them to be part of the company business and the organisational strategy**

This aim, in my opinion, is the most important one because it complements the three previous ones and shows how the theory presented in chapter 2 – Literature Review - matches strongly with what was found in chapter 4 – Findings. In other words, it proves that the theory is being used in order to help HR become part of the company business and the organisational strategy.

According to CIPD, accuracy and high availability of detailed information is one of the most significant advantages that technology brought to the HR sector. This was corroborated when both case studies affirmed that, in different ways, there were **improvements in data quality**.

Both organisations also affirmed more than once that:

*The E-HR platform **has improved** dramatically **the level of management information**. It has occurred because of the **streamlined processes and procedures** and **single data source** system which allows for the execution of reports with **reliable data**.*

In addition to the above statement, it is worth mentioning that technology not only helped to reduce the time spent on routine administrative tasks but also made HR activity more efficient because it facilitated a change in emphasis for HRM to become more strategic within the organization. (Kettley,R., Reilly, P., 2003).

By using e-HR platform as a business intelligence tool, managers have better control of their business (Foster, S. 2007). This control is through databases which provide detailed information about various areas, allowing HR to take this information and use it strategically to drive organisational decisions (Ulrich, D. 1997).

The statement bellow exemplifies exactly what the two paragraphs above have affirmed:

***HR function has gained a more strategic role in the organisation.** Shell affirmed that **efficiency had increased** by establishing a **reporting methodology** and consequently a **standardisation of processes** which led to **reduction of costs**. The statements of the University of Chester about this subject were no different. They said that **a better overview of the processes** allowed them to keep employees **better informed and assisted strategic decisions**.*

### Which are the barriers for using technology?

Having explored the impacts and implications of using the e-HR platform, it is worth highlighting once more that a new system takes time to be adapted and properly used by users and its implementation is not a transparent and easy

process. This was pointed out by Sue Weekes in 2006 to Personnel Today Journal, when she presented some barriers, as follows:

- Inconsistencies in implementation;
- Workload;
- Alienation of HR area;
- Lack of objectives for line managers;
- Lack of preparation (training);
- Lack of support from HR area.

When comparing Sue Weekes' article with Shell and The University of Chester answers, it has been verified that some barriers presented by Sue Weekes, were mentioned by both case study organisations:

*Both pointed out **resistance to change, inadequate training and lack of knowledge of the business** as problems faced when e-HR platform was initially used.*

*In addition, when asked about **disadvantages**, only The University of Chester answered this question, mentioning that the system is **slightly old and not fully operational**.*

### Which HR activities are usually integrated into an e-HR platform?

The question above can be answered by CIPD (2004) research, which says that there is a pattern of HR function integration into the IT system and this pattern is driven basically by three issues; **money, power** and **timing**. Therefore, activities such as absence management, training and development, recruitment and selection, expenses, HR planning, knowledge management, payroll and HR strategy are usually first integrated into the IT system.

It has been verified that this pattern is slightly similar with small variation of ranking for both case studies, as can be seen in Table 4 in chapter 4.

Furthermore, integration of HR activities into the e-HR platform is an essential issue when the organisation wants to have a well-accepted system. Also, for HR to gain a more strategic role in the organisation is an important achievement.

The integration of HR systems with each other and with other organisational systems and the removal of parallel systems may facilitate greater efficiency savings (CIPD, HR and Technology – Impact and Advantages, 2007).

Thus, it has been verified that:

*Shell had its **efficiency increased** by establishing a **reporting methodology** and consequently a **standardisation of processes** which led to **reduction of costs**. While The University of Chester has informed that a **better view of the processes** allowed them to keep employees **better informed and assisted strategic decisions**.*

#### 5.4 Conclusions about the ranking tables

Although the ranking tables were not set at the beginning of this research, it is worth cross-referencing its relevance with the research question and the theory presented on chapter 2 – Literature Review.

##### The reasons for using e-HR

The reasons for using e-HR platform are deeply connected with the benefits that it brings to the organisation. Therefore, what was found in this first table can be justified by using Kettley and Reilly report (Hussain, Z., Wallace, J., Cornelius, N. E., 2007), which says that benefits are divided in three areas (see detailed description of the benefits in 2.4.2):

- Operational efficiency
- Relational impact
- Transformational impact

Reasons	Benefits
Facilitating the achievement of business goals	Transformational impact
Managing peoples' working time more effectively	Transformational impact
Reducing operational costs	Operational efficiency
Improving speed at which information is available to managers and employees	Operational efficiency
Improving flexibility of information to support business planning	Operational efficiency and Transformational impact
Improving services to employees	Operational efficiency and Transformational impact
Reducing administrative burden on the HR department	Operational efficiency
Improving quality of information available	Operational efficiency
Producing HR metrics/measures for performance improvement	Relational impact
Improving productivity	Operational efficiency Relational impact Transformational impact
Enabling employees to access HR information through Shared Services Centre (SSC)	Relational impact
Improving profitability	Operational efficiency and Transformational impact
Aiding human capital reporting	Relational impact
Reducing headcount	Operational efficiency

Table 6 – *Reasons and Benefits - Conclusions*

Although the reasons did not follow the same order of importance when comparing Shell, The University of Chester and the CIPD research, it was concluded that this lack of pattern has four issues to consider when factors are being ranked: ***nature of the business; type of organisation; size; and period of time.***

### The use of HR activities in an e-HR platform

The overall conclusion about this specific theme is that ordinary HR activities such as absence management, recruitment and selection, expenses and payroll are still the most used functions in an e-HR platform.

However, it has been noted that there is a strong initiative at Shell to use e-HR platform as a **management tool** through their Shared Service Centre (SSC) This was concluded because activities such as **appraisal / performance management, HR planning** and **expenses** have been ranked as 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> respectively by them.

### The integration with the organisation-wide IT system

This table has been already commented on 5.3 – Conclusions about the research aims (Which HR activities are usually integrated into an e-HR platform?).

However, it is worth mentioning that the integration of HR activities with the organisational IT system is one of the trends listed in the research carried out by The Cranfield School of Management.

### The processes which can be improved by using technology in HR area

The importance of **HR staff acceptance** is essential for a good start and this was basically what happened in the three situations studied.

HR professionals responded to this research, thus the results may be more positive than is actually the case, but this work still shows a relative success of technology when meeting objectives such as **speed, efficiency, accuracy, transparency, consistency** and **cost savings**. Table 7 below links the improved processes with the realisation of objectives in order to show that technology helps the alignment of any process with the organisational business objectives.

Improved processes	Realisation of objectives
Enabling HR to service the organisation more strategically	transparency and efficiency
Data accuracy	Accuracy
HR staff acceptance	transparency and consistency
Enabling employees and managers to make strategic decisions	speed, efficiency, transparency and consistency
Meeting administrative cost savings goals	cost savings
Employee services improvement	speed, efficiency, accuracy, transparency, consistency
Employee acceptance	Transparency
Accountability	cost savings and accuracy
Manager acceptance	transparency, consistency and efficiency
Aligning workforce with organisation objectives	speed, efficiency, transparency and consistency
Enabling the organisation to recruit key talents	speed, cost savings and consistency

Table 7 – *Improved processes and Objectives - Conclusions*

## 5.5 Overall conclusions

The overall conclusion is based on the information drawn from the Literature Review and Findings, chapters 2 and 4 respectively.

Although some barriers (Sue Weekes, Personnel Today Journal, 2006), (Martin Reddington Associates) have to be overcome when a new tool is initially used, the adoption of e-HR has caused a significant change to the role of HR by making it a strategic partner in business (Parry, E., Tyson, S., 2007), (Kettley, R., Reilly, P., 2003). Confirming this view, the research findings clearly showed that, prior to the adoption of e-HR platform, the role of the HR professional was primarily the role of Administrative Expert but the introduction of the e-HR platform changed this definitively with HR now focusing on being more strategic partners to the organisation by getting more involved in strategic decisions (Shani, A., Tesone, D.V., 2009).

Hence, in accordance with what was researched, the introduction of technology into the HR department has helped to (Gueta, H. 2003):

- Improve quality of information;
- Speed up information to managers and employees;
- Improve effectiveness of managers and employees;
- Reduce administrative burden;
- Reduce costs;
- Have a better overview of the processes by standardising them;
- Have a single data of source;
- Have reliable data.

In addition, the automation of as many processes as possible and the devolution of others to management through the use of Shared Services Centre (SSC), has allowed HR to reduce significantly the amount of time spent on

routine administrative tasks, which facilitates focus on non-administrative tasks and the development of strategic planning to become real partners in the business (Reilly, P., 2000).

## **5.6 Limitations of the study**

Throughout the research some limitations were identified. Firstly, the researcher did not have an employee relationship with the two organisations that were taken as case studies and so it was difficult to chase the questionnaire responses. Secondly, the delay in receiving the completed questionnaires caused a schedule delay. Finally, the small number of responses may affect the conclusion of this project.

## **5.7 Opportunities for further research**

The study highlighted the use of e-HR platform in organisations in order to help the alignment of ordinary HR practices with the organisational business strategy. The use of technology has resulted in HR practices becoming more accurate and faster. However, the implementation of new technology may lead to a requirement for new skills such as: IT capabilities, strategic management and corporative communication. Therefore, an analysis of these skills might be an interesting opportunity for further research.

## 6 Recommendations

New opportunities follow from the changing economic and business context. The nature of competition has changed. Advantage is increasingly derived from knowledgeable workers drawing on their expertise and applying their skills to the immediate benefit of the customer. However, human capital defined and measured, is one of, if not the most critical component of company value (Matthewman and Matignon, 2005). While systems, processes and patents and other non-tangible assets are important for business success, competitive advantage and service delivery will be increasingly built through a combination of people and technology. Thus, the HR professional has an indispensable role in managing this interface. However, this technology will not cure all ills but it is a tool to highlight weaknesses.

Managers **must define the outputs** of a particular service, in order to perform and **justify value for money objectives, efficiency and effectiveness** (Coombs and Jenkins, 2002).

In order to make sure that the new system is performing properly, the HR specialist must **identify factors that can be measured, such as costs, cycle time and accuracy**. Then, these factors have to be measured before the introduction of the system so that you can compare the pre- and post-measures.

*'An organisation must realise that change never ends. Once the business goal has been achieved, the cycle must begin again in reviewing new areas to improve'. Leszczewicz (2009).*

## Bibliography

- Boateng, A. A. (2007). *The Role of human resource information systems [HRIS] in strategic.*[cit. 2009-4-15].  
<http://www.pafis.shh.fi/graduates/agyasa05.pdf>
- Boroughs, A & Rickard, C. (2009). *Using technology to create value: designing the tool for new HR functions.* Farnham: Gower
- Bratton, J. & Gold, J. (2000). *Human Resource Management : Theory and Practice.* Mahwah, N.J. Lawrence Erlbaum Associates, Inc
- Bratton,J. & Gold, J. (2000). *Human Resource Management: Theory and Practice,* Mahwah, N.J. Lawrence Erlbaum Associates, Inc.
- Broderick, R., & Budeeau, J.W. (1992). *Human Resource Management, Information Technology, and the competitive edge,* Academy of Management Executive. [cit. 2009-04-20].  
<http://www.jstor.org/stable/4165061>
- Burnes, B. (2004). *Managing Change: A strategic approach to organisational dynamics.* Harlow: Financial Times/Prentice Hall.
- Bussler, L & Davis, E. (2002). *Information Systems: the quiet revolution in HRM. Journal of Computer Information Systems.* [cit. 2009-04-25].  
<http://proquest.umi.com/pqdlink?did = 10502 1731 & Fmt= 7 &ClientId=49682&RQT=309&VName=PQD>
- CIPD (2004). *People and Technology: Is HR getting the Best out of IT?* Survey Report. London: Chartered Institute of Personnel and Development.
- CIPD (2003). *People and Technology:* Survey Report. London: Chartered Institute of Personnel and Development.
- CIPD (2005). *Technology and people management: the opportunity and the challenge.* Research report. London: Chartered Institute of Personnel and Development.
- CIPD (2006). *HR and Technology - Beyond Delivery.* Change Agenda. London: Chartered Institute of Personnel and Development.
- CIPD (2007). *HR and Technology: Impact and Advantages.* Research into practice. London. Chartered Institute of Personnel and Development.
- CIPD. (2005). *People Management and Technology: Progress and Potential.* London: Chartered Institute of Personnel and Development.
- Concepts of e-HR consequences: a categorisation, review and suggestion. (2009). *The International Journal of Human Resource Management.* 20(3), 528-543.

- Coombs, H.M., & Jenkins, D.E., (2002). *Public Sector Financial Management*. 3<sup>rd</sup> edition. Thomson Learning.
- Cranfield School of Management. International Executive Report 2005: Cran et survey of International comparative HRM. 2005, 76p. [cit.2009-04-20]. [www.cranet.org](http://www.cranet.org)
- Erez, M. Kleinbeck, U. Thierry. H ( 2001). *Work Motivation in the Context of a Globalizing Economy*, Mahwah, NJ Lawrence Erlbaum Associates, Inc.
- Fisher, C. (2010). *Researching and Writing a Dissertation*, 3<sup>rd</sup> edition, Harlow: Financial Times/Prentice Hall.
- Foster, S. (2007). *Getting greater return from e-HR investment*. Source: IRS Employment Review. Issue:812
- Gueta, H. (2003). *The brave new world of e-HR. Advances in human Performance and Cognitive Engineering Research*. Vol. 3, pp. 13-36. ISSN 1479-3601.
- Gupta, A. (2000) Enterprise resource planning: the emerging organizational planning systems. *Industrial Management & Data System*, 100 (1), 114-118. Doi: 10.1108/02635570010286131. Retrieved from: <http://www.emeraldinsight.com>
- Hunter, I. & Saunders, J. (2004). *The Future of HR and the Need for Change: New Operating Models to Deliver Increased Value*. London: Thorogood Professional Insights.
- Hussain, Z., Wallace, J., Cornelius, N. E. (2007). *The use and Impact of human resource information systems on human resource management professionals*. *Information & Management*, 2007, Vol. 44, Iss. 1, pp. 74-89. ISSN 0378-7206.
- Kamel, S. (2003). *Managing Globally with Information Technology*, London, IRM Press (Idea Group Inc.)
- Kettley, R., & Reilly, P. (2003) *e-HR: An Introduction*. Report 398. London: Institute of Employment Studies. ISBN 978-1-85184-326-8.
- Kovach, K., Hughes, A., Fagan, R., Maggitti, P. (2002). *Administrative and strategic advantages of HRIS*. *Employment Relations Today*. [cit.2009-05-10]. Retrieved from <http://www3.interscience.wiley.com/cgi-bin/fulltext/97516800/PDFSTART>
- Leszczewicz, S (2009). *Achieving Organisational Readiness*. *IHRIM*. Link, 14(3), 9
- Martinsons, M. (1996). *Human Resource Management applications of knowledge based systems*. *International Journal of Information Management*, 1996, Vol. 17, No. 1, pp. 35-53. ISSN 0268-4012
- Matthewman, J. & Matignon, F. (2005). *Human Capital Reporting: an internal perspective*. Guide. London: CIPD

- Pagani, Margherita. (2003). *Multimedia and Interactive Digital TV: Managing the Opportunities Created by Digital Convergence*, Hershey, PA Idea Group Publishing.
- Panayotopoulou, L., Vakola, M., Galakani, E. (2005). *E-HR adoption and the role of HRM: evidence from Greece*. Personnel Review [online]. 2005, p. 18, [cit. 2009-04-25]. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=975442](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=975442)
- Parry, E., Tyson, S. (2007). *Technology in HRM: the means to become a strategic business partner Human Resource Management: A critical text*. 3rd ed., chap. 13, pp. 235-249
- Pinnington, A. & Edwards, T. (2000). *Introduction to Human Resource Management*. Oxford ; New York Oxford University Press (UK).
- Reilly, P. (2000). *HR Shared Services and the Realignment of HR*. Report 368, IES - Institute for Employment Studies.
- Saunders, M. Lewis, P. Thornhill, A. (2009). *Research Methods for Business Students*, 5<sup>th</sup> edition. Harlow: Financial Times/Prentice Hall.
- Shani, A., & Tesone, D.V. (2009). *Have Human resource information systems evolved into internal e-commerce?* Vol. 2, No. 1, pp. 120-48. ISSN 1755-4217.
- Snell, S. A., Pedigo, PR., Krawlec, GM. (2010). *Managing the impact of information technology on human resource management* In Ferris, G., Rosen, S. and Barnum, D. (eds) *Handbook of Human Resource Management*. Oxford: Blackwell, 1995. ISBN 1-55786-719-4.
- Torres-Coronas, T. & Arias-Oliva, M. (2005). *E-Human Resources Management: Managing Knowledge People*, Hershey, PA: Idea Group Publishing.
- Ulrich, D. (1997). *Human Resource Champions, The next agenda for adding value and developing results*. Harvard Business School Press, 1997. ISBN 0-87584-719-6.
- Watson, W. (2002). *B2E/e-HR survey results* [cit. 2009-4-25]. <http://www.watsonwyatt.com/research/printable.asp?id=2000861>
- Weekes, S. (2006). *The six thorns in e-HR's side*. Personnel Today. In focus. Reed Business Information UK. Sutton-UK. Retrieved from <http://search.proquest.com/docview/229912209/12E8638CF9B22257208/32?accountid=14620>

## Appendix A – Participant Information Sheet

**Project Title:** Technology used as a tool to manage people.

**Definition:** The adoption of technology in delivering Human Resource practices due to the digital revolution in the world is such a tool that organisations can employ to improve performance and to persuade behaviour of the people on whom they rely on to achieves business success (Kovach, K. 2002). E-HR platform is not a specific stage of HRM, but a choice for an approach to HRM (Ruet et al, 2004).

**Purpose of the research:** The researcher (Gisele Barros) is undertaking this project as part of the final year of a Master Business Administration (MBA) part-time course at The University of Chester. It is a requirement of the course to complete a project based on research.

The researcher has worked over the last 20 years at the telecommunications segment, designing technology solutions for customers, being that the last 4 years besides the technical function. She had a successful challenge of technical co-ordination and team leadership including people management. Because of this, this project motivated her to understand better how to use technology to manage people aggregating an e-HRM platform, giving a business perspective, linking with the business strategy and enabling HR area to become strategic partners of the business.

**Who is being asked to participate?** The University of Chester Human Resource Area and Royal Dutch Shell Human Resource Area.

**Methodology:** The research will be based on a combined approach of Interpretivism and Action Research. This combination was chosen because both approaches are based on knowledge of the processes, by which people in groups make sense of their own world.

Interpretivism research (Fisher, 2010) is done with the practitioners and there is an attempt to link previous experience and experiential knowledge with academic knowledge.

Action research, on the other hand, tends to focus on small-scale. Therefore, according to Elliot (1991) action research is about improving practice and observation and according to Fisher (2010) it becomes an usage in everyday life and reflecting upon the consequences for both the researcher and the organisation.

The researcher will take two organisations which have an absolutely different approach of business and will make comparison in order to identify if even having different business, the use of technology (e-HR platform) will influence the Human Resource area making it more strategic to the organisation.

**Important information:** Taking part of this research is voluntary and you will have the right to decline to answer any questions and/or to withdraw from the research at any time. Your responses will be recorded in electronic format and you will have the right to retain a copy of your completed questionnaire to check if any information used for the purpose of the research is a fair record of your submission. All your data and responses will be recorded both anonymously and confidentially throughout the research process. No reference will be made to any name or title of the participant. A copy of the full findings can be supplied on request.

**Contact details:**

Landline: [REDACTED]

Mobile: [REDACTED]

E-mail: [REDACTED]@uol.com.br

**Guidelines:** The questionnaire is produced in MS Excel 97-2003 format and includes questions for your completion, allowing for the addition of your own comments. Please do not feel constrained by any format limitations within the document, if you wish to add further details, feel free to provide supplementary information. All information will be gratefully received.

Please return your completed questionnaires until 27/05/2011.

Thank you for your participation,

**Gisele Azambuja Carrilho do Rego Barros**

## Appendix B – Questionnaire – open ended questions

Name:	
Organisation:	
Role in the organisation:	

Q 1. How long have e-HR platform been in place?

Q 2. How many employees records does the system held?

Q 4. Have you had any criteria for success?

Q 3. Who sponsored the implementation of the project?	
HR	
CEO	
Line management	
Finance	
IT Manager	
Other	

Q 4. Is the platform user friendly and reliable?

Q 5. What has been the impact of the use of technology on the role of the HR function?

Q 6. Has the HR function gained a more strategic role?

Q 7. Technology is generally associated with increased efficiency, speed and reduced cost. What others impact does it have in terms of business strategy?

Q 8. Does the organisation have a Shared Services Centre (SSC)? If yes, How have managers and employees been encouraged to use the Shared Services Centre (SSC) ?

--

Q 9. What was the impact on communication in the organisation? Has it facilitated two-way communication, leading to more engaged and committed workforce?

--

Q 10. Which of the following were identified as broad objectives and drivers to have an e-HR platform?

	Yes	No	Don't Know
A need to improve the quality of HR activities to the business, and at the same time, to reduce the overall costs.			
Provide a system which supports the identification, selection, deployment, development and retention of people to support the needs of business.			
Provide a foundation to promote a personal development, growth, career satisfaction, and appropriate reward for employees.			
Enable the elimination of fragmented, redundant and labour-intensive processes traditionally identified with HR functions.			

Please provide details of any others or additional comments:

--

Q 11. Did the e-HR platform assume any direct impact on HR area? e.g.: a headcount reduction and/or utilisation of the resources in more strategic services. If so, was this achieved or is it a target to be achieved?

--

Q 12. For functionality in operation, is the data efficiently maintained up-to-dated by the users?

--

Q 13. To what extent has Management information improved?

--

Q 14. How successfully has the HR function itself adapted to use the system? Are there any issues? e.g.: lack of knowledge, resistance to change still using old processes.

--

Q 15. Have there been any unexpected benefits or disadvantages not identified at the outset?

--

Q 16. Do you consider there to be any issues particular to the organisation, which may impact on the use of technology at the HR area?

--

## Appendix C – Questionnaire – ranking tables

Below there is a list with fourteen (14) reasons for using e-HR platform, could you rank it from 1 to 14 please. Being 1 the strongest and 14 the weakest.

Improving quality of information available	
Reducing administrative burden on the HR department	
Improving speed at which information is available to managers and employees	
Improving flexibility of information to support business planning	
Improving services to employees	
Producing HR metrics/measures for performance improvement	
Aiding human capital reporting	
Improving productivity	
Reducing operational costs	
Managing peoples' working time more effectively	
Enabling employees to access HR information through Shared Services Centre (SSC)	
Facilitating the achievement of business goals	
Improving profitability	
Reducing headcount	

Below there is a list with twelve (12) HR activities. Could you rank it in two ways please. First, related to the use of HR activities in an e-HR platform and second how integrated these activities are with the organisation-wide IT system. Being 1 the more used and 12 the less used and then 1 the more integrated and 12 the less integrated.

	Use	Integration
Absence management		
Training and development		
Rewards		
Managing diversity		
Recruitment and selection		
Appraisal/ performance management		
HR planning		
Knowledge management		
Expenses		
HR strategy		
Communication		
Payroll, pensions, accidents and medical history		

Below there is a list with eleven (11) processes which can be improved by using technology in HR area, could you rank it from 1 to 11 please, being 1 the more important and 11 the less important.	
Data accuracy	
HR staff acceptance	
Employee acceptance	
Manager acceptance	
Employee services improvement	
Meeting administrative cost savings goals	
Enabling HR to service the organisation more strategically	
Aligning workforce with organisation objectives	
Accountability	
Enabling the organisation to recruit key talents	
Enabling employees and managers to make strategic decisions	